



Driving Innovation in Crisis Management for *European Resilience*

D83.11 – CM Policy & Legislation report

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List of Acronyms

Abbreviation / acronym	Description
Civ-Mil	Civil-Military
CM	Crisis Management
COPL	Capabilities, Organisations, Policies, Legislation
IO	International Organisation
NGO	Non-Governmental Organisation
MS	[EU] Member State
R&D	Research and Development
UN	United Nations
SP	Subproject
WP	Work Package

Executive Summary

The results of the DRIVER WP83.1 surveys provide an overview on national and EU/UN Crisis Management (CM) governance data, i.e. legislation and policy. This includes policy and legislation on cross-border (EU-internal and external) CM operations. The results provide a general overview of the relevant policy and legislative environment and will serve as non-technological performance conditions and criteria for the DRIVER solutions, will support the test-bed design (SP2) and the design of the experimental campaigns (incl. the development of the scenarios) in SP6. At a later stage in the project, and based on these developments, the WP83 team will be responsible for the development of policy and legislative recommendations for policy makers and legislators.

Since there is an inextricable link between the activities of the DRIVER WP82 and WP83, a combined template covering the high level-analysis required in both task 82.1 (“Crisis Management Processes & Organisations”) and task 83.1 (“Policy & Governance”) has been developed. Thus, the conducted studies of MS, EU- and UN-level as well as of selected neighbouring countries include information on CM Capabilities, Organisation, Policies, and Legislation (COPL). In addition, CM related Civil-Military cooperation in the different countries has been gathered.

In Annexes, we include the individual studies on Capabilities, Organisations, Policies, and Legislation (COPL) in crisis management and disaster response of the EU MS, selected neighbouring countries and international organisations (EU and UN).

1 Introduction

As part of the Subproject 8 “Supporting information”, this survey is intended to provide high-level information on crisis management (CM) policy and legislation aspects in EU Member States (MS), selected neighbouring states and international organisations (IO).

Crises addressed within DRIVER are major disasters (natural or man-made) that requires coordination between or assistance from other MS, i.e. that exceeds the crisis management capacity of one nation or affects more than one MS. This excludes e.g. “financial crisis” or war-like crises.

The information gathered during this high-level analysis therefore focuses primarily on this type of crisis.

Objectives:

The survey describes and analyses the existing high-level CM procedural, organisational, and institutional structures of MS, EU-level, and UN-level as well as of selected neighbouring countries. The gathered information is intended

1. to support the experimentation by serving as non-technological performance conditions and thus, **support the test-bed design in SP2** and consequently, **the development of the DRIVER Portfolio of Tools (PoT)**
2. to later **support the development of the scenarios and the execution of Joint Experiments (JEs) and the Final Demo (FD)** in SP6
3. to support the **preparation of recommendations for the EU and MS** on how to benefit from the DRIVER-results to strengthen CM structures and improve common preparation and operations and thus, European resilience.

(the numbering doesn't reflect any prioritization)

2 Methodology and limitations

Methodology

Comparing the work plan and objectives of WP82 (“CM Institutions & Capabilities”) and WP83 (“Governance”), it was obvious that both WPs should cooperate and perform their work in parallel where reasonable, to optimize the results and to avoid any duplication. Both WPs conduct high-level analyses on national as well as on EU- and UN level, WP82 concentrating on CM procedural, organisational, and institutional structures, WP83 concentrating on CM policy and legislation. These issues are closely related, and it made most sense to gather respective information together.

Moreover, it has been decided that each country / international organisation analysed in this survey should be covered by only one partner for all subtasks. The main purpose has been to avoid that DRIVER relevant stakeholders are contacted by different partners within DRIVER in a short time frame. In addition, this decision aimed to avoid duplication of work, too much coordination needs between partners, and to perform work more efficiently.

In order to provide the supporting information laid down in the objectives of this survey in a most useful way, the responsible DRIVER partners of the receiving SPs have been consulted. This consultation of SP2-5 with regard to their information needs, to be considered in the high-level analysis, was done by a functional requirements analysis. It became evident that for many of the contacted WPs, it was too early in the project period to define clear information needs from WP82 and WP83.

To better meet the objectives and requirements of SP8 to provide supporting information, it has been therefore decided to expand the efforts in the update tasks in M25-29 (task 82.2 and task 83.2) and to reduce the original scope of task 82.1 and task 83.1.

As a result, the high level analysis in the first phase (tasks 82.1 & 83.1) provides the recipients of the deliverables with a general overview on CM COPL (Capabilities, Organisations, Policy, Legislations – in short for the information to be gathered in WP82 and WP83, incl. Procedures, Procurement aspects, Civ-Mil aspects etc.), covering the EU MS, selected neighbouring countries and international organisations (EU and UN).

In contrast, the update phase (M25-M29) will be able to focus on more pertinent CM COPL issues identified by the receiving SPs, including the support of the development of the scenarios in SP6. Consequently, in the beginning of these update tasks 82.2 and 83.2 in M25, a second round of the functional requirements analysis will be conducted consulting again SP2-5 as well as SP6.

Based on the above mentioned scope of the high-level analysis and by the review of the results of the first consultation of the partners in SP2-5, a common template for the reports D82.11 and D83.11 has been developed (see internal document "DRIVER_SP8_COPL_template_v5_2014-08-04"), and has been used as a guideline for the country studies as well as EU- and UN-level. The template, including guiding notes for the partners, ensured the comparability of the gathered information on “Capabilities, Organisations, Policy, and Legislations” (COPL) in all relevant tasks of WP82 and WP83, and defined the structure of each country report (see chapter 3 Structure of the studies).

Information on CM related Civil-Military cooperation in the respective countries has been gathered in a separate study, developed and conducted by CSDM.

The work has mainly been done by desk top research, based on publicly available information. In addition, information gaps have been filled by conducting interviews with relevant stakeholders.

For this report (D83.11), the studies cover issues on *Policy* (e.g. risk assessment, strategy scope and focus, monitoring, analytical support and R&D, financing, policy review cycle, approaches to resilience, information sharing and data protection) and *Legislation* (e.g. CM concept, general crisis/ emergency/ disaster management law, emergency rule, department/agency-level and specific regional and local legal arrangements, regulations on the involvement of volunteers and specialised NGOs, as well as for international engagements of first responders).

These two aspects are covered by the sections 1 (Policy) and 2 (Legislation) of the country studies (see chapter 3 Structure of the studies).

For the respective country / IO studies, see the Annexes.

Scope and limitations of the survey

Taking into account the available budget and time for the analysis while considering the objectives of the survey that mainly tend to support further work within in the DRIVER project, “high-level” has been defined as followed:

- national level
- crossborder, bi- or multilateral
- decision maker related

Budget and time constraints also need to be considered when assessing the scope and completeness of the respective studies, also due to varying extent of available online information or missing translations of e.g. policy and legal documents.

3 Structure of the studies

Country / International Organisation: Capabilities, Organisations, Policies, and Legislation (COPL) in crisis management and disaster response

Overview

1 Policy

- 1.1 Risk Assessment
- 1.2 Policy and Governance
 - 1.2.1 Strategy scope and focus
 - 1.2.2 Monitoring and analytical support to policy making; R&D
 - 1.2.3 Policy for Prevention
 - 1.2.4 Policy for Preparedness
 - 1.2.5 Policy for Response
 - 1.2.6 Policy for Relief and Recovery
- 1.3 Financing
 - 1.3.1 Investing in preparedness
 - 1.3.2 Investing in consequence management
- 1.4 Policy review, Evaluation & Organisational Learning
 - 1.4.1 Post-Disaster Assessment
 - 1.4.2 Departmental Lessons Learned systems
 - 1.4.3 Centralised (national) Lessons Learned system
 - 1.4.4 International exchange for Lessons Learned
 - 1.4.5 Regular policy reviews
- 1.5 Resilience
- 1.6 Information sharing and data protection

2 Legislation

- 2.1 Crisis (emergency, disaster) management concept
- 2.2 General crisis (emergency, disaster) management law
- 2.3 Emergency rule
- 2.4 Specific, department/agency-level legal arrangements and regulations on emergency and disaster management
- 2.5 Specific to the regional and local authorities legal arrangements and regulations on emergency and disaster management
- 2.6 Legal regulations on the involvement of volunteers and specialised NGOs

2.7 Legal regulations for international engagements of first responders and crisis managers

3 Organisation

3.1 Organisational chart

3.2 Organisational cooperation

4 Procedures

4.1 Standing Operating Procedures and Guidelines

4.2 Operations planning

4.3 Logistics support in crises

4.4 Crisis communication to general public; Alert system; Public Information and Warnings

5 Capabilities

5.1 Human resources

5.2 Materiel (non-financial) resources

5.3 Training

5.4 Procurement

5.4.1 Procurement regulation

5.4.2 Procurement procedures

5.5 Niche capabilities

Resources

Annexes

Information on Capabilities, Organisations, Policies, and Legislation (COPL) in crisis management and disaster response of a country or international organization has been gathered and elaborated in individual studies.

The respective author/s of the studies is/are responsible for its content and quality.

These studies are provided in the following pages.

List of CM COPL studies:

International organisations / studies

- European Union (EOS)
- United Nations (ECORYS)
- Civil-Military Cooperation in CM (CSDM)

Member States

- Austria (AIT)
- Belgium (ECORYS)
- Bulgaria (CSDM)
- Croatia (AIT)
- Cyprus (ATOS)
- Czech Republic (AIT)
- Germany (FhG-INT)
- Denmark (ECORYS)
- Estonia (CSDM)
- Spain (ATOS)
- France (EPLFM)
- Finland (FhG-INT)
- Greece (ATOS)
- Hungary (CSDM)
- Ireland (Q4PR)
- Italy (EOS)
- Lithuania (CSDM)
- Luxembourg (ECORYS)
- Latvia (CSDM)
- Malta (ECORYS)
- Netherlands (ECORYS)
- Poland (CSDM)
- Portugal (ATOS)

- Romania (CSDM)
- Slovakia (AIT)
- Slovenia (CSDM)
- Sweden (MSB)
- United Kingdom (CIES)

Selected neighbouring countries

- Albania (CSDM)
- Israel (FhG-INT)
- Montenegro (CSDM)
- Norway (MSB)
- Turkey (ECORYS)

The following pages include the individual studies on Capabilities, Organisations, Policies, and Legislation (COPL) in crisis management and disaster response of the above mentioned countries and international organizations.



Driving Innovation in Crisis Management for **European Resilience**

ALBANIA

Capabilities, Organisations, Policies, and Legislation (COPL) in crisis management and disaster response



Responsible Partner: CSDM (Georgi Tzvetkov, Philip Spassov, Vesselin Petkov, Todor Tagarev)

Scope and limitations

This study serves as supporting information for further work within DRIVER.

Only limited time and budget has been available for this first general survey, which needs to be considered in terms of scope and completeness of the respective studies.

The author/s of this study is/are responsible for its content and quality.

Overview

Albania has a total area of 28,748 km². It shares a border with Montenegro to the northwest, with Kosovo to the northeast, with Macedonia to the north and east, and with Greece to the south and southeast. It has a coastline around 476 km long. Albania is divided into 12 regions (qarks), 36 districts, 375 municipalities and communes, which are the basic units of local self-government.

The four main hazards affecting Albania are forest fires, floods, earthquakes and snowstorms. Among other hazards available assessments make reference to landslides, drought, epidemics, avalanches, tsunami, technological hazards, dam burst and storms.

The national crisis management framework consists of three levels – national, regional and local. At national level, the Council of Ministers leads and governs the national system of civil emergency management in Albania, with the main role played by the General Directorate of Civil Emergencies in the Ministry of Interior.



Figure 1. Symbol of the Albanian Civil Protection

Prefects in the qarks (regions) are responsible for planning and coping with civil emergencies at qark (regional) level. A Commission of Planning and Responding to Civil Emergencies is established in each qark with the task to coordinate activities of the qark authorities and volunteer organisations for planning and coping with emergency. Accordingly, the mayor or the head of commune is responsible for planning and responding to civil emergencies in the respective municipality or commune (local) level. Under the chairmanship of the mayor or the head of commune, a Commission of Planning and Responding with Civil Emergencies is established, and its main task is to coordinate all activities of the local government unit and volunteer organisations, responsible for planning and responding to emergencies.

The principal operational forces or active structures in Albania are comprised of the Armed Forces; Directorate of Fire Protection and Rescue (PMNZZH); the Ambulance Service; the State Police and other Police units; Directorate of State Reserves; Units specialised in mines and technical response; Monitoring and operational supportive structures.

Earlier data show that in normal times the human resources dedicated to crisis management include the following: app. 450 personnel, including the employed in civil protection at qark level (app. 50) and personnel employed in civil protection at commune or district level. Involvement of private companies and volunteers is limited to app. 500 of active personnel.

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List of Abbreviations

AAF	Albanian Army Forces
ALL	Albanian Lek (the Albanian currency)
ALUIZNI	Agency for Legalization, Urbanization and Integration of Informal Constructions in the Republic of Albania
ARC	Albanian Red Cross
DCA	Danish Church Aid
DPPI	Disaster Preparedness and Prevention Initiative
DRR	Disaster Risk Response
EADRCC	Euro-Atlantic Disaster Response Coordination Center
EOD	Explosive Ordnance Disposal
EU-MIC	European Commission - Monitoring and Information Center
HAZMAT	Hazardous Material
HFA	Hyogo Framework for Action
IEWE	Institute of Energy, Water and Environment
IGEWE	Institute of Geoscience, Energy, Water and Environment
IMC	Inter-Ministerial Committee
IOM	International Organization of Migration
IPA	[EU's] Instrument for Pre-Accession
IPCC	Intergovernmental Panel on Climate Change
ISDR	International Strategy for Disaster Reduction
ISDR	[UN] International Strategy for Disaster Reduction
MSNATA	Meteorological Service under National Air Traffic Agency
NCESS	National Civil Emergency Service System
NCEP	National Civil Emergency Plan
NICP	National Inspectorate of Civil Protection
NMHS	National Meteorological and Hydro meteorological Service
NOCCE	National Operation Centre for Civil Emergencies
SAR	Search and rescue
SEE	South Eastern Europe
SEEDRMAP	South Eastern Europe Disaster Risk Mitigation and Adaptation Programme
SEEDRMI	South East Europe Disaster Risk Management Initiative
UNDAC	United Nations Disaster Assessment Coordination

UNDP	United Nations Development Programme
UNDP	United National Development Programme
UNEP	United Nations Environment Programme
UNFCCC	UN Framework Convention on Climate Change
UNHCR	United Nations Humanitarians Committee of Refugees
UNISDR	UN International Strategy for Disaster Reduction
UNMAS	United System Mine Action Service
UXO	Unexploded Ordnance
WMO	World Meteorological Organization

1 Policy

1.1 Risk Assessment

The draft version of National Strategy for Disaster Risk Reduction and Civil Protection 2014-2018¹ contains a risk assessment based mainly on the Disaster Risk Reduction Capacity Assessment Report for Albania, UNDP, 2011.

The four main hazards affecting Albania are forest fires, floods, earthquakes and snowstorms. Among other hazards available assessments make reference to landslides, drought, epidemics, avalanches, tsunami, technological hazards, dam burst and storms.

While information on risk of natural hazards in Albania remains patchy, available data shows that the risk level is increasing and is comparatively higher in Albania than in neighboring countries.² Albania ranks 41st in the world in terms of vulnerability to landslides, 43rd in terms of earthquakes and 58th in terms of drought risks.³

Risk of natural hazards is primarily driven by economic, social and environmental factors, as well as institutional and political context. Factors affecting earthquake risk are anchored in the application of building code and standards, the awareness and knowledge of engineers and builders, as well as in the incentives to ensure that non-engineered constructions are built to appropriate norms. A level of earthquake risk, difficult to quantify, has accumulated over many years in Albania. This risk needs to be quantified and factored into emergency plans and future development policies and plans such as efforts to retrofit key buildings.

Other factors are driving the risk levels related to floods and forest fires, such as rapid deforestation, poor watershed management, low levels of preparedness of local population, insufficient monitoring and warning capacity and the need for better coordination between dam control and emergency flood managers.

A certain amount of risk will not be reducible in Albania and alternative mechanisms are required to offset the economic and social impact, such as catastrophic risk insurance schemes.

¹ The draft is from 19 June 2014 and is available on <http://www.mbrojtjacivile.al>

² Two reports outline the level of risk to natural hazards and capacities in disaster risk management in Albania (1) Disaster risk assessment in Albania, UNDP, 2003 and (2) Disaster Risk Reduction Capacity Assessment Report for Albania, UNDP 2011.

³ Global Assessment Report, UNISDR, 2013.

Climate change is a further compounding factor, as Albania's rain and snow fall occurrence has one of the highest levels of variability in Europe. Climate change is projected to further increase the variability and will result, for example, in a higher incidence of heat waves according to the Intergovernmental Panel on Climate Change (IPCC).⁴ These factors may already be influencing the occurrence and intensity of floods and forest fires in Albania; and, both floods and forest fires are projected to occur more frequently in the future. Albania's National Communication under the UN Framework Convention on Climate Change (UNFCCC) identifies Albania's coastal zones, as well as water resources, ecosystems, agriculture, energy and tourism sectors as the most vulnerable to climate change.

From a statistical point of view, the most frequent natural disasters in Albania are floods and earthquakes, with the former also causing significant financial damage.

Table 1. Summarised Table of Natural Disasters in Albania from 1900 to 2014

		# of Events	Killed	Total Affected	Damage (000 US\$)
Drought	Drought	1	-	3200000	-
	ave. per event		-	3200000	-
Earthquake	Ground movement	6	47	8429	-
	ave. per event		7.8	1404.8	-
Epidemic	Unspecified	1	-	226	-
	ave. per event		-	226	-
	Viral disease	1	7	66	-
	ave. per event		7	66	-
Extreme temperature	Heat wave	2	3	150	-
	ave. per event		1.5	75	-
	Severe winter co	2	73	237085	-
	ave. per event		36.5	118542.5	-
Flood	Unspecified	1	4	1500	-
	ave. per event		4	1500	-
	Coastal flood	1	-	8000	-
	ave. per event		-	8000	-
	Flash flood	1	11	35000	7000
	ave. per event		11	35000	7000
	Riverine flood	6	4	92484	17673
	ave. per event		0.7	15414	2945.5
Landslide	Landslide	1	57	26	-
	ave. per event		57	26	-
Storm	Convective storm	2	8	525000	-
	ave. per event		4	262500	-
Wildfire	Forest fire	1	-	75	-
	ave. per event		-	75	-

⁴ IPCC Special Report on Extreme Events (IPCC/SREX, 2011).

Examples of recent impacts include the forest fires of the summer of 2007. The fires affected 30,856 hectares of forests and 7,139 hectares of pastures. The floods of December 2010 in the Lower Drini-Buna River Basin cost the Albanian economy ALL 2.5 billion (EUR 18 mln), rising to ALL 4.4 billion (EUR 37 mln) when indirect losses were accounted. A report, produced in 2012, estimates the cost of reducing the risk in the lower Drini-Buna River Basin to an acceptable risk of 50 year return period at ALL 7 973 mln, equivalent to EUR 57 mln.

Very conservative estimates of economic losses due to floods, landslides and forest fires that occurred since 2002, put the direct cost to the national economy at ALL 13 bln (EUR 94 mln).⁵ If indirect costs were factored in and the projected losses due to earthquakes were accounted for, the projected costs of disaster to the national economy will considerably higher.

Extreme temperature events have had severe impacts in the country, which is indicated by a large number of deaths per events. Landslides and earthquakes are the next most severe hazardous events in the country in terms of people killed.

The most severe technological accident recorded to date in Albania is the explosion which occurred at a munitions decommissioning facility on 15 March 2008, affecting more than 10 000 people. The accident caused 26 deaths, injuries to over 300 people, the destruction of 2,300 buildings and displacement of 4,000 people.

Table 2. Summarised Table of Technological Disasters in Albania from 1900 to 2014

		# of Events	Killed	Total Affected	Damage (000 US\$)
Industrial accident	Fire	1	60	-	-
	ave. per event		60	-	-
Miscellaneous accident	Explosion	1	22	10300	-
	ave. per event		22	10300	-
Transport accident	Road	3	42	57	-
	ave. per event		14	19	-
	Water	1	16	-	-
	ave. per event		16	-	-

⁵ For comparison, according to World Bank data the GDP of Albania grew from 3.687 billion US dollars in 2000 to 12.9 billion in 2013. See <http://data.worldbank.org/country/albania>.

Some conclusions mentioned in *IPA Beneficiary Needs Assessment* (UNDP, 2011), are not included in risk assessment section of the *Strategy*, i.e. the conclusions emphasising the tendency that the less developed regions and social groups are the most vulnerable.

The South East European Climate Change Framework Action Plan for Adaptation acknowledges that the entire region of South East Europe will have to face increased annual mean temperatures, decreased annual number of precipitation days and increased magnitudes and frequencies of climatic extremes. The majority of SEE countries also share similar vulnerable groups: low-income groups in drought-prone areas with poor infrastructure and market distribution systems, low to medium-income groups in flood-prone areas due to the possible loss of stored food or assets and farmers who may have their land damaged or submerged by increased floods. The first impacts of climate change will likely be felt in the agricultural production, the availability of water resources, forestry and energy (since SEE countries are heavily dependent on hydropower).⁶

The vulnerability of Albania's citizens and the impact of disasters in the country are significantly compounded by a relatively high degree of poverty, lack of infrastructure maintenance, unsafe building and land use practices linked to rapid urbanisation, exploitation of natural resources (overgrazing of pasture, overexploitation of forests and riverbeds, etc.) as well as by the various consequences of the transition from a state-controlled to a free-market economy.⁷ Nearly 47 percent of Albanians live below the poverty line. Socio-economically fragile groups being often disproportionately exposed to hazards, the effects of a disaster would negatively affect the prospects for long-term development.

Part of Albania's structural vulnerability stems from the obsolescence of some installations such as dyke systems, drainage channels, high water collection or flood-control facilities and pumping stations. Many of these have not been improved in recent times and their deterioration may easily aggravate the consequences of river flooding. During the winter 2009-2010, severe flooding created a critical situation at the River Drini hydro-power plants and water-reservoirs as well as downstream, in the area between Vau, Dejes and the Adriatic Sea. Albania's flooding potential is further increased by the proliferation of high earth dams constructed on rugged terrain that is subject to landslides and earthquakes. The 2003 Risk Assessment Study of Natural Disasters established that the greatest demand placed on the national civil emergency system would result from earthquakes occurring in Durres, Elbasan, Berat or Vlora. In these regions, only a few hospitals and school structures are designed appropriately and the safety of residential buildings is generally poor.

1.1.1 List of major hazards and risk in Albania⁸

Seismic risk

Albania is characterised by a high rate of seismicity. Albania, together with Greece, Montenegro, Macedonia, southern Bulgaria and western Turkey (all located in the same region), experience almost annual occurrences of at least one earthquake of magnitude ≥ 6.5 . Albania is characterised by

⁶ SEE CC Framework, Action Plan for Adaptation.

⁷ See www.ifrc.org/PageFiles/86599/Albania.pdf.

⁸ This section provides excerpts from the document Disaster Risk Reduction Capacity Assessment Report for Albania (UNDP, 2011).

intense micro ($1.0 < M \leq 3.0$), small ($3.0 < M \leq 5.0$) and medium-sized ($5.0 < M \leq 7.0$) earthquake activity, and rarely by large ($M > 7.0$) earthquake events. Tirana accounts for more than one quarter of the urban seismic risk, perhaps considerably more if the official population figure is underestimated. The seven largest cities at risk in Albania account for more than 75 percent of the urban risk.⁹ Earthquake risk reduction is crucial as most strong earthquakes have been accompanied by extensive land instability (such as liquefaction, ground subsidence, surface cracks, landslides and rock slides) and can, at times, be held accountable for small tsunamis.

Flood risk

The Albanian river system poses the highest risk of flooding to the country, generally of pluvial origin. The hydrographic basin encompasses an area of 43,305 km², of which 14,557 km² belong to the watersheds of the Drini and Vjosa rivers, which encompass parts of Greece, Macedonia and Kosovo. The eight main rivers in Albania are grouped into six watersheds that transverse the country from east to west. Their mean annual discharge is 1,308 m³/sec, which corresponds to the discharge of 30 m³/sec/km². Floods are more frequent during the November–March period, when the country receives about 80–85 percent of its annual precipitation. Due to topographic patterns, these floods occur rapidly after water has run through the main river hydrographic network for around 8–10 hours.

DRR primarily has to deal with preventive, preparative and reparative measures aimed at flooding of the Buna, Drini and Semani river basins. In these areas the expected number of flooded buildings (100 year returned period) ranges from 15,500 to 24,000 (± 10 percent), which would cause demands for shelter and/or other forms of assistance for an estimated 84,000 to 172,000 (± 10 percent) people. The implications of disaster related to other river basins are considerably lower, ranging from about 4,000–8,000 (± 10 percent) affected buildings corresponding shelter and/or other forms of assistance for 25,000 to 50,000 (± 10 percent) people.¹⁰ The 100 year return period of West Plain Flooding would adversely affect 20 Districts (out of 36), 341 villages (out of 2,962), 110 Communes (out of 308), about 85,500 buildings covering 7,900,000 m² and 565,000 people.

Landslide risk

Albania is characterized by land instability caused by natural factors (e.g. mechanical action of surface and underground water, precipitation, seismic action, physical and chemical conveyance) and anthropogenic factors (e.g. engineering interventions on slopes, the construction of dams, large water retention reservoirs, roads, tunnels and other related infrastructure facilities). The Albanian territory is divided into three zones of natural slope stability – stable, relatively stable and unstable, corresponding respectively to 56.6 percent, 33.6 percent and 9.8 percent of the total territory of the country. Land instability in Albania occurs primarily after massive torrential rain or snowfall. Various types of landslide (rock falls, topples or torrent deposits) are often recorded along disturbed slopes on national and regional transportation routes, in the irrigation water usage or other engineering works.

⁹ Probabilistic seismic hazard maps for Albania, 13th World Conference on Earthquake Engineering, 2004.

¹⁰ Risk Assessment Study of Natural Disaster in Albania, 2003

In addition, hydro-technical works either interrupt the weak equilibrium of geological formations or accelerate existing landslides. Consequently, the largest landslides have developed in the basins of the main hydropower plants of Fierza (the Porava landslide), Vau i Dejes (the Ragami landslide) and Banja (the Banja landslide).

Dam-burst risks

Dams and reservoirs in Albania are primarily constructed for: agricultural and irrigation needs, flood control, hydropower and recreation. Presently there are 630 dam reservoir systems in the country, 307 of which are recognized as either high dams (height ≥ 15 m) or large dam reservoir systems.¹¹ Among the 82 ICOLD members, Albania ranks first in number of dams per 10,000 inhabitants. The height of the majority of dams ranges from 10–30 m (524 dams) to 30–60 m (77 dams). Six dams are higher than 60 m, of which two are higher than 100 m (the Koman Dam, 115 m and the Fierza Dam, 167 m). At a height of 167 m the Fierza Dam is the highest dam of this type in Europe. All high dams in Albania are earth-filled.

Migration and urban expansion have led to increased concentrations of populations and material property in such downstream areas. In the event of dam bursts: 246 (57 percent) could affect a population larger than 100; 56 (36 percent) could impact areas with more than 500 inhabitants; and any of the other 57 would affect areas with a population in excess of 2,500. Burst of eight out of those 57 dams could affect the entire towns of Elbasan (population over 100 thousand), Lushnje (population over 37,829) and Divjake (more than 10,000 inhabitants). Albania is planning to build new small hydropower plants; currently only 40 percent of country hydroelectric potential is exploited. Therefore this risk is expected to increase in the near future.

Snowfall risk

Snowfall risk occurs mainly during the period from November to March, and in the mountainous northern, north-eastern, central and southern parts of the country. Typical high snow hazards are road blockage (due to the lack of maintenance and poor conditions of roads) and avalanches. The population residing in these areas (at least 30 cm snow-depth) ranges from 11.6 percent (355,000 ± 10 percent) to 31.3 percent (1 million ± 10 percent). Disaster preparedness planning is needed for such situations that last longer than 30 days (taking into consideration conditions like household food reserve levels or seriously ill patients).

Wild/Forest Fire risk

Forests occupy roughly 29 percent of Albania. Most of the forestland (77 percent) consists of low productivity degraded forests like oak forests (31.8 percent) and scrubland¹² (25.6 percent). Forest areas can be divided into two basic functional categories: productive forests (some 900,000 ha or 86 percent of the total area); and protected and recreational forests (some 140,000 ha or 14 percent). The forests of Albania are prone to fire, especially at the end of spring and during dry summers.

¹¹ ICOLD World Register of Dams, 1998. See also www.icold-cigb.org/GB/World_register/world_register.asp.

¹² Or 'shrubland.'

Among Mediterranean countries, Albania is one of the most affected by forest fires. The total area burnt during 2007 reached 127,000 ha, whereas the figure in 2008 was significantly lower at 19,254 ha (11,389 ha burnt in forest or wooded land and 2,080 ha of agricultural land). Fire causes are of both anthropogenic origin (human negligence, pasture burning and, to a lesser extent, arson) and natural origin (lightning). Human misuse of fire, accompanied with deforestation and grazing practices, are among the key reasons for the forest destruction. For DRR management, more training of fire-fighting personnel is considered necessary.

Technological risks

The main technological hazards for Albania are industrial pollution, toxic wastes, transport accidents, factory explosions and chemical spills. Although the country is well endowed with natural resources, such as oil, natural gas, coal, chromium, copper, nickel and timber, technological risks do not pose a significant threat to the population (except in the case of accidents) due to a low level of industrial activity. However, as hazardous materials, substances and products remain in stock in different parts of the country, DRR preparedness and response are still deemed necessary to properly manage the risk of technological disasters.

1.2 Policy and Governance

According to the Albanian disaster risk response legislation¹³ the national crisis management framework consist of three levels – national, regional and local.

At national level, the Council of Ministers leads and governs the national system of civil emergency management in Albania. This includes endorsing strategies, policies, programmes that aim to prevent, mitigate, prepare and respond to civil emergency situations.

Each line ministry is responsible for planning and handling civil emergencies according to their area of expertise. To be effective, this requires coordinated inputs from a number of line ministries. The Inter-Ministerial Committee of Civil Emergencies coordinates the appropriate actions of all concerned institutions through all the phases of response to civil emergency situations. A General Directorate of Civil Emergencies¹⁴ was established in the Ministry of Interior.

Prefects in the qarks (regions) are responsible for planning and coping with civil emergencies at qark (regional) level. Under the chairmanship of the prefect, a Commission of Planning and Responding to Civil Emergencies is established whose task is coordination of activities of the qark authorities and volunteer organisations for planning and coping with emergencies. The 12 qarks of Albania have one full-time civil emergency officer.

¹³ To be reviewed at section 2 “Legislation.”

¹⁴ The original name of the structure was Department of Civil Emergency Planning and Response, and many documents and pieces of legislation consulted for the report’s drafting use that name. It could also be found as General Directorate of Civil Protection.



Figure 2. Administrative Division of Albania. Source: IPA Beneficiary Needs Assessment Albania.

The mayor or the head of commune is responsible for planning and responding to civil emergencies in the respective municipality or commune (local) level. Under the chairmanship of the mayor or the head of commune, a Commission of Planning and Responding with Civil Emergencies is established, and its main task is to coordinate all activities of the local government unit and volunteer organisations, responsible for planning and responding to emergencies.

The main non-governmental organisation that provides volunteer services for local risk and capacity assessments, public education and community-level disaster planning is the Albanian Red Cross (ARC).

When describing the Albanian DRR Institutional Framework, the authors of Albania's Needs Assessment report¹⁵ concluded that:

Although there are powers and responsibilities assigned to the regional and local governments in DRR, the system in Albania remains highly centralised. Regional and local governments do not receive sufficient funding and in practice are excluded from decision-making. Moreover, legislation does not yet specifically encourage community participation in disaster risk reduction.

¹⁵ IPA Beneficiary Needs Assessment, UNDP, 2011, p.10

1.2.1 Strategy scope and focus

The draft version of *National Strategy for Disaster Risk Reduction and Civil Protection 2014-2018* introduces a comprehensive approach toward DRR and DRM including prevention, preparedness, response and recovery. The document contains a conclusion that “The main challenge is increasing the level of understanding of disaster risk reduction concepts – in order to shift perception of disaster risk reduction from “disaster response” towards “risk reduction” this needs to be addressed within long-term development plans.”¹⁶ However, it seems that the scope of ‘Prevention’ is the monitoring of hazards and the early warning. It is hard to find a true “risk reduction” through, for example, requirements and/or actions addressing respective infrastructure, urban and rural development.

1.2.2 Monitoring and analytical support to policy making; R&D

According to the Strategy,¹⁷ the Institute of Geoscience, Energy, Water and Environment (IGEWE) is the institution in Albania for national monitoring and warning structure for natural hazards of meteorological origin, including floods, wildfires and earthquakes. IGEWE is endorsed by the World Meteorological Organization as the National Meteorological and Hydrometeorological Service for Albania.

According to IPA Beneficiary Needs Assessment,¹⁸ Albania monitors and assesses its risks from natural hazards through several relevant institutions:

Table 3. Albanian institutions monitoring and assessing risks.

For seismic risk	Department of Seismology within the Institute of Geo-sciences (Tirana Polytechnic University)
Floods, avalanches, heavy snow	Primarily by the Institute of Water, Environment and Energy (Tirana Polytechnic University)
Landslides	Institute of Geo-sciences (Tirana Polytechnic University)
Forest fire	Department of Forests and Pastures (Ministry of Agriculture, Food and Consumer Protection)
Epidemics	Institute of Public Health (Ministry of Health)

However, the DRR Capacity Assessment Report¹⁹ states that:

At University level there is no faculty that supports the education of seismic or hydrology experts. Seismologists and hydrologists are usually drawn from the faculties of mathematics,

¹⁶ Draft version of National Strategy for Disaster Risk Reduction and Civil Protection 2014-2018, June 2014, quote on p. 12.

¹⁷ Draft version of National Strategy for Disaster Risk Reduction and Civil Protection 2014-2018, June 2014, quote on p. 11.

¹⁸ UNDP, 2011, p.13.

¹⁹ Disaster Risk Reduction Capacity Assessment Report, UNDP, 2011, p.15

civil engineer, physics and geophysics and are then trained in seismology or hydrology. A project of the Institute of Geoscience to collaborate with IIZIS (based in Macedonia) and other university institutes in the region, for providing postgraduate education in seismology, has not yet been implemented due to a lack of funds.

1.2.3 Policy for Prevention

As noted in the *National Civil Emergency Plan* of Albania²⁰ the Prevention and mitigation for existing structures, facilities and environmental areas in Albania is a shared responsibility, requiring:

a) *Information*. Essential information includes:

- Seismological, hydrological, meteorological data;
- Technical information on the conditions of maintenance, repair and safety of: housing and transport infrastructure, and essential installations including dams, mines, public and private sector land and marine industrial installations, complexes and stores;
- Technical information regarding the state of environmental areas, such as drainage basins and watersheds, including forests, rivers, primary, secondary and tertiary channels, unstable slopes, wetlands and reclaimed areas;
- The level of pollution, hygiene and epidemiological data as well as level of civic order.

b) *Observing and Applying Standards*. Developing, resourcing and implementing appropriate schedules and standards include:

- Regular agreed maintenance schedules;
- Agreed forecast repair schedules;
- Attaining and maintaining minimum agreed national standards of safety installations and internal and external inspection procedures.

c) *Improvements*. Planning and resourcing improvements include:

- Repair, upgrading, improving and retro-fitting up to or above original minimum standards of use;
- Taking into account new hazards and risks posed to or by the structure or facility;
- Aiming towards European Community approved standards.

d) *Emergency Prevention Plans*. Developing specific emergency prevention plans from relevant sectors for existing structures, facilities and environmental areas, comprising:

- Identified personnel roles and responsibilities;
- Establishing a monitoring and information system;
- Making clear and known early warning steps and procedures;
- Agreeing on clear public information procedures;
- Developing and testing emergency checklists, key emergency contacts and simulation exercises.

²⁰ Prepared by the Ministry of Local Government and Decentralization and adopted by the Council of Ministers with Decree no. 835 (2004).

e) *Training*. Investing in appropriate training of identified emergency situation personnel and joint training with related partners in civil emergency matters.

f) *Investment*. Actively soliciting investment in prevention and mitigation through new and existing partnerships, coherent planning and attainment of industry and EU norms.

The Plan also envisages additional general measures for prevention and mitigation, related to:

- New structures, facilities and developing environmental areas;
- Review and enforcement of legislation;
- Inspectorates, Secretariats and Diverse Polices; and
- Responsibilities and planning at various levels.

More specifically, the Plan (p. 25) states that it is necessary to establish of an efficient structure for civil emergency prevention – National Inspectorate of Civil Protection (NICP). As part of prevention and mitigation structures, NICP will be present in planning, projects implementation and providing licenses. With a structure at both central and qark level, this inspectorate will take the role for monitoring and reporting on the progress in monitoring all the territory. The National Inspectorate of Civil Protection will have monitoring, controlling and reporting roles through supervising the work in progress of all structures relevant to civil emergencies. The NCIP will control the work for planning and implementation of prevention measures for civil emergencies of all state and private subjects. NICP will also control the status, i.e. the level of manning, equipment and the level of preparedness of the operational forces to respond to civil emergencies.

In its work, the NCIP will pursue competences and responsibilities foreseen in legal and sublegal documents/acts such as for undertaking measures against the institutions, structures and subjects which have not correctly implemented rules, regulations, standards and legal bases for prevention, preparedness and response to civil emergencies, as well as the activities for recovery and development of the affected area.

By now such an Inspectorate has not been established. In fact, there is no single authority coordinating the disaster prevention policy. The draft of the National Strategy for Disaster Risk Reduction and Civil Protection 2014-2018 (p.10) states that the General Directorate of Civil Emergencies needs to be promoted to an Agency, functioning under the Prime Minister's Office.

According to Annex 2 of the Draft Strategy, there are 15 Key Institutions with responsibility in civil emergencies. These are 13 Ministries, the Albanian Academy of Science and the Albanian Red Cross. Five ministries have responsibilities for the policy for prevention.

The leading *Ministry is that of Agriculture, Food and Consumer Protection*. It has a wide range of prevention responsibilities, including for flood, landslide, dam-burst, epidemic, and wild/forest fire risk reduction. The *Ministry of Public Works and Transportation* is the principal structure that shoulders core problems as maintenance, repairing and construction of highway and railroad infrastructures, ensures support and organises assessments of damages and resistance of structures in residential and public facilities, water-supply facilities, and channels. The *Ministry of Economy,*

Trade and Energy is responsible for collecting information in relation to emergency needs to determine intervention in public investments of critical infrastructure. The *Ministry of Health*, the *Ministry of Labour, Social Affairs and Equal Opportunities* and the *Ministry of Finance* also have some limited responsibilities.

1.2.4 Policy for Preparedness

The National Civil Emergency Plan defines preparedness as “undertaking of any measures to prepare people and property to withstand as effectively as possible, the effects of an identified potential threat or hazard.”

The policy for preparedness is based on several pillars:

- Institutions and Civil Emergency Plans
- Sectorial and Contingency Plans
- Identifying Hazard and Risk
- Awareness of Risk
- Monitoring and Trigger Mechanisms
- Early Warning
- Emergency Public Works and Other Measures
- Seasonal Preparedness and Protection Measures
- Clear roles and responsibilities at National, Qark, Commune and Municipality levels
- Developing Preparedness and Protection Priorities for Albania

Plans

Departments and organisations with responsibilities for civil emergency issues are obliged to draw up their own civil emergency plans to meet their responsibilities and obligations under NCEP.

In addition to that, specific problems, which may be of national, regional or local importance are treated by Sectoral Plans. The disaster management structure at the central, regional and local level is responsible for developing Contingency Plans for specific disasters. There are also specific plans developed to cover important Installations and facilities pertaining to private or public juridical or physical subject.

Early warning

Along the lines of the cooperation between Italian Department for Civil Protection and the General Directorate for Civil Emergency under the Program for Prediction, Prevention and Mitigation of Forest Fire and Flood risk in Albania, the Web-GIS application system DEWETRA was donated by the Italian Civil Protection to the Albanian Civil Protection.²¹

Under this platform is enabled the Early warning System for Floods and Early Warning System for Wildfire and daily bulletins on the related risks for all territory are produced by IGEWE and disseminated to all stakeholders.

²¹ Albanian HFA Monitoring Report 2011-2013

In addition to that, under the AL-DRMAP project, more specifically the second component of the project “Strengthening of Hydro-meteorological Services”, there are activities conducted with this regard. The upgrade of entire hydro-met network is in the implementation phase through installation of an Automated Hydro meteorological network and Central data management system. The new system will bring significant improvements to the hydro-met services in Albania, but also contribute to the overall hydro-met data availability in Western Balkan countries.²²

Albania was also part of the IPA Adriatic Cross-Border Cooperation Programme and in Adriaradnet project (information processing system network to support hydro-meteorological monitoring and civil protection decision).

1.2.5 Policy for Response

The NCEP defines response as “actions of forces and means for rescuing people’s lives, livestock and property in a territory stricken by a disaster, as well as providing the basic living conditions for the population affected by disaster.”²³

The plan distinguishes between four stages of the response phase, namely:

- Stage 1: Alert. All measures on first notification or information on an emergency situation and serves as a signal to increase readiness.
- Stage 2: Standby. Readiness of all post notification measures or information that an emergency situation or disaster is imminent or has started.
- Stage 3: Activate. Activation arises when an emergency situation has occurred.
- Stage 4: Stand Down. Stand Down represents the closure of the Response Phase, irrespective of how many previous stages have actually occurred.²⁴

Albania has a National Operations Centre for Civil Emergencies (NOCCE), under the General Directorate of Civil Emergencies to which all new information relating to a real or potential civil emergency situation must be addressed, where it will be collected and analysed.

NOCCE inform the Director of the General Directorate of Civil Emergencies who informs the Minister of Interior each emergency situation or possibility for occurrence, and depending on the situation issue the activation of the National Civil Emergency Service System (NCESS).

NCESS comprises structures, human and material resources, governmental and nongovernmental, which are involved in the response to civil emergencies. NCESS is composed of both permanent and temporary structures, depending on the activation of the capacities to respond to emergencies. The

²² Albanian HFA Monitoring Report 2011-2013

²³ National Civil Emergency Plan

²⁴ National Civil Emergency Plan

activation of the NCESS ensures an appropriate and immediate response to all the types of potential emergency situations, whether or not the Alert stage has occurred.²⁵

Roles and responsibilities in the response phase are listed by the NCEP. At Regional or local level, the Civil Emergency Officer, Prefect or designated official will commence similar stages of activation to support and complement the NCESS. Public information will be provided by the NOCCE. Any requests for international assistance are made when it is decided that the level of needs cannot be met from national resources and capacities. International Appeal is prepared by Inter-Ministerial Committee of Civil Emergencies.

The NCEP details financial considerations in the response phase (immediate, secondary and tertiary financial implications), as well as four series of standard assessment tools for the purposes of analysis and reporting. These include: First Notification Form (Prepared at Prefect Level); First Disaster Information Report (Prepared by Joint Assessment Team); Disaster Situation Report to OCHA; Request for Line Ministries in Case of Emergencies.

1.2.6 Policy for Relief and Recovery

All the line Ministries and agencies have duties and responsibilities during the recovery phase. It starts with a declaration that the civil emergency situation is over and that the affected public and organisations can start to return to their normal situation.

The NCEP envisages the following steps to be taken in the recovery phase:

- Removal or Reduced Force of Primary Hazard
- Stabilization of Risk of Secondary Hazards
- Procedures for Safe Return or Resumption of Normal Access
- Restoring Essential Public Utilities
- Activities related to Destroyed and Damaged Structures.

1.3 Financing

1.3.1 Investing in preparedness

National financing

The Law on Civil Emergency Services defines that the state budget is the primary financial resource for civil emergency planning and crisis management, as well as that ministries are to be allocated an annual budget for civil emergency planning and response within their respective field of activity.

Specifically, four types of budgetary provisions are available: the civil emergency budget of the Ministry of Interior, the emergency budgets of local government, reallocated budgets of line ministries and the Council of Ministers Reserve Fund.²⁶

²⁵ National Civil Emergency Plan

The Civil Emergency item (within the Ministry of Interior's budget) in the State Budget for 2014 amounts to ALL 788.8 mln, app. EUR 5.62 mln.²⁷

Most of the funds are allocated for disaster preparedness and post-disaster recovery. These budgets are primarily intended for emergency situations, although there are training and development budgets within line ministries. However, the funding for disaster preparedness and response in Albania is limited, particularly at the local level.²⁸

With respect to personal obligations, the NCEP makes note that the lack of buildings insurance in Albania means that the home, security and livelihood of a previously self reliant household can be instantly destroyed by a civil emergency event, leaving them destitute and dependant on state and humanitarian assistance.²⁹

International assistance

The South Eastern Europe Disaster Risk Mitigation and Adaptation Programme (SEEDRMAP) provides financing to investment priorities in disaster risk reduction and climate change adaptation at the regional level and at the national one. Within this framework, the Albania Disaster Risk Mitigation and Adaptation Project (AL-DRMAP) was developed, in collaboration with the government of Albania, covering the following components, implemented through World Bank loans: Disaster Risk Management and Preparedness (EUR 2.9 mln), Hydromet (EUR 1.2 mln), Building Codes (EUR 0.22 mln), and Catastrophe Insurance (EUR 1.6 mln).

The components of the project aim, as follows:

- Disaster risk management and preparedness – capacity building for the emergency response mechanism through provision of necessary equipment, and strengthening disaster risk mitigation planning
- Strengthening hydrometeorological services – promoting disaster risk reduction through provision of accurate hydro-meteorological forecasts and services tailored to the needs of disaster risk managers in weather-sensitive sectors
- Developing building resilience – supporting reduction of risks from seismic activities through the development of improved building codes and mechanisms for the introduction of improved standards
- Catastrophe insurance – providing access to private catastrophe risk insurance for households and SMEs.

²⁶ IPA Beneficiary Needs Assessment Albania, p.10-11

²⁷ Data available in Albanian at <http://www.financa.gov.al/al/legjislacioni/buxheti-thesari-borxhi/buxheti/buxheti-ne-vite/buxheti-2014>

²⁸ IPA Beneficiary Needs Assessment Albania, p.10-11

²⁹ National Civil Emergency Plan

1.3.2 Investing in consequence management

The Law on the State Budget allocates a yearly reserve fund. The Council of Ministers is entitled to use this fund in the event of a civil emergency situation, as well as for disaster reduction measures. In Albania, the fund amounted to app. USD 17 mln in 2006, which, according to ISDR estimates, could cover only 0.3% of damages from an earthquake with a return period of 250 years.³⁰

Within the AL-DRMAP project, Albania's membership in SEE Catastrophic Risk Insurance Facility was secured. Operationalisation of Europe Re was completed as of the end of March 2014. As a result, comprehensive earthquake and flood insurance packages were developed with view to provide homeowners and SMEs with high credit quality coverage.

1.4 Policy review, Evaluation & Organisational Learning

1.4.1 Post-Disaster Assessment

In Albania, the institutions responsible for ensuring thorough review following a major emergency situation are the General Directorate of Civil Emergencies, the Qark Commission for Civil Emergency Planning and Response, the Local Commission for Civil Emergencies and the Civil Emergencies Commissions in the line Ministries. Following operational debriefings to be performed as soon as possible after the end of the crisis situation, a review process is launched, which normally involves inputs from all stakeholders including the affected population and organisations. The review should be documented and shared with stakeholder agencies in a round table meeting. Such review is an essential aspect as it can accurately highlight issues that could be incorporated in future planning.

The review's aim is to provide clear action points to be taken by stakeholders in order to prevent and to mitigate future crisis events, as well as to improve preparedness and protection. The format of the review has to be as comprehensive as possible and to take into account the following:

- The status of prevention and mitigation plans before the event, and impact of any prevention and mitigation measures used;
- The effectiveness of preparedness, protection and response plans during the event;
- Effectiveness of communications procedures;
- Implementation of the National Civil Emergency Service System;
- Effectiveness of early warning and public information procedures;
- Effectiveness of national and local level civil emergency coordination arrangements, including acquisition and analysis of information, decision making and provision and dissemination of information to concerned agencies and to the public;
- Effective undertaking of roles and responsibilities by identified stakeholders;
- Effective drawing on national capacities and their use in response;
- Information flow and effectiveness of coordination at National and local levels;

³⁰ Mitigating the Adverse Financial Effects of Natural Hazards on the Economies of South Eastern Europe

- Speed and effectiveness of combined responses for: Search and rescue (SAR), Mass Casualty Management, evacuation, providing safe access, clearing roads and transport access, making safe and restoring essential services.
- Effectiveness of arrangements for emergency health, safe shelter, food and non-food assistance;
- • Use and effectiveness of international assistance arrangements and relationships with international organisations
- Impact and value of training programmes in strengthening response;
- Effective provision of information and resources for recovery;
- Special additional factors presented by this civil emergency situation;
- Conclusions and action points to be followed by identified responsible stakeholders;
- Presentation of the review to the Technical Consultative Commission.³¹

The IPA Beneficiary Needs Assessment study on Albania reveals that:

The current legislative system does not have any law that defines a possible disaster recovery process or how to conduct a post disaster needs assessment. After each event, institutions in charge realize systematic reports for their field of operation but no detailed analysis of socio-economic and environmental impacts and losses is conducted. The first efforts to prepare standard post event reports are underway, but capacity is presently lacking to conduct more detailed analyses of this nature.

In order to unify the various reports on disaster situations prepared by various institutions, the Ministry of Interior has developed a series of standard assessment tools to be applied: a First Notification Form (prepared at the Prefect level), the First Disaster Information Report (prepared by a Joint Assessment Team), a Disaster Situation Report to OCHA, and Request for Line Ministries in Case of Emergencies.

The Rapid Needs Assessment Reports are practical tools presented in the Civil Emergency Manual that have to be completed by the respective authorities to help them get immediate information on the level of damage and the needs.

In the case of a large-scale civil emergency situation, a Joint Assessment Team undertakes a Rapid Needs Assessment. However, prior to this, any contribution should be made by the NOCCE, the Qark Civil Emergency officer or Prefect and communal and municipal authorities using the same format. In extreme situations, initial interventions (mass medical care and other priority activities such as evacuation, search and rescue) can be conducted before or during the Rapid Needs Assessment. Successive follow-up assessments will be made using the same approach, but with greater detail as information becomes available and the situation stabilizes.³²

³¹ National Civil Emergency Plan, p.49-50

³² IPA Beneficiary Needs Assessment – Albania, p.12

1.4.2 Departmental Lessons Learned systems

1.4.3 Centralised (national) Lessons Learned system

The action-points or recommendations that have been agreed in the evaluation review are used to create follow up steps. It is the responsibility of the Department for Civil Emergency Planning and Response to pursue the implementation of these action points and recommendations, which should be reported back to the Technical Consultative Committee.

The follow up steps may include:

- Amendments, revision or updating of the National Civil Emergency Plan;
- Amendments to existing measures and new measure to be introduced in:
 - Prevention and Mitigation
 - Preparedness and Protection
 - Response
 - Recovery
- Changes to the operational structure of the Civil Emergency System;
- Revision of specific issues within civil emergency management, such as; early warning, public awareness, primary roles and responsibilities, coordination mechanisms, links with international response mechanisms and training initiatives;
- Specific factors to feed into local and national development plans, including those with international support.³³

1.4.4 International exchange for Lessons Learned

A number of international projects provide (policy) recommendations concerning the whole Albanian crisis management system or elements of it.

Back in 2008, the United Nations Disaster Assessment & Coordination (UNDAC) issued an Assessment and recommendations following the Gerdec Explosions. The recommendations concerned immediate actions to be undertaken to mitigate the consequences of the blast (such as Immediate clearing of UXOs in the three identified zones), as well as such with a long term effect, e.g. update of the National Civil Emergency Plan.³⁴

Importantly, a series of reports within SEEDRMAP provide important recommendations with respect to the crisis management system in Albania. For example, a report on “The Structure, Role and Mandate of Civil Protection in Disaster Risk Reduction for South Eastern Europe” concludes that the capacity of Albania to respond to major events is burdened with procedural operations which could

³³ National Civil Emergency Plan, p.50

³⁴ Assessment and recommendations following the Gerdec Explosions

be detrimental to effective emergency responses.”³⁵ Further on, the report expressed doubts as to the effectiveness of the chain of command, and notes that significant capacity gaps exist in terms of quantity and quality of resources.

In 2010, a capacity assessment mission for Albania was implemented at the request of the regional project for South-East Europe and Turkey on disaster risk management. Similar missions were also conducted for Bosnia and Herzegovina, Serbia, Turkey, Macedonia, Kosovo and Montenegro out of eight of the Instrument for Pre-Accession Assistance (IPA) beneficiaries of the project. The assessment was meant to complement the needs assessments conducted in all eight IPA beneficiaries of the project conducted in 2010 by both a regional and local consultant in each location.³⁶ The purpose of the capacity assessment was to identify capacity gaps related to risk reduction, understand desired capacities and propose recommendations on how these capacities can be achieved.

In 2012, the World Meteorological Organization published a report on “Strengthening Multi-Hazard Early Warning Systems and Risk Assessment in the Western Balkans and Turkey: Assessment of Capacities, Gaps and Needs.”³⁷

The report assesses that the “Albanian hydro-meteorological sector is more or less disordered and does not have the technical, human and financial resources to meet the needs for hydro-meteorological services in order to provide expected information and products to the Government, the socio-economic communities, to protection of human life, and to improve human and environmental safety. It neither has the capability to properly fill the international commitments of producing hydro-meteorological data to promote regional and global cooperation in production of better hydro-meteorological modelling and services to promote the human safety and well-being.”

It further notes a need to create and finance a “fully operational 24/7 hydrometeorological services to support risk assessment and early warning systems and promote operational monitoring, warning, forecasting and mapping of meteorological, hydrological and climate-related hazards.”

1.4.5 Regular policy reviews

1.5 Resilience

The term resilience is not used in relevant legislation in Albania.

³⁵ The Structure, Role and Mandate of Civil Protection in Disaster Risk Reduction for South Eastern Europe, available at http://www.unisdr.org/files/9346_Europe.pdf

³⁶ Disaster Risk Reduction Capacity Assessment Report For Albania

³⁷ Available at <http://www.wmo.int/pages/prog/drr/projects/SEE/documents/SEEPPhase%20I%20-%20FinalReport.pdf>

However, the country has been part of international projects aimed, among other goals, to strengthen particular elements.

1.6 Information sharing and data protection

2 Legislation

The constitution of Republic of Albania provides as the main judicial starting point in civil emergencies and the main principles for organising civil emergencies are stated. Part sixteen – “extraordinary measures”, Articles 170 and 174 of the Constitution of Albania addresses issues related to emergency and disasters, the acts issued and the measures taken under these circumstances.³⁸

In general, the civil emergency planning is established under Albanian Law 8756 of 26 March 2001 and governed by the Albanian National Civil Emergency Plan of December 2004.

The Law 8756 focuses primarily on response rather than on prevention and risk reduction, while the National Civil Emergency Plan (NCEP) covers in detail all stages of the disaster cycle, including prevention, mitigation and preparedness. The NCEP does not feature individual sectoral plans, but is nonetheless linked to sectoral strategies and contingency plans such as the National Environmental Action Plan, the Strategy related to Forest Fires, the Contingency Plan related to Radioactivity or the Initiative on Land Use and Watershed Management.

Other laws include the Law on Fire Protection and the Law on Local Government, which are completed by legal provisions dealing with environmental protection, environmental impact assessments, protection and development of forests and pasture, agriculture and rural area development, safety of dams and dykes, public health protection, urban planning and construction, etc. With regard to forest fires, the Government has issued extensive legislation that defines compulsory prevention measures for the protection of forests, such as the construction of fire prevention barriers, biological measures, construction of forest monitoring towers, the strengthening of the seasonal forest patrol system, prohibition of igniting fires in forests, etc.³⁹

2.1 Crisis (emergency, disaster) management concept

The National Strategy for Disaster Risk Reduction and Civil Protection 2014-2018 of the Republic of Albania aims at fulfilling five Strategic Components and priority activities:

- Strengthen national, prefect and local institutions and their regulatory frames;
- Compile and organize risk information and strengthen early warning systems;
- Increase national awareness, knowledge and facilitate the exchange of information on disaster risk reduction and civil protection;
- Increase preparedness, emergency services and recovery capacities;
- Increase financial protection.

³⁸ Albanian HFA Monitoring Report 2011-2013, General Directorate of Civil Emergencies of Albania

³⁹ IPA Beneficiary Needs Assessment – Albania, p. 8-9

The Strategy includes recommendation regarding the required financing and highlights the importance of regional and international cooperation. The Strategy contains a Results Table with the priority investments, responsible agencies for each activity and timeframes for their implementation.⁴⁰

The Strategy provides the basis for enhanced coordination between national institutions, sustained resourcing and even behavioral change, in particular, regarding the need to address disaster risk in national development and integration plans, the work of line Ministries, regions (Qarks), communes and cities. The Strategy builds on and strengthens already existing plans, institutions and regulatory frames in Albania and further recognizes the role of the private sector and civil society.⁴¹

*The Strategy allows Albania to align its disaster risk reduction work with, and to position itself at the forefront of, regional and international agreements such as the Hyogo Framework for Action 2015: Building the Resilience of Nations and Communities to Disasters. The norms and standards to be elaborated under the Strategy for Albania, such as building codes and standard centralized emergency numbers, will also contribute to Albania's accession discussions with the European Union.*⁴²

2.2 General crisis (emergency, disaster) management law

The Civil Protection system and the structure of civil emergency planning are established under Albanian Law 8756 dated 26 March 2001 and governed by NCEP of 3 December 2004.

Law 8756 on Civil Emergency Services aims to prevent, mitigate and remedy any damage inflicted on people, animals, property, cultural heritage and environment by emergencies; to provide conditions for public institutions, economic entities and the population for the transfer from ordinary living and working conditions to an emergency situation with the smallest possible losses, for the keeping of order and preservation of human lives against the effects of an emergency; to guarantee the use of available state resources in order to ensure public security, maintain the continuation of the national economy, localise the emergency areas and alleviate the effects thereof.⁴³

The NCEP is the most important document regarding civil emergencies. It aims at improving the civil emergency structure of Albania, clarifying the division of responsibilities, and planning the best use of limited state resources to identify gaps and avoid duplication, in accordance with the established legal base.⁴⁴

⁴⁰ National Strategy for Disaster Risk Reduction and Civil Protection 2014-2018, Republic of Albania, Draft for consultation – version 19 June 2014

⁴¹ Ibid., p.5

⁴² Ibid., p.5

⁴³ Law Nr. 8756 on Civil Emergency Services, dated 26/03/2001, art.1

⁴⁴ National Civil Emergency Plan, p.5

The aim and objective of the Plan is to be an instrument which supports the Law on Civil Emergency Services. The National Civil Emergency Plan draws together and clarifies the roles and responsibilities of all stakeholders. This aims to channel the flow of relevant information, to strengthen decision making, and through coordination, to reinforce the capacity to respond through all phases of the disaster cycle. The National Plan is essentially a coordination tool.⁴⁵

The National Civil Emergency Plan is an overarching initiative bringing together all Albanian and international stakeholders. Many ministries, directorates, and institutions have developed and maintain their own specific disaster preparedness plans.⁴⁶

2.3 Emergency rule

Decision No 664 regarding Criteria and Procedures of Proclamation of the Civil Emergency Situation, dated 18 February 2002 states that civil emergency situation can be announced in a part of the territory of the country, or in the whole territory of the country.

The civil emergency situation is proclaimed when the possibilities and resources possessed in normal conditions cannot respond to the consequences deriving from the disaster. For proclamation of the emergency situation, the following data is necessary:

- The territorial extension of the damaged zone;
- Impact of the damages on distortion of the community normal life balance;
- Scientific data from the respective institutions on the concrete case of the disaster.

There are specific procedures that are set out in the document, for proclaiming civil emergency situation in case of an earthquake and floods. The procedures followed for proclamation of the civil emergency situation in cases of earthquakes are:

- The seismologic institute, within two hours, submits to the General Directorate of Civil Emergencies the preliminary registered data, and updates the data on a periodical basis, until termination of the seismic strikes;
- Civil Emergency Planning and Response Department presents the respective report to the Minister of Local Government and Decentralization after receiving the data the preliminary assessment of the damages caused from the seismologic institute, commune/municipality and the region;
- After collecting the necessary data, the Council of Ministers, decides on proclamation on the emergency situation in the respective zones.

In cases of floods, the civil emergency situation can be proclaimed in the following situations: the water level reaches critical points in some measured zones; one or more rivers that run through the area have run out of the river beds, causing dangerous situations; reservoir dikes and lake dams are

⁴⁵ National Civil Emergency Plan, p.6

⁴⁶ Vademecum Civil Protection - Country Profile - Albania

heavily damaged; the life of the civil population, of the livestock and of the property is seriously damaged.

The main criteria for proclamation of civil emergency on disasters caused by people, epidemics, industrial accidents and radio-active radiations, etc. are defined case by case according to the effects that will be produced in the stricken zone, and on basis of the existing possibilities for disaster responses in the local government units' level.

The proposal for proclamation of the civil emergency in these cases is undertaken by line ministries, according to the specifics of the occurring event and depending on the competencies and functions covered, in cooperation with the respective institutions and local government bodies affected by the disaster.⁴⁷

2.4 Specific, department/agency-level legal arrangements and regulations on emergency and disaster management

Decision No 532 on Liabilities and Tasks of the Civil Emergency Planning and Response Department, dated 1 August 2003 defines the specific responsibilities of the General Directorate of Civil Emergencies. They include:

- Cooperating with the other institutions for drafting and updating of the national plan on the civil emergency response;
- Drafting plans for completion and updating of reserves of civil emergencies in compliance with the national plan of civil emergencies;
- Management of the civil protection system and coordination of state and non-state structures connected with it;
- Preparation, pursuance and implementation of sub-statutory acts on planning and response against the civil emergencies;
- Organization of international bilateral and multilateral co-operation relations on civil emergency issues, fire protection and humanitarian aid.

The specific tasks of the General Directorate of Civil Emergencies incorporate:

- Implements, together with other institutions, policies of the Council of Ministers in the field of civil emergencies planning for response, fire protection and rescue and helps in creation, use, and distribution of reserve emergency goods, including food, material and monetary goods;
- Cooperates with domestic institutions and public enterprises to assess the emergency situations on basis of which the national plan of civil emergencies is built, and organizes the work for its updating on a periodical basis;

⁴⁷ Decision No 664 regarding Criteria and Procedures of Proclamation of the Civil Emergency Situation, dated 18. 02 2002

- Follows in continuity the situation of protection from fire and the civil emergency situation all over the territory of the country, in the region and wider, and plans action measures against them;
- Plan funds for studies from the public enterprises for the civil emergency prevention and response;
- Every six months prepares a report for the overall situation of civil emergency planning and response;
- Provides all the necessary data on threatening risks and emergency situations to the Inter-ministerial Committee of Civil Emergencies, and provide possibilities for a material support of operations for civil emergency response;
- Plans and defines the rules according to which the financial and material sources are used in the cases of civil emergencies;
- Coordinates the work of central institutions with units of the local government on the civil emergency responses;
- Coordinates the organization and equipment of the active and supportive structures of the civil emergency service;
- Requests data regarding the civil emergency response, communicating directly with the standing and temporary structures of civil emergency service in the central government level, in a regional and municipality/commune level;
- Organizes, implements and monitors the data system in a national level on the civil emergency situations;
- Enters into contracts with associations and bodies that offer assistance for realization of the tasks given in the plan on civil emergency response and on creation of reserves;
- Organizes and leads conferences, seminars and workshops for the national, regional and local civil emergency staffs;
- Processes the public education programs and of training of state and non-state structures in the civil defense field;
- Guides the responsible structures on the way of realization of the public opinion awareness and sensitization on civil emergencies and fire fighting;
- Coordinates the work for assessment of the caused damages and rehabilitation from natural disasters or other disasters in compliance with the respective legal and by-law acts;
- Controls application of the protective and preventive measures from state and non-state subjects all over the territory of the country for civil emergency responses and fire fighting;
- Controls the way how the material and financial sources allocated by the state budget, or by other state bodies in the case of civil emergencies for the central and local bodies are used;
- Controls distribution and way the reserve emergency goods are used, making sure that distribution and usage is made in compliance with the National Plan on Civil Emergencies and with the legal and sub-statutory acts in power;
- Organizes inter-ministerial monitoring groups on management of the civil emergency system.⁴⁸

⁴⁸ National Civil Emergency Plan, p.10-11

2.5 Specific to the regional and local authorities legal arrangements and regulations on emergency and disaster management

Law 8756 on Civil Emergency Services sets out the specific responsibilities of the Inter-Ministerial Committee of Civil Emergencies, the Ministry of Interior,⁴⁹ the Department for Civil Emergency Planning and Response, the technical consultative Commission, other public institutions and ministries, and defines the organisation of civil emergency planning and response on qark (regional), municipality and at commune level.⁵⁰

Further, the National Civil Emergency Plan specifies the organization of the National System of Management of Civil Emergencies in Albania at national, qark and at municipal and commune levels.

It is the responsibility of authorities at qark, commune and municipal levels to develop contingency plans of their own, which all feed into the National Civil Emergency Plan, and the procedures, roles and responsibilities which it describes.

Municipalities and communes have responsibility for preparedness, planning and undertaking civil emergency response for situations developing in their territories. Every municipality and commune, establish and maintain a system of:

- Early warning and notification of key structures,
- Alarm and evacuation of population,
- Squads and other active structures prepared to prevent, mitigate and respond to civil emergency situations,
- Undertaking and administering rehabilitation activities for affected area.⁵¹

According to the Law, the Council of Minister calls for the creation of the Inter-Ministerial Committee of Civil Emergencies and appoints the appropriate staff for it. The Committee is responsible for coordinating the work of all other civil emergency services, decides on the usage of state resources to overcome the situation and in case of a national civil emergency appoints the leadership to manage the coordination.

The Ministry of Interior is responsible for a range of managerial and planning duties in cases of an emergency including the development and implementation of the national plan on civil emergencies. The Ministry also monitors, on a national level, the information system on civil emergencies and reports to the Council of Ministers every 6 months regarding the level of civil emergency preparedness of structures throughout the country. Many of the aforementioned duties of the Ministry are shared, if not regulated, by the Department for Civil Emergency Planning and Response ,

⁴⁹ Previously Ministry of Local Government and Decentralization

⁵⁰ Law 8756 on Civil Emergency Services, Chapter II, Chapter III

⁵¹ Vademecum Civil Protection - Country Profile - Albania

which is an organ established within the Ministry. The Department plays an important coordination role in the crisis management system and ensures the coordination between national, prefecture, commune and municipal level civil emergency structures.

The Department's role is supported by the Council of Minister's Decision No. 532 on the "Responsibilities and Duties of the Department of Planning for and Overcoming Civil Emergencies" adopted in August 2003.

The Director of the Department has the authority to call the Technical Advisory Commission of Civil Emergencies which includes specialists from ministries, various institutions and operational forces throughout the country. The Technical Advisory Commission has another source of legal basis, namely the Council of Minister's Decision No. 663, the "Constitution, Functioning and Responsibilities of the Technical-Advisory Commission of Emergency Specialists", adopted in December 2002.⁵²

2.6 Legal regulations on the involvement of volunteers and specialised NGOs

Decision 533, dated 1 August 2003, on Citizen Involvement on Civil Emergency Prevention and Response defines the involvement of citizens in crisis situations. It specifies that in case of civil emergencies, the head of the operation at central/regional level, requests the region's prefecture the engagement of the capable citizens, according to the needs scale. The Prefect, in cooperation with the mayor/commune head, orders activation of citizens and plans their involvement in the operational structures, functioning for civil emergency prevention and response in the region's territory.

The Regional Prefect, through the civil registration offices in municipalities and communes, ensures data and keeps records on the citizens living in the territory of the region, aged 18 to 55 for the women and 18 to 60 for men.⁵³

According to article 24 of the Law 8756 on Civil Emergency Services, the service of volunteers is organised for responding to emergencies. Volunteers may be any Albanian citizens over 18 years old who have received basic training in responding to emergency situations and accept to participate. During emergency situations foreign citizens can also be admitted to participate as volunteers.

Persons who volunteer to participate in rescue operations have the rights for the period they are active in the rescue operation to keep their job, to receive full payment from their employers and to insurance in case of an accident.⁵⁴

⁵² Comparative Research of Emergency Response Legislation: Albania, Macedonia and Bosnia and Herzegovina, p.5

⁵³ Decision no 533, dated 1.8. 2003, on Citizen Involvement on Civil Emergency Prevention and Response

⁵⁴ Law 8756 on Civil Emergency Services, Chapter IV, art.24

Economic entities and institutions, which in the pursuance of their activities use, produce, transport or store hazardous substances are obliged to plan, organise and implement, on their own expenses, services for responding to emergencies within their area of activity.

In addition they have to develop plans for emergency situations and implement preventive measures within their area of activity; to notify their personnel as well as the respective municipal or commune authority about an imminent risk; to organise, when necessary, evacuation of their employees, set up their own organisation for responding to an emergency situation within their area of activity; and to provide training to their employees. The Council of Ministers determines in subordinate legal act what constitutes hazardous substances, which create threat of emergency situations.⁵⁵

2.7 Legal regulations for international engagements of first responders and crisis managers

The Council of Ministers has the overall responsibility for civil emergency planning and response in the Republic of Albania. Furthermore, it is responsible for arranging and specifying the procedures for international assistance in the event of emergencies.⁵⁶

The Directorate for Civil Emergency Planning and Response can request the assistance of national and international organisations, nongovernmental organisations and private volunteer organisations to deal with civil emergencies.⁵⁷

⁵⁵ Law 8756 on Civil Emergency Services, Chapter V, art.30

⁵⁶ Ibid., Chapter I, art.5

⁵⁷ Ibid., Chapter IV, art.25

3 Organisation

3.1 Organisational chart

The crisis management system in Albania consists of permanent and temporary structures at central level, qark (county) and local level. Through these structures, each ministry, department or institution, has specific responsibilities, for all the stages of the emergency management cycle.

At national level the Council of Ministers chairs the national management system of civil emergencies in Albania. It approves the strategies, policies and programs which aim at prevention, mitigation, preparedness and response to civil emergency situations. The Council of Ministers pronounces the state of civil emergency in a given area or all over the country. After the pronouncing of the state of civil emergency, the Council of Ministers establishes the Inter-Ministerial Committee of Civil Emergencies. The Inter-Ministerial Committee of Civil Emergencies coordinates the activities of all the institutions involved in all the stages of the response to the state of civil emergency. The Inter-Ministerial Committee involves key ministers (i.e., the Minister of Interior, Minister of Defence, Minister of Environment and Minister of Health) and usually acts for a period of 10 days.

The Ministry of Interior implements the policies of the Council of Ministers in the fields of planning and dealing with civil emergencies. The Department of Civil Emergency, Planning and Response is the key institution for disaster management. Through this permanent structure the Ministry monitors the state of the emergency in the entire territory of Albania, whereas in calm situations and in case of low scale emergencies cooperates with central institutions and structures, involved in the issues of civil emergencies. This Department has three subordinated units: Directorate for Civil Emergency Planning and Response, Directorate of Fire-fighting and Rescue and the National Operations Centre for Civil Emergency.⁵⁸

At qark or regional level, the regional prefect is responsible for planning and dealing with civil emergencies at regional level. Under the chairmanship of the prefect, the Commission of Planning and Responding to Civil Emergencies is established with the task of coordination of the activities of the regional authorities and volunteer organisations for planning and dealing with the emergency situation. At each of the 12 qarks in Albania, a civil emergency officer is appointed.

At local, municipality and commune level, the mayor or the head of commune is responsible for planning and responding to civil emergencies in the respective municipality or commune. Under the chairmanship of the mayor or the head of commune, the Commission of Planning and Responding with Civil Emergencies is established, and its main task is to coordinate all activities of the local government unit and volunteer organisations, responsible for planning and responding to emergencies.⁵⁹ Every municipality and commune in Albania has a designated official with responsibility for civil emergency matters, who benefits from instruction in the standardised training

⁵⁸ National Civil Emergency Plan, p.9

⁵⁹ Albanian HFA Monitoring Report 2011-2013, General Directorate of Civil Emergencies of Albania, p. 2-3

curriculum, and through the frequent necessity for early warning, standby and response in many areas.⁶⁰

Each Ministry is responsible for the planning and management of civil emergencies according to their scope of activity. Their activities are incorporated in all the stages of the emergency management cycle and as appropriate they play a leading or supporting part, depending on the nature of the emergency.

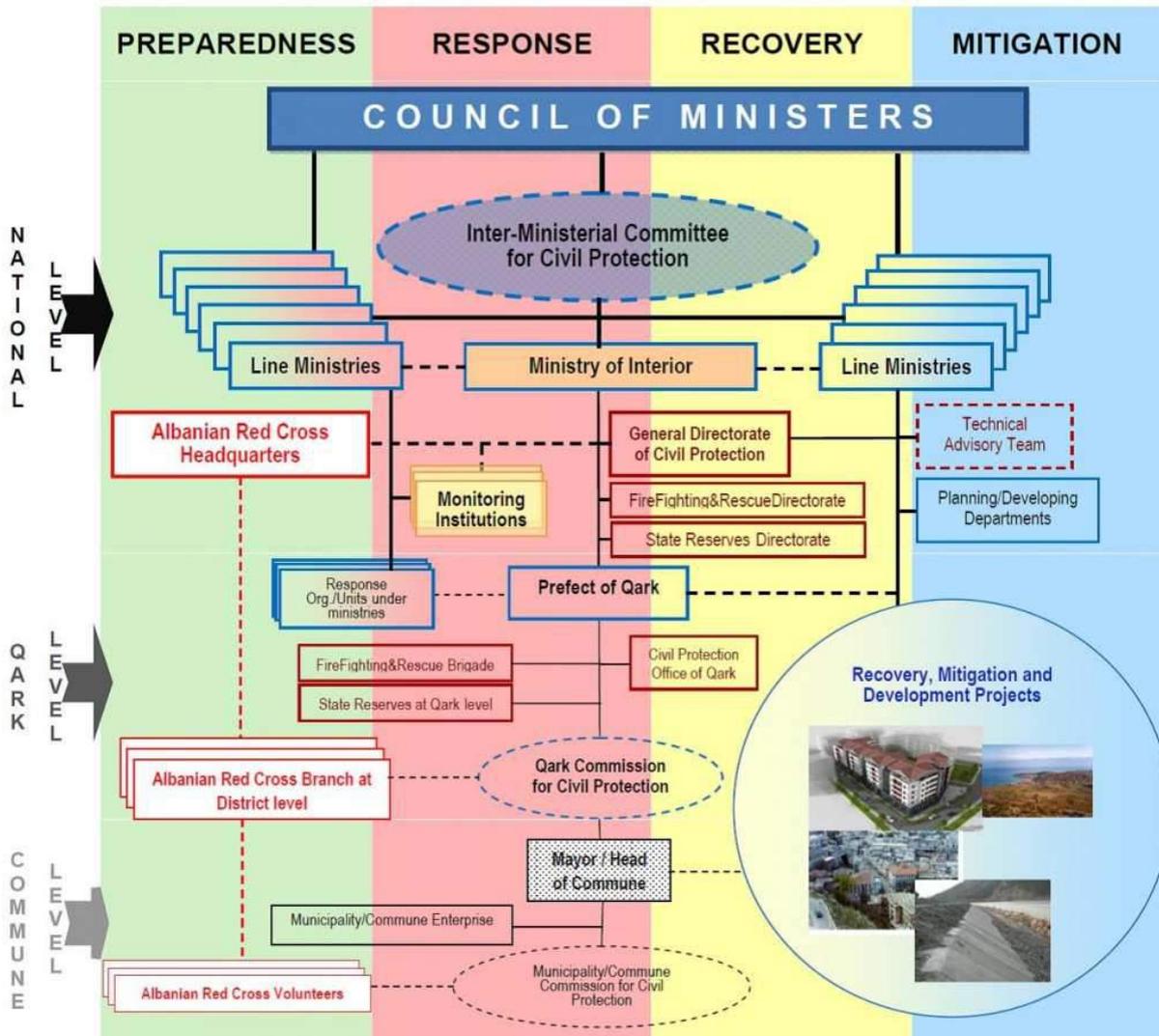


Figure 3. Organisation Chart of Civil Protection System in Albania.⁶¹

The principal operational forces or active structures in Albania are comprised of the Armed Forces; Directorate of Fire Protection and Rescue (PMNZZH); The Ambulance Service; The State Police and

⁶⁰ International CEP Handbook 2009, p.12-13

⁶¹ Source: http://www.mbrojtjacivile.al/?page_id=774

other Police units; Directorate of State Reserves; Units specialised in mines and technical response; Monitoring and operational supportive structures.

These structures have specific roles, tasks and responsibilities for all the phases of the civil emergency management cycle, and it is essential that they cooperate closely with each other to provide the most effective response possible.⁶²

The National Operations Centre for Civil Emergencies is at the very centre of civil emergency management in Albania. It plays an active role through all four stages of civil emergency management.

The Albanian Red Cross is the main non-government organisation dealing with emergencies and crises. It is a voluntary organisation, which operates in all the Albanian territory with its Head Quarters based in Tirana, has 12 branches and 40 sub-branches at Qark, Commune and Municipality and District levels.

3.2 Organisational cooperation

Inter-ministerial cooperation

The NCEP outlines the roles and responsibilities of line ministries and inter-ministerial bodies in the crisis management cycle.

The Inter-Ministerial Committee of Civil Emergencies coordinates the actions of all involved institutions through all the phases of response to civil emergency situations. The Inter-Ministerial Committee undertakes, among others, the following tasks:

- Prepares an appeal for international relief
- Coordinates the actions and activities of national and local government institutions, the Albanian Red Cross, various volunteers and donors
- Plans, and requests their engagement
- Requests from the Council of Ministers to draw upon the State Reserves
- Supervises the process of calculating and estimating the damage incurred by the disaster situation and identifies the potential means for the rehabilitation of the disasteraffected area, and propose possible solutions to the Council of Ministers
- Appoints the Head of Operations, who shall be responsible for the administration and implementation of the civil emergency operation

The Head of Operations is the leader of the response activities, and coordinates the management of the civil emergency operation in the affected area. The Head of Operations has the responsibility to:

- Supervises all the active operational and supporting structures necessary for responding to the civil emergency situation

⁶² National Civil Emergency Plan, p.11

- Is assisted by the Civil Emergency Management Team -task force that functions near the National Operations Centre for Civil Emergencies in managing the civil emergency operation
- Consults with heads of active operational structures, heads of monitoring structures and supporting operational structures, as well as other managers and specialists employed in the institutions involved in the National Civil Emergency Plan
- Follows the involvement of international relief teams and implement all necessary measures and requests to facilitate their intervention and achieve maximum results in civil emergency response
- Issue appropriate orders and directions for the management of operations of response to the civil emergency situation
- Briefs the Inter-Ministerial Committee and performs the tasks assigned by it.
- Arranges the involvement of operational forces and other groups and individuals that are willing to contribute with their efforts to overcome the situation
- Cooperates with and coordinates the actions of other operations leaders at different levels and those of local government.⁶³

Requests for international assistance to Albania are made only when it is decided that the level of needs cannot be met from national resources and capacities. International appeal is prepared by Inter-Ministerial Committee and procedures are implemented by Ministry of Interior, Ministry of Foreign Affairs and Ministry of Defence. International assistance can be solicited, or offered, as financial contributions, in kind donations (food, tents, blankets, medical supplies etc.), or specialist services (Search and Rescue Teams, logistics handling teams etc.). The Head of Operations, Inter Ministerial Committee, closely supported by the General Director of Civil Emergency will determine the requirements for international assistance.

Some unsolicited assistance may arrive in country spontaneously and without being requested. This needs to be managed correctly in the same method as the requested relief assistance. Non-acceptance of unsuitable or unnecessary national and international assistance is the responsibility of Inter-Ministerial Committee/ Ministry of Interior advised by the Head of Operations and the Department of Civil Emergency.

The effective coordination of international assistance places a huge burden on the national response system. Assistance in this coordination can be requested from the United Nations Agencies, EU structures, NATO and from the countries.

The Head of Operations is responsible for providing information on expected donor assistance to the Customs, Immigration and Quarantine Services to facilitate this process at entry points. In case of an emergency in neighbouring countries, involving displaced people crossing the border, the customs, immigration, and quarantine must be prepared to facilitate the appropriate measures of the State.⁶⁴

⁶³ National Civil Emergency Plan, p.12

⁶⁴ Vademecum Civil Protection - Country Profile - Albania

International cooperation

Albania has signed numerous cross-border and international agreements for bilateral cooperation for civil emergency support with Austria, Croatia, Greece, Italy and Turkey and also agreements are under discussion with Montenegro and the Former Yugoslav Republic of Macedonia.

Additionally, agreement for Cooperation in the Forecasting, Prevention, and Mitigation of Natural and Technological Disasters between the Governments of Austria, Croatia, Hungary, Italy, Poland, and Slovenia, was signed on 18 June 1992, to which Albania acceded later. Albania is also a member of the Disaster Preparedness and Prevention Initiative (DPPI), launched by the Stability Pact for South Eastern Europe.

Other multinational agreements in the area of civil protection, to which Albania is a party, include:

- Declaration on cooperation in disaster preparedness and prevention in south Eastern Europe signed 5 June 2002;
- Memorandum of Understanding on the Institutional Framework of the Disaster Preparedness and Prevention Initiative for South Eastern Europe, signed 24 September 2007;
- Council of Europe: Resolution 87(2): Open Partial Agreement on the Prevention of, Protection against, and Organisation of Relief in Major Natural and Technological Disasters, Albania signed the accession on the 15 May 1993;
- United Nations Environment Programme (UNEP) – Regional Seas Programme: Convention for the Protection of the Mediterranean Sea against Pollution. (The Barcelona Convention) Barcelona, 16 February 1976;
- Protocol concerning cooperation in combating pollution in the Mediterranean Sea by oil and other harmful substances in cases of emergency;
- United Nations Economic Commission for Europe (UN ECE): Convention on the Trans boundary Effects of Industrial Accidents, signed on 18 March 1992, ratified 05 January 1994.⁶⁵

On the civil-military cooperation side, EU and Albania signed a framework agreement for the participation of Albania in EU crisis management operations. On 5 June 2012 the European External Action Service and the Government of Albania inked an agreement, making Albania a partner in the area of the EU's Common Security and Defence Policy. The agreement set out a legal framework for possible future Albanian participation in the full range of EU-led military operations and civilian missions, and was a step towards more structured cooperation between the EU and Albania in the security field.

The World Bank is actively contributing to DRR goals in Albania, not only through the Albanian Disaster Risk Mitigation and Adaptation Project (under the UN International Strategy for Disaster Reduction (UN ISDR) supported by the Global Facility for Disaster Reduction and Recovery), but also through the Land Administration and Management Project and the Energy Community of South East Europe APL Programme (Albanian Dam Safety).

⁶⁵ Vademecum Civil Protection - Country Profile - Albania

4 Procedures

4.1 Standing Operating Procedures (SOPs) and Guidelines

The National Civil Emergency Plan (NCEP) details seven procedures concerning the flow of information and notification in case of natural or man-made disasters. These concern the following cases:

- 1 Earthquakes
- 2 Industrial Incident
- 3 HAZMAT Transportation incident
- 4 Sea incident
- 5 Air incident
- 6 Terrorist Attack
- 7 Dam or Dyke collapse

The ammunition blast of 15 March 2008 shows how the Albanian crisis management systems works in practice.

The factory where the blast occurred was located in the village of Gerdec, app. 15 km west of Tirana. On site, there was an ongoing program to dispose old military ordnances. The explosion sent artillery and mortar shells over nearby residential neighbourhoods destroying houses and shattering windows across the villages of Gerdec, Marqinet, Marikaj and the city of Vore. Many secondary explosions continued through the night until the early hours of the next day.

The Government declared the zone a “Disaster Area” and advised that inhabitants would not be allowed to return until the area was deemed safe. The Durres-Tirana highway was also closed to traffic whilst authorities assessed the situation. It was later reopened on the next day. Three risk zones (High, Medium and Low) were defined.

In accordance with the NCEP, an Inter-Ministerial Committee activated soon after the incident, chaired by the Deputy Prime Minister. The Albanian Armed Forces (AAF) and civil authorities cordoned off the area and started the search for victims as soon as it was relatively safe to access zone. Surface clearing in zone two and three is being carried out in cooperation by the AAF and Explosive Ordinance Disposal (EOD) teams/specialists from DanChurchAid, Italy and Sweden.

Approximately 600 evacuees from the affected areas are housed in three facilities in Durres – two owned by MoI and MoD and a privately owned hotel. The remaining affected population is staying with friends or relatives in the area of Vore according to the authorities and the Albanian Red Cross.

Through the Albanian Red Cross and local authorities, food and non-food items were made available. Furthermore, trauma counseling, teaching for primary school students and social activities for children were provided. Secondary school students as well as evacuees who had jobs were transported from the government facilities in Durres to and from Vore and Tirana on a daily basis.

The Albanian Red Cross engaged in a campaign for solidarity with the persons affected in Gerdec. 25 groups of volunteers were sent to help the persons injured, and their families, in the Military Hospital and the Hospital of Durres.

In addition to that, United Nations Disaster Assessment & Coordination (UNDAC) was deployed to Albania on 20 March to support the IMC.

The UNDAC team received the following mission objectives:

- to assess the overall situation with a focus on the needs;
- to evaluate the environmental impact of the explosion and provide analysis of samples of soil and ground water;
- to provide coordination support to the government of Albania;
- to provide the international community, UN and the government with short-mid- and long term recommendations.⁶⁶

The government carried out an initial damage assessment for all affected structures, refurbishing and livestock. The findings were forwarded the National Authority of Housing for economic evaluation. The evaluation was based on market prices. Discussions between the authorities and the affected population concluded that the affected population preferred to receive a cash grant for reconstruction rather than state-organized rebuilding. Between USD 600 and USD 2500 were made available per family. Further financial assistance was to be provided for domestic supplies. A special financial contribution was made to families who lost one or more of their members. A total of 156 mln Albanian lek had been provided by the government to the affected families as of 28 March 2008.

4.2 Operations planning

NCEP stipulate that all departments and organisations, public, private sector and NGOs should have an emergency or contingency plan for protecting their property and assets in case of an emergency situation, as well as to provide the best possible service during the emergency situation, and the most rapid recovery afterwards. The outline and content of civil emergency, contingency and sectorial plans are provided in the Civil Emergency Manuals, which are part of the National Civil Emergency Curricula.⁶⁷

These plans could be:

⁶⁶ UNDAC MISSION REPORT Gerdec Explosions, Albania, 15 March 2008

⁶⁷ National Civil Emergency Plan, p.27

- Sectorial Plans, covering specific problems, which may be of national, regional or local importance.
- Contingency Plans, designed by the disaster management structure of central, regional and local level for specific disasters, which may happen in the near future. Usually, contingency plans are used for transitory periods until the Emergency Plans are prepared. Contingency plans may be developed for seasonal or new risks/hazards or emergency that not covered by the main plan.
- Emergency Plans are specific plans developed to cover important Installations and facilities pertaining to private or public juridical or physical subject. These provide protection measures for human life and property and foresee activities to overcome civil emergencies through available capacities and provision of assistance from outside, if necessary.⁶⁸

4.3 Logistics support in crises

4.4 Crisis communication to general public; Alert system; Public Information and Warnings

In Albania three separate organisations provide national weather forecasting: the Institute of Environment, Water and Energy (IEWE), the Military Meteorological Service (MMS) under Albanian Ministry of Defense and the Meteorological Service under National Air Traffic Agency (MSNATA). Besides them, there is also one private company performing weather forecast.⁶⁹

Institute of Energy, Water and Environment (IEWE) produces general forecast for 24 hours, 3 and 5 days and 10 days outlooks. IEWE's operational forecasting is based on use of printed analysis and forecast products from international forecasting centers and from the Montenegrin NMHS. The IEWE forecasters do not have access to any real-time data. IEWE has 2 duty forecasters and it does not have capacity to operate 24/7 weather forecasting services.

In addition, the IEWE does not produce special marine forecasts. Further, there is no capacity to download numerical weather prediction model products to be used for national weather forecasts, or to run any numerical weather prediction models. MMS maintains cooperation with the Italian meteorological service for the use for weather forecasting. On the other hand, the IEWE produces special forecasts for the agriculture and aviation sectors.

However, the IEWE does not produce any public warnings. It has a governmental role to produce updated maps and forecasts to the authorities. Hydrological studies for flood warnings have been developed for different basins, while flood forecasting is prepared for different river basins using

⁶⁸ National Civil Emergency Plan, p.26-27

⁶⁹ Strengthening Multi-Hazard Early Warning Systems and Risk Assessment in the Western Balkans and Turkey: Assessment of Capacities, Gaps and Needs, Chapter 2, p.14

meteorological forecasts and by monitoring water levels. MMS gives occasionally warnings in connection to its daily TV weather forecasts. Warnings to the aviation sector only are produced by the MSNATA.

Moreover, IEWE disseminates hazard monitoring data, forecasts and early warning to the Head of the National Committee for Disaster Reduction and other partners. The limited weather warnings produced are disseminated to the public via media. The MMS provides warnings through TV presentations and by disseminating advice to the media, in order to edit their own weather forecasts and warnings. Currently there are no specific procedures for interrupting TV or radio programs, or to have a continuous warning stripe on the TV screen in the case of emergency. Method to send warnings directly via SMSs to mobile phones located at site of danger is not in use in Albania. Sectors like Ministry of Health or NGOs like the Albanian Red Cross are not on the direct contact list of warnings of hydrological or meteorological hazards. Further, Albania is not member of the EUMETNET METEOALARM systems.⁷⁰

International cooperation is key part for the successful operation of event forecast and warning. Weather forecasts and forecasting of natural hazards are based on products from global and regional scale state-of-the art numerical weather prediction models, use of satellite data and sharing of data from conventional and modern remote sensing systems.⁷¹

⁷⁰ Strengthening Multi-Hazard Early Warning Systems and Risk Assessment in the Western Balkans and Turkey: Assessment of Capacities, Gaps and Needs, Chapter 2, p.21-22

⁷¹ Ibid., p.24

5 Capabilities

5.1 Human resources

Earlier data show that in normal times the human resources dedicated to crisis management include the following: app. 450 personnel, including the employed in civil protection at qark level (app. 50) and personnel employed in civil protection at commune or district level (app. 400).⁷²

There are thirteen people, comprising the General Director and the managers of the directorates, compose Albanian Civil Protection at central level in the General Directorate of Civil Emergency. Each qark dispose of some permanent staff, incl. a set of technicians and a Civil Emergency Officer. Each municipality and commune has a designated officer with responsibility for civil emergency matters.

In times of crisis, the human resources engaged also comprises the fire brigade (app. 480), private companies contracted by the authorities (app. 400) plus forest service personnel (app. 100).

Albanian Red Cross is the main non-governmental stakeholder with 80 000 members, 2 000 volunteers and 39 branches. Founded in the 1920s, its current activities are based on Law No. 7864 on the Albanian Red Cross. According to the National Plan for Civil Emergencies the Albanian Red Cross has an important role in disaster prevention, preparedness, response and recovery. The Albanian Red Cross has developed its own disaster plans and its structure for responding to disasters is organised in two levels: central, which manages the main human and material resources; and local/district, where 39 disaster-trained volunteer teams comprising between 25 and 30 people have been established throughout Albania. In 2002 a partnership agreement was signed between the Ministry of Interior, the Albanian Red Cross and UNDP Albania.⁷³

5.2 Materiel (non-financial) resources

According to the National Civil Emergency Plan (NCEP), the key civil emergency response capacities in Albania include:

Albanian Special Forces Teams:

- Civil Protection Base, MoD, Tirana - Earthquake Search and rescue (SAR) 2 teams; Flood SAR 2 teams; Firefighting/SAR 2 teams; Chemical Pollution/SAR 2 teams; Mountain SAR 2 teams; Road clearance from snow and landslide 3 teams;
- Air Force Search and Rescue Service, MoD - National airborne SAR Service: 56 persons and 6 Helicopters;
- Special Commando Battalion, MoD, Tirana - Air and Marine accident SAR team 1 team;

⁷² The Structure, Role and Mandate of Civil Protection in Disaster Risk Reduction for South Eastern Europe

⁷³ IPA Beneficiary Needs Assessment Albania, p.11

- NBC Battalion, MoD - Chemical, bacteriological, ecological hazard rescue team 1 team 25 specialists;
- National Military Hospital, Tirana - Emergency Surgical Teams (each of Surgeon, traumatologist, anaesthetist, 3 support staff) 2 teams;

Specialist Technical Services

- Ministry of Industry and Energy - Mines Inspectorate, mines SAR team 52 Specialists; Environmental Protection and Rehabilitation 55 Specialists; Electrical Sector Emergency Response 60 Specialists (KESH);

Transport Capacities and Specialist Equipment

- Ministry of Tourism and Territory Regulation - Tankers 5 water tankers, 5 sewage tankers, Welding/cutting equipment 5 units, Bulldozer 1 unit, Transport Capacity (people) 16 vehicles (total 469 people);
- Transport Capacity (Freight) 29 Trucks (total 166 mt), Tipper Trucks 8 units (total of 100 mt),
- Earthmoving Equipment/Bulldozers 11 units (total of 450 m³), Snow Clearing Equipment 3 Units, Motor Boats 8 units (total of 80 persons), 14 units for freight, Fire Trucks 2 Units at 5 mt each, Civil.
- Protection Base, MoD - Generators 8 units (total 396 kw);
- Military Engineers Brigade, MoD - Specialists: 50 Specialists, Tipper trucks 5 units, Earthmoving Equipment/Bulldozers 10 units excavators, 5 units, tracked bulldozers; Crane 1 unit at 15 mt; Medium capacity vehicles 8 units.
- NBC Battalion, MoD - Decontamination 6 vehicle units and 25 specialists;
- State Reserves - Transport 20 light vehicles of 9 mt
- Albanian Red Cross - Transport 4 heavy trucks, light vehicles in 12 branches in 12 qarks.

Assistance Services

- Civil Protection Base, MoD - Operational Forces 170 persons, Field Hospital I unit 50 beds, 4 treatment rooms, Potable Water 7 Tankers (total 67 mt) and 11, pumps (total 12 m³/hour), Water Purification 2 units (total 6,000 l/hour), Bakery units 2 units (total 2,400 kg/day), Mobile kitchens 12 units (total 3,000 rations/day), and 1 kitchen truck 300, rations/day, Shelter Tents for 17,000 people, Shower Trucks 2 units (total 200 persons/day),
- State Reserves - Temporary shelter 28,000 m² for 6,000 people in warehouses, Tents for 30,000 people, Warehouse storage Total of 43,000 m² for goods, Fuel storage for 14 mt
- Albanian Red Cross - Food Rations 8,000 people for 1 month, Shelter and Non-Food Items 8,000 people, Family links Tracing service linked to ICRC international tracing system.⁷⁴

However, in the case of a wildfire, service personnel attend the scene but are active during the operational phase only, as observers or technical advisors. At present, the Service has no vehicles suitably equipped to cope with wildfire. The present fire-fighting capacity of local and national forces in Albania is not sufficient to tackle large wildfires, especially in the presence of multiple simultaneous events. The only way of tackling such emergencies is to address a request for

⁷⁴ National Information on Disaster Risk Reduction: Albania, Annex: Reference Guide for Preparation of National Information, p.11-12

assistance to the Monitoring and Information Centre (MIC, now Emergency Response Coordination Centre (ERCC) or to the Euro-Atlantic Disaster Response Coordination Centre (EADRCC) of NATO.⁷⁵

5.3 Training

According to the Law on Civil Emergencies the Ministry of Interior is tasked to elaborate educational and training programmes in the area of protection against natural and other disasters. In fulfilling these requirements the Ministry of Interior has designed and implemented the National Civil Emergency Training Curriculum, comprised of eight training manuals containing national and international civil emergency standards and guidelines, undertaken training activities and organised conferences at the national and regional level. Institutions responsible for designing and conducting training and simulation activities on specific issues relevant to civil emergency management, are obliged to inform and coordinate their activities with the Civil Emergency System Service.

The Directorate for Civil Emergencies has established a national training centre, the Albanian Red Cross actively cooperates through its four training centres for volunteers and the General Directorate of Civil Emergencies regularly conducts training courses for fire brigades at the Fire Brigade Training Centre in Tirana. Through the Training of Trainers initiative, Albania has established a core group of civil emergency trainers. They have increased the capacities related to the design and organisation of training activities for different target groups at both national and local level.⁷⁶

Tabletop Exercises, Functional Exercises, and Full-scale Exercises are carried out.

Albania's Department of Seismology of the Geo-sciences Institute is participating in the project *Harmonization of seismic hazard maps for the Western Balkan Countries* launched in 2007 in the framework of the Disaster Preparedness and Prevention Initiative of the Stability Pact for South Eastern Europe with the support of the NATO Science for Peace and Security Programme. The main aim of the project is to prepare the ground for joint preparedness and prevention activities in disaster management among the countries of the region. The process of harmonization of the earthquake terminology and of the seismic risk maps targets improvement of scientific collaboration between the project partners and enhancing the cooperation and coordination in the field of seismic hazard management.

Moreover, bilateral activities have been organised between relevant Albanian institutions and counterparts in neighbouring countries. Albania has established bilateral cooperation with the Italian Government, particularly in respect to disaster risk reduction training activities. Additional memorandum of understanding was agreed with Greece, FYROM, Turkey, Croatia and Austria, especially regarding support in case of large scale disaster response operations.⁷⁷

⁷⁵ The Structure, Role and Mandate of Civil Protection in Disaster Risk Reduction for South Eastern Europe, *South Eastern Europe Disaster Risk Mitigation and Adaptation Programme*, p.54

⁷⁶ IPA Beneficiary Needs Assessment Albania, p.16

⁷⁷ IPA Beneficiary Needs Assessment Albania, p.19-20

Albania has participated in several regional and local exercises with structures of line ministries, local power structures, foreign agencies and volunteers. These include table top exercises, such as main planning conference, (CMEP), Tirana, 2006; Table top exercise, (CMEP), Durrës, 2006; and Intergovernmental table top exercise, (with support US Army), Tirana, 2009.⁷⁸

5.4 Procurement

5.4.1 Procurement regulation

Public procurement in Albania is governed by Law No. 9643 dated 20 November 2006 as amended (PPL). The PPL defines the Public Procurement Agency (PPA) as the central body responsible for public procurement. The PPA operates as a regulatory authority and manages the national procurement system.

The PPL applies to all contracts for supplies, services or works awarded by contracting authorities, unless explicitly exempted.

Art. 5 of the PPL deals specifically with defence procurement, stating that the PPL “shall apply to all public contracts awarded in the field of defense, subject to para 2 of this Article.” The PPL shall not apply in the cases of “(a) when CA (Contracting Authority) shall be obliged to supply information whose disclosure is contrary to the essential interests of national security; (b) for the purchase of arms, munitions and war material, or related services. This exception shall not adversely affect the conditions of competition regarding products not specifically intended for military purposes; (c) in specific circumstances caused by natural disasters, armed conflicts, war operations, military training and participation in military missions outside the country.”⁷⁹

5.4.2 Procurement procedures

The PPL provides for two levels of thresholds: low and high. Furthermore, the PPL provides that the level of each threshold will be adjusted on a two-year basis. The high thresholds are approximately EUR 8 mln for works and EUR 1.3 mln for goods and services. The low-value thresholds are app. EUR 80,000 for works and EUR 50,000 for goods and services.

For contracts above the low value thresholds, contracting authorities shall use open procedures, restricted procedures, design contests. Negotiated procedures may be used only in the specific circumstances set forth in Art. 32 and 33 of the PPL.

For contracts of a value lower than the low value thresholds, contracting authorities may use negotiated procedures with or without prior publication and requests for proposals in accordance with the conditions provided in the law.

⁷⁸ Vademecum Civil Protection - Country Profile - Albania

⁷⁹ Public Procurement Law, available at <https://www.app.gov.al/ep/Legislation.aspx>

The contracts are advertised on the website of the PPA and are fully accessible to any bidder, wherever it is located, and the time limits are a minimum of 30 days from publication on the website (for open procedures).

5.5 Niche capabilities

Resources

Legislative acts

Law No. 7623, dated October 13, 1992 on “Forests and Forestry Police Services”

Law No. 7664, dated January 21, 1993 on the “Protection of Environment”

Law No. 7761, dated October 19, 1993 on “Prevention and Fighting of Contagious Diseases”

Law No. 7978, dated July 26, 1995 on Armed Forces of the Republic of Albania, changed

Law No. 8093, dated March 21, 1996, on “Water Reserves”

Law No. 8408, dated September 25, 1998 on the “Construction Police”

Law No. 8553, dated November 25, 1999 on the “State Police”

Law No. 8681, dated November 2, 2000 on “Designing, Construction, Exploitation and Maintenance of Dams and Dikes”

Law No. 8736, dated February 12, 2001 on “Security of Pressure Equipment in Operation”

Law No. 8756, dated March 26, 2001 on the Civil Emergencies”

Law No. 8766, dated April 5, 2001, on “Fire Protection and Rescue”

Law No. 8897 dated May 16, 2002 on “Protection of air from pollution”

Law No. 8934, dated September 5, 2002 on the “Protection of Environment”

Law No. 9106, dated July 17, 2003 on “On Hospital Service in the Republic of Albania”

Law No. 9126, dated July 29, 2003 on the “Civil Use of Explosive Substances”

Law No. 9251, dated July 8, 2004 “Code of Seas of Republic of Albania”

Law No.8671, dated October 26, 2000, on “Powers and Authorities of the Armed Forces of the Republic of Albania”

Other normative acts

Council of Ministers Decree No. 103 dated March 31, 2002 on “Monitoring of environment in Republic of Albania”

Decision No 664, dated December 18, 2002 on the “Criteria and procedures dealing with proclamation of a state of civil emergency”

Decision No. 531, dated August 1, 2003, on the “Organization, Functioning, Duties and Responsibilities of Civil Emergency Service”

Decision No. 532, dated August 1, 2003 on the “Responsibilities and Duties of the Department of Planning for and Overcoming Civil Emergencies”

Decision No.533, dated August 1, 2003 on the “Involvement of Citizens in Prevention and Overcoming Civil Emergencies”

Decision No. 654, dated December 18, 2002, on “Temporary application of taxes for private business vehicles by the government bodies in a situation of civil emergency”

Decision No. 655, dated December 18, 2002, on “Establishment and functioning of the national system structure on civil emergency planning and response”

Decision No.663, dated December 18, 2002 on the “Constitution, Functioning and Responsibilities of the Technical-Advisory Commission of Emergency Specialists”

Decision No.664, dated December 18, 2002 on “Criteria and procedures of proclamation of the civil emergency situation”

Regulation of Operative Management of Emergencies for the State Police, No. 1604, dated December 22.12.2001

Official documents (white papers, strategies, etc.)

National Strategy for Disaster Risk Reduction and Civil Protection 2014-2018, draft as of June 2014

National Civil Emergency Plan

Online resources (e.g. websites of key CM organizations)

Albanian Civil Protection, www.mbrojtjacivile.al

Ministry of Finance, <http://www.financa.gov.al/>

Ministry of Interior, <http://www.punetebrendshme.gov.al/>

Prime Minister’s Office, <http://www.kryeministria.al/en/>

DPPI SEE Disaster Preparedness and Prevention Initiative for South Eastern Europe, <http://www.dppi.info/>

Publications

Study Reports

Albanian HFA Monitoring Report 2011-2013

UNDAC, Assessment and recommendations following the Gerdec Explosions, 2008, available at <http://www.unep.org/french/greenstar//publications/Report%20Ammunition%20Blast,%20Albania,%202008%5B2%5D.pdf>

UNDP, Disaster Risk Reduction Capacity Assessment Report for Albania, 2011, available at <http://www.gripweb.org/gripweb/sites/default/files/Albania%20DRR%20Cap%20Ass%20Report%20Hachim%20Final.pdf>

UNISDR, Global Assessment Report on Disaster Risk Reduction, 2013, available at <http://www.unisdr.org/we/inform/publications/33013>

ISDR, WB, WMO, Strengthening Multi-Hazard Early Warning Systems and Risk Assessment in the Western Balkans and Turkey: Assessment of Capacities, Gaps and Needs, 2012, available at <http://www.wmo.int/pages/prog/drr/projects/SEE/documents/SEEPPhase%20I%20-%20Final%20Report.pdf>

ISDR, WB, South Eastern Europe Disaster Risk Mitigation and Adaptation Initiative: Risk Assessment for South Eastern Europe, Desk Study Review, 2008, available at http://www.unisdr.org/files/1741_SouthEasternEuropeDRMitigation.pdf

ISDR, WMO, WB, Strengthening the Hydrometeorological Services in South Eastern Europe: South Eastern Europe Disaster Risk Mitigation and Adaptation Programme, 2008, available at http://www.unisdr.org/files/18136_seedrmapevaluation.pdf

ISDR, WB, Mitigating the Adverse Financial Effects of Natural Hazards on the Economies of South Eastern Europe: a Study of Disaster Risk Financing Options, 2008, available at http://www.preventionweb.net/files/1742_SEEDRFinancing.pdf

ISDR, WB, The Structure, Role and Mandate of Civil Protection in Disaster Risk Reduction for South Eastern Europe, 2008, available at http://www.unisdr.org/files/9346_Europe.pdf

ISDR, WB, South Eastern Europe Disaster Risk Mitigation and Adaptation Programme, 2008, http://www.unisdr.org/files/18136_seedrmapevaluation.pdf

IPA Beneficiary Needs Assessment: Albania (UNDP and WMO, August 2011), available at www.gripweb.org/gripweb/sites/default/files/Albania%20Needs%20Assessment%20-%202011-08-30.pdf (accessed 12 September 2014).

Expert interviews

Expert from a non-governmental organisation.



Driving Innovation in Crisis Management for **European Resilience**

AUSTRIA

Capabilities, Organisations, Policies, and Legislation (COPL) in crisis management and disaster response

Responsible Partner: AIT (Bettina Jager, Georg Neubauer)

Scope and limitations

This study serves as supporting information for further work within DRIVER.

Only limited time and budget has been available for this first general survey, which needs to be considered in terms of scope and completeness of the respective studies.

The author/s of this study is/are responsible for its content and quality.

Overview

In 2003 the Ministry of the Interior became the main responsible for the coordination of disaster protection management, crisis management and international disaster relief. Based on the civil protection National Crisis and Disaster Management was established, which defines the measures and responsibilities in crisis and disaster case on the basis of two influential principles; the principle of subsidiarity and the principle of solidarity. The first principle is a political maxim, that intervention measures are to be in the sense of self-help acting on a bottom-up principle be based on local organizations, while the second principle ensures that in a case of an event, which exceeds the capacity at local level, the community mechanism to overcome the crisis and disasters with the help from the next higher level will be working. While the departments at the federal state are mainly responsible for prevention and financial recovery measures, the authorities of the provinces operate as the core institutions in response to natural disasters. Therefore the provinces have been featured with special rights for governing this issue. In crisis and disaster cases the Federal Alarm Centre of the state acts as a central hub for the crisis staffs of the authorities. There the responsibility to alert and warn the general public in crisis and disaster situations has been located (Jachs 2011a). At its regional counterparts – the Alarm Centres of the Federal Provinces, incoming emergency calls will be taken by authorized call takers, who have an overview about the available resources and can alert the competent operational organization. According to the magnitude of the disaster, proper authorities are assigned to manage the events. The governmental authorities of the provinces are authorized to assign accredited emergency service organisations with disaster relief.

As accredited emergency services in Austria the Red Cross, Arbeitersamariterbund (“Workers’ Samaritan Association”), emergency helicopter C16, the fire brigades, the water rescue, the rescue dogs brigade and the crisis intervention services have been received. In addition the Austrian Armed Forces play an important role in the response to disasters. Apart from the duty of the military national defence, the protection of residuals and public facilities as well as the assistance in emergency cases are core tasks of the Austrian Armed Forces (Ministry of Defence and Sports 2014). Equal, if the mission is in Austria or abroad, after an official request special units will be engaged.

Austria benefits from initiatives of a well-established civil society. Voluntary organisations contribute to a network of civil protection at all spatial level in Austria. Well-trained professionals and volunteers fulfil several duties in the area of civil protection. A longstanding expertise in risk assessment and a ramified network of cooperation with other countries and international organisations build a basis for comprehensive risk management capabilities in Austria. The knowledge-based approach will be continued in multiple projects within the context of cooperation between the science, industry and governmental stakeholders.

Although, there are no official statistics, the annual expenditures for preparedness measures of disaster management can be estimated at about 0.1 percent of GDP (status of 2013).

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List of Abbreviations

AMA	Agrarmarkt Austria
APCIP	Austrian Program for Critical Infrastructure Protection
ARC	Austrian Red Cross
ASBÖ	Arbeiter-Samariter-Bund Österreich
BFW	Federal Research and Training Centre for Forests, Natural Hazards and Landscape Austria
BKA	Federal Chancellery
BMASK	Federal Ministry of Labour, Social Affairs and Consumer Protection
BMeiA	Federal Ministry for Europe, Integration and Foreign Affairs
BMF	Federal Ministry of Finance
BMLFUW	Federal Ministry of Agriculture, Forestry, Environment and Water Management
BMVIT	Federal Ministry for Transport, Innovation and Technology
BVT	Federal Agency for State Protection and Counter Terrorism
BWZ	Federal Alarm Centre
CBRN	Chemical-biological-radiological-nuclear
CECIS	Common Emergency Communication and Information System
CIWIN	Critical Infrastructure Warning Information Network
EADRCC	Euro Atlantic Disaster Relief Coordination Centre
ECURIE	European Community Urgent Radiological Information Exchange System
EKC	Action and Crisis Coordination Centre
EKC	Emergency Operation and Coordination Centre
EPCIP	European Programme for Critical Infrastructure Protection
ERCC	Emergency Response Coordination Centre
ERCC	Emergency Response Coordination Centre
ESA/ESOC	European Space Agency/Operation Centre
FDP	Forest Development Plan
FFG	Austrian Research Promotion Agency
GDP	Gross Domestic Product
IAEA	International Atomic Energy Agency
IAN	Institute for alpine natural hazards at the University of Natural Resources and Applied Life Sciences (BOKU) in Vienna
INSARAG	International Search and Rescue Advisory Group
LWZ	Landeswarnzentrale (German term) – Alarm Centres of the Federal Provinces
Moi	Federal Ministry of the Interior
NROU	National Rescue Operations Unit
ÖBFV	Austrian Federal Fire Brigade Association
ÖBRD	Austrian Mountain Rescue Service
OECD	Organisation for Economic Co-operation and Development

PHAGO	Austrian Association of Full-Line Pharmaceutical Wholesalers
SKKM	National Crisis and Disaster Protection Management
UNOCHA	United Nations Office for the Coordination of Humanitarian Affairs
WHO	World Health Organisation
WLV	Austrian Forest Engineering Service for Torrent and Avalanche Control
ZAMG	Central Institute for Meteorology and Geodynamics

1 Policy

Austria is constituted as a federal, parliamentary, democratic Republic. The Austrian government consists of the Federal Chancellor and the ministers and the Federal President assumes the role of the head of the state, which was considered more as a representative function. The administration structure is divided into the nine provinces¹ Vorarlberg, Tyrol, Salzburg, Carinthia, Upper Austria, Styria, Lower Austria, Vienna and Burgenland (from the West to the East), 80 districts and 2,354 municipalities. The federal Republic of Austria is located in the heart of Central Europe and incorporates an area of 83,855 square kilometres. In relation to the total population of 8,504,850 people, 66 percent lives in urban areas (United Nations, Department of Economic and Social Affairs, Population Division 2014). Austria is bordered in the West by Switzerland and Liechtenstein, by the Czech Republic and Germany in the North, by Hungary and Slovakia in the East and at the southern border to Italy and Slovenia. Austria is a highly-developed industrialised nation and has an important service sector. As main industrial sectors, food and luxury commodities, mechanical engineering and steel construction, chemicals and vehicle manufacturing have been considered. Due to Austria's impressive landscape, tourism is a core sector of the economy. Widely known as a well-watered country, an innovative market sector for hydroelectric power emerged in the last decade. Furthermore, it has its own resources of petroleum and natural gas.

The Crisis and Disaster Protection Management of Austria is continuously decentralized and organized on a federal basis. This approach considers that the different political levels hold various competences and know-how, which are suitable to manage issues more efficiently. Interrelationships between levels and actors with vague divisions of responsibilities present a challenge for analysing roles and the actors' spheres of influence (Benz and Zimmer 2010). As in other legal materials in Austria, also in disaster management there is a three-way division of competence. The state is assuming the key part in defining prevention measures and establishing a framework for the implementation and the financing of mitigation measures (Jachs 2011b). The response of catastrophes mainly falls within the remit of the provinces. While the federal provinces are engaged in establishing a preparedness structure and planning of the response to disasters, as executive units local authorities (municipalities) are mainly responsible for carrying out these response missions.

On base of federal law, each province is authorized to create rules and laws on their own (Bußjäger 2003). Civil protection laws regulate how, in contrast to normal life processes must be organized to minimize the impact of disasters of various kinds to a minimum. The civil protection laws usually affect both the affected communities and the aid workers and support staff members, and finally the authority itself, depending on the country and the possible disaster scenarios, the laws adopted at various levels and also executed. The different coordination procedures in the provinces are due to different national regulations governing for instance unequal definitions of crisis and disaster and regionally specific coordination structures. On behalf of crisis and disaster protection authorities, various emergency organizations are accredited to fulfil emergency missions in crisis and disaster situations (Jachs 2011b). Frequently they also use different systems and tools to carry out their tasks.

¹ The term provinces of Austria are federated states – a synonym for counties, called “Bundesländer” in German.

Particularly, the applied systems of several cooperating units are connected and ensure interoperability between organizations and authorities.

1.1 Risk Assessment

As shown in Figure 1, Austria is influenced by four climate zones. The Alpine Climate dominates the Austria, because the Alps extend over 62.8 percent of the surface area and stretch across the West to the East of Austria. According to that, regions from the West to the East are heavily influenced by an Alpine Climate with some Atlantic influences in the West and the North-West. The eastern areas are belonging to the Continental climate zone and are characterised by a Pannonian climate, which causes on the one hand, summer with hot weather and low-precipitation, and on the other hand, cool-temperate winter. The northern area is characterised by a moderate central European transition climate with (sub-)polar flows. Further south, there the Illyrian climate with a sub-mediterranean climate is prevailing. Considering these different starting positions of the climatic region, each of them has another risk profile. As stated by the Environment Agency Austria (2014), “63 percent of the national territory is under permanent risk of natural hazards like floods, debris flows and avalanches. Only 37 percent of national territory is suitable for permanent settlement and that is under high pressure from competing land uses.”

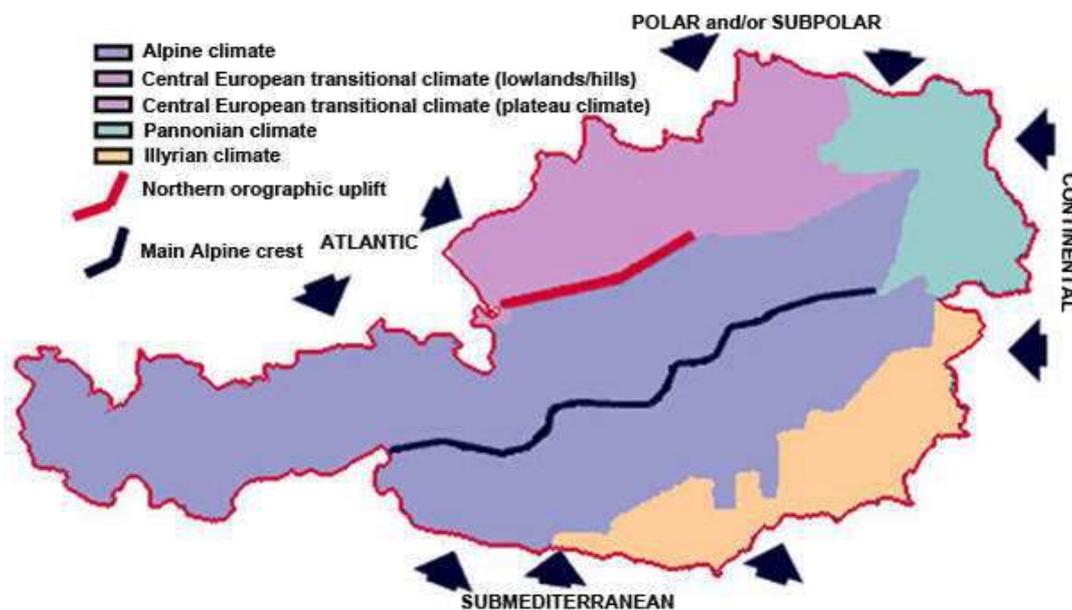


Figure 1: Climatic map of Austria

(Copyright 2008 Austrian Hail Insurance VVaG, modified). Available at:

http://www.umweltbundesamt.at/en/soer/soer2010_partc/soer2010_intro/; accessed: 11th October, 2014)

As can be seen in Table 1, a total of 32 events have been observed in the period from 1994 to 2014, which have caused about 30 casualties and a total damage of approximately EUR 6.7 billion. With 72.4 percent of the total floods constitute the largest part of the economic damage, which has been reaffirmed by PreventionWeb (2014). Austria ranks on the 133th place indexed with 3.58 percent in the World Risk Report (2014)². As identified in the World Development Report (2013), in the period

² The World Risk Report (UNU-EHS and Alliance Development Works 2014) expresses the risk “of becoming a victim of a disaster as a result of vulnerability and natural hazards such as earthquakes, storms, floods,

from 2003-2012, Austria was affected by eight major natural incidents, but had been spared from epidemics.

Table 1: Overview on disasters in Austria from 1994 to 2014

Date	Event	Type of Event	Affected/Killed	Est. damage (€)
1994 January	Storm	Natural Disaster	not known	2,000000
1995 June	Flood	Natural Disaster	not known/2	2,00000
1995 August	Transport accident – Braz, Vorarlberg	Technological Disaster	100/4	not known
1996 June	Flood	Natural Disaster	not known	5,000000
1997 July	Flood	Natural Disaster	not known/3	175,000000
1998 April	Earthquake – Arnoldstein, Carinthia	Natural Disaster	not known	not known
1998 July	Mine Accident – Lassing, Styria	Technological Disaster	not known/11	not known
1999 January	Transport accident – Deutschlandsberg	Technological Disaster	32/18	not known
1999 February	Avalanche – Galtür, Tyrol	Natural Disaster	10,000/50	41,570000
1999 May	Flood	Natural Disaster	not known/3	320000
1999 May	Tunnel Fire – Tauern tunnel, Salzburg	Technological Disaster	50/12	not known
2000 March	Avalanche – Kitzsteinhorn	Natural Disaster	not known/13	not known
2000 May	Storm – Styria	Natural Disaster	not known	20,000000
2000 October	Fire-Disaster – Kaprun, Salzburg	Technological Disaster	162/155	not known
2002 August	Danube Flood	Natural Disaster	60,000/9	2,900000000
2002 October	Storm	Natural Disaster	not known/2	5,000000
2002 November	Storm – Salzburg	Natural Disaster	300/1	not known
2003 July/August	Extreme temperature – Heat wave	Natural Disaster	not known/345	280,000000
2005 July	Flood	Natural Disaster	900/not known	not known
2005 August	Alps Flood	Natural Disaster	not known/4	700,000000
2005 December	Extreme temperature – Extreme Winter Conditions	Natural Disaster	not known	not known
2006 March	Flood	Natural Disaster	516/not known	not known
2007 January	Extra-tropical Storms	Natural Disaster	not known	400,000000
2007 July	Extreme Temperature – Heat wave	Natural Disaster	not known/5	not known
2008 February	Fire accident – Egg	Technological Disaster	5/12	not known

droughts and sea level rise” on the basis of multiplying the exposure towards natural hazards, susceptibility depending on infrastructure, etc., coping capacities depending on the governmental structure, etc. and adaptive capacities related to future natural hazards and the impacts of climate change.

2008 February	Storm	Natural Disaster	not known/4	500,000000
2009 June	Flood	Natural Disaster	not known/1	200,000000
2009 July	Storm	Natural Disaster	not known	500,000000
2009 July	Flood	Natural Disaster	not known	not known
2009 December	Extreme Temperature – Cold Wave	Natural Disaster	not known/2	not known
2012 February	Extreme Temperature – Cold Wave	Natural Disaster	not known/5	not known
2013 June	Flood	Natural Disaster	200/4	1,000000000

Regarding the frequency of the occurrence, as displayed in Figure 2, with eleven events, flood ranks on the first position, followed by storms with seven events and four transport accidents.

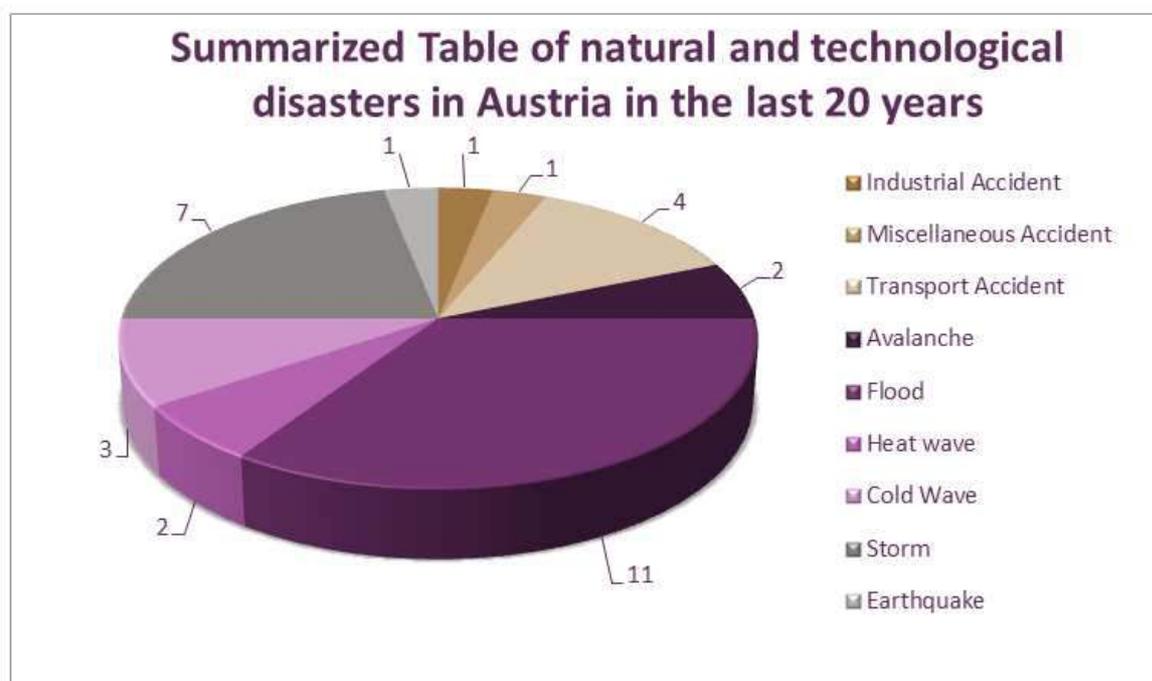


Figure 2: Pie chart over the occurrence of natural and technological disasters in Austria between 1994 and 2014
Available at: http://www.emdat.be/disaster_list/index.html; accessed: 11th August, 2014

1.1.1 Natural hazards

Potyka (2012a) highlighted, that among others Austria is mainly affected by floods and landslides during the summer period and avalanches in the winter season. Referring to the Disaster statistic of Austria, presented by PreventionWeb (2014) during the period from 1980 to 2010 most people had been affected by flood, mass movements and storms. While storms have occurred more frequently than floods, they have a higher impact of economic loss. The case of extreme temperature in the “record-summer” in July/August 2003 caused the highest death toll at a stroke. In the frame of a common exposure to several natural hazards, the most relevant events listed in Table 1, will be discussed separately in the following paragraphs.

1.1.1.1 Avalanche

Due to the fact, that Austria has a big share of alpine area, from what significantly more than half has been defined as torrent as well as snow avalanche catchment areas, only 37 percent of the state territory can be used for permanent settlement (Environment Agency Austria 2014).

The past has shown that, despite avalanches have not recognised as the most commonly appearing events, they have caused a lot of human losses and about 35,000 damages to buildings (BMLFUW 2014a). Regarding the spatial distribution of avalanches in Austria, the BMLFUW (2012) stated, that a particularly high density of hazardous events has been registered in western parts of Austria and in eastern foothills of the Alps (see Figure 3).

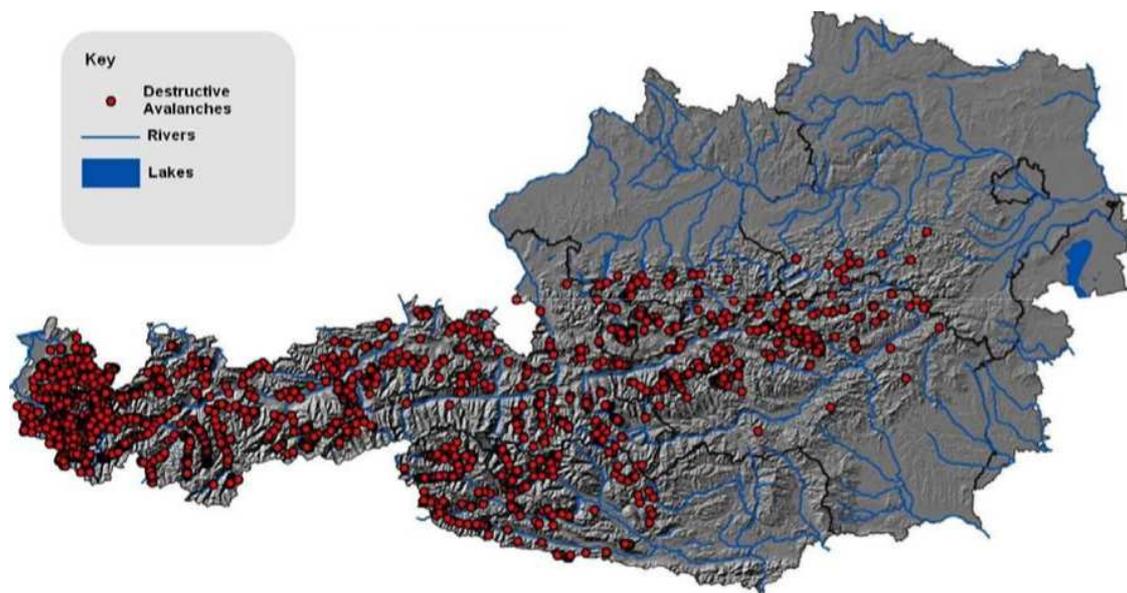


Figure 3: Spatial distribution of avalanche events in Austria

Available at: <http://www.fao.org/forestry/21310-09fd2cebf0189b5f2651d6182ff08a6aa.pdf>; accessed: 3rd October, 2014

Recent catastrophic events contributed to a higher public awareness for this hazard type. In general, a distinction between material and personnel damage has been made. According to the loss data base of the BFW, the highest percentage of material damage has been recorded in Salzburg and Styria (BMLFUW 2012). Based on an observation of a reference period over 25 years, avalanche catastrophes claimed an annual average of 30.3 personnel injuries. The BFW explained that the death rate results mainly from serious accidents in high alpine regions and is often caused by entering an unsecured piste. In order to manage alpine risks, several risk monitoring initiatives have been established in Austria. Different institutions operate avalanche databases with varying emphases – in sum, the avalanche documentation of the BFW and the IAN amounts to 12,000 data sets. Furthermore, Austria participates at some international research programs in the field of forecasting and protecting from Alpine hazards – to name some examples: MANFRED – Management strategies to adapt Alpine Space forests to climate change risks; ALP-Water-Scarce-Management – Water management strategies against water scarcity in the Alps; SicALP – Site protection in limestone Alps by means of forest regeneration measures.

Regarding the financial issue, it has been declared by the BMLFUW (2014a):

Torrent, avalanche and erosion control measures are financed from the Disaster Relief Fund of the Federal State (Disaster Relief Fund Act). Subsidies are granted subject to the provisions of the Hydraulic Engineering Assistance Act which defines the terms and conditions under which subsidisation is provided as well as the principles of the planning and implementation of control measures. However, comprehensive protection against alpine natural hazards includes also organisational measures (emergency alert, alarm, evacuation) and civil disaster control, tasks which are mostly implemented by the Federal Provinces.

Aiming at a sustainable mitigation strategy, Austria reverts to gentle protection measures. Due to the fact, that Austria is around 50 percent covered by forest, around 20 percent of this will be utilised as protection forest (BMLFUW 2007). As illustrated in Figure 4, within the Forest Development Plan, a protection function of 30.73 percent is determined for Austrian Forests (BMLFUW 2009). Within the Forest Act, the term protection forest has been specified by differing between site-protecting forests and object-protecting forests. Costs of the treatment for an object-protecting forest will be financed by the public, because it is dedicated to protect human lives and human culture. In contrast, expenses for the site-protecting forest are mainly for the forest owner's own account.

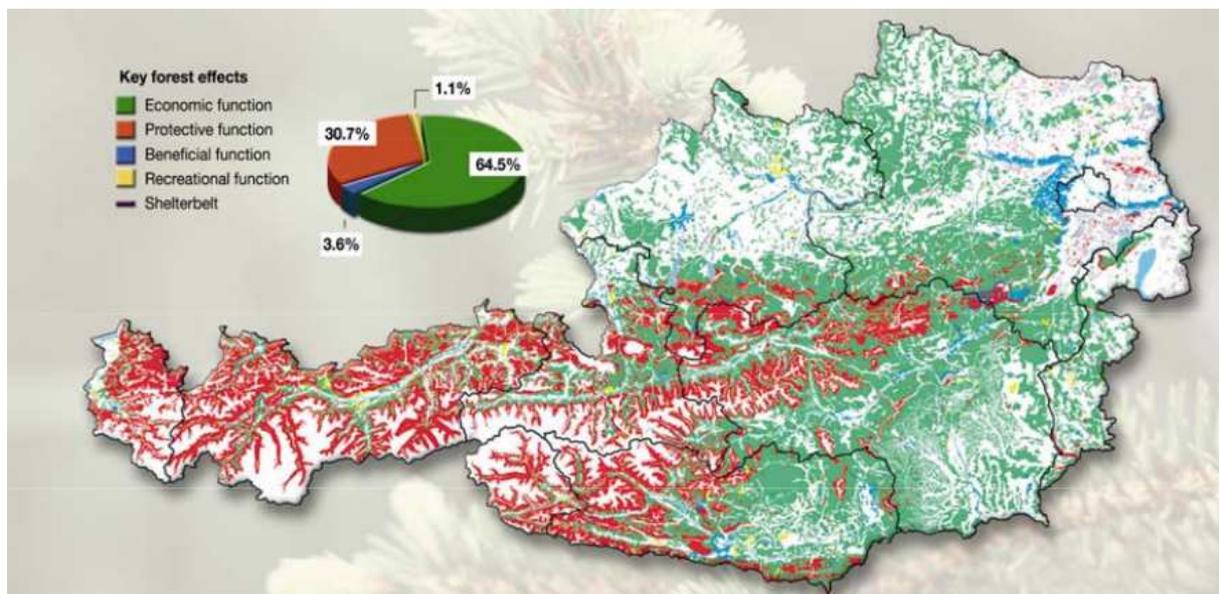


Figure 4: Forest Development Plan (FDP) of Austria

Available at: <http://www.fao.org/forestry/21310-09fd2ceb0189b5f2651d6182ff08a6aa.pdf>; accessed: 22nd September, 2014

As it is laid down by the Austrian Forest Act (Federal Law Gazette 2002), the governor of the provinces and the district administrative authorities, in that function especially the municipalities are practically responsible for the implementation of the law. On this base the Forest Development Plan, the guidelines for Hazard Zone Maps and Forestry Plan have been defined. Furthermore, the Torrent Control Act and the Austrian Protection Forest Strategy regulate the avalanche protection measures in Austria.

1.1.1.2 Flood

Until now, the most damages of flood have been caused by the past Central Europe Floods in June 2013, which have also affected the Czech Republic, Germany, Hungary, Serbia, Slovakia and Switzerland (Reliefweb 2014). In the frame of the event, 6 fatalities have been recorded and an

economic loss of approximately EUR 0.87 billion in the four most affected regions Lower Austria, Upper Austria, Salzburg and Tyrol. With a total loss of EUR 2.9 billion, the previous flood of August 2002 was labelled as “flood of the century”. Beginning with heavy rainfalls in August, the Danube water levels raised and the overburdening of feeder rivers caused material damages and even personnel injuries (Bossong and Hegemann 2013). With an average annual precipitation of around 1,100 mm Austria is perceived as one of Europe’s most water-wealthy countries (BMLFUW 2014b). In mountain areas, heavy rainfalls occur frequently (Zwittkovits 1983). For the Austrian exposure to flood risk, mainly the two categories river flooding and flash floods will be relevant (Blöschl 2013). While flash floods are characterised by short, small-scale but intensive precipitation, in addition the soil moisture of an affected area plays a crucial role for the cause of river flooding. If a certain proportion of the precipitation cannot be drained, the likelihood of a flood will increase. As stated by Gutknecht et al. (2002), a high humidity was observed in the affected regions during the flood in 2002. This factor was reaffirmed in 2006, in which a coincidence of a relatively moderate rainfall in March and high soil moisture caused the March-Flood in March.

In contrast, flash floods are more likely to cause spatial limited mudslides and landslides in mountain areas, but also represent a significant risk for wide asphalt areas in cities (Blöschl 2013). From a risk monitoring perspective, Figure 5 provides an overview of the spatial dispersion of flood and mud flows in Austria. It demonstrates clearly, a concentration of mudflows especially in the western part of Austria, which is due to its mountainous topography and an accumulation of prone-flood in the North and the South of Austria as well at the border regions in the east and the west. Within these areas, Vorarlberg, Tyrol, Salzburg and Carinthia account for around 62 percent of the total recorded torrential events with material damages or personnel injuries.

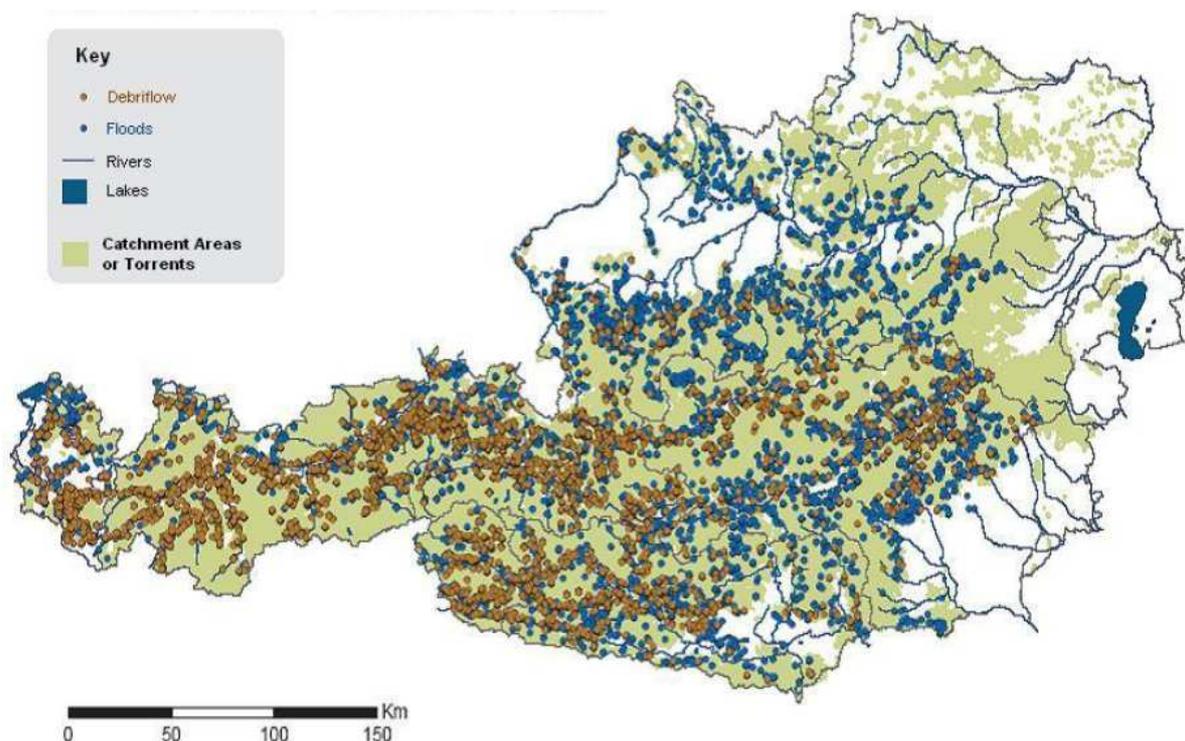


Figure 5: Spatial dispersion of torrential events (blue bullet = prone-flood areas, brown bullet = risk of mud flows). Available at: <http://www.fao.org/forestry/21310-09fd2ceb0189b5f2651d6182ff08a6aa.pdf>; accessed: 11th September, 2014

The strategic direction of Torrent and Avalanche Control is located at the department III/5 of the Federal Ministry for Agriculture, Forestry, Environment and Water Management. Additionally, the strategic actor is responsible for the planning and the construction of technical and biological measures to protect against natural hazards (BMLFUW 2014c). Within the management of flood risk, various responsibilities result due to federalist constitution of Austria. By identifying flood-discharge areas and danger zones, the Federal Water Engineering Administration provides expert opinion for the local regional planning and is also engaged in communicating the threat of flooding to the citizens. Departmental cooperation has been established with the Federal Ministry for Agriculture, Forestry, Environment and Water Management (department IV/6) and the offices of the Provincial government. For flooding issues concerning the Danube, March and Thaya, the Austrian Ministry for Transport, Innovation and Technology/"via donau" together with competent offices of the provincial government is responsible. The "via donau" is a limited liability company, founded by the Austrian Ministry for Transport, Innovation and Technology, entrusted with the administration and preservation of Federal waterways. In addition, the "via donau" is operating the shipping information system DoRIS (Donau River Information Services) (BMLFUW 2014d).

Austria maintains an integrated geo-database, where flood risks and their adverse consequences can be assessed by a "total risk per river stretch" on the basis of a combination of past and future floods. As indicated by ICPDR (ICPDR 2012), as a result a total of about 1,840 square kilometres relating to 5.2 percent of the total river length that has been assessed - are classified as having high or very high flood risk in the Austrian part of the Danube River Basin.

1.1.1.3 Further hazards

Although Austria is not a typically earthquake area, due to the Alpine tectonics several seismic activity has been identified in Austria. To a yearly average, about 600 earthquakes occur in Austria, from which only 10 percent will be perceived by humans. Embleton-Hamann (2007) stated, that every 46.3 years an earthquake of epicentral intensity $I_0 > 7^\circ$ can be expected, which would cause heavy damages on buildings. Approximately all 15 to 30 years, earthquakes reached an intensity to cause medium damage on buildings. Certain Austrian regions exhibit a more frequent tendency of earthquake than others. In particular, the Vienna Basin, the Mur-Mürz Valley, the Inn River Valley and the Lavant Valley region of Carinthia are the most prominent earthquake regions of Austria. Figure 6 provides an overview on the seismic activity³ perceived by the Austrian population since 1900, while only technically registered earthquakes have been suppressed. Within the article of Embleton-Hamann (2007), Villach (city in Carinthia), Murau (region of Styria) and Neulengbach (city in Lower Austria) have been identified as the three regions with the most hazard potential. Furthermore, there it has been indicated, that the biggest spatial earthquake zone is stretched from the Mur-Mürz Valley to the Vienna basin. Approximately all 15 to 30 years, earthquakes reached an intensity to cause medium damage on buildings and only in an interval of 75 to 100 years they cause heavy damages on buildings.

³ As "perceived" earthquakes, seismic activities with an epicentral intensity higher than 3° on the 12-class European Macroseismic Scale (EMS-98) have been defined.

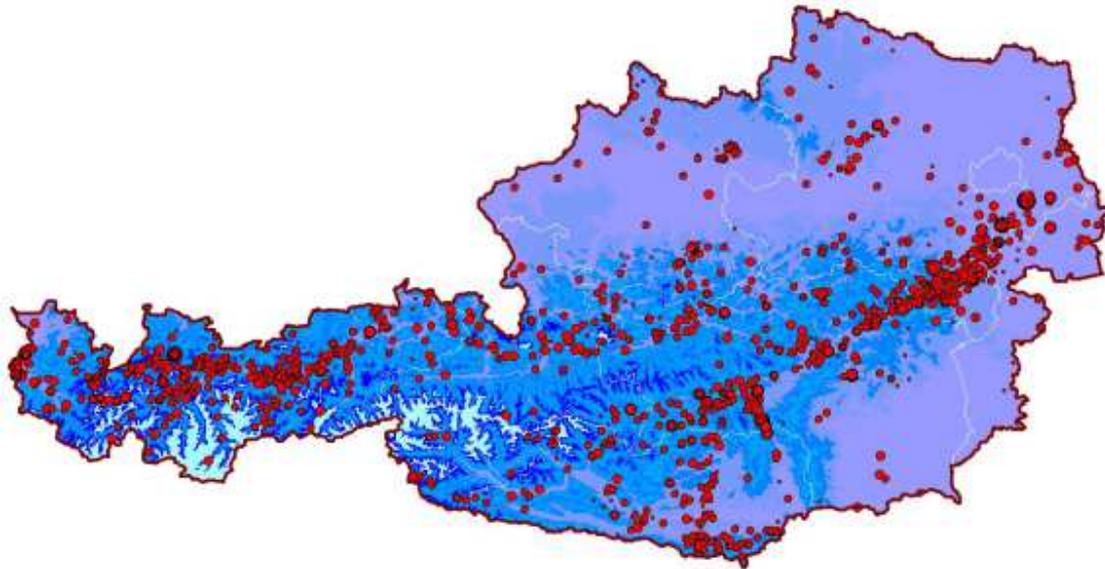


Figure 6: Epicentre map of Austria
 provided by ZAMG. Available at: <https://www.zamg.ac.at/cms/de/geophysik/erdbeben/erdbeben-in-oesterreich/erdbebengefaehrungszonen-in-oesterreich>; accessed: 11th June, 2014.

Since 1992, ZAMG (2014a) has never registered a higher value than $I_0=6^\circ$ on the European Macro seismic Scale. The total of eight registered earthquakes, which have reached intensity higher than $I_0=6^\circ$ and have caused damages to buildings in the last 20 years have distributed as followed: Styria 4, Lower Austria 2 and Carinthia and Tyrol in each case one event.

According to ZAMG (2014b), the analysis of historically relevant areas provides cyclical repetition rates of these events, which build the basis for an estimation of the average of intensity and the occurrence of an event. On this knowledge basis, risk reduction strategies have been implemented for vulnerable regions, i.e. by zoning of the previous affected areas within an earthquake catalogue. Prevention measures play an important role in avoiding or limiting the potential impact of an earthquake, economically as well as life-saving. Furthermore, the provision of knowledge from an applied research, i.e. in the area of risk mapping, risk monitoring etc. will improve the basis of decision-making ability of responsible bodies. Thereby, appropriate deployment plans for the case of an event can be created and specific training programs can be prepared for the rescue workers. In addition, the most relevant relief organisations for the emergency – fire brigades, emergency services, the Austrian Armed Forces and the police can be adjusted to known hazard scenarios (ZAMG 2014b). Especially, with earthquake-proof construction of historical buildings and critical objects mitigation will be achieved.

The Austrian Institute for Standards has contributed to the mitigation strategy by launching the standard “ÖNORM B 4015” concerning the establishment of a building code for an earthquake-proof design (2002). Hausmann et al. (2010) emphasised the importance of seismic risk mapping for the areas with a high residential density and for those, where critical infrastructures are located.

As illustrated in Table 1, the heat wave in August 2003 caused 345 deaths. It has been found out, that the so-called tropical days are the main driver for healthy risks. Especially, the number of days with a temperature higher than 30°C and not lower than 25°C constitutes a decisive factor. In the frame of the StartClim project (2005), it has been found out, that since the middle of the last century the number of hot days has increased significantly. As a consequence, the mortality rate has increased in Austria by 12.6 percent in the course of only six days in August. In combination with a lack of precipitation, drought caused high financial damages (about EUR 197 million) and the agricultural

sector probably suffered the most, i.e. 30 percent of fodder deficit has been registered in Austria (Strosser et al. 2012). Frequently, heat wave phenomena have been discussed in the context of climate change. Based on the findings of the Centre for Climate Adaption (2014), “a widespread warming trend in both daily minimum and maximum temperatures was confirmed for homogenized time series of temperature data covering the period 1948-2009”. Looking at the extreme temperature in August 2003, which has reached 38.5° in Styria – 2013 a new record with 40.5°C has been registered in Lower Austria (ZAMG 2013). Extremely cold temperatures might cause material damages, but will not lead directly dangerous effects. An increased likelihood of avalanches, as a result from more frequent heavy precipitation events in winter has been assumed for central and northern Europe (Centre for Climate Adaption 2014). From an economic perspective, (thunder)storms and hail have also been taking into account for the risk profile of Austria. Especially in the summer periods between June and July, thunderstorms have been frequently accompanied by hail, which can cause damages to private property, i.e. cars, building facades, etc. as well as to the agricultural sector. Austria’s position has been identified as located in the middle of the European hail epicentre. Due to this fact, particular big hailstones with a diameter of more than 2 cm can be observed several times a year. As an example, in 2004 hail caused damages beyond EUR 20 million (SKYWARN Austria 2014). Considering the frequency of the occurrence, storms are belonging to the more frequent phenomena. Influenced by an Atlantic depression, the average wind speeds reach about 103 km per hour.

Additionally, hurricane-like winds might be triggered by warm winds, resulting from an extensive foehn situation. SKYWARN Austria indicated (2014), that a common occurrence of downbursts and winds with hurricane strengths can be registered in Austria. High wind strengths have been recorded in peripheral areas of Austria, in particular for the south-east of Styria and the western part of Upper Austria.

1.1.2 Technological hazards

In the reference period of the last twenty years, six major technological disasters have been recorded in Austria. As illustrated in Table 1, especially the accidents in Kaprun and Galtür caused heavy damages of and caused a lot of fatalities with about 200 persons. Since the nuclear catastrophe of Chernobyl in 1986, Austria became aware of the potential nuclear hazard. Although, Austria does not operate a nuclear reactor by its own, only in a distance of 180 km, several nuclear power stations are in operation (see Figure 7).



Figure 7: Nuclear power stations in Austria's neighbouring states
Acquired from (BMLFUW - V/7 Radiation Protection 2013).

It has been indicated by experts of the BMLFUW (2013), that hazards of radiological emergencies might also result from transport accidents with radioactive material or might be caused by a terroristic attack. In order to be promptly informed, Austria has established a close cooperation with neighbouring states to exchange data obtained from radiological monitoring stations in each state (International Atomic Energy Agency 1986). Furthermore, the Department of Radiation Protection at the BMLFUW operates an automatically radiation early warning system, which detects data of the measuring network and sounds the alarm, if values exceed the limit. In the case of an emergency, an alerting path must be maintained. The Federal Alarm Centre, located at the EKC serves then as an information hub of the Federal Ministry of the Interior (Jachs 2011b). Since a bilateral or international notification has been receipt, a 24-hour stand-by service will be informed. Simultaneously the emergency will be communicated to the general public and the responsible authorities at the federal and the provincial level, as well as appropriate emergency personnel will be notified. In sum, stakeholders at the community, the provincial, the federal as well as the international level will participate in a radiological emergency case (BMLFUW - V/7 Radiation Protection 2013). This strong involvement of several stakeholder types can be also recognised based on the curriculum of training programs. Special ABC-training courses for emergency personnel, i.e. the Austrian Armed Forces are organised by the Austrian Research Centre GmbH (Seibersdorf/Austria) and the International Atomic Energy Agency (IAEA).

1.1.3 Man-made hazards

Apart from technological accidents, which have frequently stimulated an adaption of technical or traffic measures, a more systematically exposure to critical infrastructures has been identified. After the terrorist attacks in the USA, Madrid and London, terrorist activities had been taken into account (Jachs 2011b). The Federal Agency for State Protection and Counter Terrorism (BVT) is a national safety authority operating as a part of the Federal Ministry of the Interior. Mainly, the cooperation with other national safety authorities and foreign intelligence services fall within the responsibility of the BVT. On the basis of analysis systems, the BVT is responsible for risk assessment, building situational awareness and measures of human and physical protection. This will typically include the fighting of extremist and terrorist phenomena, espionage, international arms trade as well as countermeasures to organised crime and trade in nuclear materials (Federal Ministry of the Interior

2013). Furthermore, the BVT is authorised to arrange the implementation of measures of human and physical protection at the state offices for the protection of the constitution.

Against the background of an increasing terrorist activity and a higher independency from certain infrastructure (Federal Chancellor of Austria 2013), the European programme for the protection of critical infrastructure has gained a lot attention in the last ten years. In the frame of the European Program for Critical Infrastructure Protection, an action plan to identify critical infrastructures on the state territory, the establishment of a dialog with operators of critical infrastructures as well as the development of emergency plans have been encouraged.

As defined within the Directive 2008/114/EC (2008):

“A critical infrastructure means an asset, system or part thereof located in Member States which is essential for the maintenance of vital societal functions, health, safety, security, economic or social well-being of people, and the disruption or destruction of which would have a significant impact in a Member State as a result of the failure to maintain those functions.”

Equal, if these infrastructures account to health, economy, security, etc. – if the disturbance or the destruction of the infrastructure might impede the society’s wellbeing, the infrastructure will be considered as critically. The potential impacts of natural disasters, accidents, terrorist attacks or criminal intent on critical infrastructure will be evaluated much higher than to normal buildings. Humans, organisations, nature/environment/technology, information technology and its interdependencies have been defined as relevant factors of risks. Due to its importance, the issue involves multiple stakeholders from different sectors. This includes actors at the level of the state, the provinces and the municipalities as well as regulators, interest groups, critical infrastructure operators, the media as well as consumers (Federal Chancellor of Austria 2013). On that basis, a comprehensive strategy has been specified, particularly emphasising prevention, mitigation and preparedness measures. The Federal Ministry of the Interior and the Federal Chancellery has been recognised as two main stakeholders of the security program for the protection of critical infrastructures (Federal Chancellor of Austria 2013). In particular, the Mol has been identified as relevant and sensitive service operators in the security sector.

As an operational unit, the Austrian Armed Forces are relevant forces in protecting the state, the society and fundamental resources. Related to that, the protection of Critical Infrastructures, which are vital for the functioning of the society, is one of the top priorities of the Austrian Armed Forces. Especially, as the ICT sector has been considered as highly vulnerable to cyber-attacks, dedicated units with specific skills of ICTs has been set up within the army.

1.2 Policy and Governance

Based upon the “SKKM Strategy 2020” of the Federal Ministry of the Interior (2009), traditionally the Crisis and Disaster Management in Austria is built upon the principle of three pillars. As shown in Figure 8, these pillars comprise measures of the authorities, of the emergency organizations and self-protection measures of the citizens. This model can be complemented by the involvement of selected economic stakeholders as well as by the contribution from the scientific community.



Figure 8: Three-pillar-model of the Crisis and Disaster Management in Austria

Measures of the authorities

Authorities are obliged to operate preventive protection and responsive protection in the case of an incident by prescribing provisional measures, coordinating protection activities and organizing the administrative process. Regarding the response phase of the crisis management cycle, authorities have to define strategic goals, instruct emergency forces and assistance staff by official jurisdiction and the usage of coercive measures. The tasks of the authorities are perceived as obligatory tasks and include the establishment of a framework and providing financial resources. According to the various phase of crisis and disaster management, civil protection and disaster protection require the support of hierarchically ascending administrative entities in emergency procedures because the competences are shared between the state, the provinces and the municipalities (Jachs 2011b).

Measures of the disaster relief units (emergency organization)

One characteristic of the Austrian Crisis and Disaster Management is the strong involvement of voluntary organizations which enable an easy access to a huge amount of human resources. Due to the fact, that there is no single organisation in Austria, which will be mainly responsible for the response to disasters, related duties will be organized by voluntary organisations. The Austrian Fire Brigades as well as the rescue services have gained the most attention in this area. Regarding the possibility to request assistance from the Austrian Armed Forces, if the capacities are insufficient, their deployment is regulated by the Law concerning the military service § 2 (1)c), where it has been defined, that in the case of major emergencies, the provincial governor, the head of the district or the Major of a municipality are authorized to request for assistance (Jachs 2011a).

The security headquarters or warning centres of the Federal Provinces are the central control points for request and organize emergency services in Austria. On behalf of crisis and disaster protection authorities, various emergency organizations are accredited to fulfil emergency missions in crisis and disaster situations, some are mentioned below. The Austrian Red Cross (ARC) is a private organization based on the ideal of selfless charity and motivated by non-profit thinking. Operating independently, it performs humanitarian tasks with the help of volunteers and employees in order to assist all people in need, at home and abroad.

The Austrian Fire Brigade consists of umbrella organizations at the district, provincial and federal level and is together with the ambulance services and the Austrian Red Cross the most important stakeholder in protection against natural hazards. Furthermore, the Arbeitersamariterbund (workers' Samaritan association), the service of the Emergency helicopter C16, the Water rescue, the Rescue dogs brigade and the Crisis intervention team is strongly involved in emergency operations. Security agencies and its bodies, e.g. the federal police, support disaster protection authorities in the response phase by providing data to authorities and field support. For preparedness, the federal fire

brigades, the ARC as well as disaster relief authorities have developed civil protection plans, mainly consisting of plans for alerting and operations as well as procedures (Jachs 2011b).

Measures of citizens (individuals and companies)

As an important part of mechanism of civil protection and disaster protection, individuals are encouraged to local self-protection measures and neighbouring help (Federal Ministry of the Interior 2009). Also companies have specific obligations in the case of an event. Everyone has the obligation to notify appropriate institutions and organizations in the case of a hazardous notice. Responsible authorities are authorized to force individuals and companies to cooperate and collaborate with authorities, to follow their instructions and to tolerate the utilization of private equipment.

Support from economic stakeholders

With stakeholders from the economy a close cooperation regarding the implementation of protection measures, fostering industrial resilience and risk mapping has been envisaged.

According to Jachs (2011b), operator of critical infrastructures in Austria will be regularly involved in committees addressing the preparation of protection strategies and risk profiles. Within the ANVIL report (2013), it has been noted, that operators of critical infrastructures can be required to provide special equipment, i.e. as emergency operation trains.

Contribution of the scientific community

Especially in the frame of risk mapping and monitoring, a comprehensive collaboration between research institutes, the academia and governmental departments of the state and the provinces has been established. Several state departments have introduced their own research departments.

1.2.1 Strategy scope and focus

A question that arises beforehand is what “all necessary activities” in this context since so far there is neither a general nor a European disaster management model which would define the scope of all activities (Expert Interview 2014). Thus, the answer must be subjective to a certain extent. The expert at the MoI indicated, that the current national disaster management strategy, which has a time frame until 2020 basically aims at the whole disaster management cycle but nevertheless there is a noticeable focus on preparedness issues like education and training of key response personnel, the promotion of new response technologies like decision support systems, simulation tools and also on an improved organizational framework for cooperation and coordination in the response phase. It is noteworthy that like in other legal matters in Austria, and thereby also in disaster management, there is a three-way division of competence. The state is not assuming overall responsibility but the key part in defining prevention measures and establishing a framework for the implementation and the financing of mitigation projects while the federal provinces are primarily engaged in establishing a preparedness structure and planning the response to disasters. Local authorities (municipalities) as executive units are mainly responsible for carrying out these response missions on the first intervention level and for that purpose they also provide the majority of response resources.

In general, strategic decision-makers in Austria are pursuing an all-hazard approach, but the priority-setting derived on the basis of the hazard experience in the last twenty years (Expert Interview 2014). Realistic scenarios, depending on the probability of occurrence of the event, their potential impact and appropriate coping capabilities have shaped the awareness at the strategic level. Due to the fact, that there is no primarily responsible for risks, separate foci on natural hazards have been defined by Austrian provinces, depending on the particular affectedness of the province. Although technological disasters had devastating effects in the past, i.e. the heavy fire catastrophe in Kaprun (in the Austrian province of Salzburg) on 11th November 2000 or the mine accident in Lassing (province of Styria) in July 1998, there is an emphasis is on natural hazards.

Since high-risk plants are not very strong represented in Austria and SEVESO facilities are well regulated, Austria is not highly exposed by technological disasters. Floods have offered a big challenge for Austria, while avalanches deemed probable, but remain locally. In the most of the cases, personal injury could be prevented and natural hazards are limited to material damage – especially storms and floods generate the most significant economic losses. The higher feasibility to protect against more frequent risks like the impact of flooding but – as explained by the expert at the MoI – not against more rare events like a plane crash is reflected in policies and the legislation (2014). Because a big earthquake occurs once every four hundred years, mainly structural protection measures have been implemented in that area, i.e. historic buildings have been made earthquake-proof.

Like in many countries there is still a noticeable tendency to pay highest attention to the response phase and secondly to the prevention phase while there is a lower priority for the recovery phase. Nevertheless recovery from disasters has always been achieved quickly due to the availability of public funding, a large number of volunteers and additional spontaneous volunteers and private donations. In the recovery phase after bigger events usually a higher number of diversified actors come into play, which is not permanently engaged with disaster management structures which makes planning for this phase even more difficult. The preparedness phase and the response phase rather constitute priorities for the state’s level. Finally, the individual phases can be weighted as illustrated in the pie chart in Figure 9.

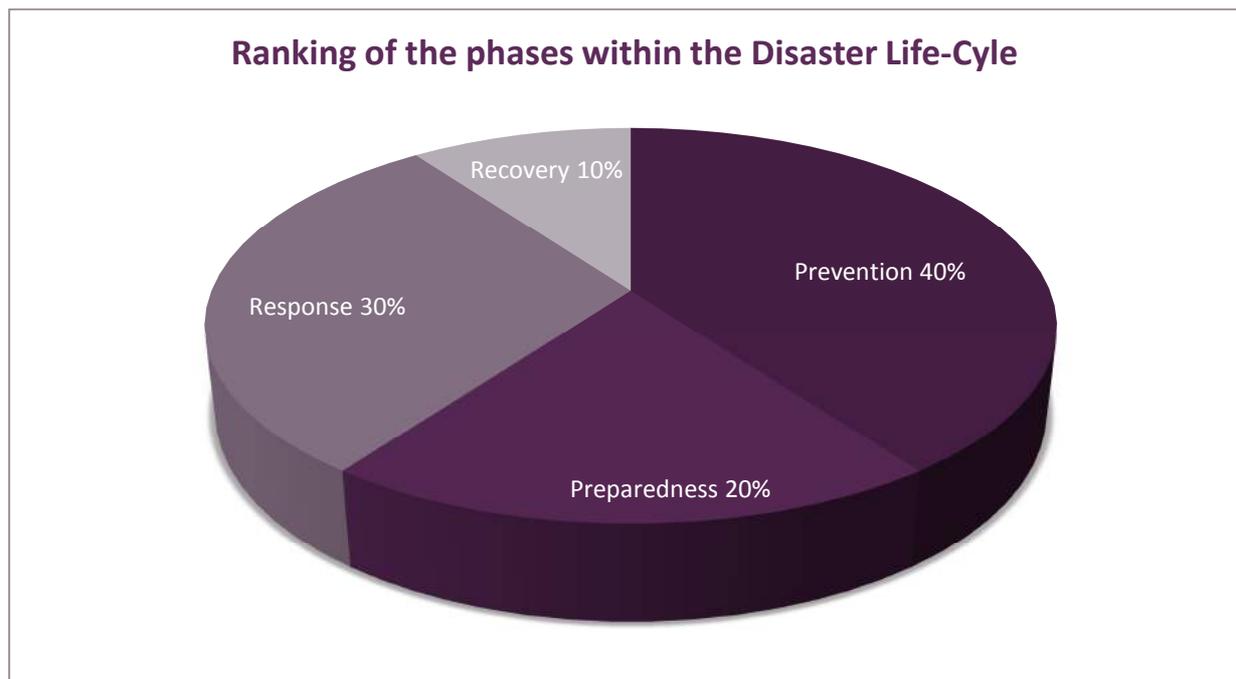


Figure 9: Pie chart about the strategic focus on the phases of the Disaster Life-Cycle

Although the national security strategy pursues an all-hazard approach, due to the national experience of the last twenty years, there is an emphasis on natural hazards. Based on the interconnectedness, also non-natural disasters have to be considered in Austria, especially pandemic hazards like the Swine Influenza in April 2009 (Reliefweb 2014).

The identification, presentation and the assessment of relevant natural hazards, i.e. by hazard zone plans, constitutes the heart of an integrated risk management.

As pointed out by the department of the Facility-related Water Management at the BMLFUW (2012):

Findings of the hazard assessment will be considered within the phases of the risk cycle including the management of disasters, the regeneration in the aftermath of a disaster as well as preventive measures. By providing a comprehensive presentation of natural hazards, the response phase is supported by preventive measures before a disaster occurs. As a part of the prevention, the activation of emergency services, i.e. fire brigades, etc., the provision of human and material operating resources, as well as warning and alerting mechanisms have been implemented.

1.2.2 Monitoring and analytical support to policy making; R&D

The academic sector is well integrated into governmental activities. Several research programmes are in place which provide for opportunities for the academic sector to engage with governmental bodies in research activities. Programs like the Climate Fund and the KIRAS security research program line have contributed considerable strides to disaster management to enumerate some academic important initiatives. Cooperation has been established for instance in cooperation with the University of Natural Resources and Life Sciences, Vienna, the University of Vienna or other universities. International attention has for example been gained by the findings of projects like FloodRisk I and II, which have promoted a fully integrated and comprehensive approach to flood risk management.

The Federal state has launched multiple programmes to promote the protection capacities of various hazards. Research programmes are often focusing on an interdisciplinary or even a trans-disciplinary work in the area of hazard protection. In particular, the Ministry of Science and Research, the Ministry for Transport, Innovation and Technology and the Ministry of Economy, Family and Youth are strongly involved in research and technology. Associated to these ministries, there have been three agencies set up to manage the funding of research and science as well as development and innovation in Austria. These are the Austrian Science Fund, the Austrian Research Promotion Agency and the “Austria Wirtschaftsservice” (“Austrian Business Service”). For example, the Austrian Research Promotion Agency (FFG) – hosted by the Austrian Ministry for Transport, Innovation and Technology and the Federal Ministry of Science, Research and Economics concentrates on diverse security issues, inter alia at the Protection of Critical Infrastructure and the development of systems to manage or prevent various threats. Institutions as the Austrian National Bank, the Federal provinces as well as ministerial departments provide an incentive to promote research in the area of protection against hazards. As example, The Department of Natural Hazards and Alpine Timberline – located at the Federal Research and Training Centre for Forests, Natural Hazards and Landscape Austria, is a research institution dedicated to the development of practice-oriented methods for the sustainable protection of human settlements and infrastructure⁴. As main tasks the department is concerned with the monitoring of several natural hazards, their analysis and the development of countermeasures. The BFW is an Austrian federal, multidisciplinary research and education centre which holds the legal status of an institution under public law. Planning and protection measures will be funded by national and provincial programs, as well as by the EFRE fund of the European Union. Furthermore, the risk prevention of the natural hazards insurance completes the adjustment of losses by the Federal State. Austria does not confine oneself to one overall initiative, but generates benefit from many small programs. As mentioned by Mol (2014), important initiatives have been established in cooperation with the University of Agricultural Sciences and Natural Resources, the University of Vienna and the University of Innsbruck. Furthermore, projects of the AlpS, the Climate Fund and the KIRAS program line have contributed considerable strides to disaster management.

1.2.3 Policy for Prevention

At first of all, within the Austrian Disaster Management emphasis is placed on mitigation concepts, including the avoidance of natural hazards by the construction of danger zone plans and spatial planning. Furthermore, flood protection initiatives and torrent and avalanche control as well as avoidance strategies for technical disasters fall into mitigation measures. The establishment and the maintenance of disaster relief organisations and the promoting of disaster protection planning by encouraging mines rescue services, pandemic planning and radiation protection planning are important prevention measures. Furthermore, the crisis education and the training of professional and volunteered staff have a long tradition in Austria.

As a particular type of preventive measures, the policy papers European Programme for Critical Infrastructure Protection (EPCIP) and its national counterpart, the Austrian Programme for Critical Infrastructure Protection (APCIP) are concerned with the protection of critical infrastructures. Europe's critical infrastructures are highly connected and highly interdependent. Interconnectedness and interdependence make these infrastructures more vulnerable to disruption or destruction. The

⁴ Information about the department is available at: <http://bfw.ac.at/rz/bfwcms.web?dok=4905>; accessed at: July 14th, 2014.

purpose of EPCIP (COMMISSION OF THE EUROPEAN COMMUNITIES 2004) is to ensure that there are adequate and equal levels of protective security on critical infrastructure, minimal single points of failure and rapid, tested recovery arrangements throughout the Union. EPCIP would be an ongoing process and regular review will be required to keep abreast of the issues and concerns within the community. Success shall be measured by (i) The Member States governments' identification and establishment of inventories of critical infrastructures in their jurisdictions according to the EPCIP drawn up priorities; (ii) Businesses collaborating within sectors and with government to share information, and reduce the likelihood of incidents causing widespread or lengthy disruption to critical infrastructures; (iii) The European Community resolves to establish a common approach to tackling the security of critical infrastructures through cooperation of all public and private actors.

A shared responsibility can be also observed within the prevention phase of the disaster life-cycle. According to specific hazard types, regional authorities are coordinated with the responsible federal authorities. Based on the state's legislative power in the area of shipping, aviation and railway, the state plays an important role in the protection against human induced and technological hazards. In contrast, the provinces are exercising sovereign rights in the area of natural hazards – apart from the flood protection mandate of the Federal Ministry of Agriculture, Forestry, Environment and Water Management. As an example, the risk zoning initiative of the Federal Ministry of Agriculture, Forestry, Environment and Water Management has been prioritized in consultation with the corresponding authorities of the Austrian provinces (Expert Interview 2014). At the strategic level, prevention measures are primarily concentrated on risk analysis and hazard monitoring. The risk assessment approach complies with the European standards, which have to be implemented since 2013. In Austria the prevention strategy has been geared towards the knowledge about probable hazards, related risks and a nation-specific vulnerability assessment. This strategic approach has been also reflected in academic programmes, which are aiming at a trans-disciplinary research of risks by encouraging the participation of stakeholders from politics, administration and multiple scientific disciplines. The MoI indicated, that a common consensus about prevention priorities amongst the various stakeholders have been achieved by the knowledge based approach to policy making (2014). In case of need, also economic stakeholders will be involved. As defined in the APCIP, the protection strategy for critical infrastructures is to be made under cooperation of the responsible ministries, public bodies and relevant infrastructure managers. Furthermore, special education and training programs are tailored for economic partners, especially for energy providers, because provincial governments are holding parts of their companies.

1.2.4 Policy for Preparedness

As mentioned above, preparedness is initiated at the level of the federal provinces. Stipulated by the arrangement Art 15a B-VG about the establishment and operation of an alerting and alarm system the Federal provinces are induced to contribute to the preparedness by establishing warning centre, construct control and command centres as well as to manage operating centres (Jachs 2011a). They have the competence to establish emergency and relief organizations, provide an appropriate infrastructure and organise training events. Within the SKKM Strategy 2020 (2009) the core issues of preparedness have been supplemented with the recommendation to promote special technical skills and education programs and optimize coordination and cooperation structures. Despite the recent economic crisis, a slight increase of membership could be registered in voluntary organisations in Austria. Thereby, issues regarding the material equipment of these organizations or the creation of a national framework for a continued payment of remuneration will be raised. Due to the fact, that the

source of financing volunteering is not very transparent – also municipalities do not pay the entire costs, financial adjustments or compensations from the Disaster Relief Fond seem to be possible operative requirements for the strategic level (Expert Interview 2014).

1.2.5 Policy for Response

As indicated by the expert at the Mol (2014), the response to disasters is based on the principle of subsidiarity and a high degree of delegation of competence to the local and regional level. As emphasised by the BMLFUW (2012), public safety authorities and organisations – namely the fire brigades, the emergency services, the police, the armed forces and aid organisations are the key players within the response phase. As explained by Jachs (2011b) the response strategy comprises the danger removal by government agencies, the mobilisation of disaster relief organisations, the command and control of disaster operations, a cross border mutual aid system, the legal arrangement of the contributing rescue workers as well as media work and crisis communication. The response to disasters is based on the principles of delegation and competence and involves several departments at the municipal, district and provincial level. In the light of the sovereignty principle, the provinces are the central control body of governing response activities. Competences to respond to a recent event are highly developed at the local level of communities, which are not steered centrally.

Although, the efficiency of the recent organisation principle is not clear at first glance, the Mol emphasised, that distributed responsibilities, in particular decisive competences at the local level, become apparent in the case of an event during the relief and response phase (2014).

The capacity of local communities to respond rapidly to known threats is owed to the circumstances that municipalities dispose of their own locally available utilities. The high level of self-initiative of the communities in is an advantage of the distributed administrative systems and accordingly high is the local commitment. The Federal Ministry of the Interior assumes the role of a strategic coordinator and raises cross-cutting issues which exceed the spatial dimension of the individual provinces, i.e. cross-border missions and the establishment of early warning systems (2014). On the basis of several arrangements, the Federal Ministry of the Interior acts as a focal point by providing an interface for the systematic exchange of information between the regional level and the international level (Jachs 2011b).

1.2.6 Policy for Relief and Recovery

The BMLFUW (2012) has specified, the regeneration after a disaster means the rehabilitation of damaged buildings, infrastructure and transport routes as well as the financial settlement of the damage. As is evident from the national legislation, the approach and the means used in the preparedness and the response phases are covered by appropriate paragraphs in the legislation on disaster management. There is no rule, which defines recovery activities, because – from a legal perspective – the disaster management is ending with the response phase. The same pattern pertains at the policy level – there are programs concerning the prevention/mitigation of hazards and the protection against threats, but there is no recovery plan. Based on the hierarchical structure of the federal state, there is a clear division of subject-matter jurisdiction – while the state is responsible for the rehabilitation of essential infrastructures, the provinces attend to restore roads and the municipalities establish the community infrastructure. However, voluntary emergency/relief organisations have developed approaches for recovery. From a strategic viewpoint, the Mol argued

that Austria has sufficient capacities for recovery and therefore, recovery is mainly considered as a financial issue (2014), while relief organisations are concerned with the reconstruction of buildings and infrastructure as well as the reimbursement. Two important instruments are the disaster relief fund and the solidarity fund of the European Union (Jachs 2011b). The disaster relief fund as an important financing instrument becomes also effective in the recovery phase. Financial provision has been made to individuals including the payment of compensation to flood victims and to administrative units by granting financial alleviation, i.e. tax deferment or charge exemption. The civil society and the local economy express its solidarity and offers support, i.e. private donations to the victims of natural disasters or the offer of favourable loans for affected persons by banks or the “Austria Wirtschaftsservice” (Expert Interview 2014).

1.3 Financing

1.3.1 Investing in preparedness

As indicated by BMLFUW IV/5 (2013), the federal state provides as a central financing instrument for the natural hazard prevention the disaster relief fund, which will be financed at a rate of 1.1 percent minus the federal funding of some taxes. The Federal Ministry of Finances administrates the funds and recorded a distribution of subsidies in the amount of EUR 1,873.71 million for the period 2002 to 2006. In sum, based on the financial resources from the Disaster Relief Fund, federal funding and financial contribution of the provinces, a total amount of EUR 4 billion will be provided from 2007 until 2016 for protecting against natural hazards. Due to the fact, that disaster relief falls within the competences of the provinces, their expenditures will be replaced by the federal state. As illustrated in Figure 10, three quarters of the committed funding was reserved for prevention (73.3 percent), followed by costs to remedy the damage with about 17.8 percent and reimbursements for means used in missions with 8.9 percent. The Law on a Fund for Catastrophes provides a budget for the establishment of disaster risk reduction on the national level; by ordering the raising of financial means and regulating in detail their expenditure within Austria. Dedicated to finance prevention measures, a further substantial reinforce of the fund in the amount of € 47.5 million from Federal funds has been decided in 2013 (Federal Ministry of Finance 2014).

A clear focus on natural hazards – about $\frac{3}{4}$ of the fund can be identified in Austria (Jachs 2011b). In accordance to the principle of subsidiarity, the provinces have their own budgets for DRR issues as well as the municipalities.

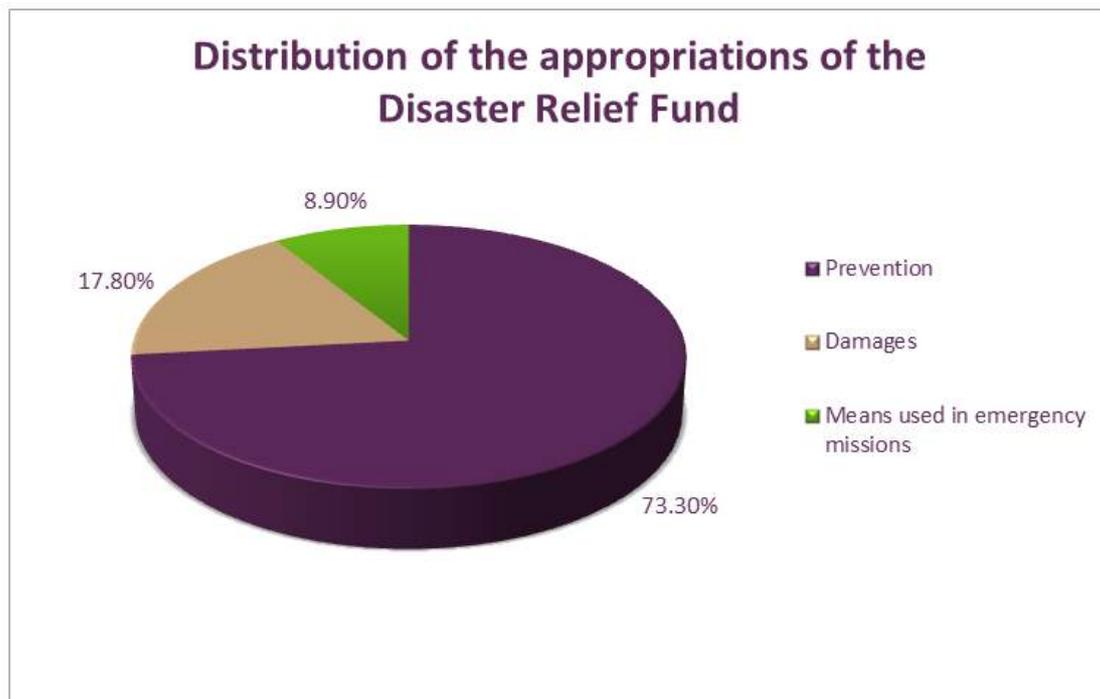


Figure 10: Distribution of financial resources of the disaster fund
 Source: Federal Ministry of Finance (2014)

In the light of the Tsunami disaster in 2004, the Austrian government decided to establish a fund for disasters abroad. The budget of this fund is dedicated to financial aid in the aftermath of disasters as well as for the prevention against hazards. The Federal Ministry for Europe, Integration and Foreign Affairs (BMeiA) administering the fund while the Austrian Development Agency (ADA) assumes the supervision of the fund. The Foreign Disaster Relief Fund regulated by the law on a Fund for catastrophes abroad, Art. 1-3 and provides for the establishment of a budget on national level to make contributions to combat catastrophes abroad (Federal Ministry for European and International Affairs and Austrian Development Agency 2009).

As illustrated in Figure 11, the federal state, the provinces and municipalities of Austria allocate an annual amount of EUR 120 million for torrent, avalanche and erosion control. The largest share of 54 percent is used for torrent control, followed by 14 percent for avalanche control and 11 percent for protection forest and management of catchment areas. Only 4 percent of the sum is dedicated to implement measures against rockfall and slides (BMLFUW 2009).

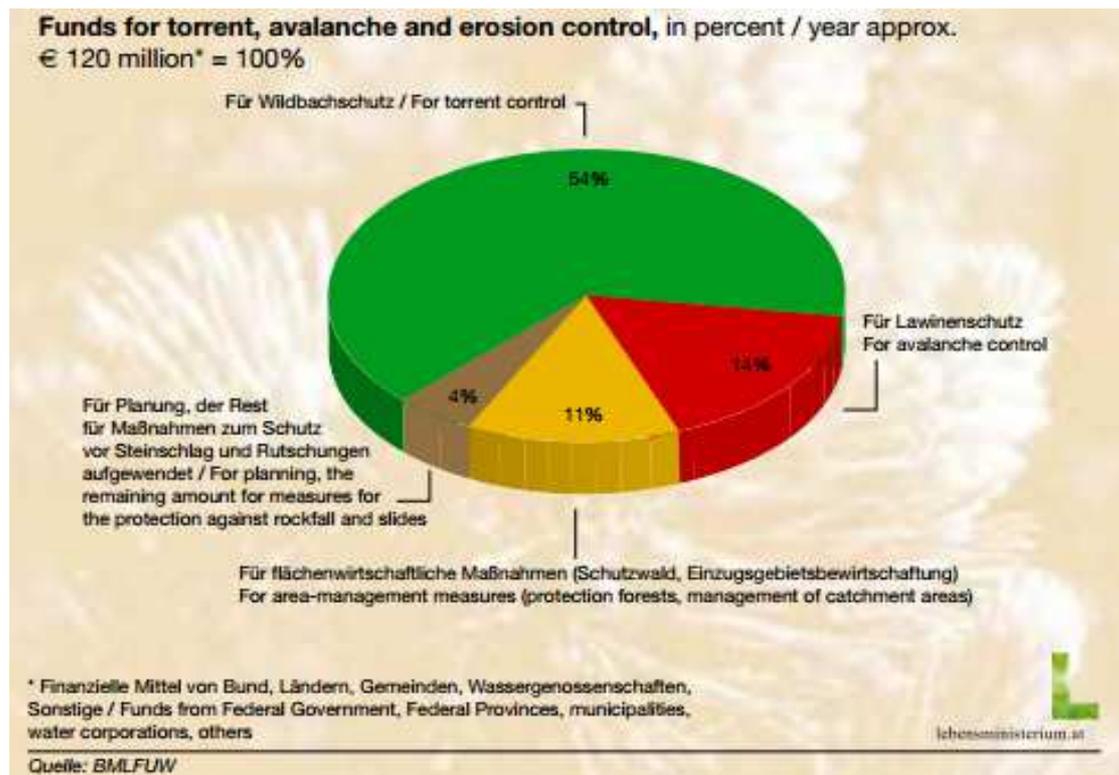


Figure 11: Distribution of funds for measures to protect against some natural hazards
 Source: BMLFUW 2009.

1.3.2 Investing in consequence management

Annually, the federal government spent more than EUR 200 million on natural disaster management. The bulk of this funding is channelled through the Federal Disaster Fund, which receives 1.1 percent of federal tax revenue. One quarter of the Federal Disaster Relief Fund is used to compensate households and businesses for losses from natural disasters. At present, neither individuals nor businesses bear the full cost of their exposure to climate risk, which effectively acts as a subsidy for development in high-risk areas (OECD 2013).

After an event, the reconstruction and stabilisation has top priority. There are some possibilities to fund certain recovery measures by the disaster relief fund or the solidarity fund of the European Union. The disaster relief fund is dedicated to finance prevention measures as well as recovery measures. The settlement is processed by an official request of the provinces, which take 40 percent of the total amount. Damages to private property as well as to public infrastructure will be covered by the fund. The BMLFUW IV/5 (2013) stated, that the disaster relief fund satisfies about 20 percent or 30 percent of the loss from disaster of private households and companies. By application for permit at the municipalities, subsidies will be paid out to aggrieved persons. This fund co-finances the operating equipment for fire brigades as well as warning and alerting systems.

1.4 Policy review, Evaluation & Organisational Learning

1.4.1 Post-Disaster Assessment

It was indicated by the expert, that organisational learning in Austria is mostly based on the experience from real events which might become disasters in Austria or in neighbouring

countries (Expert Interview 2014). Several developments and projects have been put in place in the last decades as results of lessons learned from disasters. A mining disaster in 1988 for instance led to a fundamental adaptation and reorganisation of emergency service for mines. A major avalanche in 1989 was the starting point for improvements in avalanche warning and protection. Although, there was not a general governmental evaluation of the floods in 2002, individual insights caused several adjustments. As a result of the disaster assessment of the tunnel blaze in Kaprun in 2000, the analysis concluded a lack of preparedness and information (CRiSMART 2014). On the one hand, the personnel of the mountain railway had not been trained for this kind of situation they had received training for other types of accidents, but not for a tunnel fire. On the other hand, there was no awareness of the threat of a fire, because the train and the tunnel were considered to be fireproof. Apart from the shortfalls, the crisis response was smooth because there was an existing crisis management plan in Kaprun. This plan had been designed for a possible accident at the local power station, but it was quite useful for structuring the rescue work in Kaprun.

Frequently, results from research project have set the starting point for learning processes. The evaluation of the floods in 2002 in the frame of the projects Flood Risk I and II caused an institutionalisation of flood protection, legislative amendments of the Water Act, etc. A follow-up project FloodRisk II was launched after the recent floods in 2013 in order to evaluate the achievement of these two projects. Also the case of the Icelandic Ash has revealed a demand for optimization and awareness of rare dangers to mention another concrete example (Expert Interview 2014). A number of other projects could be mentioned as well. According to the BMLFUW (2012) lessons learnt have been considered within the prevention phase and will further direct the realisation of protection measures.

1.4.2 Departmental Lessons Learned systems

The expert at the MoI (2014) explained, that events will be reviewed either in the course of regular coordination meetings, initiated by the ministry concerned or by the competent authority on the basis of the departmental principle or in specific working groups if necessary. In that frame inter-ministerial working groups can be established to discuss hazard potentials and take appropriate actions.

1.4.3 Centralised (national) Lessons Learned system

Once a year, a meeting will be held to coordinate the state and the provinces, as well as individual departments and relief organisations. In the case of a cross-border event, a shared situational awareness will be reached by information exchange systems, located at the Federal Ministry of the Interior. The Federal Ministry of the Interior participates at the INSARAG and is also the main contact point for providing humanitarian aid. Within the last conference of Forum Alpach, the Ministry of Interior organised a workshop about that issue together with UNOCHA. If there is no event, the bi- and multilateral information exchange is organised in the frame of experts' meeting (mostly in Brussels). At the time, a close cooperation has been established with representatives from Switzerland and Germany.

It was critically noted by Bossong and Hegemann (2013) that the most investigations deal with technical aspects of a disaster, i.e. torrent control and hazard zoning.

1.4.4 International exchange for Lessons Learned

Exchange of knowledge in Austria is organised geo-strategically in the aftermath of real events. As stated by the expert at the MoI (2014), additionally, insights gained from the supranational level or international organisations like the WHO have stimulated the examination of global threats, i.e. pandemics or epidemics. If a case of a global threat becomes apparent, the competent ministry conveys a conference to discuss the potential threat for the nation with all number of ministries. The MOI usually takes part in lessons learned meeting under the EU civil protection mechanism and shares the results with other national stakeholders (Expert Interview 2014).

1.4.5 Regular policy reviews

As indicated by Bossong and Hegemann (2013), apart from some attention-getting events, there was only less interest on crisis events in Parliament. Mostly, financial aspects, i.e. compensation were raised within debates, but also further protection strategies. Bossong and Hegemann (2013) counted 23 important reforms as a result of disaster experience, which changed the shape of the Austrian Civil Security system. Finally, a nation-wide capacity of disaster management was established based on the initiative of the Federal government.

1.5 Resilience

Within the Austrian Security Strategy (2013), the security policy referred to the concept of resilience as “restoring the proper functioning of the state and society in the aftermath of crises”. Resilience has not become a conventional term in the Austrian linguistic usage.

With regard to the Hyogo Framework for Action, where an emphasis is on the strengthening of the local resilience, Austria is fully on schedule. The well-established principle of sovereignty and subsidiarity is fostering the self-capacities on the community level. The community-based approach is supported by a strong civil society and effects a comprehensive protection against the impacts of natural disasters. A big part of initiatives at the local level are concerning preparedness activities, and therefore, the national resilience concept is strongly related to that phase.

1.6 Information sharing and data protection

Data exchange with third states is done in specific areas on the basis of bilateral agreements. The Federal Ministry of Life for instance has already established programs to exchange information about relevant threats and monitoring systems from neighbouring countries on the basis of special agreements related to nuclear incidents. Other data like meteorological data are also shared with corresponding institutions (Expert Interview 2014).

On the basis of intergovernmental agreements, experts have access to measurement data of the systems of neighbouring countries. In the case of releases of radioactivity in a connected country, effects bear on Austria can be estimated at an early stage. As can be seen in Figure 12, an access to exposure levels of nearly all European member states will be achieved via the link to the European platform EURDEP.



Figure 12: Automatic online data exchange between Austria and neighbouring countries as well as link to the European platform EURDEP

Available at: <http://www.bmlfuw.gv.at/umwelt/strahlen-atom/strahlenschutz/strahlen-warn-system/sfws.html>.

In cooperation of the Austrian radio channel Ö3, which is a programme of the Austrian Broadcasting Corporation (ORF) and the Austrian Cross, Team Austria⁵ was founded in 2007. The initiative is purposing the recruitment, mobilising and coordination of spontaneous volunteers in advance. Thus will be lead to a more efficient assistance of volunteers in the case of a disaster. Via a volunteer's platform, crisis committees and authorities are enabled to get access of about 35,000 pre-registered volunteers. At the moment, a crowd tasking feature for fostering resilience by improving the management of volunteers is being developed within the research project RE-ACTA.⁶ According to the Data Protection Act, the protection of the personal integrity has priority. Albeit, if the forwarding of personal data is in the interest of the affected person, i.e. in the frame of the search for missing persons by relatives, the reasons will be balanced. However, only involved organisations exchange personal data among each other, i.e. the emergency service forward information about missing persons to the police, because the search for missing persons is the duty of the police. Also between the provinces and hospitals data will be exchanged. With regard to data about terrorist activities, data will be available for the Federal Agency for State Protection and Counter Terrorism (BVT) and operative units, but there is no central data management, because there is no central unit for data retention (Expert Interview 2014). The Provincial Laws, i.e. the Vienna Data Protection Law envisages an own phrase for dealing with the registration of individuals. The Federal Ministry of Life has already established programs to exchange information about relevant threats from neighbouring countries on the basis of agreements, i.e. about nuclear incidents and more general – meteorological data (Expert Interview 2014). According to the Data Protection Act the protection of the personal integrity has priority. Albeit, if the forwarding of personal data falls within the predominant interest of the affected person, i.e. in the frame of the search for missing persons by relatives, the reasons will be balanced. However, only involved organisations exchange personal data among each other, i.e. the emergency service forward information about missing persons to the police, because the search for missing persons is the duty of the police (Expert Interview 2014). Also between responders and hospitals data can be exchanged. Some provincial laws envisage an own phrase for dealing with the registration of individuals.

⁵ Web-Page about Team Austria: <http://oe3.orf.at/teamoesterreich>; accessed: July 14th, 2014.

⁶ RE-ACTA project: <http://blog.rotekreuz.at/reacta/beispiel-seite/>; accessed: July 14th, 2014.

2 Legislation

2.1 Crisis (emergency, disaster) management concept

In general, there are three documents, which can be considered as the basis for shaping the Austrian approach of civil protection.

SKKM 2020 Strategy

As the main strategic document at the national level, the Ministry of the Interior drafted the “SKKM 2020 Strategy”, which defines some basis elements of the Austrian civil protection. The strategy is in compliance with the security and defence doctrine (adopted in 2001) and in addition, it provides amendments concerning the internal security. Therein, the pillars of the National Crisis and Disaster Protection Management were defined (Federal Ministry of the Interior 2009). In July 2009, the Federal Government took notice of the report and approved it. Within the SKKM 2020 Strategy several commitments to European strategies, such as the prevention strategy were made and the need for harmonisation between the Federal State, the Federal Provinces and response organisations in disaster cases was addressed. As explained by Potyka (2012), the coordination activity of the SKKM, is a service by the Federal Ministry of the Interior to the provinces.

The main principles, mentioned within the SKKM 2020 Strategy are:

- Considering the principle of self-sufficiency and subsidiarity
- Ensuring a comprehensive network of danger avert and disaster relief on the basis of volunteers and professionals
- Easy access to military assistance
- Promoting self-protection capability of the general public by civil protection initiatives
- Increasing the level of intervention by concluding cross-border cooperation
- Respecting the principles of non-discrimination, independency, need-orientation and efficiency in international disaster aid

In order to achieve the aims of an optimal risk and hazard mitigation, early detection, ensuring a high level of preparedness, efficient and rapid response as well as a quick return to normality after disasters, several tools and measures were specified. Basic elements include technical innovations, stimulation of trainings and education across organisations, improvement of the coordination structure. As an example, recommendations to establish curricula for strategic, tactical and operative staff were addressed. Amongst others, a focus lies on a research-driven and science-based approach to strengthen the disaster management capacity in Austria. In addition, an emphasis was given to the disaster relief fund as the core financial instrument, which provides $\frac{3}{4}$ of the budget for flood protection and avalanche control and 8.9 percent for operative respond and surge arrangements. Within the document, the traditional three-pillar-model of civil protection (measures of authorities, respond organisations and self-provision of the population) was extended to include the citizens extra as well as the economy. With regard to the Directive 2008/114/EC⁷, the strategy indicated the

⁷ Directive 2008/114/EC issues the identification and designation of European critical infrastructures and the assessment of the need to improve their protection.

involvement of operators of Critical Infrastructures in prevention, mitigation, response and relief measures.

Austrian Security Strategy

The Austrian Security Strategy, adopted in 2013, provides a framework for shaping the security policy (Federal Chancellery of the Republic of Austria 2013). Regarding Austria's relationship with EU, UN, NATO, PfP (Partnership for Peace), EAPC (Euro-Atlantic Partnership Council) and OSCE (Organisation for Security and Cooperation in Europe), a clear statement was made to efforts establishing a common space of security. Therein, the cooperation of the international stakeholders in accordance with the principle of a division of labour for comparative advantage was emphasised. Within the strategy, main sources of threats were defined:

- international terrorism
- the proliferation of weapons of mass destruction
- domestic and regional conflicts or turmoil that affect Europe or have global repercussions
- "state failure"
- natural or man-made disasters
- attacks against the security of IT systems
- threats to the strategic infrastructure
- transnational organised crime
- drug trafficking, crime, corruption
- illegal migration; unsuccessful integration
- the scarcity of resources (energy, food, water)
- climate change, environmental damage and pandemics
- piracy and threats to the transport routes
- the repercussions of the international financial and economic crisis on security

In order to overcome threats in an adequate way, it was defined to continue contributions with PfP (Partnership for Peace) in the security area. Particularly, military interoperability, participation in operations, and the utilisation of cooperation opportunities offered will be ensured by an intense cooperation with other PfP-States.

Within the strategy, special mention was made to the role of the Austrian Armed Forces in internal security. Their participation in national and international crisis management operations recorded remarkable success. In the cases of a natural disaster, threat to a Critical Infrastructure or policing operations, civil authorities can request the Austrian Armed Forces for assistance. Based on multiple areas of the deployment of Austrian Armed Forces, the strategy determines the availability of at least 12,500 soldiers to be deployed in the event of domestic disaster relief operations.

Austrian Programme for Critical Infrastructure Protection (APCIP)

As already indicated in chapter 1.2.3, the Austrian Programme for Critical Infrastructure Protection (APCIP) addresses the protection of critical infrastructures as an approach for specific threats. Therein, the measures to implement APCIP on the national level of Austria were reflected (Federal Chancellor of Austria 2013). In order to achieve the objectives, defined by APCIP (Austrian Programme for Critical Infrastructure Protection), an individual investigation of country specific threats and critical infrastructure was conducted. As a part of the vulnerability analysis, the following domains have been examined: the Constitutional Institutions, the Energy Sector, Information and Communication Technologies, Water Supply, Food, Health and Social Affairs, Finance, Transport and Distribution Systems, Chemical Industry, research organizations and emergency and rescue workers.

The Action plan proposes, the drawing up of a list with strategically important infrastructures in Austria and their prioritization, the definition of standards of protection and security, the implementation of protection measures, the development and the establishment of cooperation regarding the information management and the evaluation of the implemented measures. An orientation on the Critical Infrastructure Warning Information Network (CIWIN), which is part of the European Programme for Critical Infrastructure Protection (EPCIP) have been considered.

2.2 General crisis (emergency, disaster) management law

The Austrian Federal constitution does not indicate an own matter of powers and responsibilities for disaster protection or disaster relief. Therefore crisis and disaster management in Austria refers to a *fragmented horizontal competence* with different legislative responsibilities and laws depending on the specific case of an event (Jachs 2011b). The disaster response system in Austria includes mechanisms to prevent and to ward off disasters. As in other fields of public administration in Austria, legislative and executive responsibilities concerning disaster management are divided between the federal government and the Federal Provinces. Exceptions exist, where cases are inseparable matters of the federation, e.g. the radiation protection falls within the competence of the federation. The civil protection laws usually affect both the affected communities and the aid workers, support staff members and finally the authority itself. The different coordination procedures of the provinces are due to the nine different national regulations resulting from unequal definitions of crisis and disaster and regionally specific coordination structures. As recommendation to the federal government, the shaping of the internal security follows the principle of optimizing the warning systems, ensuring cooperation between all bodies with regional civil protection authorities and emergency services based on the legal requirements of the National Crisis and Disaster Protection Management (SKKM).

The National Law Desk Survey conducted by Potyka (2012) concluded:

In substance, there is no national disaster management law, but only national disaster management coordination by the Ministry of the Interior. However, particular legal regulations (e.g. in the fields of customs, traffic etc.) also take account of the needs in case of disaster, which facilitates national activities in the field of disaster management.

In 2009, the directive to mitigate the risks of flooding for health, environment, heritage and economic affairs was implemented in national law (European Parliament and the Council 2007). Thus competences of the federal state and the provinces were affected in the area of disaster protection, environmental protection as well as flood and avalanche protection (Hornich 2013). Furthermore, the legislation about the Union Civil Protection Mechanism which contributes to the implementation of Article 222 TFEU stipulating the obligation to provide aid in the spirit of solidarity in case of a terrorist attack or disaster came into force in 2014 (European Union 2013).

There is no primary act of disaster management on the state level, but the provinces have established laws on disaster relief or disaster protection on their own. Provinces have enacted regulations regarding the disaster response and the disaster preparedness. Within the report of Potyka, an overview on relevant disaster related laws have been provided (2012). Disaster mitigation, prevention and disaster risk reduction have been covered by the Austria Forest Act (2002). The Water Act defines water-specific mitigation and prevention strategies (Federal Law

Gazette 1959). As already mentioned in previous chapters, also the Law on Defence (2001) is a disaster related regulation at the national level.

At the level of municipalities, districts and provinces the following plans are available:

- Disaster Protection Plan
- Special Alarm Plan for certain disasters, like tunnel accidents
- Emergency Plans for SEVESO establishments
- National Intervention Plan for radiological emergencies
- Pandemic Plan
- Plan on the Early Warning System: Radiation Early Warning System, Weather Warning, Communicable Diseases
- Plans on the flood prediction model

2.3 Emergency rule

In Austria, no emergency rule exists in the ordinary sense of the word, but what is involved is an extended transfer of legislative power if the Parliament is unable to meet and to perform its functions (EUROPEAN COMMISSION FOR DEMOCRACY THROUGH LAW 1995).

Bossong and Hegemann (2013) reaffirmed this finding and explained:

There are no rules for a general state of emergency including derogations from civil liberties and democratic oversight. Emergency laws are to be differentiated from a local or regional state of disaster that allows for the upscaling of competences. As determined by Art. 18-II B-VG, the federal president can put in place provisional legal acts at the suggestion of the federal government for the prevention of an “obvious, irreparable damage for the society” if the national parliament is not able to convene.

As indicated by Khake (2009), the power to take measures in times of crisis or emergency in order to provide necessary supplies was transferred to the executive body of Austria. In detail, the Constitution of the Republic of Austria entitles the federal authorities to take special measures to ensure basic supplies in times of war, threats to the constitutional order and public security, natural disasters or other calamities are provided for.

On the recommendation of the Federal Government, the President of the Republic of Austria is authorised to take necessary measures by way of provisional law - amending ordinances, if the Parliament is not assembled, or if it cannot meet in time, or is impeded from action by circumstances beyond its control, to prevent obvious and irreparable damage to the community (EUROPEAN COMMISSION FOR DEMOCRACY THROUGH LAW 1995). It was further pointed out, that such an “ordinance requires the countersignature of the Federal Government. Such ordinances must be submitted by the Federal Government to the Nationalrat without delay. Within four weeks of submission, the Nationalrat must either vote a corresponding Federal Law in place of the ordinance or pass a resolution demanding that the ordinance immediately be invalidated.”

Within the Constitution, the Austrian Armed Forces are foreseen to “protect the constitutional order and public security by assisting in cases of natural disaster or other serious calamities. This implicates the right of the Armed Forces to intervene on their own initiative in certain cases when civilian authorities are incapacitated” (Khakee 2009).

The web page of the Parliament of the Republic of Austria provides the following information (2014):

The Austrian Federal constitution determines for the state of emergency special emergency provisions, namely the deployment of armed forces, an emergency decree of the Federal President, an emergency decree of the Federal of the Federal provinces as well as a direct Federal land management by the governor of the province. Emergencies in the face of wars, natural disasters and comparable events pertain as exceptional circumstances. In the course of a state of emergency, the Federal President can modify laws and order certain measures to be taken by emergency decree, can decide to move the seat of the chief organs of the state and the National Council to a different location. The Standing Sub-Committee has a particularly important role to play in exceptional situations – natural disasters or the outbreak of a war: if the National Council cannot meet, the Federal President can issue emergency decrees, but only when proposed by the Federal Government, which in turn requires the approval of the Standing Sub-Committee of the Main Committee.

The emergency decree is limited by the constitutional law by prohibiting:

- the amendment of Federal constitutional provisions
- a permanent financial burden on the Federal State, the Federal provinces, the municipalities or financial obligation of citizens
- the sale of state property
- measures concerning labour law, social security and insurance act system, Chamber of Workers and Employees, right of association.

Since the second republic has been proclaimed, the emergency decree has never been applied.

2.4 Specific, department/agency-level legal arrangements and regulations on emergency and disaster management

Due to the fact, that crisis and disasters might cross the borders of the federal provinces or the federal state, which require an overall coordination, the national government has the power to coordinate disaster relief (Potyka 2010). On Federal level, the Law on Federal Ministries defines, that the Ministry of Interior is responsible for the coordination of the federal crisis management, governmental Crisis and Disaster Protection and the International Disaster Response (Bossong and Hegemann 2013).

According to the principle of a divided administration, relevant legislation for Risk and disaster management can be identified at three administrative levels (Leitgeb and Rudolf-Miklau 2004). In particular, nine legal acts by the state constitute the disaster management framework in Austria.

- Water Act
- Forest Act
- Torrent Control Act
- Water Construction Financing Act
- Disaster Relief Fund Act
- Ordinance on Hazard Mapping
- Guidelines on Hazard Mapping
- Technical Directive for Torrent and Avalanche Control
- Directive for Cost- Benefit- Analysis on Torrent and Avalanche Control Measures

2.5 Specific to the regional and local authorities legal arrangements and regulations on emergency and disaster management

According to the general clause of Article 15 (1) of the Federal Constitutional Law, the response to crisis and disasters is primarily a matter of the provinces. Each province is authorized to create appropriate rules and laws on their own (Bußjäger 2003). This means in consequence, that the Federal provinces are mandated to organize disaster relief services and resources for emergency assistance and disaster relief operations. In case of local emergencies, regional laws generally foresee official responsibility for relief measures and their management to rest with district administrations or mayors, while major disasters fall under the competences of regional administrations (European Commission 2014).

In Austria exists nine different laws which take influence of the structure of the Land centres. Civil protection laws regulate how processes, in contrast to normal life processes must be organized to minimize the impact of disasters of various kinds to a minimum. The civil protection laws usually concern, on the one hand the affected communities and on the other hand, the aid workers and support staff members, finally the authorities themselves. Depending on the country and the possible disaster scenarios, the laws adopted at various levels and have been also executed. Potyka (2010) indicated that the provinces use different terminologies of disaster, which caused a plurality of the legal scope.

At the level of federal provinces, mainly three laws influence the Austrian disaster management.

- Civil Protection Acts
- Areal Planning Regulations
- Building Trade Acts

Due to the executive nature of municipalities, the sphere of disaster management has been shaped by ordinances of the community. Furthermore, at the local level of municipalities and communities, the following regulations play an important role (Leitgeb and Rudolf-Miklau 2004):

- Hazard Maps on Torrent and Avalanche Control
- Area planning scheme
- Local development concepts
- Development scheme
- Planning and building permissions
- Alarm and action plans for catastrophes

2.6 Legal regulations on the involvement of volunteers and specialised NGOs

The involvement of voluntary organisations in disaster relief is regulated on the basis of nine provincial laws, which may differ in some kind. However, there is no unified law on that issue. In the case of any damage caused by a volunteer, the cost must be covered by the Disaster Relief Fund Law on Official Responsibility (Amtshaftungsgesetz), BGBl. Nr. 20/1949 as amended by BGBl. Nr.537/1984) (Austria, 1984).

2.7 Legal regulations for international engagements of first responders and crisis managers

As stated by Potyka (2010), the Federal Ministry of the Interior is the competent authority to coordinate disaster relief in Austria. The legislation does not specify extra procedures for international assistance and Austrian relief, but bilateral agreements are in place between Germany, Croatia, Liechtenstein, Jordan, Slovakia, Switzerland, Slovenia, Czech Republic and Hungary.

Regarding the regulation for the international deployment of rescue workers it has been stated by Potyka (2010):

Foreign state aid providers requested by Austria would possibly have to be regarded as employed by the competent Austrian authorities. Furthermore, the Austrian authorities or their legal entities (federation, federal state and community) would generally be responsible and accountable for the actions of these foreign aid providers.

According to the Law Implementing the Aliens Act (No. 188/2005), "nationals of non-EU states are exempted from visa obligations for the length of the transit if they are part of the flight crew or attendants of an emergency or rescue flight or are otherwise active as rescuers in the event of disasters or accidents." Travel Visas will also be granted for relief workers for the duration of three months. Regarding the liability, "foreign state aid providers requested by Austria would possibly have to be regarded as employed by the competent Austrian authorities. Furthermore, the Austrian authorities or their legal entities (federation, federal state and community) would generally be responsible and accountable for the actions of these foreign aid providers." At the moment, certain qualifications of relief workers are not specified by law. The security services are responsible for the safety of relief workers, premises, transport, equipment and goods. It was stated, that some rescue services have "fleet insurance policies" because of the number of vehicles they have.

Potyka indicated that provisions were made for the exemption of import duties for relief supplies and relief items of disaster relief teams. Bureaucratic hindrance will be simplified by the Federal Ministry of Economics, Family and Youth, to ensure a rapid supply of relief items. Exceptions of the import and export of medical products are covered by the Narcotic Drugs Act.

3 Organisation

3.1 Organisational chart

The Disaster Management in Austria is organized decentralised with different responsibilities on the various spatial levels. As illustrated in Figure 13 the management of crisis and disasters calls different actors and responsibilities on stage.

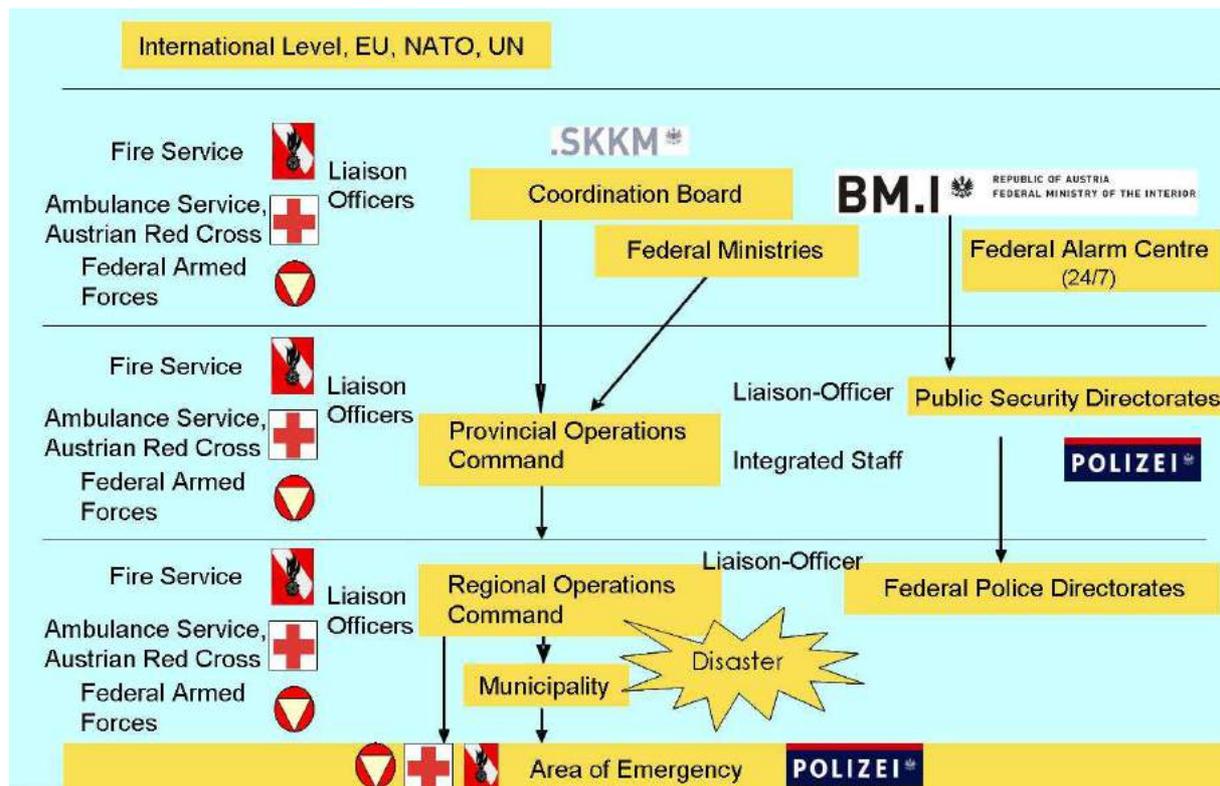


Figure 13: Organizational Chart of the disaster management in Austria

Available at: http://ec.europa.eu/echo/files/civil_protection/vademecum/at/2-at-1.html; accessed: 14th June, 2014.

The Federal Crisis and Disaster Protection Management (SKKM) is located at the Federal Ministry of the Interior (FMI) and acts as a centre for coordinating measurements of authorities and relief organizations in the case of particular hazards, hazardous events and disasters. Chaired by the Executive Vice President of public safety, the council of ministers, where Federal Ministries, provinces and relief organizations are represented, decided to establish an administrative organization for the coordination of public safety - called SKKM - the Federal Crisis and Disaster Protection Management. The responsibility area of the department II/4 of the Federal Ministry of the Interior is divided into National Crisis and Disaster Protection Management (SKKM) and Civil Protection (Federal Ministry of the Interior 2014).

As explained by Jachs (2005) in the frame of the preparation for the World Conference on Disaster Reduction:

At the federal level a co-ordinating committee was set up for crisis and disaster management. This committee consists of representatives of all ministries, offices of provincial governments, the major rescue organisations and representatives of media. Similar co-ordinating committees

are established at the level of provinces and districts. According to the magnitude of a disaster co-ordination is done by district administrative units, provincial governments or the federal government.

An overview of the composition of the Coordination Committee, chaired by the Federal Ministry of the Interior is provided by Figure 14.

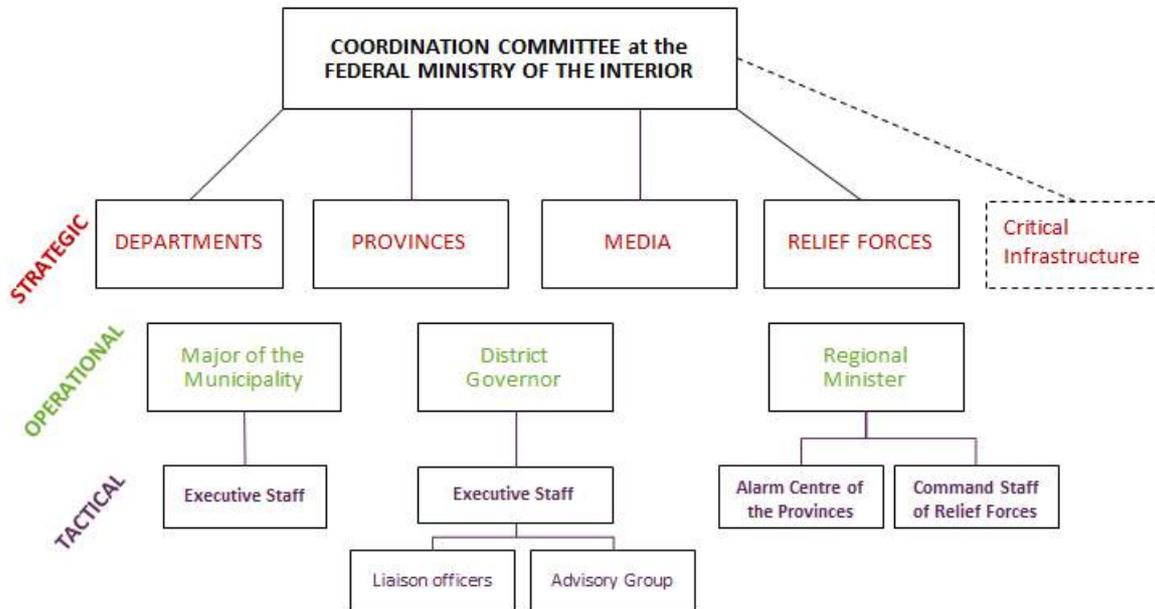


Figure 14: Structure of the Coordination Committee in Disaster Management

Within the Coordination Committee strategic, operational as well as tactical actors are represented.

The BWZ serves as the central point for the combined warning and alarm system of the Federal Government and the Federal Provinces and is the permanent observatory for the radiation early warning system. It is connected with the information system of the Warning Centres of the Federal Provinces (LWZ), all competent centres on a federal and regional level, the relief and rescue organisations, such as Fire Brigade, Red Cross, Alpine Rescue Organisation, as well as the contact points on a bilateral (neighbouring states), supranational (EU–ERCC), multinational (NATO partnership for peace), and international (UN) level (Federal Ministry of the Interior 2014).

As another step to implement the National Crisis and Disaster Protection Management (SKKM), the provinces assume a strategic part in disaster protection. Measures are managed partly in cooperation with the federation. Each Federal Province has a duty to ensure an efficient disaster protection at the level of district and Federal Province by entrusting appropriate authorities (Jachs 2011a). The disaster relief service of the provinces includes the country's fire brigade association, its institutions and equipment, as well as relief (forces) organizations and personnel resources. The authorities of the provinces operate as the core institutions to manage events; therefore they are featured with special rights for governing the crisis and disaster management. In consequence, every country has established alerting and warning systems. Their task is to warn and alert the public in case of imminent danger and to coordinate rescue and relief forces during major disasters or catastrophes.

As soon as an incident exceeds the capabilities of the local authority, the responsibilities are transferred to the next high level. If an event extends the territory beyond the competence of a municipality, the district authority assumes the role of leading disaster protection authority. The government of the Federal State is called into action, if an event cannot be managed with the capabilities of the district level and/or exceeds the political area of the district.

Within reasonable limits, the municipalities have the responsibility to ensure an effective disaster protection. In the case of an event, municipalities are obligated to provide mutual help. Fire brigades have to carry out supporting measures if a certain alert level is reached. Furthermore, the government of the provinces is authorized to request the assistance of the municipalities for prevention and response activities on district level. Following the principle of subsidiarity, the Mayor of a municipality, the district authority or the government of the provinces are acting as the major authorities for managing the local disaster response.

Based on the coordination approach the media, especially the ORF as the state broadcasting station participates at coordination meetings. Mandated with a public service mission, it is recognised as a trustworthy source of information about current events. In emergencies, a permanent communication will be established between the EKC and the ORF (also with the APA – the Austrian Press Agency), which will disseminate serious information to the public (Jachs 2011c).

Furthermore, private business is covered within the civil security strategy based on specific regulations. These will address certain economic sectors in particular. Especially for risky or high-vulnerable industries appropriate standards and instructions exist. Within the disaster management law of each province, addressees of certain regulations have been defined. As indicated by Bossong and Hegemann (2013), especially those companies, which are operating hospitals or mines or dealing with dangerous goods, require emergency plans. The strong focus on specific industrial partners has been reflected in the Austrian Programme for Critical Infrastructure Protection. Bossong and Hegemann have illustrated the relationship on the basis of some examples, which will be summarised below. Due to the fact, that the ASFINAG is responsible for tunnel safety and transport issues, a close cooperation with the state-owned infrastructure corporation exists to prevent transport accidents. Also the ÖBB as the Federal Railway company will be integrated in issues regarding the transportation security. The security of the supply chain is amongst others addressed to the power providing company “Verbund AG”, which is a relevant stakeholder in the field of energy security. Last but not least, the ELG – as the Austrian Central Stockholding Entity is considered as a critical infrastructure, because it is responsible for the holding of emergency stocks. As illustrated in Figure 14, these four companies – labelled as Critical Infrastructures will be optionally consulted, if a relevant issue has been raised.

3.2 Organisational cooperation

Within the “National Crisis and Disaster Protection Management Strategy 2020”, it has been defined, that the Federal Ministry of the Interior as an important focal point acts as the head of the coordinating body. Chaired by the Director-General for Public Security, the strategic level of the coordination body will comprises of the representatives of the federal ministries, the offices of the Provincial governments and accredited emergency services, i.e. ARC, ASBÖ, ÖBFV and ÖBRD. Core issues at that level cover an overall information exchange, the definition of strategic action points and fundamental aspects of an emergency. If a cross-border event will require coordination, the Mol is authorized to establish specialist groups by requesting the Austrian Press Agency, the media as

well as experts. Legally, cross-border missions are directed by bi- and multilateral agreements of regions, provinces and the state, which define the request and the provision of assistance. Apart from regional agreements between a province of Austria and a neighbouring region or a neighbouring country, the Federal Ministry of the Interior is processing the assistance, i.e. the organisation of the deployment of domestic forces in a third country and vice versa (Expert Interview 2014).

Tactically, the commander of emergency services, i.e. the commander of the fire brigade or the commander of the National Rescue Operations Unit of the Austrian Red Cross will be able to expand their staff on its own. As it has been stated within the “SKKM Strategy 2020”, the federal structure benefits from an easy access to military forces of the authorities at all spatial levels (2009). Due to the fact, that the disaster management at the national level is based on an interdepartmental cooperation by the superordinate Coordination Committee, several federal ministries are strongly involved in National Crisis and Disaster Management. The Federal Ministry of the Interior is concerned with the strategically processing of assistance interventions, its preparation and execution. The processing of logistic flows, e.g. transport, crossing of borders in the frame of foreign aid and customs matters also lies in its competence area. Furthermore, a permanent communication to other contact points like the NATO, UN and the media is ensured. The preparation of final reports for submission to the Federal Government and the securing of the financing of response activities are required (Jachs 2011b). According to the legislation (listed in 2.4.), the Federal Ministry for Agriculture, Forestry, Environment and Water Management (BMLFUW) is the main strategic responsible prevention measures in Austria. As an authority of the BMLFUW, the Federal Forest Engineering Service for Torrent and Avalanche Control together with the technically specialised district authorities at the provincial level fulfil their duties on the community level (Leitgeb and Rudolf-Miklau 2004). The strategic direction of Torrent and Avalanche Control is located at the department III/5 of the Federal Ministry for Agriculture, Forestry, Environment and Water Management. Additionally, the strategic actor is responsible for the planning and the construction of technical and biological measures to protect against natural hazards (Stiefelmeyer and Sattler 2012). Within the management of flood risk, various responsibilities result due to federalist constitution of Austria. By identifying flood-discharge areas and risk zones, the Federal Water Engineering Administration provides expert opinion for the local regional planning and is also engaged in communicating the threat of flooding to the citizens. Departmental cooperation has been established with the Federal Ministry for Agriculture, Forestry, Environment and Water Management (department IV/6) and the offices of the Provincial government. The department IV/5 - Torrent and Avalanches Control, takes the strategically regulation of the protection against natural hazards, e.g. torrents, avalanches, rock falls, mudslides and floods. According to the Austrian Radiological Protection Act and the EURATOM Treaty (Art. 35), Austria is obliged to operate an Environmental Monitoring Network. In the case of exceeding thresholds, the Federal Ministry of Agriculture, Forestry, Environment and Water Management are responsible for the alerting procedure. Therefore, it use the real-time forecasting system TAMOS, which is also applied at the ZAMG. In Austria, 335 automatically ODL-measurement devices for the measure of the gamma radiation are installed. These systems send status messages to the data centre of the radiation early warning system (BMLFUW, V/7 2009). A part of the disaster relief fund is dedicated for immediate measures of the Federal Ministry of Agriculture, Forestry, Environment and Water Management. This department is also assigned with the development of appropriate approaches and strategies for preparedness, prevention and mitigation, as well as the coordination of the expert analyses. The supervision of analysis on natural area and the geographical information system NIAS-Forts are core

tasks, which the department is responsible for. Research activities are initiated projects in the area of services for torrent and avalanche barriers. As a subordinate agency of the Federal Ministry of Science, Research and Economy, the ZAMG is a state service for observatories of meteorological, geophysical and air chemistry measurements. The ZAMG has to fulfil substantial statutory tasks and but has also a partial legal personality to act under private law. Flood events concerning the Danube, March and/or Thaya, the "via donau" as an executive body of the Federal Ministry for Transport, Innovation and Technology shares the responsibility with competent offices of the provincial government (BMLFUW 2014c). The "via donau" is a limited liability company, founded by the Austrian Ministry for Transport, Innovation and Technology, entrusted with the administration and preservation of Federal waterways. In addition, the "via donau" is operating the shipping information system DoRIS (Donau River Information Services). In general, the Federal Ministry of Traffic, Innovation and Technology is responsible for events, which focusing on transport accidents, while the Federal Ministry of Health deals with epidemics and the Federal Ministry of Economy, Family and Youth covers mining disasters (Bossong and Hegemann 2013).

Austria has signed international agreements for assistance in disaster situations. The agreements are formal international treaties and include provisions on the responsible agencies, the modalities of border crossing, coordination and command as well as costs and compensation. Cross-border missions are on the one hand directed by European or international legislation and rules of procedures and also by bi- and multilateral agreements of regions, provinces and the state, which define the request and the provision of assistance. The basic provisions of the agreements are largely similar and follow the first agreement signed with Germany. Furthermore, the non-nuclear country Austria has entered into bilateral agreements on nuclear safety with eight countries in Eastern and Central Europe (Bossong and Hegemann 2013). The Federal Ministry of the Interior is coordinating Austria's contribution to international disaster relief assistance in collaboration with other ministries, the federal provinces and emergency services (Jachs 2011b). Apart from regional agreements between a province of Austria and a neighbouring region or a neighbouring country the Federal Ministry of the Interior is also processing the assistance, i.e. the organisation of the deployment of domestic forces in a third country and vice versa (Expert Interview 2014). For this purpose the MoI relies on the established response organizations in Austria and does not maintain specific extra capacities. Modules for EU interventions for instance which were registered at the CECIS are operationally managed by regional fire brigade associations and mobilized upon request of the MOI. Referring to the ANVIL report, Austria had offered international assistance in 59 cases between 2003 and 2010 (Bossong and Hegemann 2013). Due to the fragmented civil security system, assistance is usually provided by various local and state- level actors. There are also some special units that are frequently used for international assistance, such as the Medium Urban Search and Rescue Unit of the Workers Samaritan Association (ASBÖ 2010) and the International Response Team of the Austrian Red Cross (ARC). There Federal Ministry of the Interior (MoI) is authorized to set up crisis teams and act with the Federal Warning Centre as contact point for official requests.

The MoI established efficient communication structures with:

- DG ECHO, Brussels
- NATO - Euro Atlantic Disaster Response Coordination Centre (EADRCC), Brussels
- UNITED NATIONS - Office for the Coordination of Humanitarian Affairs (UN-OCHA), Geneva.

4 Procedures

4.1 Standing Operating Procedures (SOPs) and Guidelines

Austria has several generic plans and policies with recommendations on how to deal with disasters. Apart from instructions, checklists or contact directories, there is no overall plan on the national level. It has been explained by Jachs (2005), contingency plans are available for municipalities, districts and provinces. Therein risks have been described, specific measures defined and information about available resources provided. The MoI emphasised “Disaster management does not work like a recipe” – the persons acting in an event are well educated, have a good grasp and the capabilities to cope with different scenarios. This can be achieved through a comprehensive planning process and continuous training on the job and frequent lessons learned. On the national level there are only a limited number of plans for large scale and cross-border events like nuclear emergencies and pandemics. Plans are partly published like the national response plan for nuclear emergencies. As an example, the document “Leading in disaster operations” was published by the MoI in 2006⁸. It provides guidelines for staff commanders in the area of situational awareness, leadership, technical equipment, responsibilities etc. As far as a written procedure already exists, it will be applied (2014). Experiences show, that written procedures are frequently not up to date – they need to be upgraded from event to event. Written plans rather build the basis to evaluate the performance within an event. The building regulation illustrates an exceptional case; therein detailed directions have been stipulated. No extra regulation has been defined the priority-setting in the case of co-occurring events. Due to the clear division of competences on each level, this scenario will not receive particular attention. The Austrian Red Cross frequently participates at the development of standards in the field of humanitarian aid, as well as in drafting operation procedures with a specific focus on threats or intra-organisational tasks and inter-organisational cooperation.

4.2 Operations planning

From a strategic viewpoint, standardisation plays a vital role in improving current procedures and structures. **¡Error! No se encuentra el origen de la referencia.** will provide a short overview on some relevant standards in the area of civil protection, disaster management, etc., mentioned by Jachs (2011b).

Table 2: Overview on some relevant standards in the area of disaster management operations

Standard	Title	Brief description
ISO/DIS 22320	Societal Security – Emergency Management – Requirements for Command and Control	It’s a standard about leadership in disaster relief and emergency management as well as for trans-organisational coordination. It is similar to the document “Leading in disaster operations”.

⁸ The Document “Führen in Katastropheneinsätzen” (“Leading in disaster operations” is available at: http://www.bmi.gv.at/cms/BMI_Service/Richtlinie_fuer_das_Fuehren_im_Katastropheneinsatz.pdf, (only in german); accessed: 21st January, 2014.

ISO/PAS 22399	Societal Security-Guideline for Incident Preparedness and Operational Continuity Management	It is a best practice for emergency prevention and continuity planning.
ÖNORM S 2304	Integrated disaster management	Terms and definitions in the context of the management of disasters, emergencies and crisis; considering interoperability
ÖNORM S 2310	Risk, security and crisis management	Selection and verification criteria for persons appointed for crisis management, disaster prevention, cost reduction
ONR 192320	Crisis and disaster management	Integrated operation control with particular consideration of different management methods, considering cross-border events
ONR 12261-7	Crisis management	Digital exchange of geographic data considering decision making and usage of geo-data for training
IEEE Standard 1512-2006	Incident Management	<ul style="list-style-type: none"> • Emergency Management Centres • Exchange of data about public safety and emergency management • common incident management message sets – Abstract Syntax Notation One ("ASN.1" or "ASN") • Incidents (transportation-related events)

4.3 Logistics support in crises

In Austria's decentralised civil security system, local crisis management agencies and emergency organisation provide the bulk of the necessary logistics (Bossong and Hegemann 2013).

In particular, the Fire Service provides special assets for emergencies.⁹

- long-term breathing apparatus
- protective clothing
- power supply units with illumination equipment
- evacuation pump units
- hydraulic rescue equipment
- pneumatic and hydraulic lifting equipment
- flame cutters
- grinding cutters
- chain saws
- air compressors with drilling implements
- blasting equipment
- all kinds of tools
- sand bags, etc.

In the case of disasters, the federal provinces are authorized to avail resources of individuals and private (logistic) providers for an adequate compensation by a formal decision. Disaster management

⁹ Information about the resources of Fire Service is available at: http://www.f-e-u.org/national_legi.php; accessed: 21st September, 2014.

authorities on each level are legitimated to call for back-up and request personnel or material resources from the military. Authorities of the provincial governments assign services from designated relief organisations, which are regulated by legal acts of the provinces (Expert Interview 2014).

It has been found out by Bossong and Hegemann (2013):

“There are no specialised independent agencies with an overall mandate for civil security at the federal and regional level. Though private companies are required to observe a number of formal obligations and increasingly participate in some coordination and consultation structures, privatisation and outsourcing do not play a significant role in Austrian civil security.”

4.4 Crisis communication to general public; Alert system; Public Information and Warnings

As it was declared by the BMLFUW (2012), information policy is a part of the prevention too. The focus is on the self-empowerment and the knowing about hazards of each citizen to promote their self-provision capacities. Facing cross-border crisis and disasters, the Federal State acts as an information hub and a coordinator of wide spreading events, therefore the Emergency Operation and Coordination Centre was established in 2006. The operative element of the National Crisis and Disaster Protection Management (SKKM) is the Federal warning Centre; it is a permanently manned service location and generates situation awareness in crisis and disasters (Jachs 2011b).

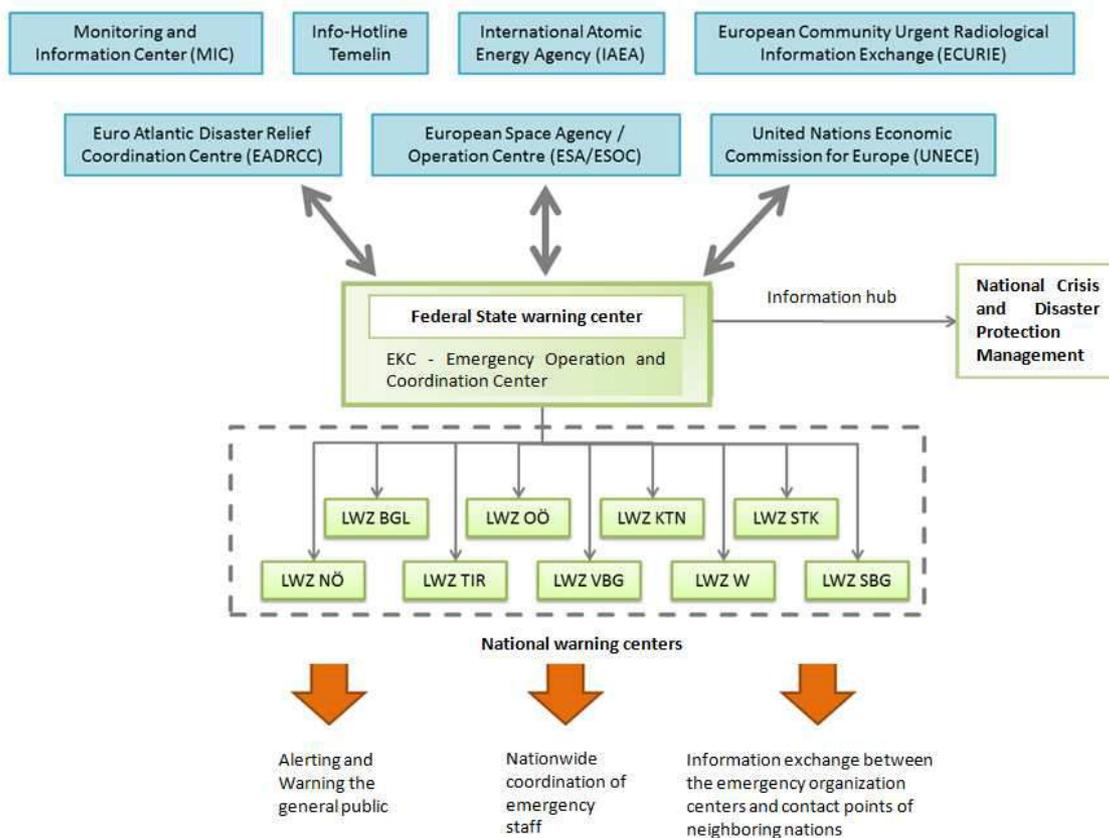


Figure 15: Information flow in disaster situations between the EU and emergency response authorities in Austria

As illustrated in Figure 15, if a large-area event occurs in Austria or its neighbour states, the information will be concentrated at the Federal warning centre, aiming at a rapid communication exchange between authorities inside Austria and foreign warning systems. As contact point for the Info-Hotline Temelin, the ECURIE, the IAEA, the ERCC, the EADRCC and the ESA/ESOC and the Federal warning centres stay in contact with the centres of the countries (Jachs 2011a).

The federal legislator directs the establishment of security centres or warning centres in each province and mandates the development, upgrading and administration of alerting and warning systems to ensure immediately situational awareness. In crisis and disaster case the alert and warning centres (LWZ) acts as a central hub for emergency services by providing appropriate facilities and modern technology. They are responsible to alert and warn the general public in crisis and disaster situations and take regional coordinating actions for their respective countries. Incoming emergency calls are taken by authorized call takers, who have an overview about the available resources and can alert the responsible organization or authority. In 2011, 6.9 billion incoming emergency calls were registered in Austria (Federal Ministry of the Interior 2010). Additionally, their tasks include to link communication between emergency organizations and the neighbouring nations. In the warning and alerting centres of the Federal Provinces, information from various (sensor) systems is merged and registers water levels, wind strength and even radiation levels. They are connected transnationally and enable information exchange beyond national and organizational borders, e.g. information from the Central Institute for Meteorology and Geodynamics, which is Austria's national weather service agency.

5 Capabilities

5.1 Human resources

As explained by Potyka (2012):

However, since disasters have to be remedied in the first place by the persons affected, subsequently also by the local community and the population of the entire region where the disaster occurs, the provinces as well as the municipalities also hold extensive competences in his field. On the local and regional level, the voluntary fire brigades play an important role in combating disasters, both natural and man-made.

In Austria, authorities can draw on approximately 430,631 relief forces (Table 3) in the response to disasters. About 85 percent of the total of human resources will be covered by volunteers. About 14.2 percent of the volunteers have been actively engaged in disaster relief and rescue service (STATISTIK AUSTRIA 2008). As stated by the research institute in 2013, this means a voluntary resource of 360,000 persons (2013). In 2008, 413,000 Austrians were engaged voluntarily and 37.4 percent of them have been regularly participated in disaster missions, which represented about 1,576 hours per week.

The Fire Brigades (ÖBFV) were considered as an acknowledged, traditional organisation. They assume manifold tasks, including fire-fighting, averting dangers and disaster relief. Their organisation principle is based on the various provincial laws. They are organised locally and are operating on the behalf of the municipalities. Fire Brigades exhibit a high degree of technical know-how. The ASBÖ is second largest ambulance in Austria. It is concerned with daily routine tasks, i.e. patient transportation as well as with emergency-related task, such as disaster relief, refugee settlement and providing the rescue dog group. The JUH is not represented in all provinces in Austria, but in the capital city Vienna, it is providing emergency aid.

As a special-skilled force, the ÖBRD is mainly concerned with accidents and emergencies in mountain regions. Therein it performs annually about 7,000 missions. The Christopherus Helicopter Rescue Service, accompanied to the ÖAMTC is another specialized organisation, dedicated to provide quickly help in relief missions. Currently, 250 emergency doctors are joining the CHRHS. The Austrian Red Cross operates internationally and covers 5,600 employees and 51,000 volunteers. On behalf of its mandate based on the Geneva Convention, it is concerned with humanitarian aid, disaster relief and among others with search-services. As one of the biggest NGOs it is experienced with cross-border missions. Primary a part of the ARC, in the meanwhile the MHDA has established itself in the field of ambulance service. The Federal Police Forces will be mainly involved in search and rescue operations, because it is the competence of the police to search for missing persons. In that purpose, the executive body has access to data bases, where missing persons may be registered.

In order to fulfil their duties in emergency cases, the Austrian Armed Forces are built upon Land Forces, Air Forces and Special Operations Forces (Ministry of Defence and Sports 2014). For disaster relief about 12,500 members of Austrian Armed can be mobilised in the case of an emergency. Disaster relief units of the Austrian Armed Forces are composed of volunteers of the active service and militia. If needed, civil specialists, i.e. rescue dog brigade will support them. Specialised forces,

such as the CBRN-defence corps, decontamination units, drinking water purification unit or pioneers will be deployed in certain emergencies.

As illustrated in Table 3, the personnel resources of the most important relief forces have been listed above.

Table 3: Overview on relief personnel for emergencies in Austria

Stakeholder Type	Name	Number of Personnel
Emergency Organisation	ARC	48,500
	ASBÖ	3,879
	CHRS	250
	ÖBRD	11,420
	JUH	590
	MHDA	970
	ÖRHB	724
	ÖHR	298
	ÖBFV	249,000
	Team Austria	33,000
Federal Security Authority	Federal Police Forces	27,000
Governmental unit	Austrian Armed Forces	12,500

5.2 Materiel (non-financial) resources

Especially for radiological emergencies, the federal state established prevention measures by storing potassium iodide tablets, live stocks and some useful items. A total of 5 million packages of potassium iodide tablets are available at schools, hospitals, pharmacies and occupational doctors.

PHAGO pharmaceutical wholesalers maintain a stockpile of over 50,000 pharmaceutical products to guarantee Austria's full supply of pharmaceutical products even during emergencies.¹⁰

Furthermore, about 300,000 tablet packages are stored at the Federal Ministry of the Interior. By an order by the Ministry of Health the tablets will be distributed for free¹¹. For an emergency case, the "Lebensmittelbewirtschaftungsgesetz" regulates the structure and the distribution of food reserves in Austria (AMA 2014). The Federal Minister of Agriculture, Forestry, Environment and Water Management is authorised to set all necessary measures to avoid supply problems. This may include the seizure of goods, the expropriation of goods as well as prohibitions and requirements regarding the use of foodstuffs. Furthermore, the Federal Minister of Agriculture, Forestry, Environment and Water Management can instruct and authorise the governors of the provinces with extensive powers. He or she can also assign the public body of the Agrarmarkt Austria with the handling of

¹⁰ Information is available at: <http://www.phago.at/en/services/stockpiling/>; accessed: 12th October, 2014.

¹¹ Information is available at: <https://www.kommunalnet.at/news/artikel/article/atomarer-super-gau-was-muessen-gemeinden-im-notfall-tun.html?cHash=f21f743b5bf6c5f422e0ad98b9c1e636>; accessed: 11th March, 2014.

food reserves. Appropriate prevention measures have been also defined in the “Lebensmittelbewirtschaftungsgesetz”. Municipalities will have the right to make use of registration data according to the Reporting Act. According to IAEA (2014), the Austrian Central Stockholding Entity (ELG) held an emergency oil stock of about 3.0 Mt (99 days of net imports).

In Austria, emergency stocks are not held separately from commercial stocks – all oil products held by ELG are commingled stocks. The legal framework for Austrian emergency management is the Energy Intervention Powers Act (Energienkungsgesetz 2012) and the Stockholding Act (Erdölbevorrattungsgesetz 2012). Within the review it was stated, that in 2011, a total storage capacity in Austria stood at 6.6 mcm, or around 42 mb of crude oil and oil products. The storage capacity is almost evenly distributed between crude - 53 percent (3.5 mcm) and 47 percent oil products. As identified by IAEA (2014), Austria does not have government stocks on gas, nor does it place an obligation on its suppliers to hold natural gas reserves. In the case of disasters, the Military exhibits a rapid response capacity by mobilising a high amount of personnel. Apart from their availability, their special skills concerning technical know-how, i.e. water purification, CBRN defence capacities and the provision of specialised assets, i.e. the Landesbrückengerät (bridge building devices).

5.3 Training

Training is not organised centrally but authorities and response organisations at each level offer specialised education programs according to their specific focus (2014). Austria for instance has nine fire-fighting schools in the provinces. The qualification of fire fighters is regulated by specific curricula. The qualification of personnel in emergency medical services is regulated by a national law, i.e. the paramedic law which also provides for certification. Governmental authorities also have their internal training system. The Ministry of the Interior furthermore offers specific leadership training in its security academy. In this frame the Ministry organizes different training courses for high-level decision makers. Voluntary participants will be acquainted with theoretical basics as well as with practical principles of leadership. Within the SKKM Strategy 2020 a four-part module-based training program has been defined (Federal Ministry of the Interior 2009). Officials of an authority and the top-level managers of an emergency service will be equipped with an introduction to the legal framework of the disaster management. These insights should build the basis for the second module – leadership in disaster missions. Targeting staff members, as a high-sensitive issue, crisis managers will be trained in the module risk and crisis communication. Finally, within the module “Risk analysis and Disaster Protection Planning” is dedicated to provide an initiation into risk analysis focusing on natural hazards. Furthermore, the Federal Ministry of the Interior coordinates the participation at European training programs and delegates also national experts.

Until now, Austria has completed eight modules of the European Union Modules.

5.4 Procurement

5.4.1 Procurement regulation

Procurement of crisis and disaster management assets is not centralized but it is done by the relevant actors on different administrative levels. Austria does not acquire specialised equipment for international disaster management but uses available resources (Expert Interview 2014). After a formal request for assistance the Federal Ministry of the Interior usually coordinates the provision of relief goods. Given this fact there is currently no explicit national position on this issue which could

be mentioned in this context. Procurement is generally done in accordance with existing national and supranational legislation depending on the deliverables needed.

At the moment, the provision of assistance after the request of a foreign country frequently includes the availability of personnel and material resources. In any case, a strict statutory regulation will be required to regulate such legal aspects.

In Austria, procurements of the MoD is in compliance with the Public Procurement Law and the Federal Defence and Security Procurement Act. The first one implements Directives 2004/17/EC, 2004/18/EC and 2007/66/EC and “therefore covers the legal framework for the award of both public contracts from public entities and entities operating in the water, energy, transport and postal sectors (“sectoral entities”)” (EDA 2014). In addition, procurement of specific defence products and services is regulated by the Federal Defence and Security Procurement Act, which implemented Directive 2009/81/EC. Both federal laws are applicable for purchases above certain thresholds and for those below such thresholds.

Several types of procedures were identified by Stalzer (2014):

- Open procedures
- Restricted procedures (with and without prior notice)
- Negotiated procedures (with and without prior notice)
- Direct Award
- Direct Award with prior notice
- Competitive dialogue
- Dynamic purchasing systems
- Electronic Auction
- Design and Realisation contests
- Framework Agreement

In general, the procurement procedure undergoes three phases:

- Prior information notice (information about planned purchase)
- Announcement of request for tenders
- Announcement of awarding of contract (Announcement have to be published in the media)

As stated by Liebmann (2014), “restricted procedure and negotiated procedure, both with prior notice, are the standard in terms of the upper threshold. Contracting authorities can freely choose between the two procedures. In certain cases, for example negotiated procedure without prior notice, competitive dialogue and direct award are also available.” There was a critical note concerning the limiting measures for EU purchasing markets, which could cause retaliatory measures of third states. In 2011 it was emphasised, that new laws should not limit the contracting body’s freedom of decision-making or the national procurement law. Currently, only few applicants from third states have been taking part in Austrian procurement process is only. An implementation in the case of an imminent danger might be difficulty (Statement from the Federal Republic of Austria on the access of third states to public procurement 2011).

5.4.2 Procurement procedures

It was stated within the report of the OECD (2007) that Austria has a semi-centralised structure of Public Procurement, consisting of the national and the sub-national level. In Austria, public

procurement is regulated by the Austrian Federal Procurement Act (Federal Act Governing the Award of Contracts, 2006) and the public procurement laws of the Federal Provinces.¹²

Figure 16 illustrates the Structure of the Austrian public procurement system.

Structure of the Austrian public procurement system

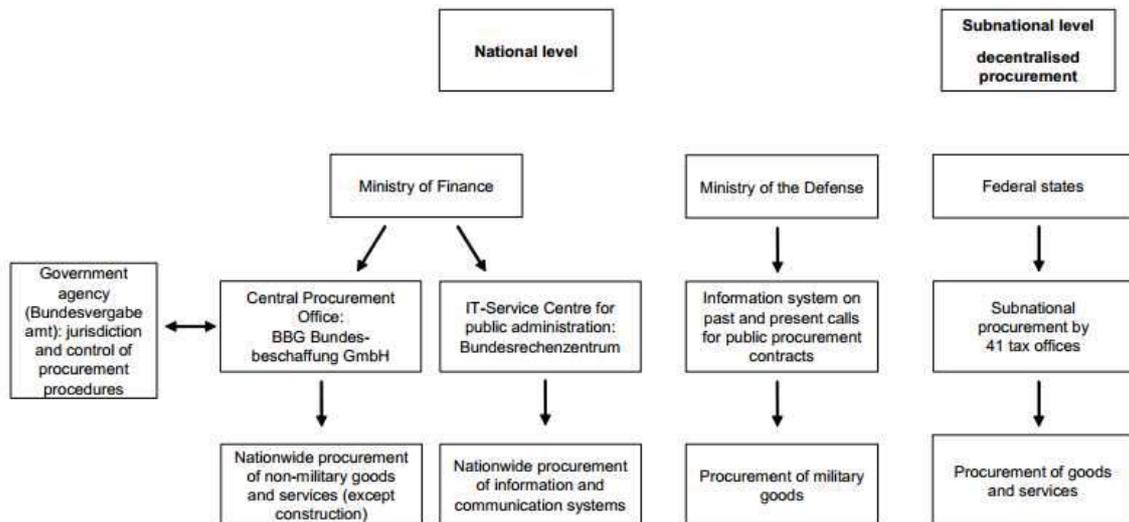


Figure 16: Structure of the Austrian Public Procurement System

Available at: ftp://ftp.cordis.europa.eu/pub/innovation-policy/studies/2_austria.pdf; accessed: 30th November, 2014.

At the national level, the Ministry of Finance, the Ministry of Defence and the government agency for public procurement are the responsible bodies for procurement. The Ministry of Finance is responsible for preparing public procurement rules, regulations and legislation. As sub-ordinated bodies of the Ministry of Finance, the Public Procurement Agency as the Central Procurement Office and the IT-Service Centre for public administration are fulfilling the tasks of nationwide procurement of non-military goods/services and information/communication systems. By establishing the Public Procurement Agency on the basis of the Law to establish the National Public Procurement Agency in 2001, the structure became more centralised. The Government agency for public procurement is dedicated to control and to rule upon public procurement procedures at the federal level. It is the competent authority “to rule upon publish procurement procedures conducted by public entities which fall within the competence of the provinces, cities and municipalities (Structure of the Austrian public procurement system n.d.). The Ministry of Defence is responsible for the procurement of military equipment (goods). An information system on past and present calls for public procurement contracts was established at the MoD. Finally, at the sub-national level, the provinces are the competent bodies for the procurement of goods and services. Additionally, the Austrian Register of Tenderers (AKNO) acts as an information interface between contractors and contracting bodies. The contract award portal of the Austrian Register of Tenderers contains all Austrian disclosures made by the Federal Government, the provinces and municipalities, all invitations for tenders from the supplement of the Official Journal of the European Union and selected invitations for tenders from Eastern Europe. From a strategic viewpoint interoperability is important to differentiate between relevant areas of interoperability. Interoperability can be related to technical standards but also to rules of procedure and management aspects (Expert Interview 2014). Of course there is a need for

¹² An overview on laws concerning public procurement is provided at: <http://www.bundeskanzleramt.at/site/5100/Default.aspx> (only in German); accessed: 29th November, 2014.

Austria to collaborate towards organisational and national borders on all levels like the strategic, operational and tactical level and therefore systems and procedures need to be compatible to a certain degree. Nevertheless it should not be disregarded that an efficient disaster management across borders has to rely on self-sufficient resources as foreseen on European and international level (Expert Interview 2014).

5.5 Niche capabilities

Austria possesses a considerable knowledge in the area of prevention and preparedness for natural, specifically alpine hazards which might be exemplarily. The same applies to the capacity of volunteer work and the self-initiative of the civil society which are very well-established in Austria. With about 431,000 volunteers, who are in some cases specially trained, contributes very well to the resilience of the Austrian society in cases of emergency. In particular the involvement of convergent or spontaneous volunteers within the project “Team Austria” of the Austrian Red Cross and the Ö3 radio broadcasting might be considered to be a best practice model. Current figures estimate the personnel resources of Team Austria with about 30,000 individuals. The MoI emphasised, that from a technical perspective, knowhow in drinking water purification also outlines a special skill of Austria which has been proven in several international operations (2014). Furthermore, similar to Germany, highly regarded experiences in mountain rescue have been perceived in Austria. Bossong and Hegemann (2013) have indicated, that the “strong but contested domestic role of the military” as well as the well-established national security research should be acknowledged as important capabilities. Apart from that, the already mentioned well-functioning early warning system and the well-developed warning infrastructure with over 8,000 sirens should not be disregarded. Due to the fact, that not the whole society is as technophile, by sirens the alerting in emergencies can be ensured.

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The interview partner from the Federal Ministry of the Interior has stipulated to integrate the following note: *"The statements, interpretations, and conclusions expressed in this interview do not necessarily reflect the views of the Federal Ministry of the Interior, the Federal Government, or the Republic of Austria."*



Driving Innovation in Crisis Management for *European Resilience*

BELGIUM

Capabilities, Organisations, Policies, and Legislation (COPL) in crisis management and disaster response

Responsible Partner: ECORYS (Laura Birkman, Linette de Swart)



Scope and limitations

This study serves as supporting information for further work within DRIVER.

Only limited time and budget has been available for this first general survey, which needs to be considered in terms of scope and completeness of the respective studies.

The author/s of this study is/are responsible for its content and quality.

Overview

In Belgium, a distinction is made between emergency situations that arise as a result of a local/provincial/national crisis and those that arise as a result of an international crisis. A national crisis has its origins and effects on the Belgian national territory, and thus will be managed nationally. Serious emergencies, natural- and industrial disasters fit into this category. A Belgian national crisis is first tackled at a local municipal or provincial level, before it is coordinated at the national level. Civil protection forces are organised on the Federal level and act on federal, provincial and municipal requests. Fire fighters however are operationally organised at the municipal level only. If the magnitude exceeds the provinces' abilities, the national crisis organisations step in and act as crisis coordinator (operationally managed via numerous departments and operational units, falling under control of the Minister of Interior Affairs).

International crises in Belgium are generally managed within the framework of multilateral organisations. The national level has installed a crisis centre (also under supervision of the Minister of Interior affairs), steering these crisis situations. This centre is also the contact point for international crisis situations. Within this crisis centre, one knowledge centre is embedded. A second knowledge centre, focused on proactive emergency planning, is directly steered via the Ministry of Interior Affairs.

Key stakeholders are the municipal level (Mayors), the Provincial level (Governors) and the Federal level (Minister of Interior Affairs, Ministers Council, Committee of Infrastructure The Federal Crisis Centre, Federal Knowledge Centres (2), DG Civil Protection, Prevention DG's (2), Red Cross, B-Fast, Military etc.). The private sector, e.g. Hospitals, is hardly involved. Fire fighters from Industrial Chemical plants can be called for support in crisis situations.

Belgium does not have a structural policy review put in place. The latest review of crisis management policies was organised in the years before a new framework law on Civil Protection was adopted, in 2007. The Federal Parliament has a Commission in Infrastructure, also treating large incidents related to transport (for example Buizingen and Wetteren railway incidents). These railway incidents are also analysed by the Belgian safety organisation DVIS, part of the railway market competition authority structure.

The Belgian civil protection agency has a unique structure for international aid. The B-fast team is on purpose lean and therefore agile.

Several departments of the Ministry of Interior affairs, the Belgian Knowledge Centre on Civil Security and experts of the Civil Security organisation were contacted. We did not manage to arrange a telephonic interview or review of our analysis.



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List of Abbreviations

CGCCR	Coördinatie- en crisis centrum van de regering
HIN	Higher Institute for Emergency Planning
KCCE	Federal Centre of Expertise for Civil Protection
B-fast	Belgian First Aid and Support
BELINTRA	Belgian Intervention System for Transport Accidents

1 Policy

In Belgium, a distinction is made between emergency situations that arise as a result of a local/provincial/national crisis and those that arise as a result of an international crisis.

A national crisis has its origins and effects on the Belgian national territory, and thus will be managed nationally. Serious emergencies, natural- and industrial disasters fit into this category. A Belgian national crisis is first tackled at a local municipal or provincial level, before it is coordinated at the national level. Civil protection forces are organised on the Federal level and act on Federal, provincial and municipal requests. Fire fighters however are operationally organised at the municipal level only. If the magnitude exceeds the provinces' abilities, the national crisis organisations step in and act as crisis coordinator (operationally managed via numerous departments and operational units, falling under control of the Minister of Interior Affairs).

International crises frequently fit into a more political and/or military framework, and usually find their roots beyond national borders. These types of crises are in Belgium generally managed within the framework of multilateral organisations. The national level has installed a crisis centre (also under supervision of the Minister of Interior affairs), steering these crisis situations. This centre is also the contact point for international crisis situations. Within this crisis centre, one knowledge centre is embedded. A second knowledge centre, focused on proactive emergency planning, is directly steered via the Ministry of Interior Affairs.

Within the first section of this chapter, a risk assessment is specified. Based on a short overview of former national and local risks, a shortlist of likely type of emergencies is created. The second section sums up the policy framework dealing with these risks. The circle prevention, preparedness, response and relief and recovery is followed for describing the policies.

The third section gives more insight in the financing of the organisations involved in the crisis management operations and crisis management policy making. A separate section (1.4) is dedicated to the policy review cycle. The last two sections discuss the resilience aspect of Belgian crisis management and the information/data sharing and data protection.

1.1 Risk Assessment

Belgium, 10.4 million people on 30,528 sq. km, has a temperate climate with mild winters, cool summers and is on average rainy, humid and cloudy. Belgian territory has a coastal area in the north-west. There we find reclaimed land, protected by dikes. More central, a central plateau can be found. This is a smooth, slowly rising area that has many fertile valleys and is irrigated by many waterways. Last, the Ardennes uplands, found in the south-east, are thickly forested plateau, very rocky and not very good for farming. These extend into northern France and in Germany

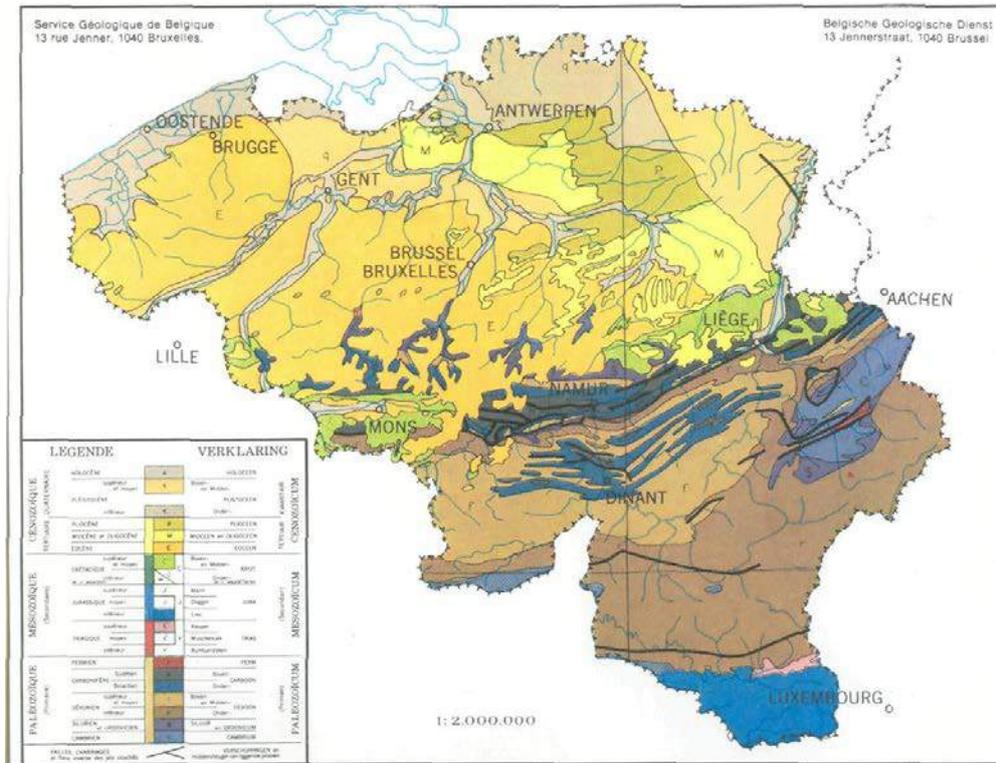


Figure 1: Geological map of Belgium

As a result of the dense population, the environment is exposed to intense pressures from human activities: urbanization, transportation, industry, animal breeding and cultivation; air and water pollution also have repercussions for neighbouring countries while uncertainties regarding federal and regional responsibilities have slowed progress in tackling environmental challenges.

1.1.1 Former risks

The list below of former National emergencies highlights again the major disasters in the country's national history. These are related to transport-, industrial- and natural disasters (of which floods are frequently seen).

Table 1: List of major disasters Belgium 1953-2014

2013: Train accident Wetteren with 1 causality and 33 wounded
2010: Train accident in Buizingen with 18 casualties and 50 wounded
2010: Gas explosion in Liège with 14 casualties and 40 wounded
2004: Major industrial gas accident in Ghislenghien with 24 casualties and 131 wounded
2002, 26 Aug: Flood, 600 people affected
2002, 11 Feb: Flood, 1,200 people affected
1999: Storm, 905 people affected
1998: Flash floods affecting 173 communes in five provinces, causing damage estimated to several billion Belgian francs

1995: Fire in the Switel Hotel (Antwerp) at New Year's eve: 15 dead
1995: Floods in the Scheldt and mainly in the Meuse Basins: major damage spread over 127 communes in nine provinces
1993: Floods in the Meuse, Scheldt and Yser basins: major damage in more than 193 communes in nine provinces (on 10)
1990: Major storms: 19 dead, dozens of people injured, hundreds of hectares of woodland destroyed
1987: Ferry Herald of Free Enterprise capsized at Zeebrugge: 193 dead
1985: Hooliganism in the Heysel stadium: 39 dead, 400 injured
1983: Earthquake in Liège: 1 dead, 26 injured
1967: Fire in the department store "L'Innovation" (Brussels): 325 dead
1956: Mine disaster at Marcinelle (Charleroi): 262 dead
1953: Tidal wave and flooding of the province of Western Flanders

Source: EC, 2014

This list links to the overview given in the next table, showing a sub-section: only the natural disasters (data retrieved from 1980-2010) are discussed. Of the 39 events in these 30 years, 18 were related to storms, 13 to floods, 6 to temperature and only 2 to earthquakes.

Table 2: Natural disasters Belgium 1980-2010 per category

Overview	Total
Number of events	39
Number of people killed	2,158
Average killed per year	70
Number of people affected	6,912
Average affected per year	223
Economic damage (in 1000 USD)	2,161,132
Economic damage per year (in 1000 USD)	69,714

Source: Preventionweb, 2014

Besides the emergencies of a national scale, a variety of local and regional interventions is encountered. These are shown in the next table. This table, showing the services delivered by the civil protection forces, shows the type of interventions undertaken, and their average share in the total number of interventions per year.

Next to the earlier defined crisis types of storms and floods, traffic accidents, humanitarian crises, fire and pollution emergencies also ask capacity from the Belgian civil protection services.

Table 3: Civil protection services, type of national and local interventions 2011-2013

Intervention type	2011	2012	2013	%
Fire	286	323	300	12
Pollution	955	1069	907	13
Floods	473	166	111	4
Water supply to civilians	698	391	169	2
Traffic accident	174	232	442	16
Collapse	63	71	65	1
Explosion	14	14	9	0
Storm	44	151	150	6
Diving	73	151	150	6
Bomb alarm	3	2	1	0
Wasp nests	50	36	25	0
Traffic – road work accidents	369	208	355	5
Humanitarian crisis	60	71	62	7
Prevention	35	45	39	2
Logistics	189	181	131	4
Exhibitions - demonstration	92	100	82	6
Juridical support	153	142	159	6
Dangerous unattended packages	5	44	83	1
Others	288	263	336	10
Total	4035	3612	3599	100

Source: Civil protection Belgium, 2014b

1.1.2 Risk mapping

To conclude, as a result of the geographical terrain of the country flooding is a threat along rivers and in areas of reclaimed coastal land, protected from the sea by concrete dikes.

The country is densely populated and concentrates four seaports, a national airport and a significant industrial production on a limited number of km². The port and airport have connections to all countries in the world, often direct. The port of Antwerp is the second biggest petrochemical cluster in the world, following Houston, Texas (US). Belgium has seven nuclear reactors generating jointly about half of its electricity needs. The energy supply is depending for more than 50% on nuclear power. Therefore other threats are nuclear, seveso and contagious animal diseases.

The country houses many European and international institutions. These are concentrated in Brussels. The last one to add is as such terrorist threats.

The main threats are, listed in an unranked order:

- Flooding
- industrial risks
- transport risks
- nuclear risks
- seveso risks
- contagious animal diseases
- and terrorist threats.

1.2 Policy and Governance

The Belgian crisis management framework builds up from the local municipal level. The next level is the provincial level. The third and last level is the national/federal level. The regional policy level is not involved in the Belgian crisis management.

The first phase of management is based at the local level, for which the mayor is responsible. The governor of the concerned province is in charge from the moment the scale of the crisis exceeds the municipal territory. Third, when the crisis would exceed the boundaries of the province, the Minister of Interior Affairs becomes accountable.

The Belgian policy follows the circle of prevention, preparedness, response and relief & recovery. The main stakeholders and institutes are shown in the figure below. The focus is laid on the response aspect.



Figure 2: Policy and governance Belgian crisis management

From our analysis, it also became clear that the institutes are more integrated than shown typically in the circle of crisis management. The institutes are largely based at the Federal level, rather than at the provincial or municipal level.

Therefore, the Federal services are structured separately via the next figure. As such the policy for crisis management, structure and political responsibilities in national crises should become clearer.

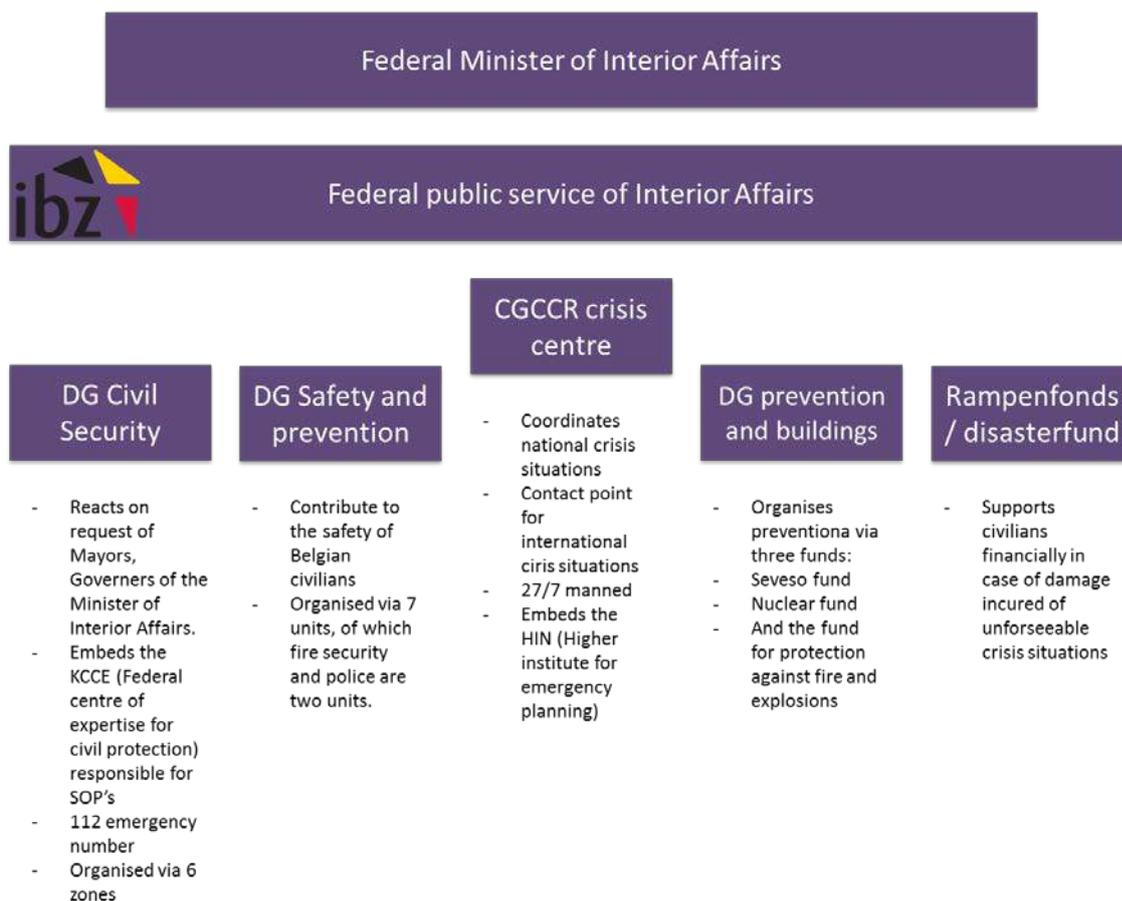


Figure 3: Main Belgian federal civil protection organizations

The Federal Minister is supported by several DG's, all under his control. The Federal - CGCCR - crisis centre is the hub in crisis management, and steers the cooperation with the operational civil protection forces which are part of the DG Civil Security of the Federal Public Service Interior Affairs. This DG intervenes at the request of the minister of Internal Affairs, the governors, the mayors, the fire departments or the police and provides reinforcement to emergency services with heavy and specialized equipment. The DG embeds the 112 emergency number via which civilians can contact the emergency services and the knowledge centre civil protection (KCCE). The DG additionally coordinates with the Belgian fire fighters (operationally organised via the municipalities). (Civil protection Belgium, 2014)

Only the national level is responsible for the legislative process. The local, provincial and federal level are all responsible for setting up emergency plans for their respective territory. But the plans are designed within the HIN, falling under the CGCCR. (Civil protection Belgium, 2014)

1.2.1 Strategy scope and focus

The structure of organisations foresees the complete circle of crisis management, including prevention, preparedness, response and recovery. The focus is however laid on the response tasks. The sections 1.2.3 till 1.2.6 discuss the policies for prevention, preparedness, response and relief and recovery.

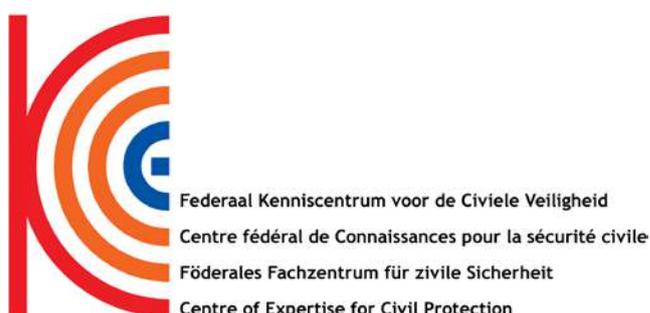
1.2.2 Monitoring and analytical support to policy making; R&D

Analytical support is given to the civil protection services via two institutes: the Higher Institute for Emergency Planning (HIN) (Part of the CGCCR) and the Federal Centre of Expertise for Civil Protection (KCCE) (separate service within the DG Civil Security. (Civil protection Belgium, 2014)



Firstly, the Federal Crisis Centre embeds since 2003, the KB 29 July 1991 founded, Higher Institute for Emergency Planning (HIN). This institute is responsible for sharing information on the multidisciplinary and strategic aspects of CEP and is assigned for maintaining a close link with academic experts in crisis management.

The institute also spreads information via trainings, brochures and participating at other initiatives.



Secondly, the Federal Public Service Interior Affairs embeds the, founded on the 28th of March 2007, Federal Centre of Expertise for Civil Protection (KCCE). The centre is assigned to collect information on civil security so the quality of their services is increased and being updated to the latest standards.

The centre has an own management and is partly detached from the other departments of civil security. More importantly for the operational aspects, later discussed in chapter 4, is that the centre also develops Standard Operating Procedures (SOP's). (Civil protection Belgium, 2014)

1.2.3 Policy for Prevention

Prevention is institutionalised via the DG Safety and prevention and the DG Prevention and buildings, two DG's falling under the Federal Ministry of Interior Affairs.

The main task of the first is to contribute to the safety of Belgian civilians, via intense cooperation with a network of partners, enforcing specific safety and security legislation including the responsibility of giving sanctions in case of non compliance and last prevention (fire and burglary for example) specifically aimed at civilians.

The DG consists of seven units:

1. Fire security

The unit supports the regulatory framework development for all buildings except for housing of households.

2. Control

3. Conflicts and jurisdictional support

4. Lokal integral safety

5. Police

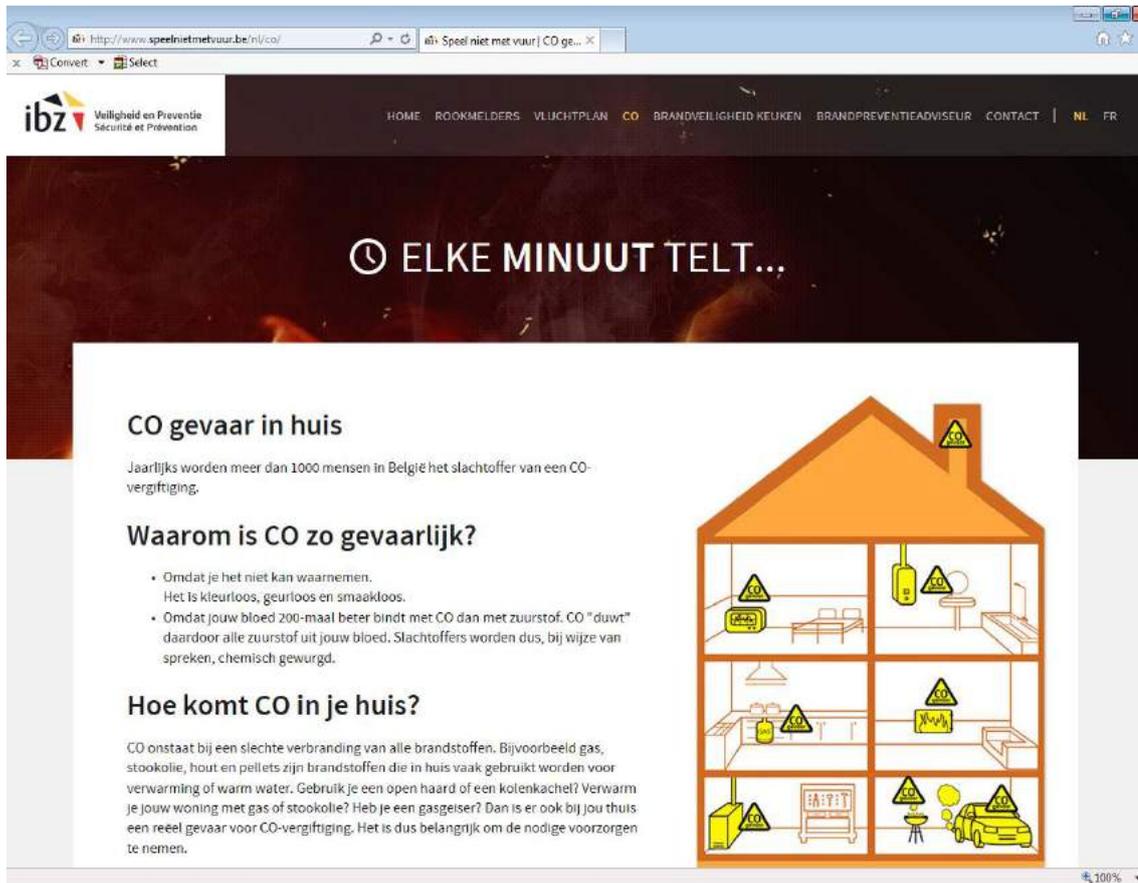
6. Private security

7. Footbal unit

The DG 'Prevention and buildings' manages three instruments discretely targeted at risk control: a Seveso- and a Nuclear fund and a fund/council for protection against fire and explosions; discussed under 1.3.1. (IBZ, 2014)

The DG's unit responsible for housing of civilians launched in 2010 a National fire prevention plan. This plan was identified as a best practice in prevention due to the large approach to the general public and communication via social media. (IBZ, 2014)

- Civilians were made aware of the fire risks and fire prevention measures via a website <http://www.ismijnwoningbrandveilig.be> and via social media. These prevention measures focus on installing a smoke detector, investing in fire equipment (blankets and extinguishers), avoiding the use of stand-by mode for electronic equipment etc.



ibz Veiligheid en Preventie
Sécurité et Prévention

HOME ROOKMELDERS VLUCHTPLAN CO BRANDVEILIGHEID KEUKEN BRANDPREVENTIEADVISEUR CONTACT | NL FR

⌚ ELKE MINUUT TELT...

CO gevaar in huis

Jaarlijks worden meer dan 1000 mensen in België het slachtoffer van een CO-vergiftiging.

Waarom is CO zo gevaarlijk?

- Omdat je het niet kan waarnemen. Het is kleurloos, geurloos en smaakloos.
- Omdat jouw bloed 200-maal beter bindt met CO dan met zuurstof. CO "duwt" daardoor alle zuurstof uit jouw bloed. Slachtoffers worden dus, bij wijze van spreken, chemisch gewurgd.

Hoe komt CO in je huis?

CO ontstaat bij een slechte verbranding van alle brandstoffen. Bijvoorbeeld gas, stookolie, hout en pellets zijn brandstoffen die in huis vaak gebruikt worden voor verwarming of warm water. Gebruik je een open haard of een kolenkachel? Verwarm je jouw woning met gas of stookolie? Heb je een gasfles? Dan is er ook bij jou thuis een reeel gevaar voor CO-vergiftiging. Het is dus belangrijk om de nodige voorzorgen te nemen.



- The government made available funds to train fire prevention advisors. These are equipped with a trolley to support them in giving lectures. The trolley contains smoke detectors, fire blankets, fire proof building materials etc. In November 2010, 87 advisors were active in 28 operational zones (steered via the local fire fighters).

The Minister for Internal Affairs of the Belgian federal government is responsible for the legislative developments. The Minister takes initiative.

1.2.4 Policy for Preparedness

According to the concept of civil protection preparedness is the key function, performed at national, local, and individual level that provides effective protection of people and infrastructure from natural and other disasters.

Belgian national, provincial and local **contingency plans** for emergency protection, rescue, and relief are drafted based on the input from the Higher institute of Emergency Planning – **HIN**. The knowledge on crisis management is also updated by the **KCCE**. The process of drafting the emergency plans is discussed in section 4.1

A plan for regular **training of volunteers and professionals** is combined with an **ad-hoc approach** for **public awareness on hazards** (on the initiative of the DG's discussed in section 1.2.3). Trainings are organised via the Federal training institute and 10 provincial training institutes. These are discussed in section 5.3.

The **crisis level is continuously monitored** via the Federal **CGCCR** Crisis Centre. Based on inputs of different sources of information and alarmings from civilians and professionals (Mayor, Governor, DG Civil Security and Police), the level of crisis is monitored.

Organ for Coordination and Analysis of Threats

A specific source of information on terrorist threads is the OCAD, founded by a KB of 28 November 2006. The OCAD is a Federal organisation coordinating between the Belgian police and Intelligence departments. Supporting organizations like Police, Customs, Ministry of Interior Affairs (DG immigration), Ministry of Mobility and Ministry of Foreign affairs are legally obliged sharing information. Conclusions on the threat levels are shared if appropriate. The OCAD is managed by the Minister of Justice conjointly with the Minister of Interior Affairs. (OCAD, 2014)

1.2.5 Policy for Response

The following figure highlights specifically the Federal CGCCR crisis centre, which is the hub in the crisis management structure. The purple dots are the main units within the department. These exist of the 112 emergency phone number, the KCCE knowledge center, the DG operations and the DG material and new technologies.

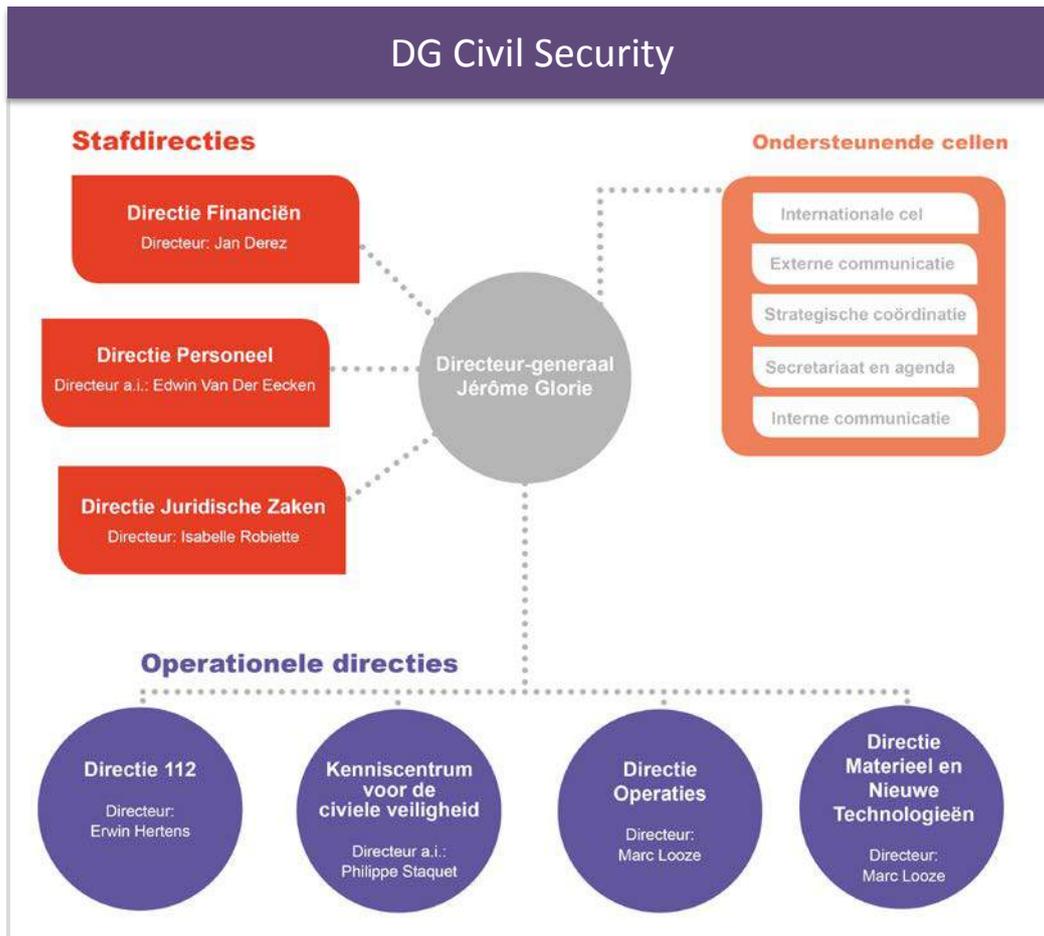


Figure 4: DG Civil security of the Federal Public Service Interior Affairs

The direction 112 is a separate service coordinating the communication between the civilians in need of assistance in crisis situations and the professionally organised emergency services (police, medical aid, civil security etc.). The second purple dot is the KCCE, discussed under 1.2.2. separately. The third dot from the left is the DG Operations, managing the interventions (these are discussed separately under 4.2). The last dot is supporting the procurement of materials and equipment (discussed under 5.4). (Civil protection Belgium, 2014)

1.2.6 Policy for Relief and Recovery

The financing of recovery of fires is organised via the civilian's fire insurance, which is also integrating damage occurred as a result of flooding, damage as a result of flooding sewages and damage as a result of earth movements (since legislative decision KB 28 February 2007). (IBZ, 2014)

When the civilian's fire insurance does not cover the damage incurred¹, and the Minister declares the damage to be originating from an unforeseeable natural disaster, a fall back system named "Rampenfonds/Disaster fund" can (however should not) be activated². (IBZ, 2014)

The system 'rampenfonds' is a policy approach, not a concrete organisation. The approach is actually covering several institutions assisting civilians when recovering from a natural disaster and acts in a three step organisation. (IBZ, 2014)

- First, the **local administration** is involved for collecting detailed information in the damage.
- Then, the **provincial level** bundles the local information to a report, which is submitted to the Federal service 'Rampenschade'.
- If the **Minister of Interior Affairs** declares the damage to be falling under the fund, the report is discussed at the Federal Minister council. If approved by the council the Federal service 'Rampenschade' transfers the responsibility of covering the costs to civilians to the 'National fund for natural disasters', responsible for the financial part and falling directly under the National treasuries. The Ministry of Interior affairs communicates with the civilians. The next table shows the most recent data on the payments made by this service.

¹ Damage already insured by the voluntarily fire insurance is never covered by the fund. If the damage was not insured due to poverty of the household involved, a contribution might be paid by the fund. All other goods, not insurable, as covered by the fund (with restrictions on budgets and involving own contributions).

² The mayor is responsible for collecting as much as possible information on the magnitude of the damage (all households make pictures of the damage and estimate the costs). The mayors give the gathered information to the governer of the Provice, which asks the Federal Minster of Inetrior Affairs to declare the "Rampenfonds" to be applicable.

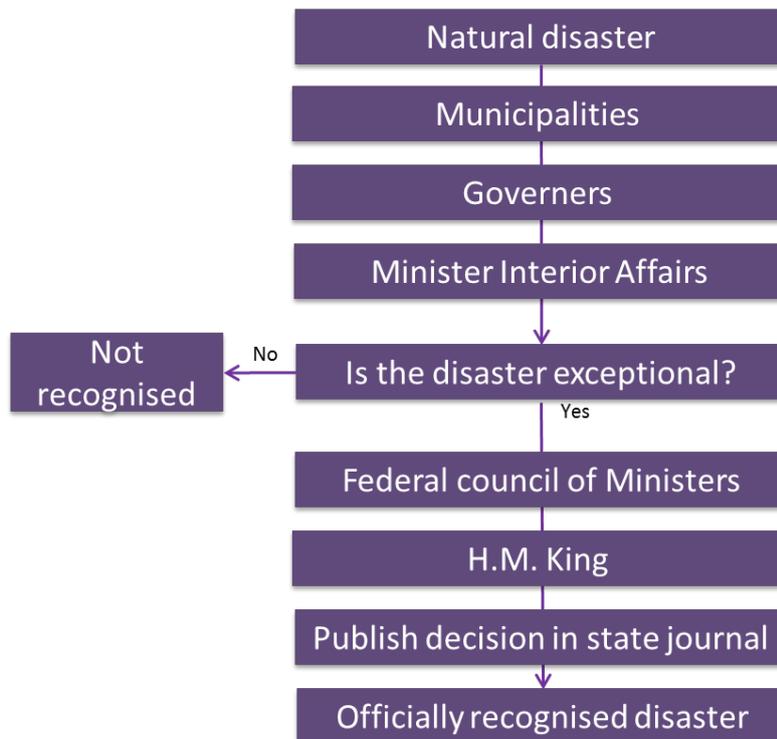


Figure 5: Flowchart rampenfonds

Source: IBZ, 2014

In the year 2010, the most recent data retrieved, the Federal government decided on the acceptance of incurred costs as a result of unforeseeable natural disasters of over 4 million EUR. The number of accepted files by the governors was 1.654; the number of accepted national disasters was 17. (IBZ, 2014)

Table 4: Most recent data on payments made by the service 'Rampenschade'

	Decided between 01/01 and 31/12/2010	Payments made between 01/01 and 31/12/2010
Total	4.159.268	3.991.257

Source: IBZ, 2014

The amounts mentioned in the table above are an underestimation of the average damage per year. A recent storm on 7, 8, 9th of June 2014 damaged for example 42,000 cars and a significant number of houses. A total of 172,000 claims were filed. The estimated damage, of the ongoing disaster procedure, amounts over 500 mil. EUR countrywide. (IBZ, 2014)

Additionally, the 'Rampenfonds' covers the costs of explosives of World War 2 and damage to Belgian private property incurred in Congo, at the moment the country declared itself independent. Both represent a minor part of their tasks. (IBZ, 2014)

1.3 Financing

The next sub-sections discuss the financing of crisis management in Belgium. The First section details the funds assigned for investing in preparedness and prevention. The second section discusses the investments made in consequence management, here narrowed down to the budget of the DG Civil Protection.

1.3.1 Investing in preparedness and prevention

The Civil Security organisation is investing in preparedness for fire and explosions, nuclear-, chemical- and biological incidents. The DG 'Prevention and Buildings' supports the Ministry of Interior affairs and prepares measures and plans to limit damage in case of an emergency. Therefore the Department also invests in research on preventions. The Department specifically organises prevention via three funds (IBZ, 2014):

- The seveso fund
The Seveso fund is financed by the companies falling under Seveso legislation. The revenues collected are gathered in two funds: One 'Fund for the risks of major accidents' and one 'For the prevention of major accidents'. The first falls under the Ministry of Home Affairs, the second falls under the Ministry of employment. The funds support related prevention like for ex. the realization of information campaigns, the purchase and the maintenance of specific material of intervention, the management of the network of sirens, the provision of a databank of a dangerous goods to the fire protection organizations are financed thanks to the funds.

The next figure shows the cover of a recent leaflet distributed to 400.000 Belgians on the procedure when being found in a Seveso crisis situation. The folder was first distributed directly to civilians living in Seveso risk areas and second via municipalities. The budget for the campaign was 1 mil. EUR.



Figure 6: Belgian seveso campaign

In 2012, the campaign was complemented with an online campaign targeted at young Belgians. The website was shaped as a game: Seveso The Game: Be The Ultimate Survivor. In the game the young people experience the Seveso risks and procedures in a less formal way.



Figure 7: Example of a recent campaign targeted at young Belgians. Financed by the Seveso fund

- The nuclear fund
The development of Belgian CEP Nuclear plans are supported by the funding foreseen by the Belgian Nuclear sector itself. The sector contributes to the Belgian Nuclear funds. This fund supports the coordination of protection measures in case of emergencies.
- The fund/council for protection against fire and explosions.
Belgian's Federal level is responsible for the basic norms of fire protection and fire prevention. This council sets up these regulations, which can be complemented with local legislation or legislation of the regional level. The council for protection against fire and explosions has an advising and guiding role. The fund also supports professional training, funds research and is taking care of information sharing.

The department additionally supports local policy makers and police departments in developing crisis management measures, supports the process of settlements if civilians were to incur damage as a result of police actions and also evaluates the compliance of private security organisations with regulation.

The financial significance of the funds is discussed in the overview table below.

1.3.2 Investing in consequence management

The budgetary details of the Belgian civil fighter services are shown in the next table. Every line is grouping a number of sub-activities. A further level of detail would make the table less comprehensible. The first category is the largest budgetary line, totaling in 2007 to 30 mil. EUR, almost half of the total budget. The majority of the costs are attributable to staff costs. The next

category is dedicated to the ASTRID communication tool, discussed in section 4.4. Operational costs total to 16 mil. EUR while the cost of materials accounted for a value of 1.5 mil. EUR. The seveso and nuclear funds, discussed in the section above have a financial capacity of 7 and 3 mil. EUR, while war damage (of World War 2) was accounting to 0.2 mil. EUR.

Table 5: 2007 Budget Belgian Civil Security (DG Civil Security)

Category	Budget in 1000 EUR
Overhead and fixed dotation Federal government	30572
Of which intervention costs	440
Of which staff costs	28307
CAD-ASTRID	84
Operations civil security	16199
Fund for investing in material and equipment of fire fighters	1507
Seveso fund	7088
Nuclear fund	2962
Damages paid to others	10348
War damage	214
Coastguard	13
TOTAL	68987

Source: IBZ, 2007

When the “Rampenfonds/Disaster fund” is activated, the damages are paid ad-hoc by the National Treasuries. If not, the damage is paid by the insurances (fire insurance which is since 2007 legally also covering damage as a result of floods).

Costs of the civil protection are paid from their assigned budget, and are seldomly reclaimed from the civilians relying on the services.

1.4 Policy review, Evaluation & Organisational Learning

Belgium does not know a regular or institutionalised civil protection policy review. The Federal parliament has installed several Commissions in which specific topics are discussed. The Commissions prepare the legislative work (Federal legislation, resolutions, reviews of the Constitution), so plenary sessions are more efficiently organised. One of the 11 permanent Commissions is dedicated to Infrastructure. This Commission also discussed transport related issues.

- The Commission infrastructure discussed for example the political consequences of the 2013 railway incident in Wetteren. The Commission members heavily debated the operational organisation of the crisis management, the political consequences and the lessons learned. No concrete legislation was voted after the discussion.

The Commissions also have the possibility to establish case-specific Commissions. Following the railway incident in Buizingen in February 2010, 18 casualties and 150 wounded, a dedicated

Commission railway safety was founded. The Commission explicitly not researched the railway incident itself, but had a broad review of the lacking safety culture at the Belgian railways. The Commission called on a team of experts to independently give advice on the issue. Moreover, stakeholders were invited to the Commission's meetings to testify.

- Questions were asked about the past choice of the Belgian railways for the tailor made TBL1+ safety system, instead of the future European ETCS safety system. It was advised to the infrastructure manager to implement the ETCS safety system faster than originally planned.
- Questions were asked about the former investment decisions and lack of investments in safety enhancing tools.
- It was also discussed that the national railway organisation SNCB should take specific measures for improving the railway safety in larger stations, especially the ever increasing safety risk of overruns of (red) signals.
- The DG Safety and interoperability of the railways (DVIS, part of the Federal Ministry of Mobility) was assigned as a stakeholder with a need for extra capacity. With this capacity, the DVIS can perform more audits. The DVIS was advised to expand the range of activities and become a safety platform for the railway sector.
- The Commission made the advice for better shaping a safety culture at the SNCB (eg. Trainings and prevention campaigns).
- As last, the Commission made the advice for better organising the training of future railway personnel. The personnel should be able to attend these trainings.

1.4.1 Post-Disaster Assessment

Belgium does not know a regular or institutionalised post-disaster assessment. Knowledge is built at the Federal Knowledge Centre Civil Security and the Higher Institute of Emergency Planning.

1.4.2 Departmental Lessons Learned systems

Belgium does not know a regular or institutionalised post-disaster assessment. Knowledge is built at the Federal Knowledge Centre Civil Security and the Higher Institute of Emergency Planning.

1.4.3 Centralised (national) Lessons Learned system

Belgium does not know a regular or institutionalised post-disaster assessment. Knowledge is built at the Federal Knowledge Centre Civil Security and the Higher Institute of Emergency Planning.

1.4.4 International exchange for Lessons Learned

Belgium does not know a regular or institutionalised post-disaster assessment. Knowledge is built at the Federal Knowledge Centre Civil Security and the Higher Institute of Emergency Planning.

1.4.5 Regular policy reviews

Belgium does not know a regular or institutionalised civil protection policy review. A last review took place in the preparation of KB 15 May 2007; Wet betreffende de civiele veiligheid.

1.5 Resilience

Federal legislation exists for dealing with emergency situations during national crises (crises involving more than one province). The Minister competent for Interior Affairs is then authorized to engage the Integrated Police, the rescue services, and the Civil Protection Corps. Furthermore, in times of crisis, the Minister of Interior Affairs, the Governor of a Province and the Mayor are authorized to call upon any civil resources if required and, under certain conditions, the armed forces. Also the Minister of Economic Affairs and the Minister of Agriculture have been given extensive powers in order to maintain or restore essential economic activities, and to satisfy the vital needs of the population.

1.6 Information sharing and data protection

No information could be obtained about information sharing and data protection.

2 Legislation



In 1934, the “Liga voor Passieve Luchtbescherming van de Bevolking en de Burgerlijke instellingen” was founded as a result of the tense international climate. The volunteers of the *liga* had to warn the civilians in case of air strikes, had to provide first aid care and had to clean rubble after the strike. The organisation was embedded in the army in 1938 whereas it was till before ‘38 part of the Ministry of Internal affairs. The control stayed there only temporarily, till 1940. The name changed over time to the ‘Belgian Civil Protection. In 1963³, the concept was defined as **“The civil protection encompasses all civil measures and tools needed in order to guarantee the preservation of Belgian population, guarding the country’s patrimonial in times of armed conflicts. The civil service also has to goal to intervene in crisis situations, catastrophes and damages of all kind and should then at all times aid civilians and protect goods.”** There, for the first time evacuation, prevention and coordination were introduced. (Civil protection Belgium, 2014)

The tasks evolved as the international climate changed. In national legislation, Belgium still has the concepts of ‘peacetime’ and ‘wartime’ are defined. ‘Peacetime’ is defined as the absence of war. According to this definition, wartime starts with the mobilization of the armed forces and ends with the cessation of the mobilization. During wartime, extensive powers are granted to national authorities, and these prevail over individual rights. During wartime, an even more restrictive legislation can be applied upon the decision of the Government. A so-called ‘State of Siege’ transfers major responsibilities from civil to military authorities. (Civil protection Belgium, 2014)

Currently, the Civil Protection is not fixated on airstrikes but is organised to support fire fighters and civilians in case of larger crisis situations where expertise, technical aid and specific equipment is needed. A Royal Decree of 1990⁴ states that the obligation of all public administrators, municipalities, provinces, hospitals and enterprises is to develop individual emergency plans in relation to their own particular risk possibilities. The KB was updated by a KB on the 16th of February 2006. The Civil Protection is assigned to support the plans and execute/coordinate the operational tasks. (Civil protection Belgium, 2014)

2.1 Crisis (emergency, disaster) management concept

Currently, the Belgian crisis management concept is consisting out of a three layered approach. The municipal level is responsible for crisis situation on the municipalities’ ground. The mayor is responsible to coordinate the emergency management.

³ KB 31 December 1963

⁴ KB 19 June 1990

The second level is provincially organised. When the scale expands over the territory of two municipalities, the governor has the task to organise the crisis management.

Only when the crisis grows to a larger level, the Ministry of Interior affairs becomes accountable. He is supported by amongst other departments the National Crisis centre (CGCCR).

The operational organisation differs from the emergency planning. The local level, municipalities and cities, are assigned to organise municipal fire fighter services. Not every municipality has an own fire fighter services, cooperations exist. The new organisation of zones (from 1/1/15 on) speaks of 34 emergency zones for Belgium. All these services are supported, when needed, by the civil protection services. The provincial level does not have own emergency equipment or staff.

2.2 General crisis (emergency, disaster) management law

Belgium experienced some disastrous emergencies in the 1960's and 1970's. The tornado of Oostmalle and the explosion of a tank truck in Martelange (both in 1967) revealed a lack of coordination at the emergency services. The services were numerously ready, but were working uncoordinated. Also the fire in the shopping mall Innovation, that same year, resulted in a catastrophe. The 325 corpses were amateuristically grouped at the premises and identification was therefore quasi impossible.

It lasted till 1970 till the Belgian emergency services organised the emergency planning structurally. First, specific plans were made for pipelines, for air crash incidents and for railway incidents. The plans were developed at the National level. The explosion at PRB Balen⁵ was the event (1975) where it was decided on to further split the fire fighters from the civil protection services. The incident was that large and therefore was badly attacked, with a result of almost total loss of evidence.

The following years led to a further professionalization of the emergency management. In that respect, in 1984, a bi-lateral agreement was made between Belgium and The Netherlands. In case of emergencies, both countries would inform one another, and provide aid and assistance.

Internally, the crisis management was further streamlined. As the result of the Herald of free Enterprise disaster (1987), a permanent manned crisis centre was set up. The CGCCR is coordinating at the Federal level in case of emergencies. Larger companies experiencing a crisis/disaster are legally obliged informing the centre in case of an emergency.

In 1989, the Uniform Municipal Emergency law⁶ was passed. From then on, local emergency plans were streamlined. These have since than a uniform structure. The mayor is assigned as crisis manger

⁵ The explosion of 4 rail wagons with ammunition; 70 ton dynamite.

⁶ Uniform Gemeentelijk Rampenplan (UGR).

for local crises. In 2003, a new national Nuclear emergency plan is adopted, amending the legislation of 1963. The KB of 28 March 2003 assigns emergency tasks to the municipal and provincial level and develops general and specific emergency plans. The KB of 16 February 2006 updates the plans and terminology. This KB is followed by 4 explanatory circulars (NPU-1, explains more details; NPU-2 defines emergency plans for the provincial governor; NPU-3 defines the procedure for adopting provincial emergency plans and NPU-4 details the 5 operational disciplines for the emergency services. From then on, the current three levelled approach is adopted: municipal, provincial and Federal level. (Civil protection Belgium, 2014)

In 2007, a new and crucial Framework law⁷ was adopted sharpening the current and future crisis management organisation. Therefore, this law will be discussed below.

Art 11. Of the second chapter defines clearly the tasks and organisation of the Belgian civil protection services' operations. First, their tasks are officially:

- To rescue and assist civilians in case of treat and also to protect their belongings
- To provide emergency medical assistance according to Art. 1 of the law of 8 July 1964
- The fight fire and explosions and their consequences
- To fight pollution and dangerous goods; including radioactive and ionised goods
- To provide logistical support

Secondly, they have the task to:

- Preparedness: Proactively analyse and map the risks
- Prevention: All measures to prevent an minimise occurrence of risks and to minimise the likely effects
- Preparation: All measures to prepare the services on the likely threads
- Execution: To take the measures in case of emergency
- Evaluation: All measures to improve the preparedness, prevention, preparation and execution after incidents have took place.

Art. 11 defines also explicitly the need of the Civil protection service to cooperate with the local emergency services (Fire fighters). To improve the cooperation, the federal level is obliged to sign cooperative agreements. The new organisation only is operationalised on the 1/1/2015. The major change is that municipal fire fighters are from then on integrated into a structure of zones. The KB groups the former 250 local firefighters into 34 zones. The next figure shows the division for the province of Antwerp. The locally organised fire fighters are integrated into 5 zones; ANT-1 to ANT-5. The figure below is than showing the 34 zones for the whole of Belgium.

⁷ Wet betreffende de civiele veiligheid, 15 May 2007, Online retrieved via http://www.ejustice.just.fgov.be/cgi_loi/change_lg.pl?language=nl&la=N&cn=2007051561&table_name=wet

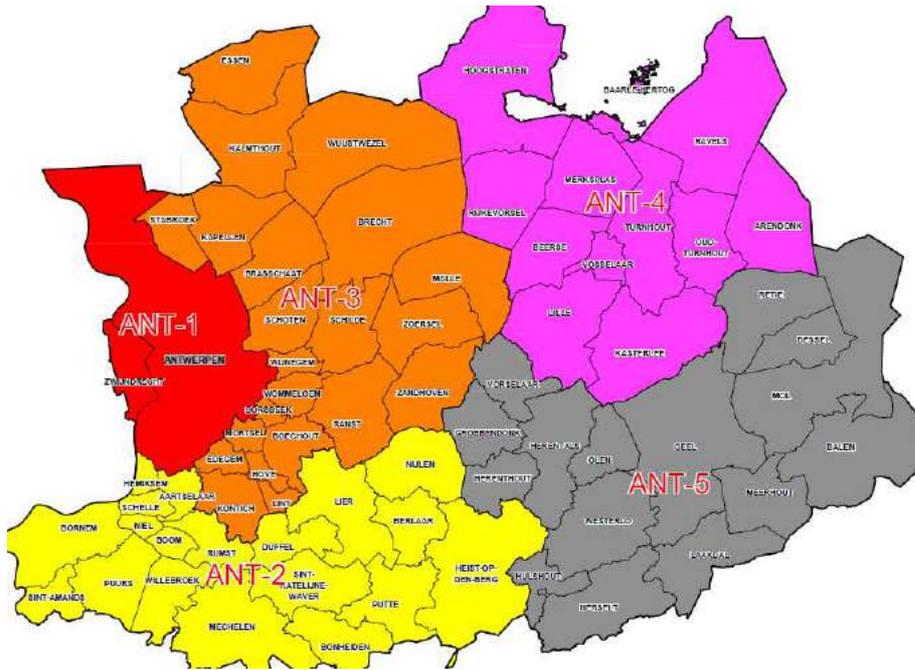


Figure 8: New structure of zones (Province of Antwerp)

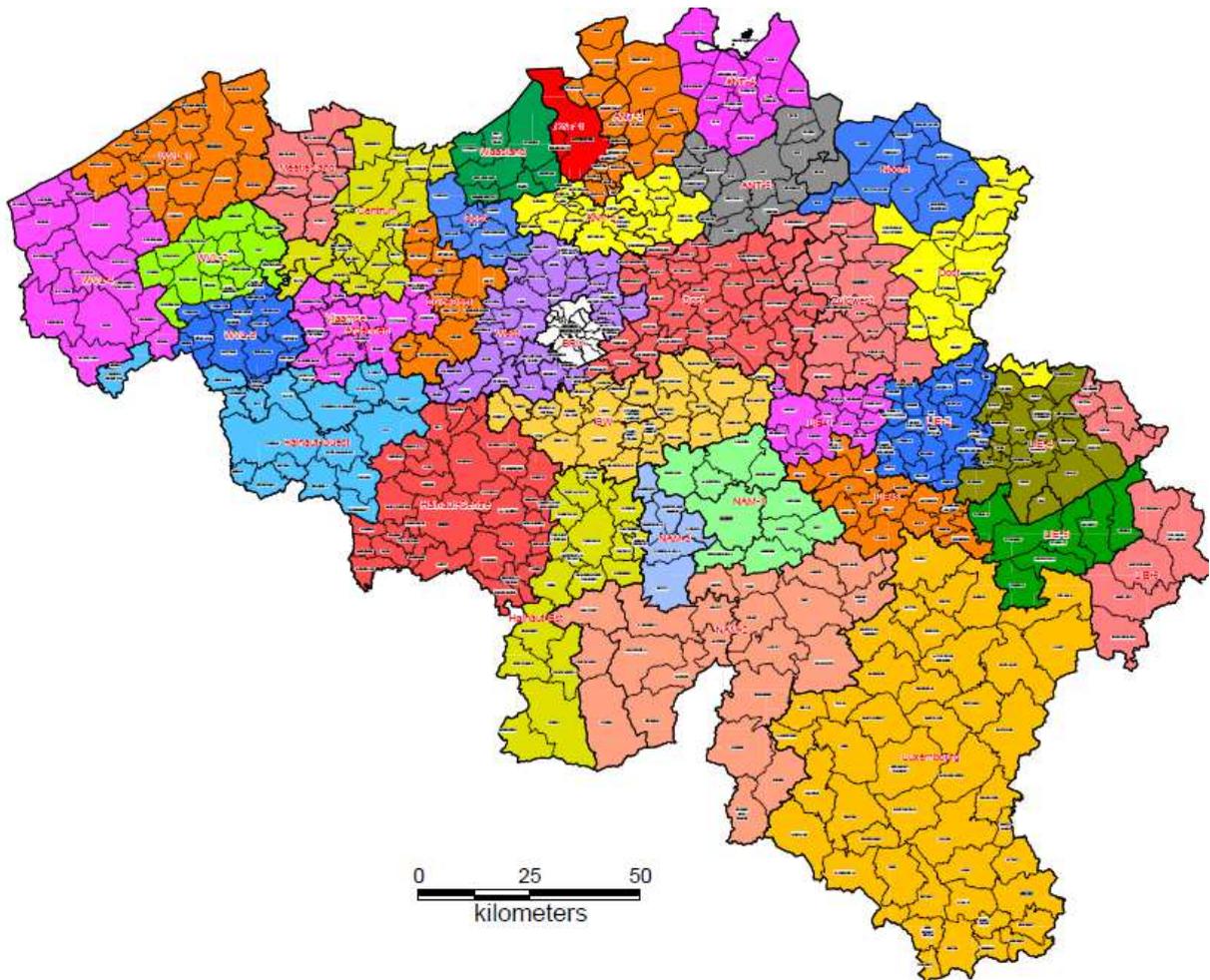


Figure 9: New structure of zones (Belgium)

Source: Federal administration social security, 2014

Art. 23 of the KB defines that every zone is obliged to draft a 6 year forward looking management plan. The plan should include a risk analysis and mitigation measures. The plan both has a municipal as a zonal approach. The first is to be approved by the involved municipal councils. The plan is then further split into yearly action plans (so 6 in total); this task is assigned to the zone commander. Also these yearly action plans have to be approved by the municipalities.

Art. 67 defines the financing structure for all 34 zones, all with a mixed staff of professional fire fighters, voluntary fire fighters, professional ambulance non-fire fighter staff and/or voluntary ambulance non-fire fighter staff (Art. 103). Art. 67: These zones have to be financed via dotations from municipalities, federal dotations, provincial dotations (in the province finances, the contribution of the municipalities then goes down equally), payments for some services (the majority of services is however free of charge; as long as these fall under Art. 11) and diverse sources of income. The municipal dotation is based on a numerous of criteria: the active population (at least 70% of the weight is assigned to this indicator), the surface, the real estate values, the average income, the risks found on the territory of the municipality, the average intervention time in the municipality and the financial strength of the municipality.

Art. 153 defines that, for the civil emergency tasks mentioned in Art. 11, the Belgian Civil service is the only competent institute. Following Art. 48 of the law of 12 January 1989, mayors and governors can call on the Civil service' services when needed. Art. 154 defines the Minister of Interior affairs to be in charge of the Civil service. Art. 155 defines that the teams can consist of professional and voluntary staff.

2.3 Emergency rule

The Federal Crisis Centre has the assignment to organise the pro-active emergency planning. The centre is supported in this task by the HIN.

The harmonised approach guarantees a uniform emergency planning for all tree levels, municipal, provincial and federal, for the whole territory. Regulation KB 16 February 2006 harmonises the terminology and content of the Belgian emergency plans. It integrates the former adaptations published in former Circulars of 11 July 1990. The new law has the goal better supports the mayors and governors as it gives more concrete guidance.

Following this KB, emergencies have three phases and are only coordinated at national/federal level if e.g.:

- Two or more provinces are involved
- The means available to the provincial governor within his/her competence of coordination are insufficient.

Municipal phase

If the crisis does not exceed the municipal level, the mayor is in charge of the CEP. He reports to the governor of the concerned province.

Provincial phase

If the crisis' magnitude exceeds the boundaries of one municipality, then the governor of the province is in charge. He reports to the Minister of Internal Affairs.

Federal/National phase

When the magnitude exceeds two or more provincial boundaries, the Minister becomes responsible. He promulgates the phase.

The Directorate of Operations under the DG for Civil Security (also covering the fire fighters) is then the competent authority for national coordination.

2.4 Specific, department/agency-level legal arrangements and regulations on emergency and disaster management

The Federal Crisis Centre has the assignment to organise the pro-active emergency planning. Ex-ante plans are designed at the Municipal, Provincial and Federal level. Legislative acts are voted on the Federal level.

2.5 Specific to the regional and local authorities legal arrangements and regulations on emergency and disaster management

The task division and responsibilities between local, provincial and federal level are clearly defined in the KB 16/02/2006 and/or the framework law KB 15 May 2007.

Emergencies has three phases and are only coordinated at national/federal level if e.g.:

- Two or more provinces are involved
- The means available to the provincial governor within his/her competence of coordination are insufficient.

This results in a clear division of responsibilities

- Emergency planning is coordinated at the National level
- Fire fighters are organised at the municipal level, via 34 zones
- The local level can call on support from the civil protection services, which are organised and steered via a federal structure
- Local and provincial managers are assigned as crisis managers, with clear limits on their involvement when the crisis expands over 2 municipalities and 2 provinces.

- In the end the Minister of Interior Affairs is the lead actor in the crisis management (DG Civil Services, Expertise centre on crisis management, HIN, emergency planning, international agreements etc.)

2.6 Legal regulations on the involvement of volunteers and specialised NGOs

The legislation (KB 15 May 2007) allows volunteers in both the organizations of fire fighters and the operational civil protection services. Art. 67 defines the financing structure for all 34 zones, all with a mixed staff of professional fire fighters, voluntary fire fighters, professional ambulance non-fire fighter staff and/or voluntary ambulance non-fire fighter staff (Art. 103). Art. 155 of the same KB defines that the civil protection staff can exist out of professional members or volunteers.

Regarding their accountability, detailed rules are applied via Art. 159 till 166 of the former mentioned KB. The volunteer or professional is only accountable personally in case het committed an serious failure or failure on purpose. Also small failures can be laid on the member of staff, if these occur more than average. Other damages are laid on the organisation of civil protection. The services as well take up the costs of legal advise for staff members, or the relatives in case the staff member passes away, except when committed a failure on purpose or an serious failure.



The Belgian red cross and hospitals are part of the emergency planning framework. As soon as the DG Civil Protection is asked to intervene, five disciplines are activated.

These operational disciplines are discussed in the section on operational planning under 3.1.2.

Discipline 2 (Medical, sanitary and psychosocial assistance) involves the Belgian Red cross.



Figure 10: BASF's new fire truck, co-financed by the Ministry of Interior affairs

Fire fighters from the Industrial Chemical plants can be called for support in crisis situations. The new Turbo-Löscher fire truck of the Antwerp plant of Chemical company BASF is even co-financed by the Belgian Civil protection agency. The Ministry of Interior Affairs pays BASF a fee of 110.000 EUR per year for the next 10 years. The highly powerful truck (25.000 l/min capacity, 100 l far, 45 wide and 70 high-, can be used for Belgian interventions, and regional cross border interventions. When in operation, the fire truck is supplied with water via equipment of the Belgian Civil protection forces. (Steamexfire, 2014)

The cooperation is an example of the operational cooperation of official instances and the sector named Belgian Intervention System for Transport Accidents (BELINTR). BELINTR is a collaboration between the Federal authorities and the chemical sector (Essenscia). The sector foresees 27/7 cooperation with DG Civil protection / police in case of chemical incidents in the region via knowledge sharing and/or sharing of equipment (of +- 80 chemical companies country-wide). BELINTR is a formal agreement. The emergency authorities can contact two centres - BASF-Antwerp (Dutch speaking) or Solvay-Jemeppe (French speaking). The network is connected to foreign networks like the German TUIS (Ludwigshafen), also the location of BASF's HQ (Essenscia, 2013; Kerremans, 2012; BASF, 2012)

2.7 Legal regulations for international engagements of first responders and crisis managers

In 2003 international aid was first structure via the B-fast⁸ structure (KB 28 February 2003). B-fast is founded for emergency aid to foreign people. The aid lasts at maximum 10 days. Also the CPND has similar tasks to B-fast.

2.7.1 B-fast

⁸ Belgian First Aid and Support Team



Based on the experiences of the relief and assistance operations of Belgium to Turkey, when it was hit by earthquakes in August and November 1999, the Federal Government deemed it necessary to set up a more permanent structure for relief and assistance operations that could be mobilized at any time. Its objective is to give a quicker and more efficient response to emergency situations. (B-FAST, 2014; Civil protection Belgium, 2014)

In November 2000, the Minister for Foreign Affairs, the Minister for Home Affairs and the Minister for Defense proposed to the Federal Council of Ministers the creation of an emergency relief structure to assist a country or countries affected by a man-made or natural disaster. The Royal Decree of 28 February 2003 confirmed this decision by the establishment of, firstly, a Coordinating Council for emergency relief and assistance abroad and, secondly, a permanent support structure B-F.A.S.T (Belgian First Aid and Support Team). (B-FAST, 2014; Civil protection Belgium, 2014)

- The Minister of Foreign Affairs holds the Presidency of the Coordination Council. In crisis management, a quick reaction is of paramount importance. Within the first 12 hours a decision for assistance or relief must be translated into action. Therefore, communication lines between the decisional level and the operators in the field must be short and direct. For this reason the permanent structure (the B-FAST Secretariat) has been integrated into the administration of the Ministry of Foreign Affairs (Bureau of the Secretary General). The Secretariat supports and maintains the efficient execution of the decisions for relief or assistance by stimulating cooperation between departments concerned. (B-FAST, 2014; Civil protection Belgium, 2014)

The strategic operational framework of B-FAST implies making Belgian capacity available to other states, if these states make a request and are facing an unexpected emergency situation that exceeds their proper capabilities. The flexibility, the interdisciplinary character as well as the fast response time are determining for the B-FAST structure. (B-FAST, 2014; Civil protection Belgium, 2014)

The Royal Decree of 28/02/2003 defines the broad outlines of this strategic framework, and use following important criteria:

- Intervention conditions: The following conditions must be met before the Belgian government decides to deploy a B-FAST operation:

- The size of the disaster, natural or man-made, must exceed the capabilities of the country hit by the disaster to such extent that it poses a threat to the health or the lives of the population in the disaster zone.
 - The country hit by the disaster must launch a request for relief to the international community.
 - In case of an armed conflict in the disaster zone, an intervention by B-FAST is excluded.
- Application criteria:
 - B-FAST operations cannot exceed 10 days
 - B-FAST operations solely include immediate emergency relief.

B-FAST participates in the international coordination mechanisms for dealing with disasters. The operations abroad are carried out in coordination with the international partners (UN, EU, NATO) and are based on the added value of B-FAST, e.g. the domains in which B-FAST can provide expertise and/or in which the Belgian capacities are appreciated by the international community.

For practical and logistic reasons and according to the proportionality principle concerning the use of the available means, an intervention radius of maximum 6,000 km from Belgium is the limit for B-FAST operations abroad. That, however, is not an absolute standard.

In international crises, the overall responsibility lies with the Ministerial Council, which is chaired by the Prime Minister.

2.7.2 CPND

The Commission of National Defence Matters (CPND) is a permanent inter-ministerial body, integrated in the Coordination and Crisis Center of the Government (CGCCR). Its chairman reports to the Minister competent for Interior Affairs. He is also mandated as the official Belgian representative at the Senior CEP Committee (SCEPC) of Nato.

Under normal circumstances, the CPND participates in the preparation of the Belgian CEP together with the CEP Boards of the respective federal public services and other relevant national organizations and agencies. Other mandates for the CPND are to coordinate and stimulate CEP activities for all the relevant authorities, and encourage the authorities to take part in Partnership activities. It also coordinates a National crisis response Plan, based on the Nato Crisis Response System, and participates in the preparation of national and international crisis management exercises such as Nato CMX.

In the event of international crisis, it acts, in accordance with its new mandate authorized by the Ministerial Council in January 1999, as co-coordinator of the CEP boards of the different Ministries (Federal), the COMIX (see below) and the relevant governmental organizations (GOS). Therefore the CPND organizes regular multi-disciplinary meetings in order to discuss all administrative and

technical aspects of the crisis, which could have consequences on national level. The outcome of these meetings is then processed into advice or recommendations to the Ministerial Council.

In case of international crisis, two additional structures can be activated. The crisis centre of the ministry of foreign affairs coordinates the information and diplomatic support as well as the support to the crisis area. To this end the Belgian First Aid and Support Team, an interdepartmental quick intervention team can assist in the earliest stages of disaster relief.

3 Organisation

Because of the 1993 constitutional revision that furthered devolution into a federal state, there are now three levels of government (federal, regional, and linguistic communities) with a complex division of responsibilities. (EC, 0214)

Belgium consists of 10 provinces (French: provinces, singular - province; Dutch: provincies, singular - provincie) and three regions* (French: regions; Dutch: gewesten); Brussels* (Bruxelles) capital region; Flanders* region (five provinces): Antwerpen (Antwerp), Limburg, Oost-Vlaanderen (East Flanders), Vlaams-Brabant (Flemish Brabant), West-Vlaanderen (West Flanders); Wallonia* region (five provinces): Brabant Wallon (Walloon Brabant), Hainaut, Liege, Luxembourg and Namur.

Only the local level, provincial level and national/federal level act in crisis situations.

3.1 Organisational chart

The three levels are responsible for emergency planning in their respective territories. On the response side, fire brigades depend on the municipal authorities, whereas civil protection services are a federal service. The Brussels fire brigade depends on the Brussels region, not on the 19 municipalities falling under the region. (Civil protection Belgium, 2014)

Emergencies are coordinated at municipal, provincial, or federal levels, as per the Royal Decree of 16 February 2006. As far as crisis management is concerned, three levels of government are central depending on the magnitude of the incident.

- Municipal level – responsibility of the mayor
- Provincial level – responsibility of the provincial governor
- Federal level – responsibility of the Minister of Home Affairs.

Municipal phase

If the crisis does not exceed the municipal level, the mayor is in charge of the CEP. He reports to the governor of the concerned province.

Provincial phase

If the crisis' magnitude exceeds the boundaries of one municipality, then the governor of the province is in charge. He reports to the Minister of Internal Affairs.

Federal/National phase

When the magnitude exceeds two or more provincial boundaries, the Minister becomes responsible. He promulgates the phase.

The Royal Decree (RD) of 31 January 2003 has shaped the legal framework for managing crises at the national level, the so-called federal phase of emergency planning. The national approach is sketched below. The framework KB 15 May 2007 retakes these guidelines. The Crisis Centre (CGCCR) coordinates at the federal level. Thus, it meets the overall goal of protecting the population against all types of risk that might affect it, and the lack of a general emergency plan on a national level.

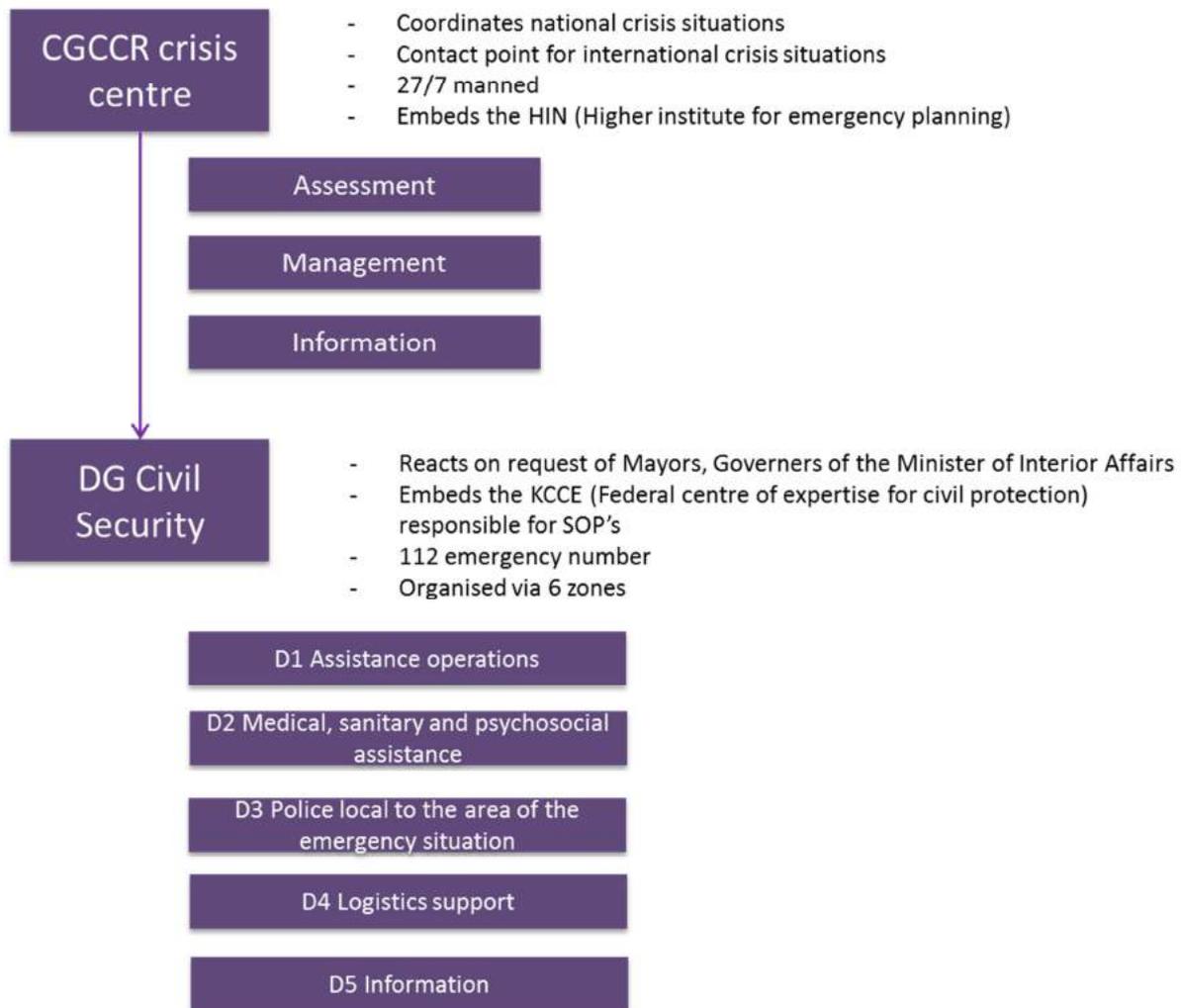


Figure 11: Federal crisis management bodies

3.1.1 Coordination and promulgation

In the federal phase of emergency planning, the Minister of Interior Affairs initiates national coordination and promulgation. The Crisis Centre is responsible for steering the crisis management and is 24u/24 at the service of the National government. (Civil protection Belgium, 2014; IBZ, 2014))

The crisis centre:

- Collects and analyses on a permanent base relevant information for policy making and for operational organisations
- The centre offers expertise for crisis management at the Federal level
- The centre acts as the contact point for international crises
- After office hours, the centre acts as steering organisation for several federal institutions
- The crisis centre also is involved in public order management. The planning coordination and follow up of large events are tasks of the centre.
- The centre is actively involved in the security of high ranked officials visiting the country (kings etc.)

- Emergency plans on federal level are assigned to the centre
- The centre has a state of the art infrastructure for meeting and coordinating in times of crisis



Protests

Belgium, as centre of the European Union is also the centre for European protests. In 2010, 600 protests were organised in Belgium, often in the centre of Brussels. For each of these protests, the crisis centre made an ex-ante evaluation in order to estimate the impact on public security and public order.

Protection of VIP's

The crisis centre also evaluates the safety of state- and government officials when visiting Brussels and Belgium. In 2010, 4.400 official visits were analysed.

Starting at the federal phase, three bodies can be summoned at the Crisis Centre: an assessment, a management, and an information cell. Each one contributes to the overall decision process within their respective competences.

- The assessment cell evaluates the situation. It comprises experts and scientists from different competent authorities or services. It is presided by the department, which is most involved in the crisis, which is designated by the management cell.
- The management cell (alias the Federal Coordinating Committee) takes the necessary measures and is the policymaking organ. It comprises the competent (federal) ministers or their representatives, and it is presided, in principle, by the Minister of Home Affairs or his/her representative.
- The information cell communicates regularly about the measures taken to inform the population about the latest state of affairs and decisions taken by the management cell. The information cell comprises those responsible for communication or spokespersons from the departments concerned.

The structure as laid out below is set up to deal with nuclear incidents specifically. However, its structure is relevant for all national disasters in Belgium, given some minor adjustments (e.g. Telerad is not used besides nuclear incidents). (Civil protection Belgium, 2014; IBZ, 2014))

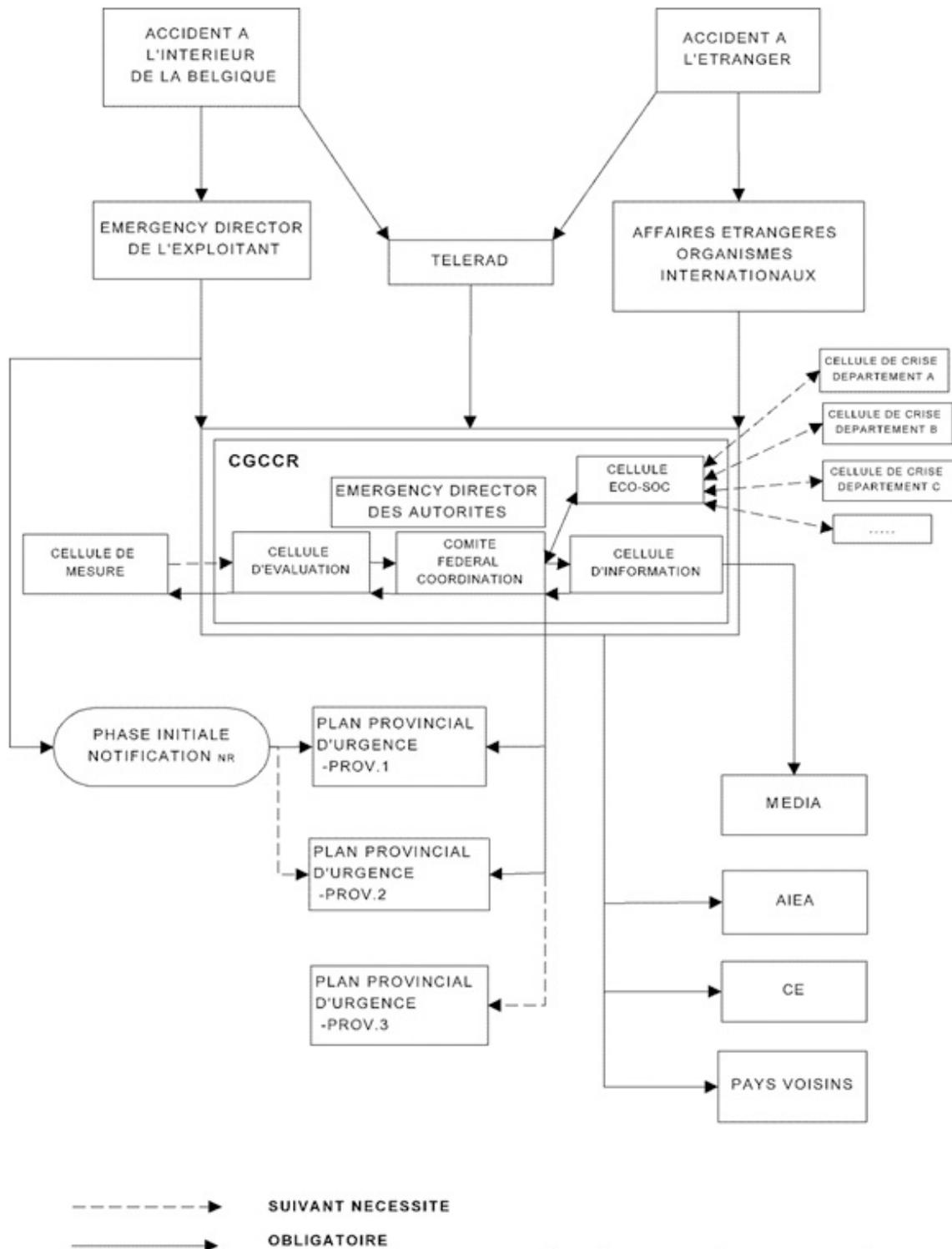


Figure 12: Belgian’s Federal crisis coordination (EC, 2014)

3.1.2 Operations

According to Civil protection Belgium (2014) and IBZ (2014), the DG for Civil Security, which falls under the responsibility of the Minister of Home Affairs, is responsible for the following emergency services:

- Directly - civil protection services
- Indirectly - fire services.

Civil protection services are federal services and consist of six operational units, distributed across the Belgian territory:



- Brasschaat (near Antwerp)
- Crisnée (near Liège)
- Ghlin (near Mons)
- Jabbeke (near Brugge)
- Libramont (province of Luxembourg)
- Liedekerke (near Brussels).

Their level or crisis management is based on a multitude of criteria:

- Facts
- Geographical extent
- Number of victims
- Environmental impact
- Economic impact
- Social impact
- Necessary means.

A few examples of the interventions of the Civil Protection are:

- Reinforcement of the water and foam supply, or heavy, specialized equipment in case of fire
- Shore up, apply canvasses, track and rescue victims of disasters or major accidents
- Deployment of specialized teams such as diving teams or dog teams during interventions or judicial missions of long duration
- Cleaning and transport of large-scale pollution such as petrol, asphalt, ...
- Decontamination and reception of the population in case of chemical or nuclear pollution
- Sealing of dikes and pumping in case of large-scale floods
- Distribution of potable water
- Support with means of telecommunication

Each emergency is handled by intervention services of the Civil Security forces. Their operational tasks are divided into five so-called disciplines. Each one of these disciplines draws up a mono-disciplinary intervention plan that outlines their own modus operandi.

Tabel 3.1 Five disciplines operational crisis management:

Discipline 1: Assistance operations
<ul style="list-style-type: none"> Controlling the emergency and eliminating associated risks, tracking persons, setting them free, rescuing and placing them in safety, protecting their goods.
<ul style="list-style-type: none"> Claiming goods and persons.
Discipline 2: Medical, sanitary and psychosocial assistance
<ul style="list-style-type: none"> Starting the medical chain
<ul style="list-style-type: none"> Applying medical and psychosocial care to victims and persons involved in the emergency
<ul style="list-style-type: none"> Organising transport of victims
<ul style="list-style-type: none"> Taking measures to protect public health.
Discipline 3: Police local to the area of the emergency situation
<ul style="list-style-type: none"> Restoring and maintaining public order
<ul style="list-style-type: none"> Clearing entry and evacuation roads (if need be, escorting intervening services and means to the area of occurrence)
<ul style="list-style-type: none"> Setting up the perimeter, physical demarcation, signalling and guarding, ensuring entry control to the operational theatre
<ul style="list-style-type: none"> Executing public evacuation and supervising shelter
<ul style="list-style-type: none"> Identifying victims
<ul style="list-style-type: none"> Supporting judicial inquiry.
Discipline 4: Logistical support
<ul style="list-style-type: none"> Ensuring reinforcements of personnel and materials, as well as specialised rescue and assistance means
<ul style="list-style-type: none"> Organising technical means for communication between disciplines, the operational command post and the coordinating committee(s)
<ul style="list-style-type: none"> Organising foodstuffs and drinking water for the intervening services and stricken population.
Discipline 5: Information
<ul style="list-style-type: none"> Providing information and guidelines to the population (e.g. through the media)
<ul style="list-style-type: none"> Providing information about measures for returning to normal conditions.

Source Civil protection Belgium (2014); IBZ (2014)

3.2 Organisational cooperation

The overall responsibility for crisis management in Belgium rests with the federal government and the ministries. Each minister is responsible for CEP in his/her area of competence. To deal with these issues, CEP Boards exist in the federal administration of each ministry, also called the Federal Public Services (FPS). The mandate of the CEP Boards is to anticipate and counteract low and high level crises.

In a national crisis, the minister competent for the Interior Affairs becomes the highest executive agent. The minister is responsible for overall coordination and supervises the permanent Crisis Center (CGCCR). Through this Crisis Center he executes the management of national emergencies and he is competent to engage the (two-tiered) integrated police, rescue services and the Civil Protection Corps. The integrated police and the rescue services are organized in areas (groups of municipalities). The Civil Protection Corps consists of six permanent units, each with the mandate to intervene in pre-defined sectors.

Civil-military cooperation

A special arrangement has evolved in Belgium in the area of civil-military cooperation (dialogue), and has resulted in the creation by Royal Decree of a number of joint and inter-ministerial committees (COMIX). These COMIX are composed of representatives from the Federal Public Services as well as representatives of the partly state-owned enterprises (railway and postal services, Air Traffic Management).

At present, the COMIX may only be activated in times of war, to deal with civil/military engagements on national territory (transport, repair, telecommunications, medical support, etc.). Therefore their respective Royal Decrees are now subject to revision and actualization. Nowadays, the COMIX are helpful in the coordination of crisis management, and although they have a non-permanent status, they meet regularly. Their secretaries attend the meetings organized by the CPND and participate in the Planning Boards & Committees (PB&C) of the SCEPC.

During the Cold War era, the task of the different COMIX bodies was to mobilize support for the military. Today their task is to account for the needs of the general society, including individual citizens and industry, and to be prepared for new threats, such as proliferation of Weapons of Mass Destruction, terrorism, etc.

4 Procedures

This chapter discusses the Standard Operation Procedures (SOP's), their effect on the terrain (planning and logistics) and their focus on communication.

4.1 Standing Operating Procedures (SOPs) and Guidelines

The Belgian knowledge centre for civil security (KCCE) is assigned to collect, analyse, develop and spread knowhow and expertise on civil security. The development of Standing Operating Procedures (SOP) is part of their tasks. The SOP's are designed in order to have a prewritten procedure in case of a certain crisis, in order to minimise the risk for involved civilians and professionals. SOP's have to be regarded as practices, to which people in charge can deviate after the in depth analysis of a certain incident. The SOP's are developed in consecutive steps, discussed below.

1. Development

The existing Standard Operation Procedures are developed by fire experts who work for the Centre of Expertise for the Civil Security. These fire experts act as the pilot and draw up an action plan in this framework, they appoint a working group of minimum six experts in this theme and they develop certain SOPs in co-operation and consensus with this working group.

2. Test phase

After a temporary approval of a Standard Operation Procedure by the Validation Committee, it passes through a test phase. After all, the most important thing is that a SOP corresponds to the reality of the field, that is meets the most recent intervention techniques and that it is sufficiently flexible for the application of the SOP in both a rural and an urban environment in the entire country.

After the publication of a SOP on this website, it is tested by different emergency rescue zones in Belgium. Testing and assessing a SOP in a realistic situation by at least two emergency rescue zones is the strict minimum. They can transfer their remarks on the basis of their findings to the Centre of Expertise for the Civil Security after which the pilot of the project can adapt the SOP with the help of his working group.

3. Best practice

After a test phase in at least two emergency rescue zones, a Standard Operation Procedure can be "definitively" validated by the Validation Committee and then the SOP is considered to be a best practice. Emergency rescue zones can use it if they want to. Nonetheless, SOPs are not a regulation and therefore don't need to be applied obligatory.

When it proves, after acquiring new insights on the subject or evolutions in the domain, that the SOP can still be improved after the test phase, this can off course be done by contacting the Centre of Expertise for the Civil Security.

4. Training, practice and exercise

As soon as a Standard Operation Procedure has become a best practice, trainings and exercise cards can be linked to it to prepare the relief workers even better for certain interventions. If needed, the necessary specialized equipment can be bought as well, to be able to optimally execute certain interventions.

When approved, the operations planning is structured for the local, provincial and national level and consist of general emergency and intervention plans (ANIP) and specific emergency and intervention plans (BNIP), related to the risk types and risk magnitudes allowing case specific planning (for example airplane crashes). To allow coordination at the international level, national emergency and intervention plans included already international cooperations.

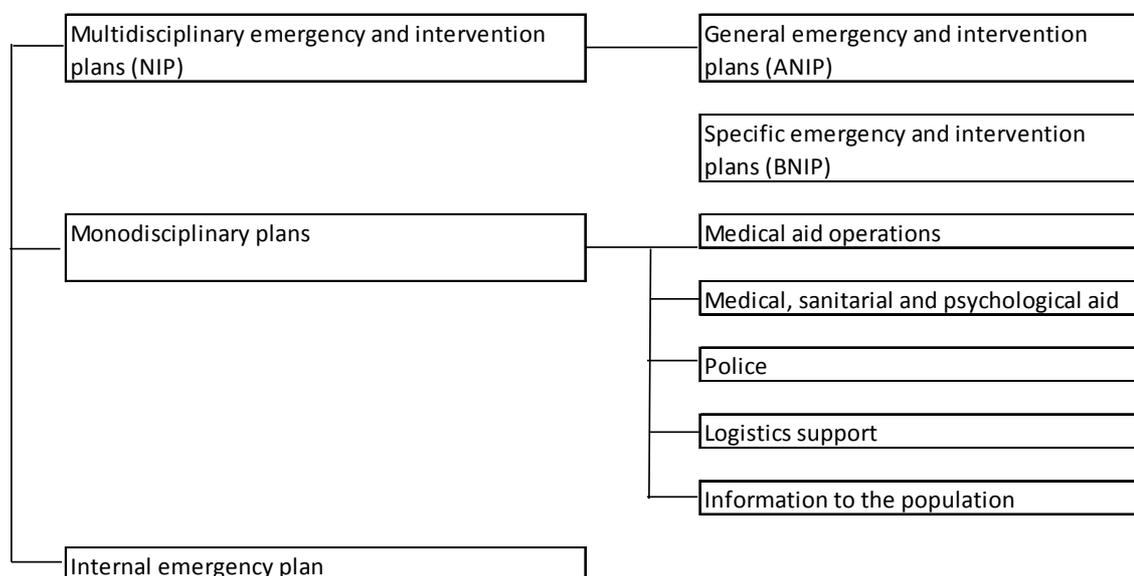


Figure 13: Crisis management plans

Source: IBZ, 2013

The plans have a multi- or mono-disciplinary focus. The first are linked to the emergency plans of the civil protection agency and are supplemented with specific (for ex. Seveso) additions. The second type of plans are linked to the specific plans for among others police and logistics.

4.2 Operations planning

In case of emergency, the Belgian Directorate-General Civil Security is responsible for executing the SOP. The Directorate is part of the Federal Public Service Home Affairs.

For more information on the operational aspects of their tasks, please read section 3.1.2.

4.3 Logistics support in crises

The Civil Protection has access to heavy, specialized equipment that can be deployed for her own interventions, as well as for the reinforcement of the interventions of other emergency services. A few example of this equipment are (Civil protection, 2014):

- super cannon: to extinguish heavy fires in chemical companies.
- goliath pump: can pump away very large amounts of water with a speed of 66000 litres per minute, for instance in case of floods.
- decontamination units: to decontaminate people that became contaminated during a nuclear or chemical accident.
- vacuum tank: to quickly drain off and transport dangerous substances after for instance oil pollution in a river or ditch.
- waterline: can create up to 600 water bags per hour.

A second strength of the logistics organisation lies in the civil protection's specialized teams such as:

- Emergency teams with dogs: track people buried under rubble
- GRIMP (group for rescue and intervention at difficult places),
- USAR (Urban Search And Rescue)
- Diving teams
- IBIS teams (specialized in tracking diseased persons, mainly in cooperation with the Disaster Victim Identification team (DVI) of the federal police)

The protection agency can as well rely on the equipment of the fire protection agencies, the specialized private protection services and the army. In any case, the Directorate Logistics (Dir-log) of the civil protection agency is in charge.

On the request of the minister of Home Affairs, agents of the Civil Protection also regularly take part in international missions. Together with people from the fire departments, medical relief workers and communication experts of Defense, they then form a "B-Fast team". B-Fast is sent to disaster areas abroad when the stricken countries cannot offer the necessary assistance after for instance floods or earthquakes. In 2010 for example a B-Fast team was sent after the earthquake in Haiti. (Civil protection, 2014; B-FAST, 2014)

4.4 Crisis communication to general public; Alert system; Public Information and Warnings

The coordination of the Civil Security is organised twofold. The first type of communication is organised for supporting the operational activities. The second coordinates and communicates externally.

4.4.1 Internal communication

This coordination station supports the people on the ground and is organised via the 6 operational teams of the Civil Protection. For local operations, mobile modules are used equipped with short range stand-alone communication stations, powered via diesel generators. Every operational unit has one station of this kind, so 6 in total for Belgium. (Civil protection, 2014)



Figure 14: Communication equipment civil protection services



For national crisis situations, a separate alert network 'Regetel' is installed. The 'Regetel' network is autonomous with own servers, 410 telephone nodes, 90 fax nodes, own technical support and an own network in the centre of Brussels. The network is split into a part dedicated to crisis situations and a second part dedicated to federal services. (Civil protection, 2014)

The network allows contact between:

- Provincial crisis centres
- Permanent units of the Civil protection forces
- 100/112 contact centres
- Communication and information centres (CIC-C101)
- OCAD – The federal organisation responsible for the analysis of threads
- Crisis centers at Fluxys and Eandis, gas and electricity infrastructure providers
- The dispatching of the Belgian red cross
- The Maritime Safety and – Coordination centre MRCC in Ostend and the Maritime Information Node MIK



Additionally, Belgium is equipped with a TETRA communication network named Astrid. ASTRID systems are based on this TETRA standard and function on the 380-400Mhz frequency band, which is reserved exclusively for the use of emergency and security services in Europe. TETRA, or "TErrestrial Trunked RAdio", is a standard for digital voice and data communications developed in Europe and designed to meet professional needs, particularly those of emergency and security services. ASTRID enables the police, the fire services, emergency medical services and other organisations involved in public safety to improve both internal and interdisciplinary communications. Currently, the network is mainly used by Police services. Fire fighters and CP are not all connected yet to this network. ASTRID is a limited company under public law, receiving federal and municipal funding. Its capital is subscribed 100% by the public holding 'Federale Participatie- en Investeringsmaatschappij (FPIM)'. (Astrid, 2014; Civil protection, 2014)

4.4.2 External communication

The second type of communication is more outward looking. This communication is structured via a second 'coordination committee' of the Crisis Centre, transparently informing the mayor, governor and/or Minister. (Civil protection, 2014; IBZ, 2014)

Their task is to streamline information towards the general public. The committee is chaired by or the mayor or the governor, in case of a regional crisis. In case of a National crisis, the Minister chairs the committee. Then, three sub-committees are formed:

- The evaluation cell (Experts and scientists are consulted)
- The policy cell (Is taking decisions, chaired by the policy maker: standard the Minister of interior affairs)
- The information cell (Informs the media and general public)

The services are day and night available to give support in crisis situations with GIS tools, videoconferences, electric generators, sirens etc.

A fixed network of sirens exists around industrial sites. In total 544 sirens are installed on the Belgian territory.

Also an SMS alert system was recently installed. This system was named Be alert. Civilians can register their mobile phone number to be alerted in case of emergency. Civilians need to register and can be informed via (Bealert, 2014):

- Spoken messages on fixed and mobile phones
- SMS alerts on mobile phones
- Text messages via email
- Text messages via fax

Governments can also automatically distribute alerts via their Twitter and facebook accounts and are in emergencies supported by all governmental layers (provinces, municipalities and governemantal institutions) and the public television.

Figure 15: Bealert website (Bealert, 2014)

5 Capabilities

This chapter details the human and material capabilities. The third section discusses the training of staff.

5.1 Human resources

The DG employs roughly:

- 150 employees at the central directorate in Brussels,
- 450 operational agents and 650 volunteers at the operational units of the Civil Protection
- 700 operators and call takers in the emergency centers 112/100 and 101

The crisis centre is manned by 90 persons. The OCAD is assigned 13 staff members. Additionally, the Federal level assigned 470 persons to the provinces. These numbers are from the most recent retrieved publication, but might be outdated.

Table 6: Staff of most relevant crisis institutes

Institute	Number of staff
DG Safety and prevention	227
Crisis centre	90
DG Civil security	1038
OCAD	13
Federal staff located at provinces	470
Fire fighters	18.000 (2/3th is volunteer)

Source: Activiteitenverslag Binnenlandse Zaken 2010, 2011

5.2 Materiel (non-financial) resources

The civil protection organisation has a catalogue of 120 pages detailing their material resources: http://www.protectioncivile.be/sites/5043.fedimbo.belgium.be/files/explorer/catalogue_modules/Catalogus_interventiemodules_CB_03-2014_NL.pdf

Furthermore, the forces can count on the local technical support of the Belgian fire fighters.

5.3 Training

Within the Civil Service structure, advisory boards are installed. These advise the operational zones, units, operators and call takers. The structure knows three advisory boards: personnel, material and training. (Civil protection Belgium, 2014)

Within the training advisory board, four units exist.

- The trainings for public fire fighters is organised and continuously reviewed at the '*Hoge Raad voor de opleiding voor de openbare brandweerdiensten*'. The council advises the Minister of Interior Affairs directly on the trainings, reglementation and reports on the quality of the trainings organised at the local/provincial training centres.
- The *programming commission* is active in the needs mapping for trainings, advising on the syllabi, making proposals to the Minister on courses and exams and controlling the redaction committee.
- The third unit '*Commission on Equalisation and exemption*' advises the Minister on the levelling of diploma standards, courses and brevets and the exemption of courses and exams.
- In 2003, a '*supra-provincial training council*' for the French speaking and German speaking public fire fighters and a '*supra-provincial training council*' for the Dutch speaking public fire man were founded. The councils are grouping the presidents of the regional federations, technical and operational representatives of the General Council. An official of the Brussels department of fire fighters is added. These councils coordinate and level provincial trainings.

The training locations are spread around the provinces.

- The Federal Training centre is located in Archennes.
- The training centre for the province of Antwerp is located in Emblem.
- The training centre for Brussels is located in Brussel centre.
- The training centre for the province of Henegouwen is located in Jurbise.
- The training centre for the province Limburg is located in Genk.
- The training centre for the province Liege is located in Seraign.
- The training centre for the province Luxemburg is located in Bastogne.
- The training centre for the province Namen is located in Namen.
- The training centre for the province East-Flanders is located in Gent.
- The training centre for the province West-Flanders is located in Brugges.
- The training centre for the province Flemish-Brabant is located in Asse.
- The training centre for the province Wallonian-Brabant is located in Wavre.



The training centra are equipped for organising the different trainings. The infrastructure in Genk for example consists of a (Civil protection Belgium, 2014):

- firebuilding consisting out of 3 stories equipped for simulating fires
- containercomplex consisting out of different containers for heat and smoke trainigns
- practice plate for flash-overcontainers.
- fire plate with objects for training with small extinguishers and advanced trainings in industrial fires
- multi-purpose practice square
- H-containers equipped with gas fired objects and real fire
- respirator complex for training blind running on compressed air
- industrial plant.
- logistics building
- main building for teaching courses, changing clotes, a kitchen and sanitary complex

Addresses

ANTWERP

Campus Vesta

Gedelegeerd Bestuurder: Mr MILIS K.

Oostmalsesteenweg 75

2520 Emblem

www.campusvesta.be

BRUSSELS

Opleidingscentrum van de Brusselse

Brandweer

Helihavenlaan 11/15

1000 Brussel

www.fireschool-bru.be

HENEGOUWEN

Opleidingsinstituut voor Hulpdiensten van
Henegouwen (CFMSI)

Route d'Ath, 25-35

7050 Jurbise

E-mail: guy.lernould@hainaut.be

Liege (also german speaking)

Provinciaal Opleidingscentrum voor de
Personeelsleden van de Brandweerdiensten

Rue Cockerill 101

4100 Seraing

E-mail: jean-pierre.ohles@prov-liege.be

NAMEN

Provinciaal Opleidingscentrum voor het
Personeel van de Gemeentelijke
Brandweerdiensten

Rue Henri Blès 188/190 5000 Namur

E-mail: jean-claude.podlecki@province.namur.be

FLEMISH-BRABANT

Provinciaal Instituut voor Vorming en
Opleiding (PIVO)

Relegemsestraat 40

1731 Asse

tel.: 02/456.89.48

Fax: 02/456.89.21

www.vl-brabant.be/pivo

WEST-FLANDERS

West-Vlaams Opleidingscentrum voor
Brandweer-, Reddings- en Ambulancediensten
V.Z.W. (W.O.B.R.A.)

Burg 4

8000 Brugge

www.wobra.be

LIMBURG

Provincie Limburg Opleiding & Training (PLOT)

Marcel Habetslaan 7

3600 Genk (Zwartberg)

www.plot.be

LUXEMBURG

Centre Provincial Luxembourgeois de
Formation

Secrétariat Ecole du feu

Rue des Remparts, 45 A

6600 BASTOGNE

www.eflux.net

EAST-FLANDERS

Provinciale Brandweerschool van Oost-
Vlaanderen (P.B.O.)

Gouvernementstraat 1

9000 Gent

www.pbo.be

WALLONIAN-BRABANT

Provinciaal Opleidingscentrum voor de
Brandweer en de Hulpdiensten

Direction d'administration de l'enseignement

Avenue Einstein 2 D

1300 WAVRE

tel.: 010/23.63.19

Fax: 010/23.61.30

E-mail: cpfsis.feu@brabantwallon.be

The training centres organise mono-disciplinary and multi-disciplinary trainings at location as well. A recent multidisciplinary training was organised in a new railway tunnel under Brussels Airport. The team tested the new SOP, under guidance of the Federal Expertise Centre.



Figure 16: Training in the new Diabolo tunnel under Brussels Airport

Source: Activiteitenverslag Binnenlandse Zaken 2012 (2013)

Certification

The trainings are organised at the provincial level. The trainings consist out of a bachelor type of training structure, split also in modules which can be followed separately. Trainings follow the regulation of the KB of 21st of February 2011 on the training of public services.

The trainings consist of separate courses for :

- Adjudant
- Fire man
- Unit chef
- Korporal
- Officier
- Sergant
- Technical expert fire prevention
- Trainings outside Belgium

A separate training *crisis management* is organised at the provincial centres. This training is structured in 4 disciplines and totals to 50 hours of training.

- Regulation
- Severe accidents: risk analysis and risk management
- Emergency planning
- Telecommunication and procedures, information management in collective emergencies

Also short courses are added. For example on gas protecting suits and diving.

After a successful participation in the courses, the students receive a certificate useful to promote within the civil protection or fire fighters organisations.

Art. 50. Of the KB of 11 February 2011 defines that staff, meeting the requirements to participate in the training, are supported by subsidies covering the registration costs.

Per participant, the government foresees subsidies:

- 1° for fire fighter trainings : 2.116 euro;
- 2° for corporal level trainings : 920 euro;
- 3° for sergeant level trainings: 810 of 930 euro depending on the module
- 4° for adjudant level trainings: 1.159 euro;
- 5° for officier level trainings:
 - a) For adjudants: 1274 euro;
 - b) for under luitenant in trainings
 - certificate fire fighter: 520 euro;
 - certificate korporal : 345 euro;
 - certificate sergeant : 550 euro;
 - certificate adjudant : 406 euro;
 - certificate officier: 645 euro;
- 6° for technician fire protection: 1.259 euro;
- 7° for certificate crisis management: 590 euro;
- 8° for certificate unit chef: 1.260 euro.

5.4 Procurement

5.4.1 Procurement regulation

European regulations

The procurement of public contracts needs to be in line with the principles of European treaties and especially with the free movement of goods services, capital and people. Furthermore the procurement needs to comply with the principles of equality, proportionality etc. For some types of procurement additional regulations are codified in directives. Within the European legislation, three different procurement directives apply. These directives are mutually exclusive meaning only one of the directives apply to the public procurement. Directive 2014/25/EU (on procurement of utilities) and directive 2009/81/EC (on procurement in the defence and security industry) are topic specific. If these specific directives do not apply, public sector directive 2014/24/EU is applicable, which is the replacement of directive 2004/18/EC. The aim of the new directive is to simplify the rules on public procurement; improve the participation of SMEs and stimulate cross border joint procurement.

Stimulation of cross border joint procurement is helpful in case of a major internal crisis or a cross border crisis. The directive states in the preamble that contracting authorities should be able to choose to jointly provide their public services in cooperation with other authorities, without being obliged to use any legal form. These services don't have to be identical. The cooperation does not require all participating authorities to fulfil the obligations of the contract, as long as there is a

commitment to contribute to the cooperative performance. The preamble points out that there are difficulties in cross border joint procurement. Therefore new rules have to be made. In these rules, the conditions for cross border procurement have to be clarified, as well as the applicable regulations. In addition, contracting authorities should be able to set up joint entities established under national or EU law. The new rules are specified in article 39 of the regulations.

If the procurement is executed by a centralised purchasing body located in another MS, the procurement shall be conducted in accordance with the national regulations of the MS where the purchasing body is located. In addition, several contracting authorities from different MS may jointly award a public contract, conclude a framework agreement or operate a dynamic purchasing system. Participating contracting authorities will then conclude an agreement that determines all responsibilities of the parties and the internal organisation of the procedure. As said before, the contracting authorities can set up a joint entity. The parties shall decide on the applicable rules on procurement. They can choose the rules of the MS where the entity has its registered office or where the entity carries out its activities.

This project evolves around the procurement related to crisis management, for example the procurement of ambulances, emergency packs or trainings. The utilities directive applies to gas and heat, electricity, water, transport services, ports and airports and postal services (article 8-13). The directive on defence and security applies to supply of military equipment and sensitive supplies. The majority of procurement in crisis management will be procured by normal NCCs and local authorities like the fire department or police and will not be secret. So in most cases the public sector directive (2014/24/EU) is applicable. This chapter will therefore focus on this directive. Keep in mind that the other directives can also be applicable, for example if the army is used to solve a major crisis. The directive is addressed to Member States and has no direct effect on the national regulations. The directive needs to be implemented first.

5.4.1.1 Scope of the public sector directive

The public sector directive applies to procurement by contracting authorities with respect to public contracts as well as design contests whose value is estimated to be not less than (article 4):

- € 5.186.000 for public works contracts;
- € 134.000 for public supply and service contracts and design contests, awarded by central government;
- € 207.000 for public supply and service contracts or design contests awarded by sub-central contracting authorities.
- € 750.000 for public service contracts for social and other specific services listed in Annex XIV.

This directive should not apply to certain emergency services where they are performed by non-profit organisations or associations, since the particular nature of those organisations would be difficult to preserve if the service providers had to be chosen in accordance with the procedures of the directive. Furthermore the directive does not apply to public contracts with the purpose of providing public communication networks or electronic communication services; public contracts organised pursuant to international rules; several types of service contracts, e.g. rental, legal services

and employment contracts and service contracts based on exclusive rights; and last, public contracts between entities within the public sector (articles 8-12).

5.4.1.2 Award procedures

On a European level, procurement is executed by the European Commission. The public sector directive contains several award procedures:

- open procedure,
- restricted procedure,
- competitive procedure with negotiation,
- competitive dialogue,
- negotiated procedure without prior publication.

The *open procedure* applies when no other procedure is chosen. In the open procedure, the contracting authority submits a call for tenders. Interested companies may submit a tender. The best offer is chosen, based on the selected award criteria (article 27).

The *restricted procedure* consist of two phases. In the first phase a call for expression of interests is set out. Interest candidates may submit an invitation to tender. The contracting authority will then invite the most suitable candidates to submit a tender. The contracting authority will award the contract to the best tender, based on the selected award criteria (article 28).

In the *competitive procedure with negotiation* any interested candidate may submit a request to participate in the negotiations, in response to a call for competition. In this call for competition, the contracting authority has provided a description of their needs and the characteristics of the works or services to be procured. Only the interested candidates that are invited may submit an initial tender, which will be the basis of the negotiations (article 29). In several cases the negotiation procedure can be used without prior publication, for example when the public contract contains a creative achievement; when there is no competition; when intellectual property rights need to be protected, or when there are reasons for extreme urgency (article 32).

In the *competitive dialogue* any interested candidate can submit a request to participate in response to a contract notice given by the contracting authority. The contract notice provides the information on and the needs and requirements of the contracting authority, as well as the chosen award criteria. The selected interested candidates will join the competitive dialogue, in which the means best suited for satisfying the contract will be defined (article 30).

A new procedure within this directive is the *innovation partnership*. In this procedure, any economic operator may submit a request to participate in response to a contract notice, by providing information for qualitative selection that is requested by the contracting authority. The innovation partnership can be set up with one partner or several partners. Only the economic operators invited by the contracting authority participate in the procedure. After each phase, the contracting authority

may decide after each phase to terminate the partnership or reduce the number of partners within the partnership, based on the targets.

According to article 26, the open procedure and restricted procedure are the standard procedures to apply in case of procurement. The other procedures can be used in a limited number of situations, for example when the service is innovative, or when the technical specifications can't be determined (art. 26, sub 4.).

Contracting authorities can use framework agreements, provided that they apply the procedures in this directive. The agreement can not exceed four years. Contracts within the agreement will be awarded according to the rules in article 33.

In most procedures the candidates are chosen with the use of selection criteria. The selection criteria may relate to suitability to pursue the professional activity; economic and financial standing and technical and professional ability. All criteria need to be related and proportionate to the matter of the contract (article 58).

National regulations

Member States need to implement directive 2014/24/EU before 18 April 2016. In Belgium, procurement is codified in the Law on procurement and orders on works, services and supplies (In Flemish: De wet overheidsopdrachten en bepaalde opdrachten voor werken, leveringen en diensten).

5.4.1.3 Scope

The law on procurement applies to public contracts between a public contracting authority and one or more suppliers with respect to carrying out works, supplies or services on the market. The contracting authorities can be the Federal State, territorial agencies, and public institutions (article 2). The value of the contract is not a factor in the definition of the scope.

Some types of public contracts are excluded from the scope from the law. For example, when other rules apply according to international law, or if the procurement takes place between to public entities (article 17).

5.4.1.4 Procedures

In all types of procurement, the contracting authorities need to make sure that candidates are treated equally, without discrimination and that the procedures are transparent. The Belgium law has the same procedures as the European directive, with the open and restricted procedures as the standard and the procedure with negotiation and the competitive dialogue in a limited number of situations (article 26 and 27). One difference is that Belgium has a distinction between a tender procedure and the procurement. In a call for tenders, the candidates will be evaluated according to

more criteria, while the procurement is only evaluated according to one criteria, in most cases the price.

5.4.1.5 Award criteria

The award criteria are stated in article 25 of the procurement law. According to the law, the criteria have to be line with the subject of the public contract and have to make sure that tenders can be compared objectively. The law provides some examples like price, quality, technical value and functional characteristics. These criteria are comparable to the criteria in the EU directive.

5.5 Niche capabilities



Belgian's B-Fast USAR teams (Urban Search And Rescue) are responsible for tracing, localizing, relieving and evacuating survivors under the rubble. They are primarily deployed after earthquakes, explosions and other disasters inside and outside of Belgium.

These teams deploy for instance rescue dogs to search the rubble. Besides, they also have specialized equipment to localize and rescue people buried under the rubble, such as telescopic cameras that can be shoved in the rubble and sound equipment to trace sounds under the rubble.

USAR-teams are composed by members of the Civil Protection and the fire departments who were specifically trained for this. They have to follow the INSARAG External Classification procedure (IEC) of the United Nations to be internationally recognized. When a USAR team is needed abroad, Belgium sends it in the form of a B-FAST team (Belgian First Aid and Support). This Belgian assistance abroad is almost always coordinated on the European and/or UN level.

USAR teams are composed by specialized members of the Civil Protection and the fire departments, completed with specifically trained medical personnel. These people are trained to fully autonomously save human lives in difficult circumstances (tropical heat, chaos, ...) during ten days 24h/24, in shifts of 12h. The Belgian B-FAST USAR team meets the standards of the United Nations and obtained in 2010, after a thorough audit, the quality label INSARAG-certified as Medium USAR team.

In 2010, Belgium for instance sent a USAR team to the Haitian capital Port-au-Prince after the heavy earthquake, as part of the Belgian B-FAST team. During one week they searched for survivors under the rubble. In the end, they succeeded to rescue three persons alive from the rubble. (B-Fast, 2014; Civil Protection, 2014)

Resources

Legislative acts

10/06/2014	Royal Decree van 10 juni 2014 tot bepaling van de opdrachten en taken van civiele veiligheid uitgevoerd door de hulpverleningszones en de operationele eenheden van de civiele bescherming en tot wijziging van het ...	17/07/2014	Royal Decree	17/07/2014
15/05/2007	Wet van 15 mei 2007 betreffende de civiele veiligheid.	31/07/2007	Law	19/04/2014
31/12/1963	Wet van 31 december 1963 betreffende de Civiele Bescherming	16/01/1964	Law	21/12/2013
10/04/1992	Wetboek van de inkomstenbelastingen 1992 van 10 april 1992. Uittreksel	30/07/1992	Law	30/07/2013
11/10/2002	Royal Decree van 11 oktober 2002 tot organisatie van kynologenhulpverleningsteams.	18/10/2002	Royal Decree	10/09/2009
01/12/1975	Royal Decree van 1 december 1975 houdende algemeen reglement op de politie van het wegverkeer [en van het gebruik van de openbare weg].	09/12/1975	Royal Decree	27/04/2007
23/06/1971	Royal Decree van 23 juni 1971 houdende organisatie van de opdrachten van de Civiele Bescherming en coördinatie van de operaties bij rampspoedige gebeurtenissen, catastrofes en schadegevallen.	24/07/1971	Royal Decree	16/02/2006
05/08/1992	Wet van 5 augustus 1992 op het politieambt. Uittreksel.	22/12/1992	Law	07/12/1998
18/04/1988	Royal Decree van 18 april 1988 tot oprichting van het coördinatie- en crisiscentrum van de regering.	04/05/1988	Royal Decree	11/05/1990
22/01/2007	Wet van 22 januari 2007 tot oprichting van het federaal kenniscentrum voor de civiele veiligheid.	21/02/2007	Law	

30/05/1968	Circular van 30 mei 1968 betreffende de interventie van de permanente eenheden der civiele bescherming.	30/05/1968	Circular
05/11/1971	Circular of the Minister van 5 november 1971 – organisatie van de opdrachten van de civiele bescherming en coördinatie van de operaties bij rampspoedige gebeurtenissen, catastrofes en ongevallen.	05/11/1971	Circular ministérielle
22/06/1978	Circular van 22 juni 1978 betreffende de procedure voor de doorschakeling van inlichtingen in geval van rampspoedige gebeurtenissen, catastrofes en belangrijke branden.	22/06/1978	Circular
24/05/1984	Circular of the Minister van 24 mei 1984 betreffende de preventieve hulpzendingen van de civiele bescherming.	24/05/1984	Circular of the Minister
07/10/1985	Circular of the Minister van 7 oktober 1985 betreffende de bommeldingen – uitrukprocedure brandweer.	07/10/1985	Circular of the Minister
09/11/1987	Circular van 9 november 1987 betreffende het eenvormig oproepstelsel “100” en aanvullende onderrichtingen betreffende informatie van het coördinatie- en crisiscentrum van de regering.	09/11/1987	Circular
04/07/1995	Circular of the Minister van 4 juli 1995 betreffende de interventiezones van de permanente eenheden van de civiele bescherming	04/07/1995	Circular of the Minister
04/07/1995	Nota van 4 juli 1995 betreffende de reorganisatie van de Civiele Bescherming.	04/07/1995	Nota
21/05/1996	Nota van 21 mei 1996 aan de ambtenaren belast met de leiding van de permanente eenheden en de grote wacht.	21/05/1996	Nota
03/04/1998	Circular of the Minister van 3 april 1998 betreffende de interventiezones van de permanente eenheden van de Civiele Bescherming - provincie West-Vlaanderen.	03/04/1998	Circular of the Minister
07/04/2003	Royal Decree van 7 april 2003 tot verdeling van de opdrachten inzake Civiele Bescherming tussen de openbare brandweerdiensten en de diensten van de Civiele Bescherming.	21/05/2003	Royal Decree
19/05/2004	Circular of the Minister van 19 mei 2004 betreffende het	19/05/2004	Circular

	gebruik van de blauwe knipperlichten en/of het speciaal geluidstoestel voor de prioritaire voertuigen die een dringende opdracht uitvoeren.		of the Minister
17/06/2004	Circular of the Minister van 17 juni 2004 aangaande opdrachten van de brandweer en diensten van de civiele bescherming.	17/06/2004	Circular of the Minister
04/01/2005	Circular of the Minister van 4 januari 2005 betreffende de procedure voor het inzetten van kynologen hulpverleningsteams.	18/01/2005	Circular of the Minister
21/03/2006	Minister decision van 21 maart 2006 betreffende het detachement voor interventie bij rampen of catastrofes in het buitenland (DICA-DIR) en betreffende de coördinatiecel van het detachement voor interventie bij rampen of catastrofes in het ...	06/04/2006	Minister decision
06/09/2006	Circular nr. COL 16/2006 van 6 september 2006 betreffende de vaststellings- en vervolgingsbeleid inzake verkeersmisdrijven gepleegd door bestuurders van prioritaire voertuigen en voertuigen in opdracht.	06/09/2006	Circular
13/04/2007	Minister decision van 13 april 2007 tot aanwijzing van de leden van de coördinatiecel van het detachement voor interventie bij rampen of catastrofes in het buitenland.	03/05/2007	Minister decision
04/03/2008	Circular of the Minister van 4 maart 2008 inzake de bevoegdheid van de brandweer tot het regelen van het wegverkeer bij een interventie op de openbare weg.	03/04/2008	Circular of the Minister
05/03/2009	Circular of the Minister van 5 maart 2009 betreffende de interventie van de brandweer in het kader van de strijd tegen de eikenprocessierups.	05/03/2009	Circular of the Minister
13/05/2009	Wet van 13 mei 2009 betreffende de toetreding van België tot het verdrag van Tampere inzake de levering van telecommunicatievoorzieningen voor rampenmitigatie en noodhulpoperaties, gedaan te Tampere (Finland) op 18 juni 1998.	13/08/2010	Wet
11/07/2012	Circular of the Minister van 11 juli 2012 betreffende nieuwe gezelschapsdieren.	11/07/2012	Circular of the Minister

Other normative acts

Official documents (white papers, strategies, etc.)

Online resources (e.g. websites of key CM organizations)

Activiteitenverslag Binnenlandse Zaken 2010 (2011)

Activiteitenverslag Binnenlandse Zaken 2012 (2013)

Astrid (2014) *Astrid website*, <http://www.astrid.be/Templates/Home.aspx?id=32&LangType=1043>

IBZ (2007) *Activiteitenverslag Civiele Veiligheid*

Bealalert (2014), *Website Bealert*,

http://crisiscentrum.be/sites/5052.fedimbo.belgium.be/files/brochure_uw_veiligheid_fr.pdf

B-FAST (2014) *Website B-FAST*, <http://b-fast.be>

BASF (2012) *De TurboJet: nieuw interventievoertuig, aangedreven door straalmotoren*,

http://www.basf.be/ecp2/Press_releases_belgium_nl/20100517_persconference_TurboJet

Civil protection Belgium (2014) *Website Belgian Civil Protection*, <http://www.civieleveiligheid.be>

Civil protection Belgium (2014) *Wat doet de civiele bescherming?*,

<http://www.civieleveiligheid.be/nl/inhoud/wat-doet-de-civiele-bescherming>

EC (2014) *Vademecum Belgium - List of emergencies*

http://ec.europa.eu/echo/files/civil_protection/vademecum/be/2-be-6.html

Essencia (2013) *Naar aanleiding van het treinincident in Wetteren heeft het provinciale crisiscentrum het advies en de operationele steun van de chemische industrie gevraagd*, <http://www.essencia.be/nl/Document/Download/12967>

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Kerremans, I. (2012) *Brandweermannen BASF rukken uit over hele land*, <http://www.gva.be/cnt/aid1197670/brandweermannen-basf-rukken-uit-over-hele-land>

IBZ (2013) *Brochure noodplanning en crisisbeheer*

IBZ (2014), *Ministry of Interior Affairs Belgium*, www.ibz.be

OCAD (2014) *Wat is het Coördinatieorgaan voor de dreigingsanalyse?*, http://www.comiteri.be/index.php?option=com_content&task=view&id=54&phpMyAdmin=97d9ae9d92818b6f252c014a4a05bdfb&Itemid=56&lang=NL

Preventionweb (2014) *Belgian disaster statistics*, <http://www.preventionweb.net/english/countries/statistics/?cid=17>

Steamexfire (2014), *De Turbo-jet van BASF Antwerpen*, <http://www.steamexfire.nl/image/109.112turbopdf.pdf>

Publications

Expert interviews

Several departments of the Ministry of Interior affairs, the Belgian Knowledge Centre on Civil Security and experts of the Civil Security organisation were contacted. We did not manage to arrange a telephonic interview or review of our analysis.



Driving Innovation in Crisis Management for **E**uropean **R**esilience

BULGARIA

Capabilities, Organisations, Policies, and Legislation (COPL) in crisis management and disaster response

Responsible Partner: CSDM (Todor Tagarev, Petya Ivanova, Nataly Ivanova)



Moi General Directorate
"Fire Safety and Civil Protection"



Civil Protection
of the Republic of Bulgaria

Scope and limitations

This study serves as supporting information for further work within DRIVER.

Only limited time and budget has been available for this first general survey, which needs to be considered in terms of scope and completeness of the respective studies.

The author/s of this study is/are responsible for its content and quality.

Overview

Natural disasters in Bulgaria are on the increase. For just four months—from June to October 2014—heavy floods affected half of Bulgaria’s regions and took 18 casualties on five different occasions. By the end of October, the total number of disasters since the start of the year exceeded 600, including train crashes and explosions in ammunition factories, the most recent one killing 15 people.

The types of challenges faced come in sharp contrast with the traditional concerns and the approach to protection of the population prior to WWII and during the Cold war. After several waves of reorganisation of the former militarised system for *civil defence*, the civil protection units and their management bodies are now part of General Directorate “Fire Safety and Civil Protection” (FSCP) within the Ministry of the Interior.

The main legal act regulating their activities is the *Disaster Protection Law*. A separate concept does not exist at current. The Disaster Protection Law reflects currently prevailing conceptual views on crisis management and disaster response.¹ A number of strategies and executive regulations complement the law in regard to disaster prevention, the functioning of volunteers and volunteer organisations, consultative bodies, mid-term programmes, annual implementation plans, etc. Crisis preparedness and response need to adhere to a number of other laws, e.g. on the Ministry of the Interior, on the environmental protection, on the waters, on the regulation of territories, etc.

The central executive power continues to play the key role, primarily via the MOI General Directorate “Fire Safety and Civil Protection.” The regional and municipal authorities have their own disaster protection plans, and each region has a local FSCP directorate. Along with other ministries and central executive agencies, critical infrastructure operators, other trade companies, volunteers, health services, and the armed forces, they perform their crisis management duties in a *Unified Rescue Service*.

FSCP provides points of contact for international co-operation, including humanitarian aid, engagement for disaster response and relief, protection of European critical infrastructures, etc.

FSCP has about 8,800 personnel and is sustained through the budget of the Ministry of the Interior. Elements of the monitoring and early warning system are maintained through the budget of respective ministries, agencies, and institutes. Some equipment, infrastructure and training programmes are financed as part of international projects, including EU structural funds. In addition, the Interagency Commission for Recovery and Assistance (ICRA) to the Council of Ministers has an annual budget of 70-90 mln. BGN, or approximately 0.1 percent of the GDP, to finance “the prevention, containment, and overcoming the consequence of disasters.”²

Bulgaria has some crisis management capabilities of potential interest to the EU and other MSs, such as medium search and rescue units for urban environments, medium CBRN units, and land units for fighting forest fires, as well as the FSCP training range in the town of Montana. Mobile medical teams of the Military Medical Academy are regularly deployed abroad in disaster response operations. At

¹ A separate Crisis Management Law enacted in 2005 treated issues of interest to DRIVER. It was cancelled in 2009 and is not examined in detail here.

² See for example the Law on the State Budget of the Republic of Bulgaria for 2014, *State Gazette* 109, 20 December 2013, article 1(2), item 4.1.1.

the time of writing of this report, a Centre for Crisis Management and Disaster Response in Sofia, pending the accreditation from the North-Atlantic Council, will be declared NATO Centre of Excellence.

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List of Abbreviations

BAS	Bulgarian Academy of Sciences
BGN	Lev (the Bulgarian currency)
CBRN	Chemical, Biological, Radiological, and Nuclear [protection]
CECIS	Common Emergency and Information System (EU)
CIS	Communications and Information Systems
CMDR	Crisis Management and Disaster Response
COE	Centre of Excellence
EADRCC	Euro-Atlantic Disaster Response Coordination Centre (NATO)
ECURIE	European Community Urgent Radiological Information Exchange
EERC	European Emergency Response Capacity
ERCC	Emergency Response Coordination Centre (EU; formerly MIC)
FSCP	Fire Safety and Civil Protection (MOI General Directorate)
HFA	Hyogo Framework for Action
IAEA	International Atomic Energy Agency
ICPPDAC	Interagency Commission on Protection of the Population in Disasters, Accidents, and Catastrophes (not existing at current; replaced by ICRA)
ICRA	Interagency Commission for Recovery and Assistance
MES	Ministry of the Emergency Situations
MIC	Monitoring and information Centre (EU; now ERCC)
MoD	Ministry of Defence
Moi	Ministry of the Interior
MUSAR	Medium Search and Rescue [unit]
NDPP	National Disaster Protection Plan
NIGGG	National Institute of Geophysics, Geodesy and Geography
NPP	Nuclear Power Plant
NSEWA	National System for Early Warning and Alerts
POL	Petroleum, Oil, and Lubricants
REMPAN	Radiation Emergency Medical Preparedness and Assistance Network
RODOS	Real On-line DecisiOn Support System
RRMMT	Rapid Reaction Military Medical Team
TOE	Table of Organisation and Equipment

UNISDR	The United Nations Office for Disaster Risk Reduction
URS	Unified Rescue Service
WMD	Weapons of Mass Destruction
WWII	World War II

1 Policy

Bulgaria is a parliamentary republic. The People's Assembly (Bulgaria's single chamber Parliament) elects and discharges the Prime Minister and, on his or her proposal – the Council of Ministers. The formulation of policies, including the policy for disaster preparedness and response, is in the realm of this most senior body of the Executive branch power.

Head of state is the generally elected President, who is also Supreme Commander of the Armed Forces. The President chairs the Consultative Council on National Security, composed of the leaders of the political parties represented in parliament. The executive powers of the President are largely limited to appointment of heads of diplomatic delegations/embassies, highest ranking military personnel and, when this is required by law, civil servants,³ and signing international treaties.⁴ On these occasions, the President acts on the proposal by the Council of Ministers.

When the Parliament is not in session, the President declares war, given an armed aggression against the country or the need for urgent implementation of international obligations, military or *another extraordinary situation*. In such cases the Parliament convenes immediately to decide on the President's declaration.⁵

Bulgaria is a unitary state with local self-governance.⁶ Currently, the country has 28 regions, each consisting of municipalities. Chapter 7 of the Constitution provides the grounds for local self-governance and administration. Each municipality has a Municipal Council, a Mayor, and its own budget. The Constitution also stipulates obligations of the citizens "to assist the state and society in the case of a natural or another disaster following legally defined regulations."⁷

Bulgaria does not have a crisis management policy document *per se*. In addition to the constitutional provisions, the foundations of CM policy are set in the Disaster Protection Law, while details emerge in the examination of a number of strategies, regulations, mid-term programmes, short-term implementation plans, organisational acts and resource allocation decisions.

Chapter 1 of the Disaster Protection Law defines 'disaster' as

*considerable disruption of the normal functioning of the society caused by natural phenomena and/or human activities, and leading to negative consequences of the life and the health of the population, properties, economy and the environment, the prevention, containment and overcoming of which exceeds the capacity of the system for servicing the common activities for societal protection.*⁸

The law defines the main principles of disaster protection:

1. Each person has the right of protection;
2. Saving human life has a priority over other protection activities;

³ Mostly, the highest ranking professionals in the security ministries and agencies.

⁴ Constitution of the Republic of Bulgaria, Articles 98, 99, 100.

⁵ Ibid., Article 100(5).

⁶ Ibid., Article 2(1).

⁷ Ibid., Article 61

⁸ Disaster Protection Law, article 2.

3. Provision of public information on disaster risks and the activities of the executive bodies for disaster protection;
4. Priority of the preventive measures in disaster protection;
5. Accountability for the implementation of the protective measures;
6. Gradual provision of forces and resources for protection.

The law—and respectively, the policy—treat the protection of life of health of the population, the environment and the property. Disaster protection involves executive bodies, legal entities and physical trade persons, coordinated in a unified rescue system, acting on a national, regional, and municipal level through:

- conducting preventive activities;
- conducting activities for protection during disasters;
- assistance and recovery;
- allocating resources;
- providing and accepting aid.

Thus, Bulgaria’s crisis management policy aims to provide effective coordination and use of national and local, public and private resources, as well as assistance provided through international co-operation, to prevent, or when prevention fails, protect life and property during and immediately following a crisis triggered by natural disasters or man-made catastrophes. The respective response is triggered whenever a disaster affecting the country, regions or local communities cannot be controlled through routine, daily and normal channels and procedures.

1.1 Risk Assessment

Data on recent disasters and other crisis event

Information on disasters is regularly reported by relevant Bulgarian ministries and agencies and is available to the public and international organizations and initiatives.

The FSCP website provides annual statistical reports, available online for 2008 and the following years.⁹ While providing some information on natural disasters and industrial catastrophes, it is heavily focused on preventing fires and firefighting. The statistics provided by FSCP is detailed by region. For aggregated information for 2011 (the first year after the Fire Safety and Rescue and the Civil Protection directorates were merged), 2012 and 2013 see Table 1.

The Ministry of Environment and Water, through its own website or the websites of the four Basin Directorates, provides partial information on past floods. For example, the Basin Directorate for the Danube region provides an Excel file with information on 745 floods in that basin for the last century. 602 of those floods are assessed as being of significance for the respective town or village.

According to Regulation # 8 on the conditions and procedures for protecting forest territories from fires, the Executive Director of the Executive Agency “Forestry”¹⁰ “creates and maintains an

⁹ See www.nspbzn.mvr.bg/Sprav_informacia/Statistika/default.htm.

¹⁰ The name is translated into English on its official website as “Executive Forest Agency.” See www.nug.bg/lang/2/index.

information system with a database on fires for all forest territories with the aim to have the necessary statistical information.”¹¹

Table 1. FSPB statistics on disasters, incidents, and rescue mission, 2011-2013.

	2011	2012	2013
Natural disasters	154	700	70
Accidents	10	170	218
Home and industrial incidents	556	415	419
Incidents with dangerous substances and materials	681	643	487
Incidents with radiation sources	0	18	11
Total:	3412	3958	3218
Assistance, search and/or rescue missions	0	456	376

The Nuclear Regulatory Agency publishes daily bulletins on the gamma background on the territory of the country (see an illustration on Figure 1), information on events in nuclear facilities¹² and reports on incidents with radiation sources, with short description, lessons learned and recommendations.¹³



Figure 1: Gamma-background Bulletin.

¹¹ Article 12 /3/ of Regulation # 8 on the conditions and procedures for protecting forest territories from fires.
¹² See www.bnra.bg/en/emergency/nuclear-facilitie/npp-events, listing three events in the Kozloduy Nuclear Power Plant, respectively in 21 December 2013, 14 April 2014 and 23 April 2014 (accessed 09 December 2014).
¹³ See for example “Incident with a gamma - irradiation facility in the town of Stamboliyski,” Nuclear Regulatory Agency, available in English at http://www.bnra.bg/en/emergency/20110729-en?set_language=en (accessed 28 October 2014).

Academic publications by the Agency’s experts add to the statistics and the analysis of individual cases. See for example Figure 2 for earlier statistics on incidents with radiation sources and brief description of key incidents in the article cited.¹⁴

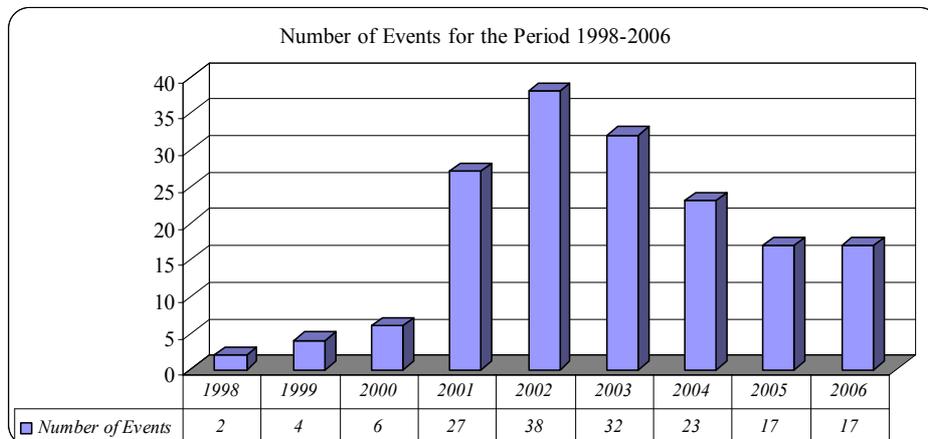


Figure 2: Radiation Emergencies (events per year) for the period 1998-2006.

The National Institute of Geophysics, Geodesy and Geography (NIGGG) at the Bulgarian Academy of Sciences provides real time information of seismic activity in Bulgaria and adjacent areas (see Figure 3 for the status as of 10 December 2014¹⁵). NIGGG provides feeds to international networks that track and provide statistics on earthquakes.

¹⁴ Nizamska, Marina. “Analysis of the Reasons for Incidents with Radioactive Sources in Bulgaria and Preventive Measures.” *Information & Security: An International Journal* 24 (2009): 115-124, <http://dx.doi.org/10.11610/isij.2411>.

¹⁵ For current information see <http://ndc.niggg.bas.bg>.

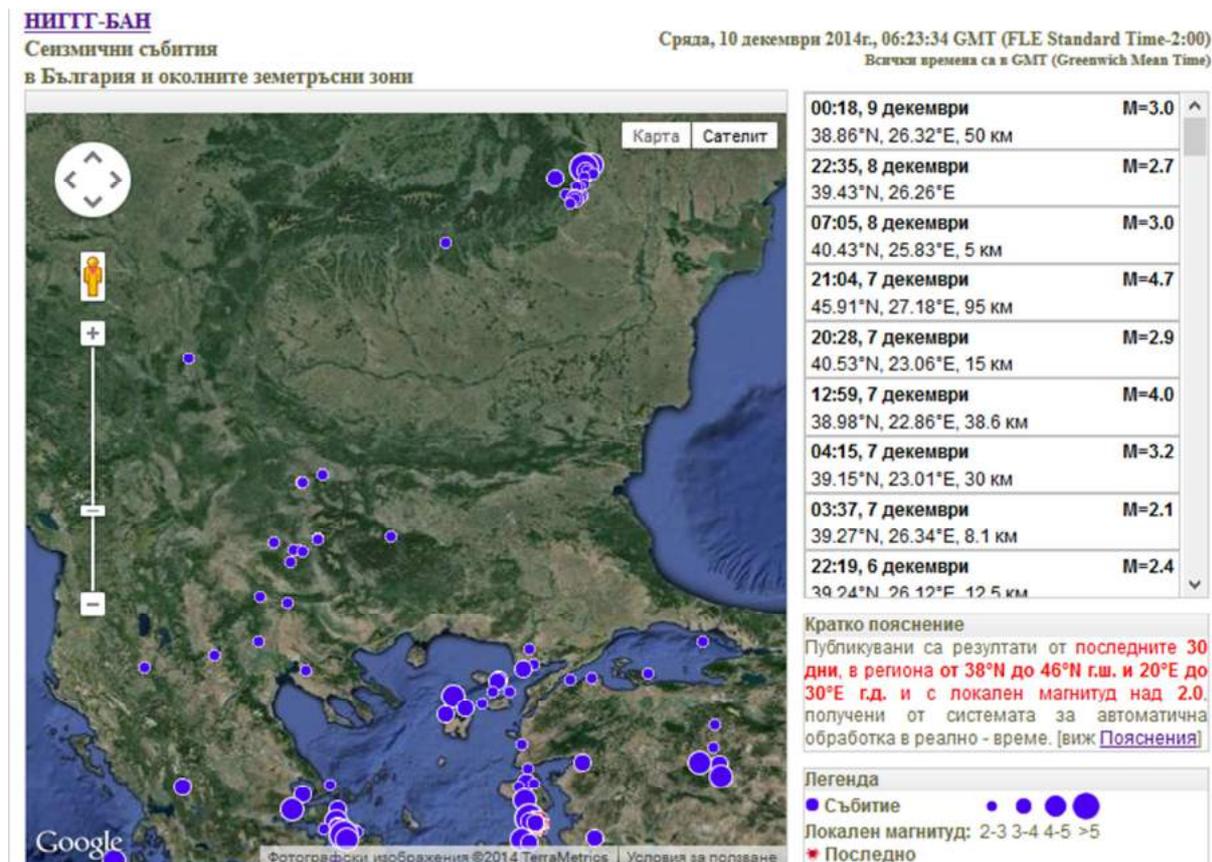


Figure 3: Seismic events in Bulgaria and adjacent earthquake zones.

Scientists regularly publish related data and their data- and evidence-based findings. See for example Table 2 for the strongest earthquakes in Bulgaria since the beginning of the 20th Century.¹⁶ A common conclusion in these studies is that—within Europe—Bulgaria is among the most vulnerable to earthquakes.

Table 2. Earthquakes in Bulgaria and adjacent areas since the beginning of the 20th Century with a magnitude over 5.

Date	Location	Magnitude on the Richter scale
31 March 1901	b/n Shabla and cape Kaliakra	7,2
4 April 1904	in the Struma river valley	7,8
8 October 1905	along the Struma river	6,4
10 January 1908	Gorna Oriahovitsa	7,0
14 April 1909	Gorna Oriahovitsa	7,0
14 June 1913	Gorna Oriahovitsa	7,0

¹⁶ See Alexander N. Sadovski, “Spatial Analysis of Earthquakes in Bulgaria and Neighboring Areas,” *Ecological Engineering and Environment Protection* 14, no. 2 (2014): 13-21 (in Bulgarian) and references therein. For older events, as well as earthquakes with magnitude between 4 and 5, see http://bg.wikipedia.org/wiki/Земетресения_в_България.

18 October 1917	Sofia	5,3
14 April 1928	Chirpan	6,9
18 April 1928	Popovitsa	7,0
25 April 1928	Galabovo	5,6
17 March 1942	Razgrad	7,0
30 June 1956	Shabla	5,5
4 March 1977	Vrancha, Romania	7,2
3 November 1977	Velingrad	5,3
28 February 1986	Strazhitsa	5,1
7 December 1986	Popovo	5,7
27 October 2004	230 km NE of Sofia, on the territory of Romania	5,5
22 May 2012	Pernik	5,6

The National Statistical Institute publishes statistical studies on disasters, their causes and consequences, including assessment of material losses and their monetary value, assistance provided by the Interagency Commission for Recovery and Assistance, insurance premiums and paid compensations from insurers. Aggregated data for years 2010-2013 is presented on Table 3.

Table 3. Crisis events for 2010-2013 – total for the country.

Indicators	Number of events				Stated losses, in thousand BGN				Amount to be restored, in thousand BGN				Expenditures for rescue and urgent recovery activities, in thousand BGN			
	2010	2011	2012	2013	2010	2011	2012	2013	2010	2011	2012	2013	2010	2011	2012	2013
Crises event – TOTAL	4571	8268	10826	2728	100594	487254	106160	443067	74047	424127	36167	399240	7593	11726	104228	21814
Fires	1630	2185	3010	764	2239	2186	1437	2013	479	192	47	308	991	113	70	231
Landslides	59	76	72	51	2182	224790	17384	294459	1881	221735	3651	291633	1292	775	1783	1068
Earthquakes	12	4	22	6	224	0	59037	915	506	232	17960	1242	0	0	23	15215
Draught	6	30	23	3	1	117	149	0	1	0	0	0	0	13	0	0
Floods	651	382	692	547	38882	206659	20898	15285	16375	201136	9855	7338	4524	3289	5819	1941
Storms, tornados, whirlwinds	47	48	528	89	54722	1614	3488	99387	53791	257	1787	98227	111	714	1202	3350
Hail	16	13	14	13	505	50150	187	0	318	120	147	0	307	0	34	0
Snowstorms (snowdrifts)	103	94	93	50	441	1205	945	200	366	266	868	0	173	6692	95260	9
Icing, frostbites	18	134	186	20	0	128	135	0	0	25	132	0	0	70	6	0
Accidents	7	24	312	314	24	39	319	257	77	26	318	218	10	11	0	0
Catastrophes with vehicles	1937	5218	5858	841	926	285	2164	528	14	82	1402	221	18	0	0	0
Contamination	45	42	7	19	2	68	8	30023	0	45	0	23	6	49	31	0
Epidemics (people)	12	7	7	6	0	0	0	0	0	0	0	0	0	0	0	0
Epidemics (animals, incl. birds)	5	2	0	1	0	2	0	0	0	0	0	0	0	0	0	0
Calamities	2	0	0	2	30	0	0	0	45	0	0	30	15	0	0	0
Other disasters and crisis events	21	9	2	2	416	11	9	0	194	11	0	0	146	0	0	0

International organisations and initiatives can serve as additional sources for statistics on crises and disasters in Bulgaria, as well as their impact. Although based on information provided by Bulgarian authorities, these sources may be more useful for research purposes due to the common language, data structure, easy to use online interface, etc.

One such source is the UN Hyogo Framework for Action (HFA) – a 10-year plan to build resilience of nations and communities to disasters.¹⁷ The *PreventionWeb* site provides respective disaster statistics for the 30-year period from 1980 till 2010. An overview of the number of events and their consequences is presented in Table 4.¹⁸ The top events of significance and the respective statistics on their occurrence are presented on Figure 4.¹⁹ The same source provides data on the top 10 natural disasters, the numbers of people killed and affected, and the estimated economic damages.²⁰

Table 4. Overview of natural Disasters in Bulgaria from 1980 - 2010.

Number of events:	34
Number of people killed:	111
Average killed per year:	4
Number of people affected:	23,566
Average affected per year:	760
Economic Damage (US\$ X 1,000):	478,104
Economic Damage per year (US\$ X 1,000):	15,42

The United Nations Office for Disaster Risk Reduction (UNISDR) maintains a database with visualisation tools of exposures to risks. A sample of the Global Risk Update 2013, featuring human and economic exposure to earthquakes is presented on Figure 5.²¹

The global assessment reports on disaster risk reduction are built on the information in DesInventar – disaster information management system maintained by UNISDR. UNISDR provides software that allows to construct databases capturing information on damage, loss and general effects of disasters. Bulgaria is interested in this opportunity to better understand disaster trends and their impacts, and achieve better prevention, mitigation and preparedness,²² but data on Bulgaria is not available on the DesInventar website at time of finalising this report.

¹⁷ See www.unisdr.org/we/coordinate/hfa.

¹⁸ See www.preventionweb.net/english/countries/statistics/?cid=26.

¹⁹ Ibid.

²⁰ The criteria for including an event in the database are defined by EM-DAT – The International Disaster Database, maintained by the Centre for the Research on the Epidemiology of Disasters in Brussels, www.emdat.be/criteria-and-definition.

²¹ Global Assessment Report on Disaster Risk Reduction 2013, Global Risk Update GAR 2013, available at <http://risk.preventionweb.net:8080/capviewer/main.jsp?tab=0>.

²² Interview with an expert from FSCP General Directorate, 10 November 2014.

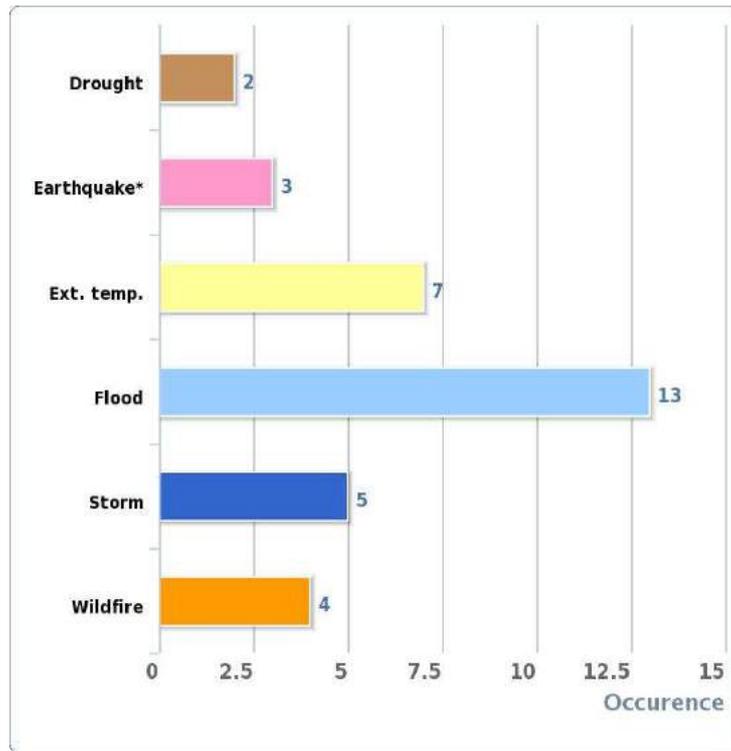


Figure 4: Natural Disaster Occurrence, reported by Bulgaria.



Figure 5: Exposure of Bulgaria to Earthquake hazards.

Conducting Risk Assessments and Examples

There is a growing understanding that a systematic approach to disaster data collection and analysis can facilitate better policy-making and thus to the reduction of disaster risks and enhanced response to disasters. For example, the *Strategy for Mitigating Disaster Risks 2014-2020* includes a 15-page annex with overview of key disaster risks, supported by aggregated data, and their likely impact given our prediction ability, prevention and mitigation measures.²³

At current, the analysis, assessment and mapping of disaster risks are seen in Bulgaria as key preventive activities.²⁴ They are implemented in accordance with the *Regulation of the conditions, procedures, and bodies for conducting analysis, assessment and mapping of disaster risks*.²⁵ This normative document, approved by the Council of Ministers in October 2012, designates the following risks as subject of analysis, assessment and mapping:²⁶

- seismic risk;
- risk of flooding;
- risk of nuclear or radiation accident;
- geological risk (landslides, landslips, active faults, and other geological processes);
- risk of forest fires.

Risks are analysed and assessed every six years, unless a specific law defines another term for reassessment. They can be re-examined given a change with potentially significant impact on the risk, if the data and information on which assessment has been made invalid or inadequate, if the negative consequences of actual disasters are higher or of different type than the ones forecasted, or based on lessons learned from past disasters.

The responsible bodies for analysis and assessment are as follows:²⁷

- the Minister for Regional Development – for the seismic and geological risks;
- the Chairman of the Nuclear Regulatory Agency – for the risk of nuclear and radiation accidents;
- the Minister of Environment and Water, through the directors of Basin Directorates – for the risk of flooding;
- the Minister of Agriculture and Food – for the risk of forest fires.

The mapping follows the requirements of the EU Directive 2007/2/EC (INSPIRE) and other relevant requirements and standards.

The risk maps need to indicate the threatened territories and the likely negative consequences expressed through the following indicators:²⁸

1. the approximate number of potentially endangered citizens (casualties, injured, or with their health under threat);
2. material losses;

²³ *Strategy for Mitigating Disaster Risks 2014-2020*, available at <http://www.strategy.bg/StrategicDocuments/View.aspx?lang=bg-BG&Id=894> (in Bulgarian).

²⁴ Disaster Protection Law, article 6(1), items 1 and 2.

²⁵ Regulation of the conditions, procedures, and bodies for conducting analysis, assessment and mapping of disaster risks, *State Gazette* 84 (2 November 2012), as amended in *State Gazette* 9 (31 January 2014).

²⁶ *Ibid.*, article 1(2).

²⁷ *Ibid.*, article 2.

²⁸ *Ibid.*, article 5(3).

3. affected technical infrastructure
4. affected economic activities in the respective area;
5. affected industrial installations (defined in Annex 4 to the Environmental Protection Law);
6. areas for water protection (identified in Article 119a(1) of the Law on Waters);
7. potentially affected areas under Article 6 of the Law on Biological Diversity
8. the level of disruption of the normal functioning of society
9. sites with the stature of immovable cultural values
10. other information considered useful by the relevant bodies.

Article 6(8) of the Regulation declares that the disaster risk maps are public and are announced on the MOI website, while adhering to the requirements of the Law on Protection of Classified Information.²⁹ At the time of finalizing this report,³⁰ it was possible to find publically available information on just a few actual risk maps. With amendment to the Regulation in January 2014, the deadline for analysis and assessment of disaster risks has been extended till the end of 2015.

Partial results are nevertheless useful and being used in informing policy decisions. For example, Figure 6 provides an indication of seismic risks on the territory of Bulgaria³¹ (understanding also that earthquakes in the Vrancea region of Romania, northern Greece or western Turkey may also have destructive effects on Bulgarian territory). Governmental assessments of earthquake and other seismic hazards and risks are complemented by rigorous academic studies on Bulgaria, such as those of Tzenov and Botev (2009) and Bayliss and Burton (2013).

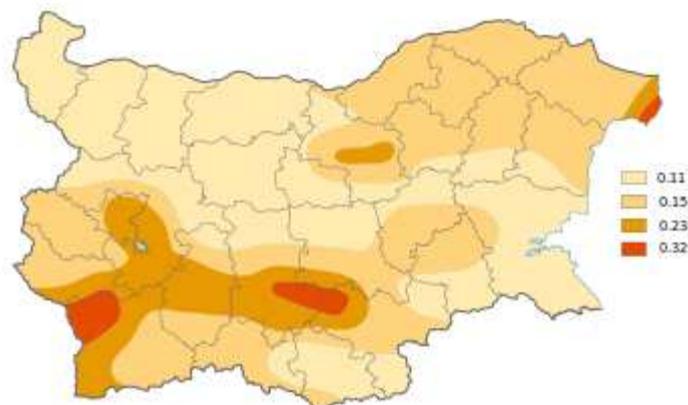


Figure 6: Map of seismic hazards showing maximum values of acceleration of the ground in (g) with a period of repeatability 475 years.

Most advanced is the process of mapping the risk of flooding. Risk mapping is performed by the four regional Basin Directorates (part of the Ministry of Environment and Water) and partially financed by the European Union. Two maps are included below for illustrative purposes. Colours on Figure 7 indicate threshold depths for a medium probability flooding of the city of Plovdiv (the second biggest

²⁹ Translated also as *Classified Information Protection Act*.

³⁰ December 2014.

³¹ See the annex on p. 13 in Bulgarian State Standard EN 1998-1/NA, available in Bulgarian at http://www.bds-bg.org/images/upload/Nacionalni_prilozenia/BDS_EN_1998-1_NA.pdf (accessed 8 December 2014). The same map is included in Annex 64 to the National Plan for Disaster Protection (2010), p. 371.

Bulgarian city, built on the banks of river Maritsa). The blue colours on the map on Figure 8 show the depth of flooding under the same assumptions.

Researchers contribute to the assessment and mapping of the risk of flooding both in terms of methods and their specific implementation, e.g. assessing risks of flooding for the population along the Black Sea coast,³² estimating flood prone territories along river basins,³³ etc.

On this background, the analysis, assessment and mapping of the risk of forest fires lag behind. A report of the National Audit Office, covering the period 2011-2103 makes such a statement with the addition that “There is no approved methodology and the risks of forest fires have not been analysed. No organisational unit within the Ministry of Agriculture and Forests and/or Executive Agency “Forestry” has been tasked to analyse and assess the risks of forest fires and their consequent mapping.”³⁴

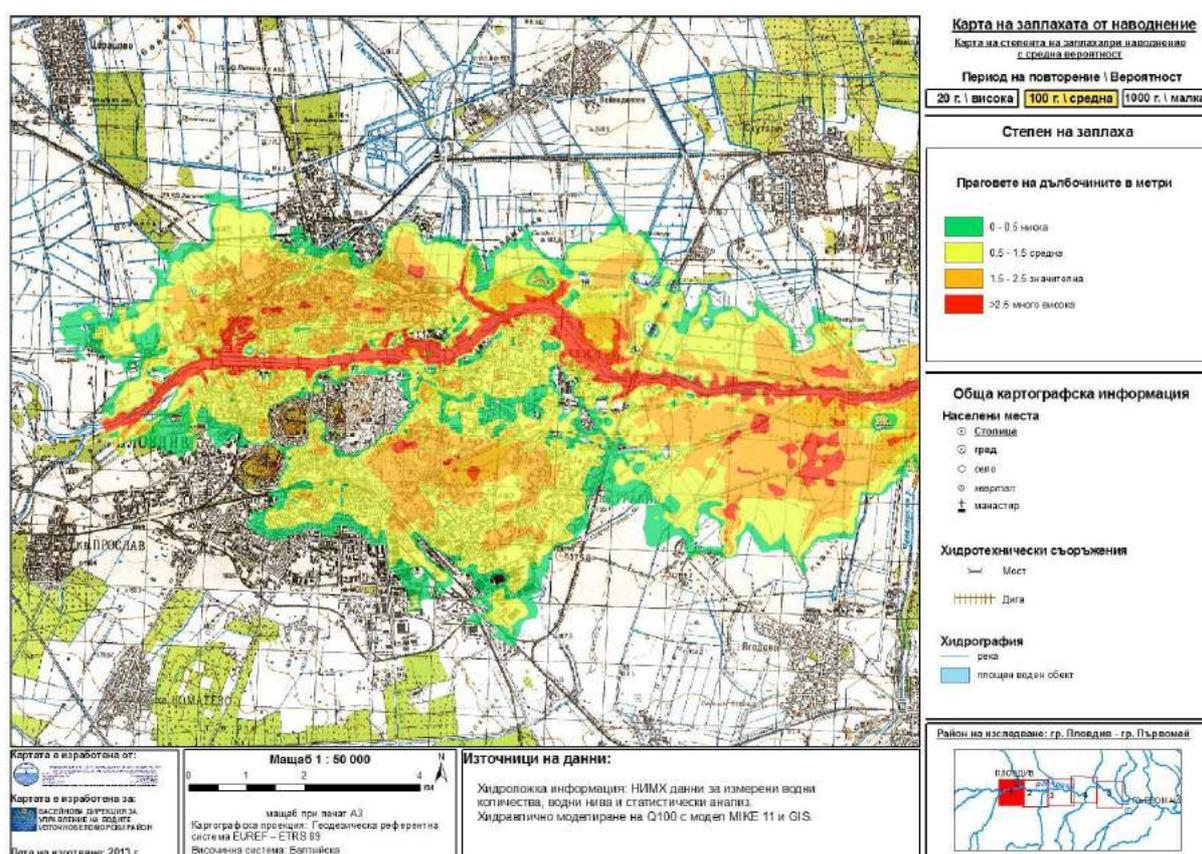


Figure 7: Map of the risk of flooding for the city of Plovdiv, threshold depths.

³² Atanas Palazov and Hristo Stanchev. "Risks for the Population along the Bulgarian Black Sea Coast from Flooding Caused by Extreme Rise of Sea Level." *Information & Security: An International Journal* 24 (2009): 65-75, <http://dx.doi.org/10.11610/isij.2407>.

³³ M. Nikolova, et al. "Implementation of the "KINEROS" Model for Estimation of the Flood Prone Territories in the Malki Iskar River Basin." *Information & Security: An International Journal* 24 (2009): 76-88, <http://dx.doi.org/10.11610/isij.2408>.

³⁴ Audit Report # 0300002413 on "Prevention and Response to Forest Fires" for the period 1 January 2011 – 31 December 2013, Bulgarian National Audit Office (15 October 2014). – in Bulgarian, quote on p. 11.

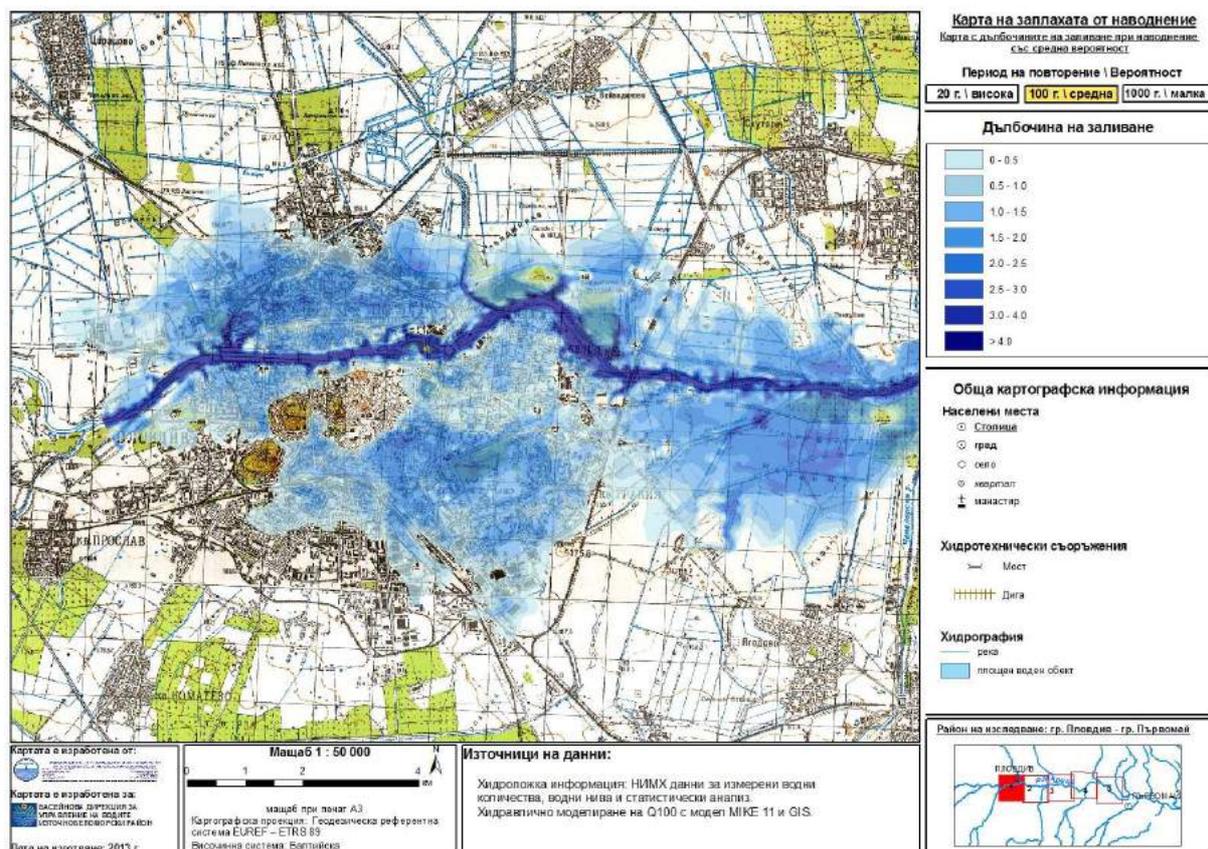


Figure 8: Map of the risk of flooding for the city of Plovdiv, depth of flooding.

1.2 Policy and Governance

The national disaster prevention and response framework envisions distributed crisis management within a unified response system, emphasising local preparedness and response by public bodies and the capabilities of the executive (providing also for engagement of companies and nongovernmental, including volunteer organisations).

The country's policy on disaster protection is formulated by the Council of Ministers.³⁵ This most senior executive body adopts a strategy for mitigating disaster risks, national programme for disaster protection and annual plans for its implementation, as well as a National Plan for Disaster Protection. Disaster protection is performed on national, regional and municipal levels³⁶ and includes prevention, protection measures when a disaster occurs, assistance and recovery.³⁷ Each region and each municipality have their own disaster protection plans.

The response to disasters is organised through the Unified Rescue System (URS), which includes structures of ministries and agencies, municipalities, trade companies, non-governmental organisations, including organisations of volunteers, and the armed forces. All these structures

³⁵ Disaster Protection Law, article 62(1).

³⁶ Bulgaria is a unitary state with 28 regions (region = 'oblast/ област') and 256 municipalities.

³⁷ Disaster Protection Law, article 5. Disaster protection includes also "resource allocation" and ".provision and acceptance of aid."

preserve their institutional and organisational affiliation, as well as their assigned mission and functions.³⁸

When a disaster occurs, the authority at the respective level and place (mayor, regional governor, Council of Ministers) enacts the relevant disaster protection plan. The expectation is that the local authority and locally present organisations react first. The disaster protection plans arrange for the cooperation among the components of the Unified Rescue System (URS) and provide opportunities for gradual involvement of additional forces and means with the evolution of the crisis situation.³⁹

The framework for managing the response is as follows:

- Leader⁴⁰ on the site of the disaster is the Head of the respective territorial unit of the FSCP General Directorate or another officer⁴¹ assigned by him or her.⁴²
- The coordination of the URS components is assigned to the operational centres of General Directorate “Fire Safety and Civil Protection” (see Figure 13 in section 3.1 below).
- On the request⁴³ by the leader (commander) on the site of the disaster, the mayor of the municipality or the regional governor, the operations centres organise the engagement of URS components, designated in the disaster response plans, as well as additional forces and means.⁴⁴
- The leader on the site provides for the cooperation and coordination of URS components, participating in rescue and urgent recovery activities in the area of the disaster.⁴⁵

The following sub-sections provide details on this policy framework.

1.2.1 Strategy scope and focus

... Are there other national actions that contribute to one of the phases, but are not actually mentioned in the strategic approach to CM?

A Crisis Management Concept was developed by an interagency working group at the turn of the century. It was discussed among ministries and agencies involved, but never formally endorsed. The experience was useful in clarifying strategic issues and drafting the Crisis Management Law (adopted in early 2005; repealed in May 2009).

³⁸ Disaster Protection Law, article 20.

³⁹ Disaster Protection Law, article 26.

⁴⁰ Or “manager.” The word used in Bulgarian is “rakovoditel/ ръководител.” ISO 22320 uses the term “Incident Commander.”

⁴¹ Or “official.” The term used in Bulgarian is “dlajnostno litse/ длъжностно лице.”

⁴² Disaster Protection Law, article 31(2). The exception is in cases of epidemics or epizootics, when the leader on the site is the head of the regional health inspection or of the “Food Safety” Regional Directorate. See Disaster Protection Law, article 31(3).

⁴³ It is expected that such request is made when locally available capabilities are not sufficient to cope with the disaster.

⁴⁴ Disaster Protection Law, article 29(2)4.

⁴⁵ Disaster Protection Law, article 31(1).

At current, there is no document explicitly treating Bulgaria's strategy for crisis management. It can be glimpsed by analysing other documents, in particular the law on disaster protection and the strategy for mitigating disaster risks.

The Disaster Protection Law treats the activities of prevention (chapter 2 of the Law), the response via the Unified Rescue System (Chapter 3), assistance and recovery (Chapter 6).

Resilience is a new concept, not yet fully implemented. One visible gap, for example, is in addressing *community resilience*.⁴⁶ Nevertheless, some conceptual elements have been addressed over the years, e.g. the planning of the territory, consideration of the risk of flooding in managing water and related infrastructure,⁴⁷ maintaining collective and individual protection kits, etc. Furthermore, a number of goals, in line of the Hyogo Framework for Action that aims to build resilience of nations and communities to disasters, have been reflected in the national risk mitigation strategy. One example is the stated objective to develop a national strategy for adaptation to climate change.⁴⁸

The strategy for mitigation of disaster risks declares as a strategic goal "the prevention and/or reduction of the negative consequences for human health, socio-economic activity, environment and cultural heritage in Bulgaria as a result of disasters of natural or technogenic origin."⁴⁹ Four priorities are declared in the same document:

1. Developing of a sustainable national policy and provision of a stable legal and institutional framework for disaster risk reduction;
2. Identification, assessment and monitoring of disaster risks. Enhancing and maintaining effective national systems for prediction, monitoring, early warning, and disaster alerts;
3. Building a culture of disaster protection at all management levels and in society by utilising the experience, education, scientific research and innovation;
4. Reducing the key risk factors and increasing the readiness for effective response to disasters at all management levels.

On this basis one could infer that risk assessment and prevention are in the focus of Bulgaria's disaster response strategy.⁵⁰

1.2.2 Policy for Response

The guiding principle is that the response is initiated and led locally, and involves locally present actors, including local authorities, public organisations, companies and non-governmental organizations. Additional capabilities and resources are provided if and when necessary. The armed forces provide support to rescue and urgent emergency recovery with the permission of the defence minister on the request of the respective state body in accordance with the disaster protection plans. The main response framework is through the Unified Rescue System (URS), described in Chapter 3 of the Disaster Protection Law.

⁴⁶ RAND defines 'community resilience' as "a measure of the sustained ability of a community to utilize available resources to respond to, withstand, and recover from adverse situations." See featured topic "Community resilience," Available at www.rand.org/topics/community-resilience.html (accessed 27 November 2014).

⁴⁷ Law on Waters, Article 10(3).

⁴⁸ *Strategy for Mitigating Disaster Risks 2014-2020*, p. 19.

⁴⁹ *Strategy for Mitigating Disaster Risks 2014-2020*, quote on p. 18, in Bulgarian.

⁵⁰ An inference that was confirmed in an interview with an expert from the FSCP General Directorate.

The activities under a threat or the occurrence of a disaster are:⁵¹

1. Warning;
2. Implementation of urgent measures to reduce disaster's impact;
3. Alert;
4. Rescue operations;
5. Delivery of urgent medical assistance;
6. Delivery of urgent psychological assistance to injured people and the rescue teams;
7. Containment and elimination of ecological incidents;
8. Protection against explosives and ammunition;
9. Search and rescue operations;
10. Radiation, chemical and biological protection in incidents and accidents with dangerous substances;
11. Containing and extinguishing fires;
12. Temporary evacuation, sheltering and delivery of means of protection;
13. Conducting urgent emergency recovery works;
14. Containing and eliminating occurring outbreaks, epidemics, and epizootics of contagious and parasitic diseases;
15. Other operations related to disaster protection.

1.2.3 Monitoring and analytical support to policy making; R&D

In practice, Bulgarian authorities implement an approach to policy making, based on regular reviews of risks, planning, and implementation. The reviews are focused exclusively on “disaster protection” and lead to consequent five-year programmes, e.g. National Programme for Disaster Protection 2009-2013, followed by the National Programme for Disaster Protection 2014-2018. Annual reviews and updates lead to the adoption of (and are usually included in) annual plans, e.g. the *Annual Plan for 2014 for the Implementation of the National Programme for Disaster Protection 2014-2018*.

As an established practice, non-governmental organisations, e.g. volunteer organisations and research institutes are involved in the reviews and drafting the national programmes and the annual plans for their implementation.

Notwithstanding available good practice and experience, Bulgaria's Caretaker Government (6 August-6 November 2014) assessed the policies made as inadequate and requested a peer-review of the system for disaster prevention and response and assessment of the country's crisis management capabilities through the EU civil protection mechanism.⁵²

Scientific Support

In the period of 2004-2007, through the Interagency Commission on Protection of the Population in Disasters, Accidents, and Catastrophes (ICPPDAC), Bulgaria implemented a rigorous research programme with the aim to identify suitable crisis management strategies, legal and organisational

⁵¹ Ibid., Article 19. The law states also that in times of war, military or emergency situation the protection measures need to abide to the Geneva Conventions and the respective Additional Protocols.

⁵² The review is scheduled for mid-2015 and will be conducted in the framework of the EU Civil Protection mechanism.

arrangements, and enhance its prevention and early warning capabilities.⁵³ One example is the study on alternative emergency management architectures, resulting in a set of recommendations on further development of the country's crisis management system.⁵⁴

Since then, however, there is no dedicated research programme to support crisis management and disaster response.⁵⁵ Occasionally, relevant projects initiated by the research community are financed by Bulgaria's National Science Fund, or Bulgarian scientists contribute to international researcher programmes and projects.

For scientific expertise, the MOI General Directorate FSCP relies on its contacts with the following research organizations:

- Centre for National Security and Defence Research, Bulgarian Academy of Sciences (BAS), for policy studies;
- National Institute for Meteorology and Hydrology, BAS, for meteorological and hydrological studies, current information and forecasts;
- National Institute for Geophysics, Geodesy and Geography, BAS, for monitoring seismic activity and related studies;
- Institute of Information and Communication Technologies, BAS, for operational analysis, computer assisted exercises, and modelling of complex phenomena;
- Institute of Mathematics and Informatics, BAS, for mathematical modelling and decision support;
- Institute for Space and Solar-Terrestrial Research, BAS, for aerospace monitoring;
- The group of chemistry institutes of the Bulgarian Academy of Sciences, for issues of CBRN protection;
- Faculty of Geology and Geography of Sofia University "St. Kliment Ohridski," for seismic studies, remote sensing expertise, etc.

1.2.4 Policy for Prevention

According to article 6(1) of the Disaster Protection Law the goal of prevention is to reduce the risk of disasters, and prevention includes:

1. Analysis and assessment of disaster risks;
2. Mapping disaster risks;
3. Categorisation of towns and villages depending on the number of people potentially affected;
4. Identification of critical infrastructures and sites and assessing respective risks;
5. Measures for protection of critical infrastructures;
6. Planning of disaster protection;

⁵³ Shalamanov, Velizar, ed., *Security Research and Change Management in the Security Sector* (Sofia: Demetra, 2008). – in Bulgarian.

⁵⁴ Shalamanov, Velizar, Stefan Hadjitodorov, Todor Tagarev, Nikolay Pavlov, Valentin Stoyanov, Pencho Geneshky, and Stoyan Avramov. "Civil Security: Architectural Approach in Emergency Management Transformation." *Information & Security: An International Journal* 17 (2005): 75-101, <http://dx.doi.org/10.11610/isij.1706>.

⁵⁵ The FSCP website has a section on "Applied scientific and expert activity," representing the in-house capacity to define fire safety requirements and support control and certification.

7. Adhering to the requirements of territory planning, investments design, construction and exploitation of building sites;
8. Development and maintenance of the systems for monitoring, early warning and alerts;
9. Provision of collective and individual protection means;
10. Training and practical preparedness of central and territorial bodies of the executive, response forces, volunteer formations and the population;
11. Adopting and implementing a National programme for disaster protection.

The responsible authorities for items 1 and 2 are as follows:

- for seismic and geological risks – the Minister for Regional Development;
- for the risk of nuclear and radiation accidents – the Chairman of the Nuclear Regulatory Agency;
- for the risk of forest fires – the Minister of Agriculture and Food;
- for the risk of flooding – the Minister of Environment and Water, through the directors of Basin Directorates.

The same institutions approve the methodologies for analysing and assessing the respective risk. In addition, the analysis and assessment of for the risk of nuclear and radiation accidents needs to adhere to the *Law on the Safe Use of Nuclear Energy* and related norms, while the analysis and assessment of the flooding risk need to be in line with the *Law on Waters* and the relevant norms of its implementation.

Annex 1 to the National Disaster Protection Plan (NDPP), issued in 2012, is dedicated to the protection of earthquakes. It provides analysis of the risk of earthquakes, highlighting the risk of shallow quakes (depth at less than 60 km) in three main seismic areas:

- Northeastern, including the zones of Gorna Orahovitsa, Shabla and Dulovo;
- The area of Sredna Gora, including the zones of Sofia, the Maritsa river, the Tundja river, and the sub-Balkan zone;
- The area of the Rila and Rodopi mountains, including the zones of the Struma nad Mesta rivers, and the zone in the Western Rodopi mountain around the town of Velingrad.

These seismic areas, with indication of plausible scenarios of maximum intensity according to the Medvedev–Sponheuer–Karnik-64 scale, is provided on Figure 9 below.



Figure 9: Map of main seismic areas in Bulgaria.

Annex 1 to NDPP details to obligations in earthquake protection of 12 ministers, the heads of the state reserves and nuclear regulation agencies, the Chairperson of the Bulgarian organization of Red Cross, two academic institutes, governors, mayors, trade companies, non-government organisations and individual citizens.

Landslides are also common, but statistically not on a scale that may cause a significant crisis. They are also subject of assessment and risk management studies.⁵⁶ The National Programme for Disaster Protection 2014-2018 provides an overview of landslides per region and municipality. See the map on Figure 10 for the territorial distribution of landslides by municipality.⁵⁷

⁵⁶ See for example to project *RISK management of natural and anthropogenic landsLIDES in the Greek-Bulgarian cross-border area*, RISKSLIDES, within the “European Territorial Cooperation” Operational Programme Greece - Bulgaria 2007-2013. Available at www.clmc.bas.bg/risklides (accessed 3 December 2014).

⁵⁷ National Programme for Disaster Protection 2014-2018, p. 29.

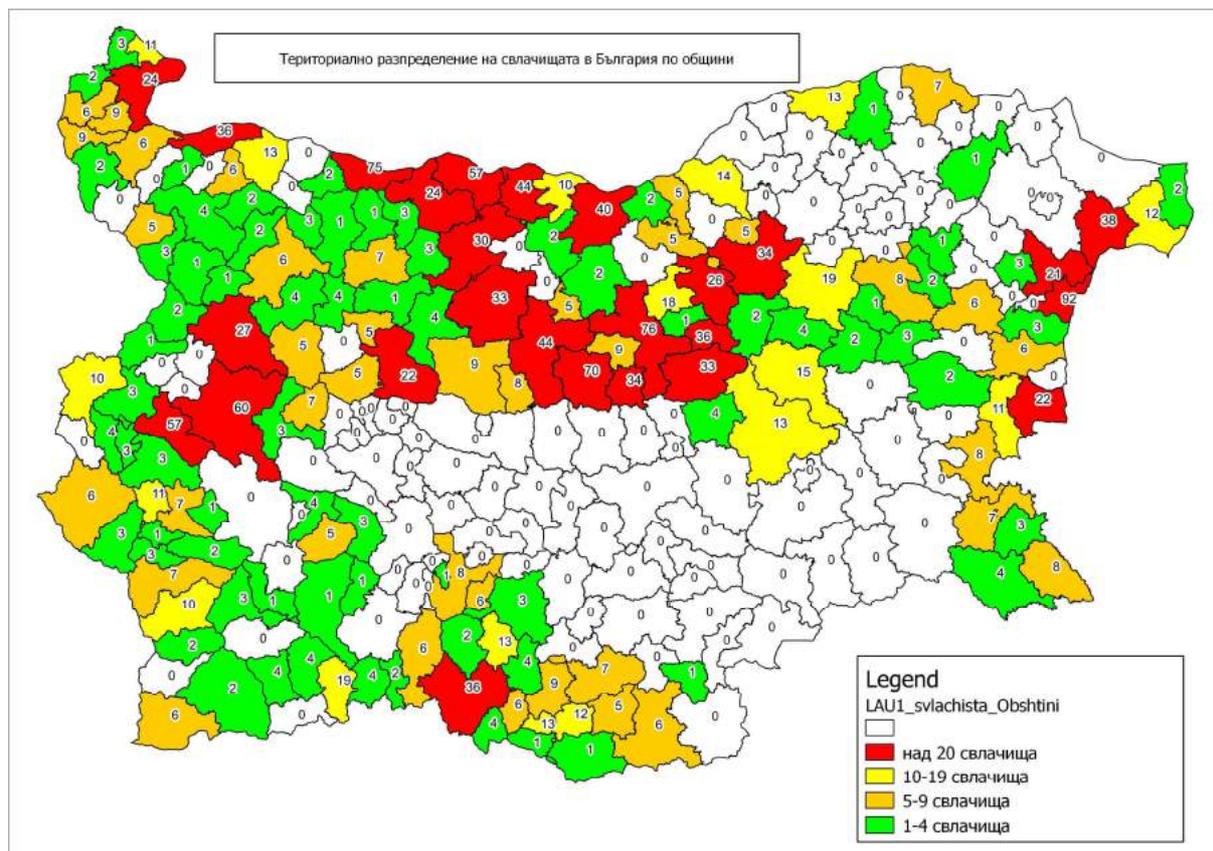


Figure 10: Territorial distribution of landslides by municipality.

The biggest potential nuclear and radiation risk with origin on the territory of Bulgaria relates to scenarios for NPP Kozloduy. Plausible scenarios, their potential impact and the response are described in great detail in Supplement 3 “External plan for accidents in Kozloduy NPP” (a 231 page document) of the standing National Disaster Protection plan. In addition, the nuclear power plant has its own plan to respond to various accidents.⁵⁸

The risk of fires is addressed in NDPP, that examines large fires in industrial enterprises, sites of the critical infrastructure, forest and agricultural lands (in particular at the time of harvesting). The mountainous forests in Strandja-Sakar, Rila and Rodopi mountains, Sredna Gora and the southern slopes of the Balkan mountain are listed as particularly vulnerable, along with the regions of Haskovo, Stara Zagora, Blagoevgrad, Sofia, Pazardjik, Plovdiv, Yambol, and Burgas.

The risks of flooding is assessed as high along the rivers Danube, Maritsa, Tundja, Mesta, Iskar, Arda, Kamchia and others. The most recent experience shows, that under certain conditions, e.g. in heavy rainfalls in the summer and the fall, even small rivers can cause significant damage and human casualties. Technogenic floods, e.g. as a result of destruction of the dams Iskar, Batak, Trakiets, Ogosta, and Toplnitsa, can also have catastrophic consequences, since they could flood areas of 910 km² with 650 thousand inhabitants.⁵⁹

The four regional Basin Directorates (part of the Ministry of Environment and Water) are in the process of finalizing the mapping of risks of flooding and transition to the development of respective

⁵⁸ See www.kznpp.org/index.php?lang=en&p=safety&p1=emergency.

⁵⁹ National Disaster Protection plan (2010), p. 6.

risk management plans. One example is project BG161PO005/12/1.20/02/29 “Developing plans for management of the risk of flooding” of the basin directorate for the Danube region.⁶⁰

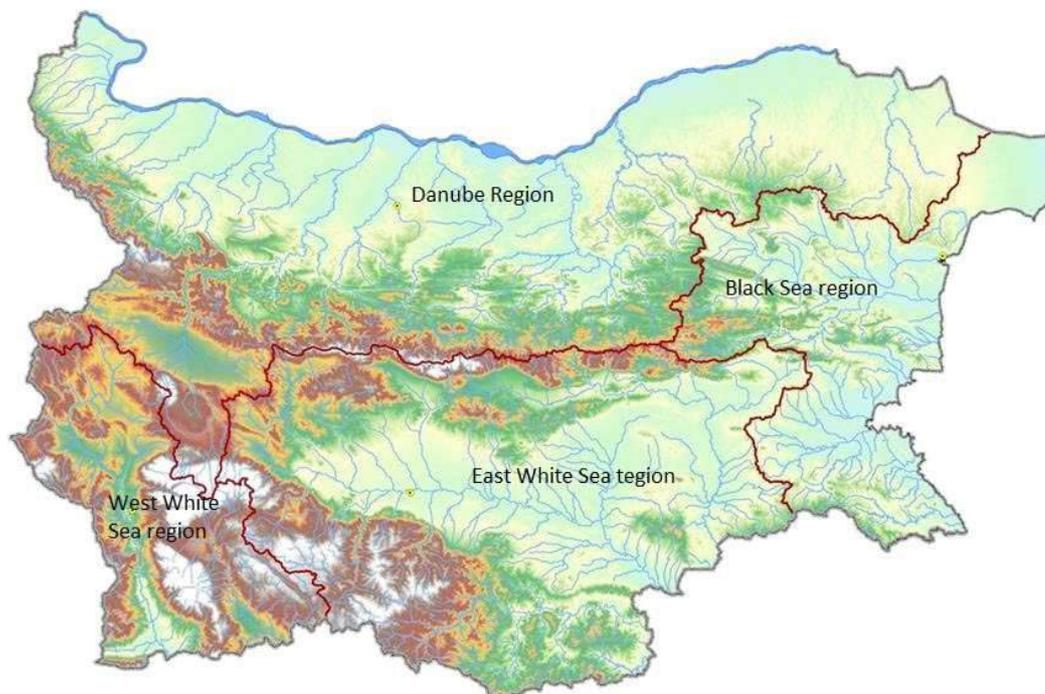


Figure 11: Coverage of the four Basin Directorates.

In addition to these main risks, NDPP treats also the risks of trans-border radiation (e.g. in case of an accident in the Vherna Voda NPP in Romania), incidents with vehicle transporting radioactive materials, industrial accidents followed by dissemination of dangerous substance, draught, strong winds and whirlwinds, heavy snowfalls, snowstorms and icing, accidents with maritime, vessels, trains and vehicles, terrorist acts and unexploded ordnance.⁶¹

Item # 3 on the list of legally required prevention activities—categorisation of towns and villages depending on the number of people potentially affected—is defined in the law itself, categorising the population centres in six groups:

- the cities of Sofia, Plovdiv, Varna, Russe, and Burgass;
- other cities with population above 80 thousand;
- cities with population between 30 and 80 thousand
- cities and conurbations with population between 10 and 30 thousand
- conurbations with population below 10 thousand.

According to the Disaster Protection Law, the identification of critical infrastructures and sites and the assessment of respective risks is also a preventive measure. The *Regulation on the procedures, ways and competent bodies on identification of critical infrastructures and sites and the assessment of the risk for them* assigns the task of identification to the respective ministers and agency heads,

⁶⁰ See www.bd-dunav.org/content/proekti-i-programi (in Bulgarian) for details.

⁶¹ NDPP, pp. 8-17.

who create standing working groups, while local authorities (governors, mayors) also collect and present relevant information.

The following set of criteria is used to assess the criticality of infrastructures and their elements:

- potential number of people killed and/or injured;
- potential economic consequences – losses, lower quality of products and services, environmental impact;
- potential societal consequences – impact on public confidence, physical suffering, disruption of everyday life, including the loss of main services.

The assessment of the risk for designated critical infrastructures⁶² and assets is conducted by their owners or operators based on a methodology, developed by the standing working groups following the guidance of the Minister of the Interior. Every owner/operator of critical infrastructures or their elements must take measures to reduce their vulnerability to natural and technogenic dangers.⁶³

The remaining disaster protection activities will be examined below.

Chapter 5 of the National Disaster Protection plan elaborates a number of measures aiming to prevent or mitigate the consequences of disasters, while Chapter 6 elaborates on the measures of protection of the population.

1.2.5 Policy for Preparedness

The policy for preparedness focuses on planning, as mandated in section II of Chapter 3 of the Disaster Protection Law, focuses in planning and training in regard to the Unified Rescue System (URS). Other texts in the law define requirements for disaster protection education in schools and universities, for planning and training of the personnel of companies, non-governmental and volunteer organizations.

The preparedness of URS components is assured by training and exercises. According to the law, trainings are aimed at assessing the status of the communication and information system and the readiness of teams to react to disasters. The planning and conducting of exercises serve to improve the cooperation and coordination among the URS components and with the executive bodies in their reaction to disasters. Trainings and exercises can be organised by the order of the minister of the interior, a regional governor, or the mayor of a municipality.⁶⁴

Тези къде? This section provides information

⁶² Annex 2 to the Regulation on the procedures, ways and competent bodies on identification of critical infrastructures and sites and the assessment of the risk for them defines 19 sectors of critical infrastructure: energy; transport; information and communication technologies; postal and courier services; environment; agriculture and foods; health services; finance; economy; sports sites and installations; education, science and technologies; natural resources; tourism; regional development and infrastructure; defence; justice, home affairs and security; state and social governance; disaster protection; cultural heritage. The same designates a responsible ministry for each sector and sub-sector.

⁶³ Regulation on the procedures, ways and competent bodies on identification of critical infrastructures and sites and the assessment of the risk for them, article 13(3).

⁶⁴ Disaster Protection Law, Article 28.

- Adhering to the requirements of territory planning, investments design, construction and exploitation of building sites;
- Development and maintenance of the systems for monitoring, early warning and alerts;
- Provision of collective and individual protection means;
- training and practical preparedness of central and territorial bodies of the executive, response forces, volunteer formations and the population

1.2.6 Policy for Relief and Recovery

Relief and recovery include delivery of urgent and recovery assistance to the distressed people and urgent recovery works after the disaster.

The urgent assistance is organised and delivered by the mayors and includes:⁶⁵

- Feeding and provision of temporary shelter to the distressed people, pets and livestock;
- Distribution of clothing and household ware to the distressed people;
- Undertaking other necessary measures.

The recovery assistance involves primarily construction measure and repairs of damaged homes. They may include also destruction of building that, as result of the disaster, have become unusable and dangerous.

The Interagency Commission for Recovery and Assistance is authorised to make decisions and oversee the provision of state funding for recovery (as well as for prevention and urgent assistance necessary to contain a disaster).

1.3 Financing

1.3.1 Investing in preparedness

The main assets for crisis management and disaster response are part of the executive branch, provided for through the state budget. The FSCP General Directorate in MOI is the organisation with primary crisis/disaster management responsibilities. It is financed within the MOI budget by the programme “Fire safety and population protection in fires, disasters and emergency situations.”⁶⁶ The approximate amounts for this programme are:⁶⁷ 161.5 mln. BGN for 2013; 144 mln. for 2014; and 143 mln. BGN for 2015.⁶⁸

A number of agencies with key disaster management capabilities are also financed through the state budget. Among them are the Nuclear Regulatory Agency, the Basin Directorates in the Ministry of

⁶⁵ Disaster Protection Law, Article 55(2).

⁶⁶ For 2013 the name of the programme is “Provision of state fire control, fire safety and rescue, disaster protection and early alert.”

⁶⁷ Draft budget for 2014 of the Ministry of the Interior and updated budget forecast for 2015 and 2016 in programme format (in Bulgarian), available at www.mvr.bg/NR/rdonlyres/92521007-BCE9-44BB-8FBB-352156486003/0/Programen_format_budjet_MVR_2014.pdf (accessed 20 October 2014).

⁶⁸ The exchange rate to the Euro is fixed at 1.9558 BGN for 1 Euro.

Environment and Water, Executive Agency “Forestry,” Executive Environment Agency, the National Centre of Radiobiology and Radiation Protection (Ministry of Health) and others.⁶⁹

Several research institutes of the Bulgarian Academy of Sciences, most notably National Institute for Meteorology and Hydrology and the National Institute for Geophysics, Geodesy and Geography, perform operational activities such as 24/7 monitoring, early warning, and forecasting. This type of activities are financed by the state budget through the budget of the Bulgarian Academy of Sciences.

The country allocates a budget for the creation and maintenance of “crisis stocks” of materiel and POL to provide for population protection in disasters.⁷⁰

Investments in disaster preparedness and response capabilities are regularly financed by EU funds through the operational programmes, with partial national contribution from the state budget. A sample of such projects includes:

- “Technical provision of the operational units on the FSCP General Directorate of the MOI for containing and extinguishing fires,” with approximately 49 mln. Euro (15 percent national co-financing) in the Operational Programme “Environment”⁷¹;
- “Enhancing the capacity of the operational units on the FSCP General Directorate of the MOI for reaction to flooding,” project DIR 51214001-2-193 with approximately 49 mln. Euro (15 percent national co-financing) in the Operational Programme “Environment”⁷²;

Other projects with partial support from the European Union facilitate the transfer of good practices from the EU, development of the digital communications and information system, training (including training in project management and other aspects of good governance), testing, experimentation and certification, risk assessment and mapping. A number of projects are implementation in bi-lateral frameworks and aim to establish and/or strengthen trans-border cooperation in disaster preparedness and response.

Similar investments are included in the plans for the new EU programming period 2014-2020 through the instruments addressing agriculture (in view of the forest fires), environment (e.g. for risk mitigation), territorial development (e.g. for mapping disaster risks, preparedness, etc.).

The total project-based financing of this type over the last three years is estimated at 150 mln. Euro.⁷³ The agencies and institutes with crisis management responsibilities, listed above, also implement research, capacity building and infrastructure development projects with international funding.

The Ministry of Defence occasionally invests in specific disaster management capabilities, e.g. equipping helicopters for firefighting, through the defence budget. In case of need, it is expected to provide some of its ‘dual use’ capabilities, e.g. deactivation and de-contamination capabilities.

Local authorities at municipal level are expected to finance disaster prevention, preparedness and response through the municipal budget, while trade companies should finance the sites and assets they are responsible for.⁷⁴ At current, however, the level of local investments is estimated as rather

⁶⁹ These agencies perform other functions as well, and it is not possible to estimate precisely the portion of their budget that supports their crisis management and disaster response capabilities.

⁷⁰ Disaster Protection Law, Article 59, para 8.

⁷¹ See www.nspbzn.mvr.bg/Proekti/Info+pojari.htm (in Bulgarian).

⁷² See www.nspbzn.mvr.bg/Proekti/Proekt-navodnenia.htm (in Bulgarian).

⁷³ Interview with a senior expert from the FSCP General Directorate.

⁷⁴ Disaster Protection Law, Article 61.

low compared to the financing from the state budget. Possible exceptions are the municipalities of Sofia and some of the other biggest cities, but no aggregated data is available.

Finally, in the beginning of each year, the Interagency Commission for Recovery and Assistance (ICRA) decides to allocate a certain portion of the contingency budget (see the next section). For 2010 and 2011 ICRA decided to dedicate 15 percent of that budget to prevention activities, and increased it to 20 percent in 2012.⁷⁵ However, no explicit decisions have been made for 2013 and 2014, mostly due to the numerous requests for recovery assistance after the 2012 earthquake in Pernik.

1.3.2 Investing in consequence management

Typically, the Law on the State Budget, in its section on “Reserves for unforeseen and/or urgent expenditure” includes a separate line “for prevention, containment and overcoming the consequences of disasters.”⁷⁶ In recent years, as well as in the proposed 2015 state budget, the dedicated amount for that purpose is 70 mln. BGN

This budget is managed by the Interagency Commission for Recovery and Assistance, which decides on requests by line ministries—mainly for recovery of unforeseen expenses for activities in actual disasters—and local authorities – for the actual recovery of buildings and infrastructures damaged as result of a disaster or for the destruction of facilities that have become as a result unusable and dangerous. There is no formally prescribed rationale for deciding on how to distribute the available funding, or which of the numerous requests for recovery assistance to authorise. IRCA’s decisions in that regard are made ad-hoc.

When the losses as a consequence of a disaster are significant, the EU also provides recovery assistance. For example, after the floods in the summer and the autumn of 2014 the European Commission has agreed to compensate Bulgaria’s losses.⁷⁷ The expected assistance amounts to no less than 10.5 mln. Euro.⁷⁸

Insuring companies do not play such a significant role in the recovery, since insuring property and critical assets is not legally mandatory, and the respective culture is lacking. To address this issue, a roundtable with insurers is being organised at current.⁷⁹

By law, the Bulgarian Red Cross is subsidised by the state⁸⁰ and is authorised to use some exceptions regarding taxes and payments, as a whole and for its employees.⁸¹ The subsidy for 2014 is 3.1 mln. BGN.⁸²

⁷⁵ ICRA’s Protocols and decisions, available in Bulgarian at www.nspbzn.mvr.bg/Sprav_informacia/Mejduvedomstvena_komisija/default.htm.

⁷⁶ Line 4.1.1 of the Law on the State Budget 2014.

⁷⁷ The agreed compensation formula is “2.5 % of the direct losses under ‘the large disaster threshold’ + 6 % of the losses above the threshold.” The threshold for Bulgaria in 2014 is 232.5 mln. Euro. See “The European Commission recognised all compensations for the floods in Bulgaria,” *Trud*, 1 December 2014, available at www.trud.bg/Article.asp?ArticleId=4454903 (in Bulgarian).

⁷⁸ CROSS News Agency, 17 December 2014.

⁷⁹ Interview with a senior FSCP expert.

⁸⁰ Law on the Bulgaria Red Cross, Article 6(1).

⁸¹ *Ibid.*, Article 7.

⁸² Law on the State Budget of the Republic of Bulgaria for 2014, Annex 4 to Article 49, item # 1.

To remedy the consequences to people who suffer as a result of disasters, many organizations and individuals donate money, food, bottled water, clothing and other items either directly, or through the Bulgarian Red Cross and other organisations and campaigns. The monetary value of these donations easily exceed several million levs.⁸³

* * *

In total, a rough estimate of the annual expenditures of public actors on prevention, preparedness and response points to 400 mln. BGN, or about 0.5 % of the GDP of the country. This amount does not include the costs of preparedness of the armed forces and sustainment costs of the “security” departments and officers in all line ministries, regional and municipal administrations, nor the financing needed to create and maintain crisis reserves of materials, food, fuel, etc.

1.4 Policy review, Evaluation & Organisational Learning

1.4.1 Post-Disaster Assessment

As an established practice, each individual emergency or a disaster is followed by analysis and a formal report on reasons, consequences and recommendations. One example is the report of a working group, tasked by the Municipal Council of Varna to study the flood on 19 June 2014 that led to 13 casualties and considerable damages of the infrastructure.⁸⁴ The report itself is 13 pages long, while the official website of the Varna municipality provides access to 218 pages in total with the report, annexes, photos, maps and the official statements by concerned stakeholders as a reaction to the report.⁸⁵

1.4.2 Departmental Lessons Learned systems

There are no formal departmental Lessons Learned systems in place in key stakeholder organisations, with partial exception of the Ministry of Defence.

1.4.3 Centralised (national) Lessons Learned system

There is no formal centralised (national) Lessons Learned system. Nevertheless, the analysis and assessment of disaster risks—key input information for the development of the national programme for disaster protection and the annual plans for its implementation—are based on past emergencies and disasters.

In the process of developing the national programme for disaster protection and the annual implementation plans stakeholders, represented in the respective working groups, exchange information on past experience—both negative and experience considered as good practice—and

⁸³ Till mid-November 2014 the Bulgarian Red Cross received donations of 2 million BGN to provide assistance to people suffering from the floods. See www.redcross.bg/floods_bulgaria2014.html (in Bulgarian).

⁸⁴ Report of the Working group, created with the objective to clarify the reasons for the tragedy on 19 June 2014 and define measures to prevent future disasters, 18 July 2014, Available in Bulgarian at the official website of Varna municipality, www.varna.bg/bg/getfile.html/id/75a7c30fc0063c4952d7eb044a3c0897 (accessed 2 December 2014).

⁸⁵ Ibid.

critical issues of common concern. FSCP General Directorate coordinates at working level the development of plans and programmes and thus facilitates the exchange of information.

Through FSCP Bulgaria participates in the respective activities of DG ECHO and the NATO Euro-Atlantic Disaster Response Coordination Centre (EADRCC). **At this point there's no formalised exchange of lessons learned information.**

(If available, please provide examples of the impact of lessons learned)

1.4.4 International exchange for Lessons Learned

Bulgaria participates in international activities aiming to evaluate the experience of crisis management and disaster response and learn from it. The main forums of exchange of lessons learned information are:

- The European Union Civil Protection mechanism via DG ECHO
- The NATO Civil Emergency Planning mechanism and the Euro-Atlantic Disaster Response Coordination Centre.

Bulgaria provides information in the Hyogo Framework for action,⁸⁶ but does not exchange information through DesInventar – the disaster information management system maintained by UNISDR.

Bulgaria is active in a number of regional and bi-lateral formats of information exchange, such as:

- Strategic project RISK – Joint monitoring of the risk in emergency situations in the trans-border region of the Danube river, www.nspbzn.mvr.bg/Proekti/RISK+info.htm;
- SEERISK – Joint assessment of risk of disasters and readiness in the Danube micro-region, www.nspbzn.mvr.bg/Proekti/SEERISK.htm;
- The Disaster Preparedness and Prevention Initiative for South Eastern Europe, www.dppi.info;
- The Black Sea Earthquake Safety Net(work) – ESNET, <http://esnet.infp.ro/en>;
- CBCAID – Bulgaria-Turkey trans-border cooperation in industrial accidents, www.nspbzn.mvr.bg/Proekti/CBCAID.htm;
- Enhancing fire safety along the border between Bulgaria and Greece, www.nspbzn.mvr.bg/Proekti/Proekt_BG2003_005-630-04.htm, etc.

All these projects involve exchange of information and lessons learned.

1.4.5 Regular policy reviews

Bulgaria has no practice, neither legally mandated requirement to conduct rigorous, comprehensive reviews of the national crisis management and disaster response policy.⁸⁷

Nevertheless, the country implements a cyclic review, leading to the adoption of five-year national programmes for disaster protection (e.g. for the periods 2009-2013, and then for 2014-2018), and annual plans for implementation of the current programme. All concerned ministries, regional

⁸⁶ See www.preventionweb.net/english/countries/statistics/?cid=26.

⁸⁷ Unlike, for example, the field of defence, where every few years Bulgaria conducts a “Strategic Defence Review” (the titles may differ), followed by the adoption of White paper of defence and the armed forces, and accompanied by annual reports of the Executive to Parliament on the status of defence and the armed forces.

authorities, key non-governmental organisations and research institutes are involved in the development of the programme and the implementation plans.

Local communities, through their representatives in Municipal Councils, have the opportunity to contribute to the development of the respective standing disaster protection plans.

Bulgaria lacks however aggregated reports on implementation of these plans and programmes, and thus a basis of rigorous parliamentary and societal scrutiny.

1.5 Resilience

The term resilience does not translate directly in Bulgarian,⁸⁸ and the concept of resilience is not well known.

Nevertheless, there are a number of activities and legal requirements in line with the concept of resilience.

First, the *Strategy for Mitigating Disaster Risks 2014-2020* follows the Hyogo Framework for Action with its 10-year plan to build resilience of nations and communities to disasters.⁸⁹ The strategy focuses on identifying, assessing, prioritizing, monitoring and mitigating disaster risks. It calls for morale responsibility and responsibility to the society of all leadership levels for mitigating disaster risks, strengthening the culture of prevention, openness, transparency, and cooperation, as well as to increase awareness and participation of the population in disaster risk reduction activities.⁹⁰

Secondly, a number of regulations call for preparation and obligations of citizens and companies during disasters (to be examined in section 2 of this report). Educational programmes are in place to prepare school and university students in disaster response.

Third, key items are kept in stock for cases of disaster. That includes foodstuff, tents and blankets, iodine, vaccines, etc. Also, collective and individual protection means are maintained for cases of disaster.

Finally, ISO 22301:2012 “Business Continuity Management – Requirements” has been translated and introduced as national standard. A number of training events took place, and several consultancy companies provide training on ISO 22301:2012 in combination with the British Standard PAS 200:2011 “Crisis management – Guidance and good practice” and ISO 27001 “Information Security Management.”

1.6 Information sharing and data protection

Data protection and information sharing

There is no information on existing databases, e.g. with data on people with particular disabilities. Municipal social services and humanitarian organisations have respective registries, but this information is not centralised.⁹¹ Hence, any requests to share personal data during crises or for crisis

⁸⁸ It is often translated as “stability / устойчивост.”

⁸⁹ www.unisdr.org/we/coordinate/hfa.

⁹⁰ *Strategy for Mitigating Disaster Risks 2014-2020*, p. 7, p. 21.

⁹¹ To the extent the authors are aware.

management purposes need to be addressed to the respective social services or humanitarian organisations.

The derogation of the legislation in regard to data protection is not included among the rights that can be constraint temporarily in a disaster situation.⁹²

However, the Law on Protection of Personal Data stipulates that personal data can be processed when “this is necessary to protect the life and health of a physical person for whom the data is about.”⁹³ The same Law states that the processing can be performed by an “Administrator of personal data”—a physical or legal entity, a body of the state power or local self-governance—who, alone or jointly with another entity, defines the purposes and means of processing personal data, when these purposes and means are constraint by law.⁹⁴

The sharing of classified information—internally, within the European Union and with third states/ organisations—follows the requirements of the Classified Information Protection Act and respective sub-legal norms. The legislation related to classified information has been adapted first to NATO requirements, and is generally considered in line with corresponding EU norms.

Registry of volunteers

The legal provisions for the use of volunteers and volunteer formations are fairly recent. In the short period of about three years in which they are in force, 162 formations were created, and FSCP provides public access to the respective registry.⁹⁵ The registry provides data on the authorised⁹⁶ and the actual strength of each formation by municipality. No aggregated data on particular capabilities, level of readiness and contact information is publically available.

The Registry needs to contain information on groups within the volunteer formation along types of activity,⁹⁷ and that information should be public, but this requirement is not yet implemented.

The work with the registry shall abide to the requirements of the Law on Personal Data Protection. Hence, while the registry contains the names and the Unified Identification Number of each volunteer, this information is not public. The main implementing agency is the State Commission on Information Security.

Use of social media

At current, Bulgaria has no plans to use data gathered from social media during crises. It nevertheless envisions a role for the citizen in providing for the use of information and data, provided by an individual, via the National System for Emergency Calls 112 or otherwise, as a basis for monitoring,

⁹² Enumerated in Article 52 of the Disaster Protection Law.

⁹³ Law on Protection of Personal Data, Article 4(1), para 4.

⁹⁴ Ibid., Article 3(1) and (2).

⁹⁵ See www.nspbzn.mvr.bg/Sprav_informacia/Registri/default.htm. As of 19 December 2014 the registry can be downloaded at www.nspbzn.mvr.bg/NR/rdonlyres/63B788EC-2181-4A3F-871D-142803766A07/0/Registar_DF_Publichen_19122014g.pdf.

⁹⁶ As explained in a footnote in the registry, the authorised strength is based on statistical data on the population in the municipality, as related to its distance from the component parts of the Unified Rescue System. The authorised strength is defined by Decision # 327 of the Council of Ministers of 25 April 2012.

⁹⁷ Regulation Iz-1669 of 17 August 2012 on the order of creating and maintaining a registry on the volunteer formations for overcoming or containing disasters, fires, and emergency situations and elimination of their consequences, Article 9(1), para 8.

early warning, and alerts.⁹⁸ Hence, there are no legal obstacles to use other technical venues, including social networks, as a way to provide disaster related information.

⁹⁸ Disaster Protection Law, Article 11(1), para 1.

2 Legislation

The *Constitution of the Republic of Bulgaria* is the founding Act defining, *inter alia*, main rights and responsibilities of the citizens, authorities and cases in which they can declare war or another emergency (extraordinary) situation, as well as the citizens' rights that cannot be derogated in such cases.

2.1 Crisis (emergency, disaster) management concept

There is no formally approved crisis management concept. A draft document was discussed at the turn of the century, and those discussions informed the writing to the *Crisis Management Law*. Many of the stipulations in that law (repealed in 2009) are now included in the *Disaster Protection Law*.

2.2 General crisis (emergency, disaster) management law

The main law regulating crisis management is the Disaster Protection Law.

In 2005 a *Crisis Management Law* was introduced. However, it was repealed in 2009 without much debate in Parliament or within the expert community. In the authors' opinion, there were two main reasons for that decision: First, the rather broad legal definition of a 'crisis,' potentially subject to various interpretations;⁹⁹ and second, the intentions of the new party in power¹⁰⁰ to close down the then existing *Ministry on Crisis Management*¹⁰¹ and to transfer its functions, along with the Civil Protection Agency, to the Ministry of the Interior.

The Disaster Management Law arranges the protection of life and health of the population, the preservation of the environment and property in disasters.¹⁰²

This Law provides definition of disaster;¹⁰³ responsible authorities and actors, and the coordination of their activities through the Unified Rescue System; the main principles and activities of disaster management (prevention, protection, recovery and assistance, resource allocation, providing and receiving aid); the contribution of citizens, volunteers and legal entities (companies); administrative measures and penalties; and legal definitions of the main terms.

The Disaster Management Law envisions implementation of certain norms introduced by other laws:

⁹⁹ The Crisis Management Law existed in parallel to the Disaster Protection Law, but was cancelled in 2009 through amendments to the Law on Defence and Armed Forces.

¹⁰⁰ Prior to and after the regular parliamentary elections in the early summer of 2009, the leaders of the party coming to power declared publicly, on several occasions, this intention.

¹⁰¹ Earlier, Ministry on Disasters and Catastrophes.

¹⁰² Disaster Management Law, Article 1.

¹⁰³ See the opening section of Chapter 1 above.

- According to Article 9(12), the part “Flooding” of the disaster protection plans is drafted taking into account the plans for managing the risk of flooding, developed according to the requirements of the *Law on Waters*.¹⁰⁴
- According to Article 9(14), in the initiation or approval of the detailed plans on the territory, required by the Law on Territory Planning,¹⁰⁵ the bodies responsible for the elaboration of disaster protection plans provide information on foreseen disasters, endangering the territories in the scope of the disaster protection plans, and for the necessary measures for their protection, included in the disaster protection plans.
- Owners and operators of sites and assets in the scope of Article 137, categories 1, 2, or 3 of the Law on Territory Planning (roads and other infrastructure and construction sites of significant importance and involving high complexity and risk) are obliged to develop, maintain and prepare for the implementation of an emergency plan for the respective site/asset.
- According to Article 18a(2), the information on designating certain infrastructure as European Critical Infrastructure is in accordance with the respective level of classification, defined by the Classified Information Protection Act.¹⁰⁶ According to the same Act and Article 18b(6) of the Disaster Protection Law, the operator’s plan for security of European Critical Infrastructure is considered classified information.

Additional requirements are introduced by other laws and regulations, including the Law on the Forests and Regulation # 8 on the conditions and procedures for protecting forest territories from fires, the Law on Waters and Regulation # 13 maintenance of dams and relevant facilities, the Law on the Safe Use of Nuclear Energy and Regulation on emergency planning and emergency preparedness in case of nuclear and radiation accident, and the Regulation on critical infrastructures. Among the relevant sector specific laws are also the Law on the Ministry of the Interior, the Law on Defence and Armed Forces, and the Law on State Agency “National Security.” For details refer to section 2.4 below.

2.3 Emergency rule

The declaration of war, military situation or emergency (extraordinary) situation is treated in the Constitution of the Republic of Bulgaria (see above). According to Article 122(1) of the Law of Defence and Armed Forces “emergency (extraordinary) situation” is introduced on the whole or part of the territory of the country “under a danger of involving the Republic of Bulgaria in a military-political crisis or a military conflict.”¹⁰⁷

The Disaster Protection Law stipulates that in all three cases—war, military situation or emergency (extraordinary) situation—the protection of the population is exercised in accordance with the Geneva Conventions.¹⁰⁸

The declaration of a disaster [situation] is treated in Chapter 5 of the Disaster Protection Law.

¹⁰⁴ Law on Waters, *State Gazette* 67 (27 July 1999), last amendment 28 November 2014.

¹⁰⁵ Law on Territory Planning, *State Gazette* 87 (29 September 1995), last amendment 14 October 2011).

¹⁰⁶ Classified Information Protection Act, *State Gazette* 45 (30 April 2002), last amendment 28 June 2014.

¹⁰⁷ Thus clearly distinguishing *emergency (extraordinary)* from a *disaster* situation as a result of a natural or technogenic nature.

¹⁰⁸ Disaster Protection Law, Article 19(2).

Disaster situation is a mode (regime), introduced in the area of the disaster by the authorities, authorised by law, that involves application of temporary measures aimed to contain the disaster and conduct rescue and urgent recovery works.¹⁰⁹ A disaster regime is declared after the implementation of the measures in the respective disaster protection plan has been initiated.

The mayor of the municipality with his or her order declares a disaster situation on the territory of the municipality or part of it, and sends a copy of the order to the regional governor and the minister of the interior.¹¹⁰ Likewise, the governor declares a disaster situation on the territory of the region or part of it, and immediately sends a copy of the order to the minister of the interior.

The Council of Ministers, on the proposal of the minister of the interior, takes and announces a decision to declare a disaster situation of the territory of more than one region or of the whole country.¹¹¹

The order (respectively, the decision) outline:

- the conditions serving as a basis for declaring a disaster situation;
- the rationale necessitating the declaration of a disaster situation;
- the borders of the territory on which the disaster situation is declared;
- the measures for containing the disaster, including the measures, temporarily undertaken, on the rights of the citizens;
- the bodies and persons responsible for the implementation of these measures;
- the initial moment of introducing the disaster situation and its duration (which cannot exceed 30 days).¹¹²

The law further defines the conditions under which the disaster situation can be extended or terminated.

Article 52 defines rights that can be temporarily limited, in the “inevitably necessary scale” during a disaster:

1. the right of inviolability of persons and homes in temporary taking people away from areas where their life and health are under immediate danger;
2. the right to use property when it is necessary to protect persons’ life, health and property, or the environment;
3. the freedom of movement or staying in a designated part of the territory, endanger or affected by the disaster;
4. the right to conduct an activity that could hamper or prevent the implementation of rescue works.

When a disaster situation is declared, the necessary measures may include:

1. temporary taking away persons, pets, and farm animals and removal of property from a designated territory;
2. prohibition of entering, staying or moving in certain sites or territory;
3. immediate construction, engineering works, terrain restructuring, or removal of constructions aimed to mitigate or prevent a threat as a result of the disaster;
4. care for children and disadvantaged people, if in the disaster situation such care cannot be exercised by the people who usually provide it;

¹⁰⁹ Disaster Protection Law, Article 48(1).

¹¹⁰ Disaster Protection Law, Article 49.

¹¹¹ Ibid., Articles 49 and 50.

¹¹² Ibid., Article 51(1).

5. supplying with priority kindergartens, social, health and medical institutions and the rescue teams;
6. evacuation and/or deconcentration.

According to Article 52(3) of the Disaster Protection Law, the conditions and procedures for conducting evacuation and deconcentration are defined in a Regulation, approved by the Council of Ministers.

2.4 Specific, department/agency-level legal arrangements and regulations on emergency and disaster management

A number of laws and regulations treat the disaster protection responsibilities of individual departments and agencies. Key among them are the following:

- The Law on Waters and Regulation # 13 of 29 January 2004 on the conditions and procedures for technical maintenance of dams and relevant facilities describe duties and obligations of the Ministry of Environment and Waters, its subordinated executive agencies and basin directorates, as well as owners and operators dams and related infrastructure.
- The Law on the Forests defines requirements towards planning and inspections in order to prevent and protect forests from fires. In addition, Regulation # 8 on the conditions and procedures for protecting forest territories from fires tasks the Executive Director of the Executive Agency “Forestry” to collect the necessary statistical information on fires for all forest territories (and, thus, facilitate risk management).¹¹³
- The Law on the Safe Use of Nuclear Energy defines key conditions for safe exploitation of nuclear power stations and other radiation sources, and the respective obligations of the Nuclear Regulation Agency.
- The Regulation on the procedures, ways and competent bodies on identification of critical infrastructures and sites and the assessment of the risk for them stipulates responsibilities of owners and operators of critical infrastructure and assets. It also identifies the minister of the interior as the point of contact for exchange of information on European Critical Infrastructure.
- The Law on Health defines the disaster protection responsibilities of medical and other health institutions (including national and regional health inspections, the Head State Health Inspector and regional health inspectors).¹¹⁴
- Law on the Ministry of the Interior defines the provision of fire safety and protection in fires, disasters and emergency situations as one of the seven main activities of the ministry.¹¹⁵ This activity is further detailed in Article 17 of the Law. In regard to crisis management, this law refers to the Disaster Protection Law.
- The Law on Defence and Armed Forces stipulates that in peacetime the armed forces maintain readiness and provide humanitarian assistance and rescue on the territory of the country and its maritime space, as well as outside the country in accordance with the national legislation and the international treaties. Units of the armed forces are trained to

¹¹³ Article 12 /3/ of Regulation # 8 on the conditions and procedures for protecting forest territories from fires.

¹¹⁴ Law on Health, section V, Articles 114, 115.

¹¹⁵ Law on the Ministry of the Interior, Article 6(1).

provide rescue and emergency recovery works to contain disasters and overcome their consequences. The armed forces contribute to prevention, protection, rescue and urgent recovery works in accordance with the Disaster Protection Law.¹¹⁶

- According to the Law on State Agency “National Security,” the Agency conducts activities aimed to protect national strategic sites and activities.¹¹⁷

2.5 Specific to the regional and local authorities legal arrangements and regulations on emergency and disaster management

Each municipality/ region has its own, tailored disaster protection plan. The first response is local, and it is up to the mayor/ the regional governor to initiate the implementation of the respective disaster protection plan and, if necessary, to declare a disaster situation.

When the locally available capacity is (or deemed to become) overwhelmed, the mayor/ the regional governor request the activation of additional components of the Unified Rescue System and other forces and means.

2.6 Legal regulations on the involvement of volunteers and specialised NGOs

Chapter 4, section III of the Disaster Protection Law is dedicated to volunteer formations. It defines “volunteer” as a “person participating in a volunteer formation for preventing or containing disasters, fires, and emergency situations and elimination of their consequences”¹¹⁸ and the requirements to volunteers in terms of age, health, etc.¹¹⁹

Volunteer formations are created by the mayor on a decision of the Municipal Council. The mayor sends a request to the Ministry of the Interior so that the volunteer formation is listed in a central registry.¹²⁰

The current register lists 162 volunteer formations with 2 311 volunteers total.¹²¹

The mayor is responsible to:

1. sign a contract with the volunteer;¹²²
2. provide training and equipment to the volunteer;
3. insure the volunteer for accidents as a result of or in connection with his or her contract obligations;
4. insure the volunteer for all relevant social risks.

¹¹⁶ Law on Defence and Armed Forces, Article 56, para 4, 5 and 6.

¹¹⁷ Law on State Agency “National Security,” Article 4(1)9.

¹¹⁸ Disaster Protection Law, Article 39.

¹¹⁹ Ibid., Article 40.

¹²⁰ Registries of the FSCP General Directorate, www.nspbzn.mvr.bg/Sprav_informacia/Registri/default.htm.

¹²¹ Register of the volunteer formations for disaster protection on the territory of the Republic of Bulgaria and number of volunteers by municipality, 19 December 2014, available at www.nspbzn.mvr.bg/NR/rdonlyres/63B788EC-2181-4A3F-871D-142803766A07/0/Registar_DF_Publichen_19122014g.pdf.

¹²² When the person meets established training requirements.

The respective expenditures are covered by the state through the delegated budget.¹²³

2.7 Legal regulations for international engagements of first responders and crisis managers

The Disaster Protection Law envisions delivering and receiving aid in disasters, as well as certain forms of international cooperation, but does not treat Bulgaria's contribution to international rescue and/or humanitarian operations.

The Regulation on the structure and the activity of the Ministry of the Interior adds the participation in international humanitarian and/or rescue operations to the rescue activities performed according to the Law on the MOI.¹²⁴ Other articles in this document refer to participation in international firefighting operations, operational cooperation with the EU, NATO and other international organisations in the fields of fire safety, protection of the population, humanitarian assistance and civil-military emergency planning.¹²⁵

Roles, command arrangement, and rules of engagement are not explicitly treated in laws and regulations. It can be inferred that the working assumption is for contribution with relatively small units and teams to international operations, for example organised within the EU civil protection mechanism or led by NATO.

Often, Bulgaria contributes to first response of humanitarian relief operations with military units or personnel. Armed forces' personnel and equipment sent to missions abroad are insured for several types of risks.¹²⁶

¹²³ Disaster Protection Law, Article 42(2).

¹²⁴ The Regulation on the structure and the activity of the Ministry of the Interior, Article 66, para 8.

¹²⁵ Ibid. articles 65 and 69.

¹²⁶ For details see the tender announcement by the MOD for insuring personnel equipment outside the territory of Bulgaria at http://www.aop.bg/case2.php?mode=show_doc&doc_id=606574&newver=2 (in Bulgarian).

3 Organisation

3.1 Organisational chart

Brief overview of the evolving organisational arrangements

Natural disasters in Bulgaria are on the increase. From June to October 2014, on five different occasions heavy floods affected half of Bulgaria's regions and took 18 casualties. By the end of October, the total number of disasters since the start of the year exceeded 600, including train crashes and explosions in ammunition factories, the most recent one killing 15 people.

These types of challenges faced come in sharp contrast with the traditional concerns and the approach to civil protection. In 1936, Decree no. 310 of Tsar Boris III introduced the *Regulation for air defence and chemical protection of the population*, with respective tasks for the armed forces and other governmental agencies. The focus on protecting the population in times of military conflict against WMD was reaffirmed in the times of the Cold war, 1946-1989. Renamed Central Directorate of Civil Defence in 1962, the organisation was directly subordinated to the Council of Ministers. In 1971, the "Civil Defence" organisation has been included in the Ministry of Defence (MoD), with the additional tasks of *preventing and limiting the consequences of natural disasters and major industrial catastrophes*. With Governmental Ordinance no. 419 of 4 December 1991 the organisation was renamed "Civil Protection," but retained its military nature as part of the MoD. It was demilitarised in 2000, and in 2001 became *State Agency for Civil Protection* under the Council of Ministers. In 2007 it became part of the newly established Ministry for Disasters and Catastrophes (later renamed as "Ministry of the Emergency Situations," or MES). In 2009 it was included in the Ministry of the Interior (Mol; MES was closed down), and since 2010 it is part of the Mol General Directorate "Fire Safety and Civil Protection" (FSCP).

FSCP is in the focus of a multi-agency, multi-stakeholder, territorially distributed system aiming to provide disaster prevention and response.

National authority for disaster management; Chain of command and high-level decision-making

Figure 12 aims to clarify the responsibilities of various executive and consultative bodies with "crisis" management responsibilities.

As Head of State and Supreme Commander of the Armed Forces, the President leads the Supreme Command and chairs the Consultative Council on National Security.¹²⁷ According to the Law on the Consultative Council on National Security, it includes also the Chair of the National Assembly (Speaker of the Parliament), the Prime Minister, the ministers of defence, foreign affairs, interior, and finance, the Head of the State Agency "National Security," the Chief of Defence, and one representative of each parliamentarian group. Others may be invited to take part in its meetings depending on the issues to be discussed.¹²⁸

The Security Council is another consultative body, supporting the Council of Ministers on issues of national security. It is chaired by the Prime Minister, and Deputy Chair is the Vice Prime minister with the relevant portfolio. Permanent members are the ministers of foreign affairs, defence, and interior,

¹²⁷ Constitution of the Republic of Bulgaria, Article 100.

¹²⁸ Law on the Consultative Council on National Security, Article 2.

the deputy minister of finance, the MOI Head Secretary and the Chief of Defence.¹²⁹ The President may participate personally in the meetings of the Security Council and to designate one or more persons to represent him/her.¹³⁰ In practice, the focus of the Security Council is on external threats, terrorism threats and the like and, respectively, on coordinating the work of defence, security and intelligence services.

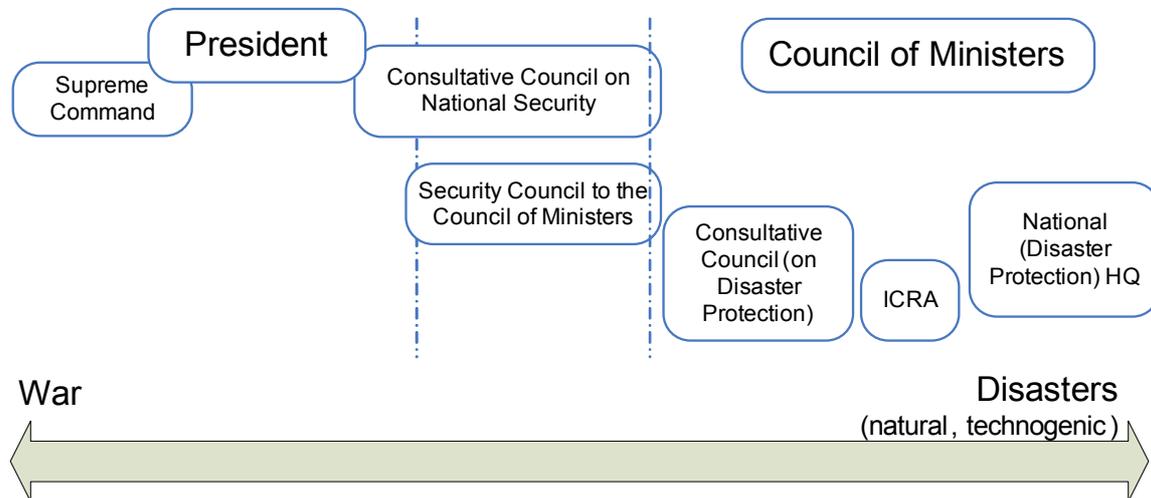


Figure 12: High-level crisis management arrangements.

In the case of crisis of natural or technogenic nature, the responsibility is clearly assigned to the Council of Ministers,¹³¹ with the Minister of Interior in the lead of main operational preparedness and response activities.

The Council of Minister elaborates the state disaster protection *policy*.¹³² On policy issues, including resource allocation, it is supported by a number of multi-stakeholder formats, as follows:

- Policy making is supported by a *Consultative Council*, that includes representatives of ministries, agencies, the Bulgarian Academy of Sciences, universities, research institutes, the National Association of Municipalities, and other legal entities with disaster protection responsibilities¹³³ (The MOI FSCP General Directorate has invited the Bulgarian Academy of Sciences (an organisation with 42 research institutes) and 20 universities to nominate their representatives as members of this Consultative Council¹³⁴).
- The National Programme for Disaster Protection is developed by the minister of the interior, jointly with other ministries and agencies, the National Association of Municipalities, and the Bulgarian Red Cross.¹³⁵

¹²⁹ Regulation on the functions, tasks and organization of the work of the Security Council to the Council of Ministers, Article 3.

¹³⁰ Ibid., Article 4.

¹³¹ Disaster Protection Law, Article 62.

¹³² Disaster Protection Law, Article 62(1).

¹³³ Disaster Protection Law, Article 62(3) and (4).

¹³⁴ Interview with a senior leader from the Bulgarian Academy of Sciences.

¹³⁵ Disaster Protection Law, Article 18(5).

- The Interagency Commission for Recovery and Assistance (ICRA) to the Council of Ministers is led by the Minister of the Interior and includes respective minister or deputy ministers and agency heads, and provides for contributions of the National Association of Municipalities and regional governors.¹³⁶ ICRA decides, among others, on financing or reimbursing urgent rescue and recovery activities and investments from the central state budget in prevention.

The operational disaster response is coordinated through the Unified Response System, with a National HQ, described in the following section.

National permanent disaster management units

The main executive disaster management organisation is “Fire Safety and Civil Protection” (FSCP)—a General Directorate in the Ministry of the Interior (the FSCP structure is presented on Figure 13).

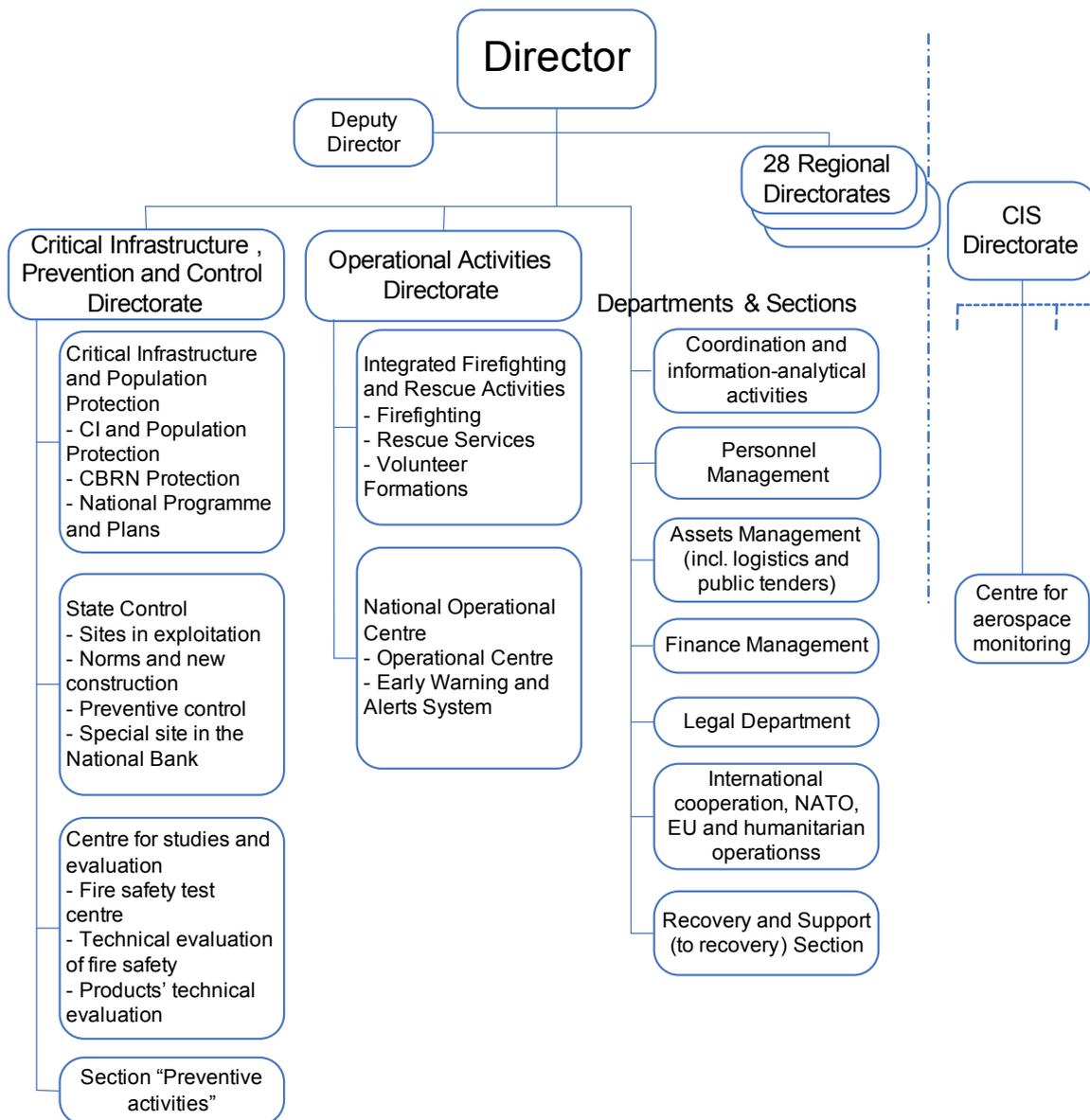


Figure 13: MOI General Directorate “Fire Safety and Civil Protection.”

¹³⁶ Disaster Protection Law, Article 54.

FSCP includes two directorates, several stand-alone departments and sections, including the national operational centre and the early warning and alert system. Closely related is the Centre for Aerospace Monitoring, supported by the MOI Communications and Information Systems (CIS) directorate.¹³⁷

The FSCP General Directorate includes 28 regional FSCP directorates – one in each region of the country. They have some common administrative elements, but the first responder units are tailored to the disasters typical for the respective regions.

The current total ceiling for FSCP personnel is 8 848; employing at current around 8 000 personnel.¹³⁸

According to the 2012 FSCP Modernisation Programme, the FSCP Table of Organisation and Equipment (TOE) calls for 201 rescue vehicles (183 available, including 119 rescue, 41 chemical, 14 alpine, 9 for divers), 17 lifting gear, 17 medical vehicles, 399 support vehicles, 49 engineering vehicles, 43 armoured vehicles, and 489 transport vehicles. The document itself states that a significant number of this equipment is not functioning.¹³⁹

Anticipated use of specialised military assets

The involvement of military capabilities and assets is formally seen as last resort, only in cases when the available civilian capacity is overwhelmed. In practice, however, the military are called to support disaster response fairly often, e.g. for aerial surveillance and reconnaissance, search and rescue from the air (see for example Figure 14¹⁴⁰), provision of heavy transport vehicles in snow storms and heavy icing, etc.

¹³⁷ The 112 system is supported by another directorate of the Ministry of the Interior.

¹³⁸ Reference on the personnel positions and unfilled positions in the Ministry of the Interior as of 31 May 2014.

¹³⁹ Programme for modernisation and provision of technical resources of the territorial units for fire safety and protection of the population in the Republic of Bulgaria, 2012.

¹⁴⁰ Servicemen from the Bulgarian Army provide help in areas affected by floods, *MOD News section*, Available at www.mod.bg/bg/news_archive.php?fn_month=9&fn_year=2014#!pP (accessed 12 December 2014).



Figure 14: Military aerial search and rescue during the floods in September 2014.

Annual national plans provide further details. For example, the 2013 plan provides information on the financing necessary to fully equip units and formations of the armed forces for:¹⁴¹

- managing the consequences in an accident at Kozloduy NPP;
- response to industrial accidents;
- response to fires;
- response to floods;
- response to earthquakes;
- activities in heavy winter conditions;
- identifying and destroying unexploded ordnance;
- a rapid reaction military medical team of the Military Medical Academy.

The Ministry of Defence, as well as other ministries maintain operational centres and specific crisis response capabilities.

The 2013 National Disaster Protection Plan provides details on the capabilities maintained by the Ministry of Defence and the Armed Forces:¹⁴²

- The “Operations and Training” Directorate is the MOD structure organising the activities of the defence establishment aimed at protecting the population in disasters;
- The Military Medical Academy and its subordinate military hospitals maintain specialised teams, transport vehicles and consulting rooms as follows:
 - a Rapid Reaction Military Medical Team (RRMMT) – Sofia with 15 teams (4 – surgery; 2 – resuscitation; 2 – therapeutic; 1 – toxicological; 1 – obstetrics- gynaecological; 1 – epidemiological; 2 – for infectious diseases; 2 – resuscitation teams for aerial medical evacuation ¹⁴³); the respective specialised transport vehicles (4 ambulances; 1 mobile

¹⁴¹ The 2013 Plan for Implementation of National Disaster Protection Programme, p. 32.

¹⁴² The 2013 Plan for Implementation of National Disaster Protection Programme, pp. 6-7.

¹⁴³ When air transport is provided by other military units or companies.

- treatment cabinet /therapeutic room/; 1 mobile paediatric room; 1 mobile obstetrics- gynaecological room; 1 mobile surgery room; 1 mobile resuscitation room; 1 mobile dressing vehicle; 1 bus for sanitary evacuation);
- RRMMT-Plovdiv, Varna, and Pleven each maintain 3 teams (surgery; resuscitation; therapeutic) with the respective specialised vehicles;
 - “Military Police” maintains a team of 76 military staff and 28 vehicles in readiness to perform protection, traffic management, and escort;
 - With a staff of 355, Executive Agency “Military Clubs and Recreation” maintain 2 800 beds and can host affected groups of the population;
 - The Bulgarian Army maintains 95 formations available for containing and overcoming the consequences of disasters, as follows:
 - for managing the consequences of an accident at Kozloduy NPP – 6;
 - for managing the consequences of industrial accidents – 7;
 - for extinguishing fires – 20;
 - for managing the consequences of earthquakes – 9;
 - for activities in heavy winter conditions – 23;
 - for identifying and destroying unexploded ordnance – 16.

Other national organisations with crisis management responsibilities

Numerous executive, research, and non-governmental organisations, in addition to the Ministry of the Interior, have disaster protection responsibilities. The National Disaster Protection Programme 2014-2018 lists in particular the responsibilities of:

- The Ministry of Foreign Affairs
- The Ministry of Regional Development
- The Ministry of Health
- The Ministry of Defence
- The Ministry of Transport, Information Technologies, and Communications
- The Ministry of Economy and Energy¹⁴⁴
- The Ministry of Environment and Waters
- The Ministry of Labour and Social Policy
- The Ministry of Agriculture and Foods
- The Ministry of Culture
- The Ministry of Education and Science
- State Agency “State Reserves and Wartime Stocks”
- The Bulgarian Red Cross
- The Nuclear Regulation Agency
- The Research Institute on Geophysics, Geodesy and Geography at the Bulgarian Academy of Sciences
- National Institute of Meteorology and Hydrology at the Bulgarian Academy of Sciences.

Most of these ministries and agencies maintain general purpose or specialised disaster protection units, described in respective annexes to the National Disaster Protection Plan.

¹⁴⁴ Split in November 2014 in ministries of economy, energy, and tourism.

Local emergency management arrangements

The regional governor and the mayor are the lead authorities respectively at regional and municipal level, supported by the head of the local FSCP unit.

Regional administrations, as well as the administration of big municipalities, have “Security Directorates” with the functions, *inter alia*, to protect the population in “disasters, accidents, incidents, and other emergency situations,” planning and coordination of disaster protection, budgeting the creation of stocks of individual protection means, PR activities related to disaster protection, creating and equipping one or more volunteer formations, etc.¹⁴⁵

Smaller municipalities maintain sections or individual employees with disaster protection responsibilities.

Volunteers and volunteer organisations; specialised NGOs

Since 2011, the Disaster Protection Law regulates the contribution of volunteers and the functioning of volunteer formations.¹⁴⁶

According to Article 47 of the Law, the FSCP General Directorate maintains a registry of the Disaster Protection Law. A current list of 162 units at municipal level, with 2311 volunteers, is available at the FSCP page on the MOI website.¹⁴⁷

The amendment to the Disaster Protection Law was followed by the adoption of a *Strategy for developing volunteer formations for protection in disasters, fires, and other emergency situations in Republic of Bulgaria 2012-2020*.¹⁴⁸

The Bulgarian Red Cross¹⁴⁹ is the foremost non-governmental organisation with disaster protection capabilities and key node in a network of specialised organisations:

- Bulgarian Red Cross Youth, <http://youth.redcross.bg>
- Mountain Rescue Service, www.pss.bg
- Water Life Saving Service, <http://en.redcross.bg/activities/activities3.html>
- Refugee-Migrant Service, <http://en.redcross.bg/activities/activities8.html>

The list of relevant NGOs and associations includes also:

- National Association of the Volunteers in Republic of Bulgaria¹⁵⁰
- National Syndicate of Firefighters and Rescue Workers “Firefighter.” The syndicate has 92 sections at city/municipal level
- Association “Club Active Security,” www.aktivnasigurnost.org/en/home
- Humanitarian NGOs, such as Caritas, <http://caritas.bg>
- NGOs dedicated to environmental protection, such as WWF, www.wwf.bg.

¹⁴⁵ See, for example, “Security Directorate,” General Administration, Mayor of the Sofia Municipality, available in Bulgarian at www.sofia.bg/tu1.asp?napr=1574 (accessed 5 December 2014).

¹⁴⁶ Disaster Protection Law, Articles 39-47.

¹⁴⁷ Available in Bulgarian at http://www.nspbzn.mvr.bg/NR/rdonlyres/63B788EC-2181-4A3F-871D-142803766A07/0/Registar_DF_Publichen_19092014g.pdf.

¹⁴⁸ Available at http://www.nspbzn.mvr.bg/NR/rdonlyres/07BFA9E-CBA4-4C10-91F0-ACC720FFAE57/0/01_STRATEGIYA_DF_15_10_2012.pdf, in Bulgarian.

¹⁴⁹ Bulgarian Red Cross, <http://en.redcross.bg>.

¹⁵⁰ Established at the end of August 2014; the official registration is still pending.

Private businesses and public-private partnerships

The Disaster Protection Law provides for the involvement in legal entities, including private commercial companies, in disaster prevention, preparedness and response activities. Three types of companies are treated explicitly in the law:

- owners/ operators of critical infrastructure, especially assets designated as European critical infrastructure;
- operators of radio and television programmes;
- providers of electronic communications.

In addition, according to a general clause in the Disaster Protection Law, all legal entities and trade companies registered as physical persons, that are included in a disaster protection law, are obliged to provide the planned assistance upon request.¹⁵¹

During the floods of 2014, private enthusiasts demonstrated the aerial surveillance capabilities of both ultralight piloted aircraft and remotely piloted aerial vehicles.

Attempts have been made to establish public-private partnerships aiming to provide helicopters for rescue and transportation of injured and other people in need to major hospitals.¹⁵²

3.2 Organisational cooperation

Operational cooperation

Although FSCP is the organisation with main responsibilities for disaster management and protection of the population, it is not expected to provide disaster protection all by itself. All activities for protection of the population in a disaster (or pending disaster) are performed by the Unified Rescue System, which incorporates structures of ministries and agencies, municipalities, trade companies, hospitals and other health centres.¹⁵³

The underlying principle is that the response is local and, when necessary, it is enhanced by provision by additional capabilities and assets. The request for assistance is processed through the URF.

The main URF components are:

- General Directorate “Fire Safety and Civil Protection” of the Ministry of the Interior;
- The MOI regional Directorates;
- The Centres for Emergency Medical Care.¹⁵⁴

Figure 15 presents the information flows in operational coordination in crisis management and disaster response. With slight variations, such visualisation is included in annexes to the 2010

¹⁵¹ Disaster Protection Law, Article 37.

¹⁵² See for example “The Ministry of Health will pursue a public-private partnership for the sanitary aviation,” available in Bulgarian at www.investor.bg/ikonomika-i-politika/332/a/mz-shte-tyrsi-publichno-chastno-partniorstvo-za-sanitarnata-aviaciia-166328 (accessed 5 December 2014).

¹⁵³ Disaster Protection Law, Article 20. All these structure preserve their institutional or organisational affiliation, roles and functions.

¹⁵⁴ Disaster Protection Law, Article 22(1).

National Disaster Protection Plan¹⁵⁵ describing the coordination of the URF components in the following scenarios:¹⁵⁶

- Annex # 67 – in case of an earthquake;
- Annex # 68 – in cases of floods;
- Annex # 69 – in cases of industrial accidents involving release of dangerous substances;
- Annex # 70 – in large and complex forest fires;
- Annex # 71 – in cases of heavy snowfalls, snowstorms, and icing;
- Annex # 72 – in the case of road, railroad, and aviation catastrophes;
- Annex # 73 – disasters and accidents as results of a terrorist act.

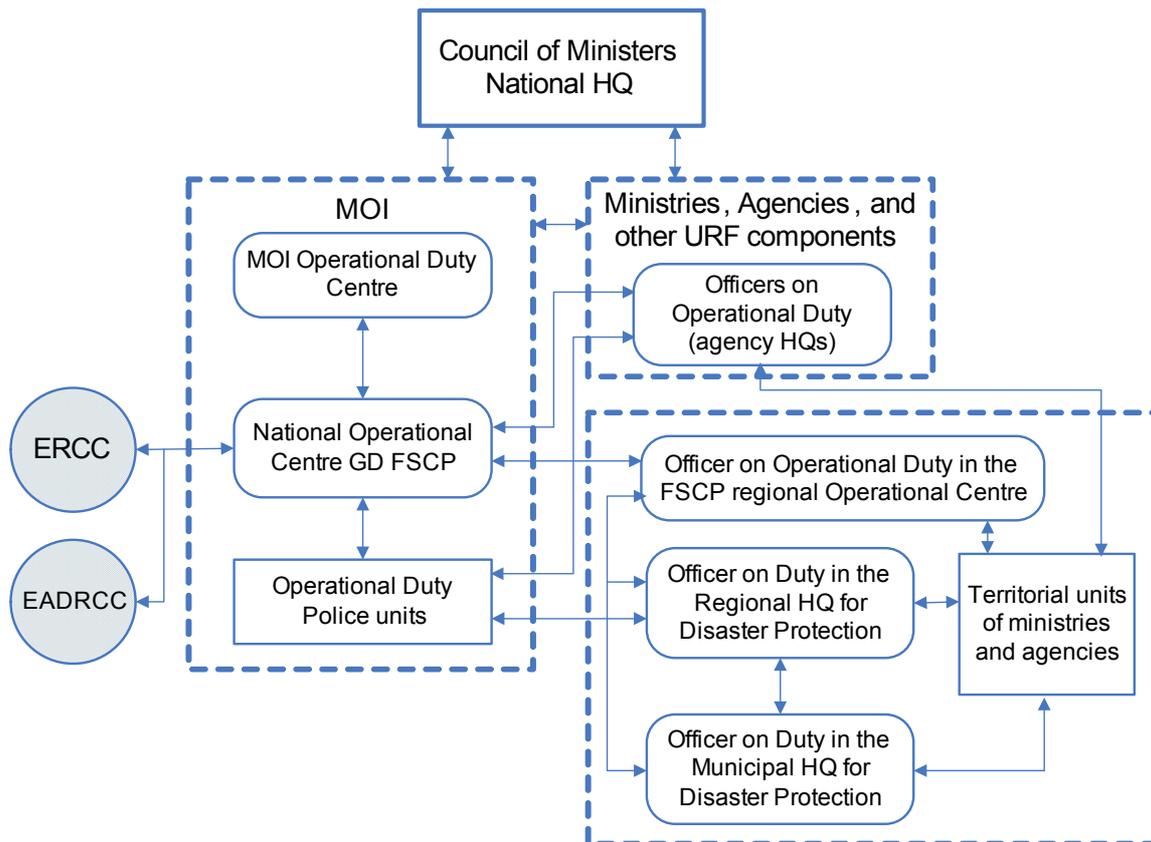


Figure 15: Operational Coordination in Crisis Management and Disaster Response.

At national level, there is a National HQ for cases of disasters. The National HQ is created by an order of the Prime Minister along with the introduction of the National Plan for Disaster Protection. This order lists the names of the members of the National HQ – ministers, deputy ministers, agency heads and their deputies, and other representatives of organisations with responsibilities for the implementation of the National Plan for Disaster Protection.¹⁵⁷

The activity of the National HQ is supported in terms of logistics, communications and administrative matters by the FSCP General Directorate and, depending on the type of disaster, by other competent ministries, agencies, or institutions. It is supported also by thematic working groups and an

¹⁵⁵ The currently standing plan.

¹⁵⁶ Operational coordination in radiation accidents, epidemics, and epizootics is organised in specific ways.

¹⁵⁷ Disaster Protection Law, Article 62a(2).

“information working group.” All respective members are included on “alert lists,” maintained within the national early warning and alert system.

The National HQ conducts the following activities:¹⁵⁸

1. Analysis and assessment of the disaster situation;
2. Decision making on the necessary quantities and resource allocation to rescue and urgent recovery works for prevention, containment and overcoming the consequences and assisting the affected population;
3. Organisation and coordination of the actions of ministers, agency heads, regional governors, mayor of municipalities, and legal entities (companies) with responsibilities for disaster protection;
4. Exercises control over the implementation of the tasks and the measures for containing the disaster;
5. Through the media, informs the population for the evolution of the disaster, for the measures for its mitigation and containment, and for the necessary precautions;
6. Reports to the prime minister, the President of the Republic of Bulgaria, and the speaker of Parliament for the way of conducted protective activities.

There is no formal mechanism for assigning priorities in the case of simultaneous occurrence of two or more events. It could be inferred that the guiding principles are:

1. to provide protection of the life and health of the population, the environment and the property (as Article 1 of the Disaster Protection Law defines its purpose); and
2. giving a priority (advantage) to saving human life among all protection activities.

Hence, the expectation is that, in a number of simultaneous disasters, the available resources and capabilities will be managed in a way that minimises human casualties.

International cooperation in responding to a disaster is managed via the National Operational Centre at FSCP (the national point of contact in disasters with the EU, NATO and other international organisations¹⁵⁹; see Figure 15). That includes:

- cross-border collaboration on a bi-lateral or another regional basis;
- cooperation with the EU via the Emergency Response Coordination Centre (ERCC);
- cooperation with NATO via the Euro-Atlantic Disaster Response Coordination Centre (EADRCC).

In national disaster situations, the FSCP Operational Centre notifies DG ECHO and EADRCC according to approved standard operating procedures and using approved notification forms.¹⁶⁰ The request briefly describes the situation and the impact of the disaster.

In a nuclear or radiation accident, the Nuclear Regulatory Agency notifies the International Atomic Energy Agency (IAEA) and the European Union through the system ECURIE, as well as the regulatory bodies of the countries with which Bulgaria has signed bi-lateral notification agreement. The regulatory bodies of other countries that could be affected by the accident are also notified.

A request for assistance to the EU is sent by the FSCP Operational Centre to ERCC via the CECIS network. Approved forms are used to describe both a request and a proposal to provide assistance.¹⁶¹

¹⁵⁸ Disaster Protection Law, article 62a(6).

¹⁵⁹ National Disaster Protection Plan 2010, section 6.2, pp. 24-25.

¹⁶⁰ Annexes 13 and 14 of the National Disaster Protection Plan 2010.

A particularly detailed procedure is in place for requesting from the EU (within its Civil Protection mechanisms) or another state a module for fighting forest fires through aerial means.¹⁶²

In the framework of NATO, request for assistance are sent to EADRCC via Internet, fax and/or phone. Approved forms are used to describe both a request and a proposal to provide assistance.¹⁶³

In a nuclear or radiation accident the request for or the provision of assistance follow the procedures described in the *External Plan for Accidents in Kozloduy NPP*.

During the disaster, the FSCP Operational Centre regularly sends brief situational reports to ERCC and EADRCC, describing the status and the evolution of the situation, using approved forms.¹⁶⁴

Requests for disaster assistance from countries that are not members of the European Union or NATO are sent through Bulgaria's Ministry of foreign Affairs, by verbal notes through Bulgaria's embassies in the respective countries, or through their diplomatic missions in Bulgaria.

Cooperation and coordination in CM capability development

The coordinated use of resources within an individual ministry or agency towards crisis preparedness and response is usually guaranteed. Of particular importance are the requirements of the EU civil protection mechanism and the development of a European Emergency Response Capacity (EERC).¹⁶⁵

Also, section 7 of the National Disaster Protection Plan details the responsibilities of officials (i.e. ministers, agency heads, regional governors, mayors) in terms of disaster protection, including their coordination roles.¹⁶⁶

There are some legally defined priorities. Among the protection measures, the Disaster Protection Law declares that prevention has a priority.¹⁶⁷ However, the examination of the distribution of the budget managed by the Interagency Commission on Recovery and Assistance (ICRA) shows that in the last two years, i.e. since the earthquake in Pernik, practically no funding have been provided by ICRA for preventive activities. The Law defines as a priority also the measures for protection of critical infrastructures.¹⁶⁸

The five-year national disaster protection programme defines other priorities for the development and resource allocation to the Unified Rescue System.¹⁶⁹

However, crisis management capability planning¹⁷⁰ has not been introduced, with the possible exception of the planning within the defence ministry.

There is no nationally centralized process of capability planning. There is a process of centralised planning in place for the development of the national disaster protection programme and the annual

¹⁶¹ Annexes 15 and 16 of the National Disaster Protection Plan 2010.

¹⁶² Annex 12 of the National Disaster Protection Plan 2010, pp. 142-159.

¹⁶³ Annexes 17 and 18 of the National Disaster Protection Plan 2010.

¹⁶⁴ Annexes 19 and 20 of the National Disaster Protection Plan 2010.

¹⁶⁵ Decision No 1313/2013/EU of the European Parliament and of the Council of 17 December 2013 on a Union Civil Protection Mechanism.

¹⁶⁶ National Disaster Protection Plan 2010, pp. 26-40.

¹⁶⁷ Disaster Protection Law, Article 4, para 4.

¹⁶⁸ Disaster Protection Law, Article 8a(3).

¹⁶⁹ Disaster Protection Law, Article 18(2), para 5.

¹⁷⁰ See, for example, Todor Tagarev, "Capabilities-Based Planning for Security Sector Transformation," *Information & Security: An International Journal* 24 (2009): 27-35, <http://dx.doi.org/10.11610/isij.2404>.

plans for its implementation, but it lacks major features of the planning for capabilities. For example, it does not seek most efficient national solutions, while the planning of the state budget strictly follows organisational boundaries and tends to preserve institutional stovepipes.

Nevertheless, Bulgarian executive authorities are gaining some knowledge on the planning principles and processes, primarily through the participation in multi-national, EU-funded projects. Examples of international cooperation in the development of capabilities, related to crisis management, are provided in the next section of this report.

4 Procedures

4.1 Standing Operating Procedures (SOPs) and Guidelines

The publically available National Disaster Protection Plan (NDPP) includes descriptions of standard operating procedures (SOPs) for a number of disaster scenarios. The SOPs prescribe the way the activities of URF components are coordinated, as follows:

- SOP # 01, in case of an earthquake (Annex # 67 to NDPP);
- SOP # 02, in cases of flooding (Annex # 68 to NDPP)
- SOP # 03, in cases of nuclear and radiation accidents (Annex # 51 to Complement 3 to NDPP)
- SOP # 04, in large and complex forest fires (Annex # 70 to NDPP)
- SOP # 05, in cases of heavy snowfalls, snowstorms, and icing (Annex # 71 to NDPP)
- SOP # 06, in cases of industrial accidents involving release of dangerous substances (Annex # 69 to NDPP)
- SOP # 07, in the case of road, railroad, and aviation catastrophes (Annex # 72 to NDPP)
- SOP # 08, disasters and accidents as results of a terrorist act (Annex # 73 to NDPP).

As part of the National Disaster Protection Plan, each SOP is publically available, and typically includes:

1. Purpose and normative basis;
2. Area of application of the procedure;
3. Alerting from the URF and the management bodies;
4. Organisation of the interaction among the operational duty centres of the Unified Rescue System (see as an example the information flows on [Figure 15](#))
5. Designation of the coordinating authority on the site of the disaster and its responsibilities
6. Responsibilities of the URF components involved in disaster management (in terms of alerting, implementation of urgent measures, rescue operations, evacuation /if applicable/, urgent recovery works, other operations)
7. Points of 24/7 contacts for implementation of the procedure
8. Conditions for terminating the application of the procedure.

All stakeholders are aware of the SOPs. Procedures are considered to be understood and accepted by contributing parties. Disaster management exercises are used to test, among others, the standard operating procedures.

4.2 Operations planning

Bulgaria has in place a standing National Disaster Protection Plan. The current version was approved in 2010, and has three major supplements as follows:

- Supplement 1, issued in 2012, is dedicated to the protection in earthquakes;
- Supplement 2, also issued in 2012, treats the protection in floods;

- Supplement 3 is the External plan for accidents in Kozloduy NPP, issued in 2012 and amended in July 2014.

The minister of the interior develops the National Disaster Protection Plan (NDPP) jointly with representatives of other ministries, agencies, the Bulgarian Red Cross, and local authorities.¹⁷¹ The NDPP is adopted by the Council of Ministers.¹⁷²

Ministers and agency heads develop disaster protection plans aimed at implementing their obligations in accordance with the National Disaster Protection Plan. These plans are authorised by the respective minister or agency head, after being countersigned by the minister of the interior.¹⁷³

The regional governor organises the development of a disaster protection plan for the region, jointly with the local structures of the central executive power and the mayors of municipalities. The regional disaster protection plan is authorised by the governor, after being countersigned by the minister of the interior.¹⁷⁴

The mayor develops a disaster protection plan for the municipality, jointly with representatives of agencies and legal entities (e.g. companies) relevant for disaster protection on the territory of the municipality. The municipal disaster protection plan is adopted by the Municipal Council.¹⁷⁵

The operational planning process follows a practically established procedure. It is not clear to what extent to follows international best practice and standards.

In the last two years a number of relevant international standards have been adopted as national standards, including:

- ISO 22320:2011 "Societal security -- Emergency management -- Requirements for incident response";
- ISO 22301:2012 "Societal security -- Business continuity management systems – Requirements";
- ISO 22313:2012 "Societal security -- Business continuity management systems – Guidance."

With time these standards may be implemented by first responders and other organisations with crisis management responsibilities.

4.3 Logistics support in crises

According to the Disaster Protection Law, legal entities, including commercial companies "are obliged to deliver upon request the planned assistance"¹⁷⁶ and to plan and protect the personnel and the facilities they own or operate.¹⁷⁷ There is no evidence on planning for logistics services to be provided by private companies. That happens in practice on ad-hoc basis, and the companies are reimbursed at a later stage.

¹⁷¹ Disaster Protection Law, Article 9(4).

¹⁷² Ibid., Article 9(5).

¹⁷³ Ibid., Article 9 (6) and (7).

¹⁷⁴ Ibid., Article 9 (8) and (9).

¹⁷⁵ Ibid., Article 9 (10) and (11).

¹⁷⁶ Disaster Protection Law, Article 37.

¹⁷⁷ Ibid., Articles 35 and 36.

The Ministry of Defence plans to provide accommodation to people, affected by a disaster, through the Executive Agency “Military Clubs and Recreation.” There have been cases with the floods in 2014 when the armed forces were providing hot food in the field to affected population. The MOD can provide also transportation and other logistics services on an ad-hoc basis.

4.4 Crisis communication to general public; Alert system; Public Information and Warnings

Establishing and maintaining systems for monitoring, early warning and alerts is seen as one of the main disaster prevention measures.¹⁷⁸

Each disaster protection plan describes the procedure for early warning and alerts to the executive bodies, the component parts of the Unified Rescue System, and the population.¹⁷⁹

Monitoring, early warning and alerts are based on information provided by citizens, organisations and institutions, including information provided through the 112 National system for emergency calls, as well as on information and data provided by technical monitoring systems (meteorological, hydrological, seismological, chemical, biological, radiological, nuclear, ecological, etc.) and the international exchange of information and data.¹⁸⁰

Alerting the relevant officials, organisations, and the population is the core activity of the Unified Rescue System, performed through the operational centres of the FSCP General Directorate.¹⁸¹ The owners or operators of critical infrastructure establish and maintain local alert systems.

The law mandates also the establishment of a National System for Early Warning and Alerts (NSEWA) of the executive bodies and the population in disasters.¹⁸² The conditions and procedures for the functioning of the NSEWA in disasters and air threats are regulated by the Council of Ministers.¹⁸³

NSEWA has two component parts for early warning and alerting respectively:

- the executive bodies and the URF components;
- the population.

NSEWA provides information and coordination at national, regional and municipal levels through two national control nodes (main and alternative ones) of the national operational centre of FSCP, regional control nodes and municipal control boards, as well as integrated local alert systems in critical sites and facilities.

NSEWA uses the Unified Communications System of the state administration, the communications networks and services of the MOI (owned or outsourced) and the frequency spectrum allotted to the Ministry of the Interior.

Early warnings and alerts are issued on the decision of:

- the Prime Minister, the minister of the interior or the MOI Main Secretary – at national level;

¹⁷⁸ Disaster Protection Law, Article 6(1), para 8.

¹⁷⁹ Ibid., Article 9(3), para 7.

¹⁸⁰ Ibid., Article 11. For the technical systems in use see section 5 below.

¹⁸¹ Ibid., Article 29(2), para 3.

¹⁸² Ibid., Article 62(2), para 5.

¹⁸³ Regulations of the conditions and procedures for the functioning of the National System for Early Warning and Alerts to the executive bodies and the population in disasters and air threats.

- the regional governor and/or the mayor, on the proposal of the director of the FSCP General Directorate of the director of the FSCP regional directorate – at regional and municipal level.¹⁸⁴

In addition to warnings and alerts, NSEWA provides opportunities for urgent or planned conference calls with executive bodies and URS components.

The Regulation on NSEWA defines also the conditions for issuing alerts, the groups of officials to be alerted and the order of priority for alerting them, etc.

Acoustic signals and preliminary recorded voice messages are used to warn or alert the population on a pending or occurring disaster. Follow-up live voice messages provide information on the nature and parameters of the disaster and guidance on the behaviour and actions of the population.

In a pending or occurring disaster encompassing the whole or part of the territory of a region, early warning and alerts are issued on the decision of the governor or the director of the FSCP regional directorate, while the mayor or the officer on duty may trigger the alerts for the municipality.

A distinct acoustic signal and voice messages are issued to note the end of the threat of a disaster.

The FSCP webpage at the MOD website provides detailed description of the signals and what they mean.¹⁸⁵

Different NSEWA signals and voice messages are tested once or twice a year, and the population is informed by popular media on the forthcoming tests.

Media is also used to disseminate warning and alerts. The officials who have decided on issuing early warning and alerts provide written information to the electronic media on the danger of or the occurring disaster. The media air this information immediately, free of charge, and without alteration with as many repetitions as necessary.

At current, it is not envisioned to use commercial GSM communications or social networks to issue warnings or alerts to the population.

¹⁸⁴ Ibid., Article 7(1).

¹⁸⁵ See www.nspbn.mvr.bg/Pravila_povedenie/signali.htm/

5 Capabilities

5.1 Human resources

Permanent emergency and disaster management personnel

The main executive disaster management organisation—the MOI General Directorate “Fire Safety and Civil Protection” (FSCP)—has an authorised personnel strength of 8 848, of which about 90 percent, or 8 000 currently staffed.

The FSCP General Directorate includes 28 regional FSCP directorates – one in each region of the country. They have some common administrative elements, while the first responder units are structured with account of disasters typical for the respective regions.

Other ministries, agencies, regional and some city administrations have “Crisis Management” directorates or departments, all with disaster protection responsibilities.

A number of ministries and agencies (e.g. the ministries of defence; environment and waters; agriculture and health; transport, information technologies, and communications; energy; the Nuclear regulatory Agency), as well as the Bulgarian Red Cross maintain specific disaster protection formations/ teams, described in respective annexes to the National Disaster Protection Plan.

There is no publically available information on a capacity to mobilise additional personnel. It could be assumed that, when the locally available capacity is overwhelmed, the reliance is on involving additional components of the Unified Rescue System, including formations of the armed forces, volunteer formations, trade companies and, if necessary, international assistance.

Involvement of volunteers, volunteer organisations, and specialised NGO personnel

Since 2011 the Disaster Protection Law regulates the involvement of volunteers in disaster protection through the creation of municipality-based volunteer formations. As of December 2014 the Registry of volunteer formations, maintained by the FSCP General Directorate, lists 162 formations with an authorised strength of approximately 4 000 positions of which volunteers have been assigned to 2 311 positions.

The main non-governmental organisation with disaster protection capabilities is the Bulgarian Red Cross, including a number of specialised organisations:

- Bulgarian Red Cross Youth
- Mountain Rescue Service
- Water Life Saving Service
- Refugee-Migrant Service.

Over 19 000 volunteers are involved in the activities of the Bulgarian Red Cross. In 2013, 4 917 of them had basic volunteer training and 5 602 – specialised training in volunteer programmes.¹⁸⁶

Involvement of private businesses

Several groups of private actors play important roles in disaster protection:

¹⁸⁶ Facts and figures for the activity of the Bulgarian Red Cross 2013, available in Bulgarian at www.redcross.bg/uploads/19794.file/Facts%26Figures_2013_bul.pdf (accessed 19 December 2014).

- Owners/operators of critical infrastructures, including transport and energy infrastructure, dams, chemical plants, etc.;
- Owners/operators of electronic communications networks, e.g. GSM operators;
- Media, in particular electronic media;
- Private hospitals and providers of other health services;
- Companies, providing general transport and construction services.

National educational programmes

The education is considered an important component of disaster prevention, readiness and adequate response. The Disaster Protection Law stipulates that students at interim school (5th to 7th grade) need to get the basic knowledge on disaster risks and the respective ways of behaviour and action, while high-school and university students need to have knowledge on disaster protection corresponding to their educational profile and specialty.¹⁸⁷ In addition, the minister of education and science, in coordination with the minister of the interior, approves educational programmes, materials and tools for kindergartens and schools, as well as plans for disaster protection training of the teachers.¹⁸⁸

In October and November 2014, the “G.S. Rakovski” Defence Academy in Sofia conducted a pilot course on disaster prevention for teachers.¹⁸⁹

Relevant educational programmes are provided by several universities, including:

- The “G.S. Rakovski” Defence Academy in Sofia has a masters’ programme in “Protecting the population and the critical infrastructure”¹⁹⁰
- The National Military University, Veliko Tarnovo, has a masters’ programme in “Protecting the population in disasters, accidents and catastrophes”¹⁹¹
- The Technical University of Varna provides a bachelor’s degree in “Protecting the population in disasters and accidents”¹⁹²
- The Agriculture University in Plovdiv provides a masters’ degree for environmental experts in “Protecting the population and the environment in natural disasters and accidents”¹⁹³
- The University of Shumen provides a masters’ programme for pedagogues in “Competences and skills in disasters and accidents”¹⁹⁴

5.2 Materiel (non-financial) resources

The material component of the first response, provided by FSCP, and the planned use military assets are described in section 3.1 above. Additional, more specific military assets used in disaster response

¹⁸⁷ Disaster Protection Law, Article 16(2).

¹⁸⁸ Disaster Protection Law, Article 16(3).

¹⁸⁹ See www.mon.bg/?go=news&p=detail&newsId=852 (in Bulgarian).

¹⁹⁰ See http://rnda.armf.bg/wp-content/uploads/000s/Pr_/ZNKI2009_MAGspec.php.

¹⁹¹ See www.nvu.bg/node/314. The programme is coordinated with General Directorate FSCP.

¹⁹² See www.tu-varna.bg/tu-varnaumo/images/stories/uchebni_planove/bak_mag_sled_sredno/znba_rb.pdf.

¹⁹³ See www.au-plovdiv.bg/cntnr/CMD/2012/anotacia/33.pdf.

¹⁹⁴ See <http://shu-bg.net/faculties/pf/spec>.

involve primarily the use of helicopters for aerial reconnaissance, search and rescue, and fire-fighting.

The State Agency “State Reserve and Wartime Stocks” maintains stocks of fuel, chemicals, food, metals, spare parts, wooden materials and paper, hospital and sanitary materials, medicines, tents, blankets, etc. Ministries and agencies, as well as companies also maintain a certain level of reserve material.

Bulgaria maintains a number of organisational and technical systems in place to monitor various hazards and risks and, when necessary, issue warnings and alerts. The key systems and services are briefly presented below.

The National Seismological Service has a network of 14 stations and observatories and two local networks – “Provadia” and “Kozlodui” (see Figure 16¹⁹⁵). The Seismic Centre in Sofia collects, processes, analyses and interprets the information. This allows to determine in real time parameters of earthquakes in the country and the neighbouring areas.

A computing centre at the National Institute of Geophysics, Geodesy and Geography facilitates the collection, processing and analysis of data from national and local accelerometric networks. That allows to evaluate and identify the dynamic characteristics of the seismic influences in environment, building and equipment for the needs of the earthquake engineering, prevention and mitigation of the seismic risk.¹⁹⁶

A number of collaborative arrangements are in place to support these aims. At current, NIGGG represent Bulgaria in a project to establish “Black Sea Earthquake Safety Net(work) - ESNET” with partner institutes from Romania, Moldova, and Turkey.¹⁹⁷

Among the other technical systems, briefly presented above, are:

- The system for radiological monitoring;
- The radio-communication system TETRA¹⁹⁸
- The Unified Communications System of the state administration, etc.

¹⁹⁵ “Operational Research Activity,” presentation of the National Institute of Geophysics, Geodesy and Geography, Bulgarian Academy of Sciences, available at www.niggg.bas.bg/wp-content/uploads/2014/02/operat_en.ppt (accessed 3 November 2014).

¹⁹⁶ Ibid., slide # 16.

¹⁹⁷ Black Sea Earthquake Safety Net(work) – ESNET, available at www.niggg.bas.bg/projects_bg/esnet (accesses 3 November 2014).

¹⁹⁸ See project PHARE BG 2006/018 – 343.07.08, http://www.nspbzn.mvr.bg/Proekti/proekt_tetra.htm.

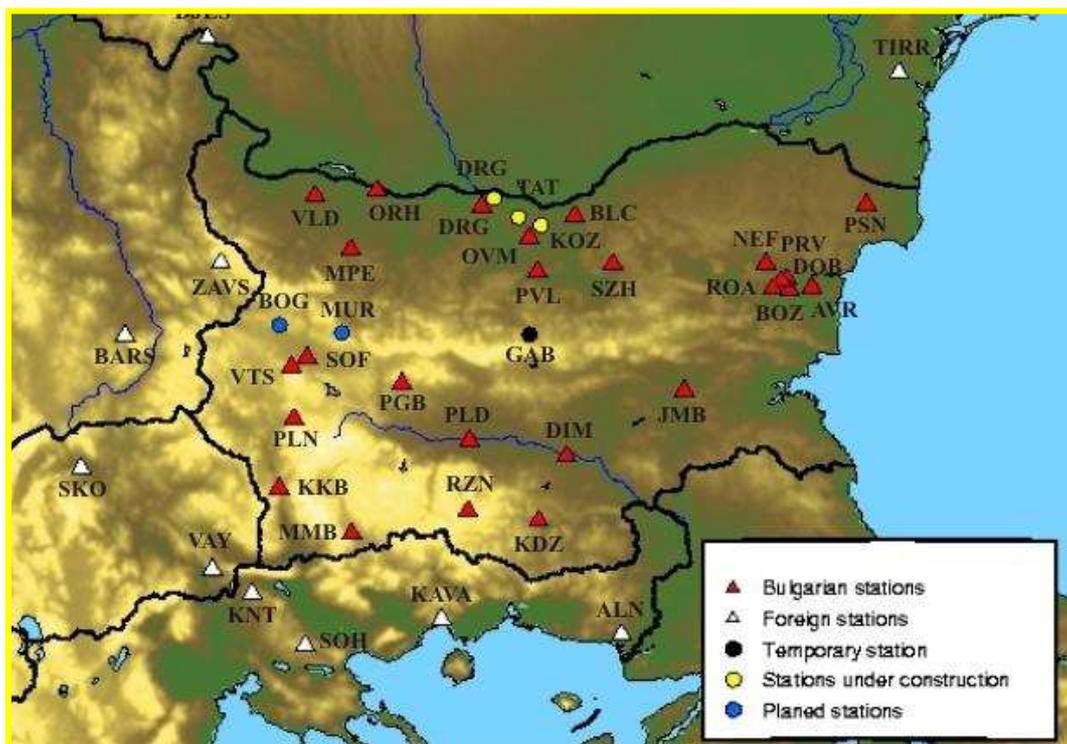


Figure 16: The network of seismic stations of the national seismological service.

5.3 Training

FSCP conducts regular training and exercises for its own personnel, as well as representatives of other components of the Unified Response System, volunteer formations and NGO personnel.

Specialists are usually trained “on-the-job.” Training requirements depend on the specific position of an individual in the organisation.

The regular tests of the early warning and alert system are used also for training of the personnel involved.

Field, and in particular computer assisted exercises, serve (among others) to increase the awareness and enhance the decision-making capacity of high-level decision makers.

FSCP maintains and regularly uses its training range in the town of Montana for training first responders (both regular and volunteers), as well as to train decision-makers, e.g. mayors, for rapid reaction in disasters. It is used as well for international exercises, in particular within NATO’s CBRN training programme.¹⁹⁹

¹⁹⁹ See for example <http://bnr.bg/radiobulgaria/post/100231264/mejdunaroden-ucheben-centyr-v-montana-podgotvya-spasiteli>.

5.4 Procurement

5.4.1 Procurement regulations

The Bulgarian Law on Public Tenders provides for implementation of the main European directives regulating respectively:

- procurement of goods and services, including energy, water, transport and postal goods and services;
- procurement in the field of defence and security.

For the former, the Law on Public Tenders defines thresholds for conducting a public tender, small public tender or just soliciting three from independent contractors. Table 5 presents these thresholds that are further distinguish construction and project design from other types of services, as well as the place for delivering the goods or services – on or outside the territory of Bulgaria.

Table 5. Procurement of goods and services, thresholds and types of tenders

Type of procurement	The service is provided in or outside the country	Thresholds in thousand BGN ²⁰⁰ (excluding VAT)	Tender
Goods and services	in the country	below 15	no tender is necessary
		b/n 15 and 50	3 offers
		b/n 50 and 180 (for goods) or 110 (for services)	'small' public tender
		above 180 (for goods) or 110 (for services)	public tender
Project design	outside the country	below 50	no tender is necessary
		b/n 50 and 100	3 offers
		b/n 100 and 250	'small' public tender
		above 250	public tender
Construction	in the country	b/n 30 and 110	'small' public tender
		below 45	no tender is necessary
		b/n 45 and 200	3 offers
		b/n 200 and 2 150	'small' public tender
	outside the country	above 2 150	public tender
		below 500	no tender is necessary
		b/n 500 and 1 500	3 offers
		b/n 1 500 and 6 000	'small' public tender
		above 6 000	public tender

²⁰⁰ The exchange rate of the BGN to the Euro is fixed at 1 Euro = 1.9558 BGN.

Procurement for the General Directorate “Fire Safety and Civil Protection” (FSCP) is managed by the FSCP directorate through its section on “Public Tenders” and in accordance with the Law on Public Tenders.

FSCP procures goods and services, including construction, maintenance and training services.

Procurement cases are announced on the webpage of the FSCP General Directorate.²⁰¹ The administration of the Council of Ministers maintains an electronic database – a Registry of Public Tenders.²⁰² Tenders are announced publically on the e-Procurement portal of the Public Procurement Agency.²⁰³

As a rule, multinational procurement is part of bi-lateral or regional projects with financing from the European Union, and the respective procurement rules apply.

5.4.2 Procurement procedures

Bulgaria’s legislation on public procurement is generally considered to be in line with respective norms of the European Union.

The FSCP General Directorate utilises the procedures of:

- “public tenders”
- “public invitations”²⁰⁴
- limited procedure or procedure for negotiation with announcement, in cases of procurement of special (military or dual use) equipment and services, including construction.²⁰⁵

All these procedures are described in detail in Law on the Public Tenders.

The same norms and procedures apply when the procurement case is part of a project within the operational programmes, partially financed by the European Union.

5.5 Niche capabilities

Bulgaria has some crisis management capabilities of potential interest to the EU and individual Member States, such as:

- medium search and rescue units for urban environments;
- medium CBRN units;
- land units for fighting forest fires.

Possibly of interest is the training range of the FSCP General Directorate, located in the town of Montana.

²⁰¹ For the two main types of procedures see www.nspbzn.mvr.bg/Obst_porachki/ZOP/default.htm and www.nspbzn.mvr.bg/Obst_porachki/Pokani/default.htm, both in Bulgarian.

²⁰² Regulation on managing the Registry of Public Tenders, Article 7.

²⁰³ See http://rop3-app1.aop.bg:7778/portal/page?_pageid=173,1&_dad=portal&_schema=PORTAL for the English language version of the portal.

²⁰⁴ Law on Public Tenders, Chapter 8a.

²⁰⁵ Law on Public Tenders, Article 3(2) and those referring to it.

Disaster protection capabilities of the defence ministry are also of value for international partners, in particular mobile medical teams of the Military Medical Academy, which are regularly deployed abroad in disaster response operations.

Finally, at the time of writing of this report, a Centre for Crisis Management and Disaster Response in Sofia, pending the accreditation from the North-Atlantic Council, will be declared a NATO Centre of Excellence.

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National Centre of Radiobiology and Radiation Protection to the Ministry of Health, www.ncrrp.org/new/en

National Statistical Institute, www.nsi.bg/en

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Capabilities, Organisations, Policies, and Legislation (COPL) in crisis management and disaster response

Responsible Partner: AIT (Bettina Jager)

Scope and limitations

This study serves as supporting information for further work within DRIVER.

Only limited time and budget has been available for this first general survey, which needs to be considered in terms of scope and completeness of the respective studies.

The author/s of this study is/are responsible for its content and quality.

Overview

With a risk factor of 4.28 percent, Croatia ranks on the 120th position of the World Risk Index. Croatia shows a high exposure to floods, earthquakes, wildfires and droughts. Due to its past experiences of the Croatian War also accidents with leftover mines are a realistic threat in Croatia. In Croatia, the crisis and disaster management is built upon a civilian-based approach (Samardžija et al. 2014), which is conceived with the focus on protection and rescue. As the main source of law, the Protection and Rescue Act, adopted in 2004, defines the institutional structure, the rights and responsibilities and procedures and management to ensure the protection and rescue of human lives. After reforms in the period between 2000 and 2012, the civil protection, fire-fighting and a 112 system was included in the Croatian civil security system. The civil protection system in Croatia involves all levels – from the community level to the state level, but the National Protection and Rescue Directorate (NPRD) has been considered “as a single administrative organisation regulating norms and standards in the protection and rescue area”. The heads of local and regional self-government units as well as the director of the NPRD at national level are concerned with the establishment, development and the functioning of civil protection (IPA CP Cooperation Programme II 2014). The National Protection and Rescue Directorate, which is affiliated to the Ministry of Interior is the leading national authority for civil protection in Croatia. As a strategic actor at the national level, the NPRD is concerned with the administrative organisation by drafting plans, the assessment of risks and the coordination of the involved actors in the area of protection and rescue (Swedish Civil Contingencies Agency 2009). Furthermore, it assumes also a tactical-operative role by activating operational units, i.e. the police etc. At the operational level, the local and regional authorities are mainly responsible to organise the response in the case of an event. Since a disaster has been declared, the coordination and command competences will be transferred to the NPRD, which is activating the operational units. Thereby the NPRD can resort to the Croatian Fire-fighting Association, Croatian Mine Action Centre, Croatian Mountain Rescue Service, Volunteer Fire Brigades, Radio amateurs and other organizations, Croatian Red Cross, Croatian Rescue Dog Association and if divers are needed – the Croatian Divers Association (European Commission 2014). The participation of the private sector in protection and rescue measures is based on a public-private-partnership. Despite the coordination competence of the NPRD, if assistance from the Croatian Armed Forces or police forces is required, a reconciliation between the Ministry of Defence, Ministry of Interior and the National Protection and Rescue Directorate may be necessitating. Apart from this, in mine accidents, CROMAC will take over the coordination function.

It is estimated that, the total protection and rescue expenditures, including fire-fighting, civil protection and other regular operational forces average approximately 0.45% of the GDP (for the year 2006). Amongst other, Croatia’s know how in demining represent one of the most exemplarily capabilities of Croatia. Furthermore, it has been emphasised, that Croatia features a professional protection and rescue system as well as a remarkable commitment of the citizens to engage voluntarily. As one of the new Member States of the European Union, Croatia assumes an important role in regional initiatives and benefits from its wide cooperation network with regional partners as well as with international organisations.

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List of Abbreviations

CAF	Croatian Armed Forces
CBRN	Chemical, Biological, Radiological and Nuclear
CEA	Croatian Environment Agency (in Croatian language: AZO)
CEP	Civil Emergency Planning
CFA	Croatian Fire-fighting Association
CM	Crisis Management
CMCMH	Crisis Management Committee of the Ministry of Health
CMEP	Civil-Military Emergency Preparedness
CMEP SEE	Civil Military Emergency Preparedness South Eastern Europe
CMRS	Croatian Mountain Rescue Service
COC	County Operational Centre
CRC	Croatian Red Cross
CROMAC	Croatian Mine Action Centre
CW	Croatian Waters
DPPI	Disaster Preparedness and Prevention Initiative
DRR	Disaster Risk Reduction
EAPC	Euro Atlantic Partnership Council
ECMWF	European Centre for Medium-Range Weather Forecasts
ECR	European Centre for the Regions
ECURIE	European Community Urgent Radiological Information Exchange
EIPA	European Institute of Public Administration European Center for the Regions
ERCC	Emergency Response Coordination Centre
EU	European Union
EUMETNET	Network of European Meteorological Services
EUSF	European Union Solidarity Fund
GDP	Gross Domestic Product
ICPDR	International Commission for the Protection of the Danube River
ICPDR	International Commission for the Protection of the Danube River
INSARAG	International Search and Rescue Advisory Group
MEDEX	MEDiterranean Experiment
MFA	Ministry of Foreign Affairs
MoD	Ministry of Defence
MoI	Ministry of Interior

MRCC	National Headquarters for Coordinating Search and Rescue in Rijeka
NATO	North Atlantic Treaty Organization
NMHS	National Meteorological and Hydrological Service
NN	Narodne Novine (means the OG = Official Gazette in Croatia)
NPRD	National Protection and Rescue Directorate (in local language: DUZS)
RACVIAC	Regional Arms Control Verification and Implementation Assistance Centre
SAR	Search and Rescue
SC	Sava River Basin Commission
SEDM	South-East Europe Defence Ministerial
SOA	Security and Intelligence Agency
SOP	Standard Operating Procedure
UN	United Nations
UNDP	United Nations Development Programme
UNISDR	United Nations Office for Disaster Risk Reduction
UN-OCHA	United Nations Office for the Coordination of Humanitarian Affairs
UNS	Office for the protection of the Constitutional Order
USAR	Urban Search and Rescue
WHO	World Health Organisation
WMO	World Meteorological Organisation

1 Policy

Pursuant to Art. 1 of the Constitutional Act, (NN 56/90) and amendments, Croatia is a unitary state including three levels of governance, the central level, the regional level and the local level. The regional level of Croatia is divided into 20 Counties and the City of Zagreb. At the local level, the regional administration is sub-divided into 127 towns and 429 municipalities. In the course of the decentralisation process beginning in 2001, the local governments gained more right of self-determination related with more duties, i.e. by the transfer from national budget to the budgets of the local governments (EIPA and ECR 2014). In Art. 133-138 the Constitution of the Republic of Croatia (NN 85/10) determines the hierarchy and the distribution of rights and responsibilities of the community-level as well as the local and regional self-government.

The main competences of the state include: Overall legislation and execution, Security and Defence, Foreign and domestic policy, Direction and control over the civil service operation and Economic Development. Whereas the regional level is responsible for Tasks of regional importance, Education, Healthcare, Regional and Urban Planning, Economic Development, Environmental Protection, Transport and Traffic Infrastructure, Establishment and Development of the network of educational, medical, social and cultural institutions, Maintenance of Public Roads and Issuing location and construction permits (except in territories of large towns). Municipalities are assuming Tasks of local importance which directly address the needs of the citizens, and which are not assigned to state bodies by constitution or law, Organisation of settlement and housing, Spatial and Urban Planning, Utility Services, Primary Health Protection, Social Welfare, Elementary Education, Culture, physical culture and sports, Consumer Protection, Environment (protection and improvement of natural environment), Fire protection and civil protection and Traffic Management. Additionally, large towns have duties in the maintenance of public roads and the construction and renting permits.

As defined by Samardžija et al. (2014), the Croatian civil security system is characterised by a civilian-based rather than a military-based approach. Originally based on civil defence led by the Ministry of Defence, a shift toward civil protection under the direction of the Ministry of the Interior was made in 1994 (Austrian Red Cross 2014). Regarding the distribution of responsibilities, the civil protection concept of Croatia combines a bottom-up and a top-down approach and envisages the engagement of various stakeholders at all spatial and administrative levels. The Civil protection sector has been identified as the main framework for the provision of prevention, preparedness and response. It covers a wide range of tasks, beginning with risk assessment and the preparation of rescue plans to the monitor of recent disasters (European Commission 2014).

On the basis of the existing legal framework, an all-hazard approach including natural disasters as well as major accidents can be identified. The Protection and Rescue Act, adopted in 2004, has been identified as the main source of law, which defines the institutional structure, the rights and responsibilities and procedures and management to ensure the protection and rescue of human lives. Based on the provisions of the Constitution of the Republic of Croatia, the Croatian Parliament adopted the Strategy of National Security in 2002.

1.1 Risk Assessment

The Republic of Croatia covers about 87,609 square kilometres, of which 56,542 square kilometres are mainland. It is home to approximately 4,500,000 inhabitants with an urbanization rate of 59% of the population (United Nations, Department of Economic and Social Affairs 2014).

It is bordering on Slovenia in the north-west, Hungary in the north, Serbia in the east, in the south-east to Bosnia and Herzegovina and southward on Montenegro. Westwards, Croatia has a maritime boundary to Italy (IPA CP Cooperation Programme II 2014). Croatia extends from the furthest eastern edges of the Alps in the north-west to the Pannonian plain and the banks of the Danube in the east (DUSZ 2014). As illustrated in the map (see Figure 1), the central area is surrounded by the Dinaric Alps and its southern parts extend to the coast of the Adriatic Sea.



Figure 1: Geographic map of Croatia

Available at: <http://en.18dao.net/images/3/33/Map-Croatia.jpg>; accessed: 22th September, 2014.

Since Croatia has been a member of the UN International Strategy for Disaster Reduction Hyogo Framework for Action 2005-2015 and the Regional Cooperation Council, risk assessment is an important issue at the Government of Croatia and became even more important since Croatia have joined the European Union in 2013. In particular, in the area of wild fires, monitoring and forecasting concepts of meteorological hazards has been established. Amongst others, it lies within the responsibility of the NPRD to ensure the implementation of the Disaster Risk Reduction capabilities (World Bank 2009). As stated within the National Security Strategy of the Republic of Croatia (2002), a whole range of risk will be considered, which may threaten the survival of the population. The focus covers – apart from military issues – natural and technological catastrophes.

As regulated within the Protection and Rescue Law, the National Protection and Rescue Directorate is responsible to develop the National Disaster Preparedness Plan for Croatia. The NPRD carries out this task on the basis of the National Vulnerability Assessment and Ordinance on the Methodology for the Development of the Risk Assessments and the Rescue and Protection Plans. The

NMHS is in charge for the improvement of the quality and the amount of meteorological and hydrological information, as well as for raising awareness and involving the public in this process.

The World Meteorological Organization (2012), indicated, that also other ministries have the duty to conduct risk assessment in their specific area. As an example, the Ministry of Finance performs administrative and other tasks related to collecting and processing data on damages occurred as a result of natural disasters. In Croatia, there are rules, which have defined the methodology for making threat assessments and protection and rescue plans. Risk assessment, understood as collecting, analysing and distributing information about risks and consequences through a comprehensive communication system falls under the competence of the NPRD.

According to IPA CP Cooperation Programme II (2014), chemical and/or industrial accidents, transportation of chemicals, nuclear accidents and natural hazards have been regarded as major source of threats. As indicated by Perešin (2013), due to the fact, that Croatia is a post-conflict country, which is situated near instable countries, there is a vital threat to become a victim of a terrorist attack. Inter alia triggered by programs of the European Union, vulnerability of Critical Infrastructures has already been addressed from different viewpoints. Radovic et al. (2012) indicated, that a considerable number of Croatian hospitals exhibit a high vulnerability to seismic hazards, because about 30 percent of hospitals were built in the mid of the 19th century and a large proportion is older than 40 years. Moreover, floods and raised level of underground water represent a threat to the critical health infrastructure.

As mentioned by Radovic, damages to hospitals in Varaždin, Gospić, Osijek, Šibenik as results of heavy rain and/or poor maintenance were recorded in the past. In the meantime the Ministry of Health and Social Welfare has become aware of the risk for critical health facilities and has made reasonable endeavours in the field of crisis preparedness, i.e. risk assessment on the basis of WHO standards. According to the World Risk Report (2014)¹, Croatia ranks on the 120th global position with a relatively low risk profile of 4.28%. Regarding the exposure to natural hazards, the climatic diversity of Croatia can be identified as a relevant factor. The National Human Development Report noted that there are “large spatial differences in Croatia” – especially between the continental lowland, the transitional mountain area and the Adriatic coast (for comparison – see Figure 2).

¹ The World Risk Report (UNU-EHS and Alliance Development Works 2014) expresses the risk “of becoming a victim of a disaster as a result of vulnerability and natural hazards such as earthquakes, storms, floods, droughts and sea level rise” on the basis of multiplying the exposure towards natural hazards, susceptibility depending on infrastructure, etc., coping capacities depending on the governmental structure, etc. and adaptive capacities related to future natural hazards and the impacts of climate change.

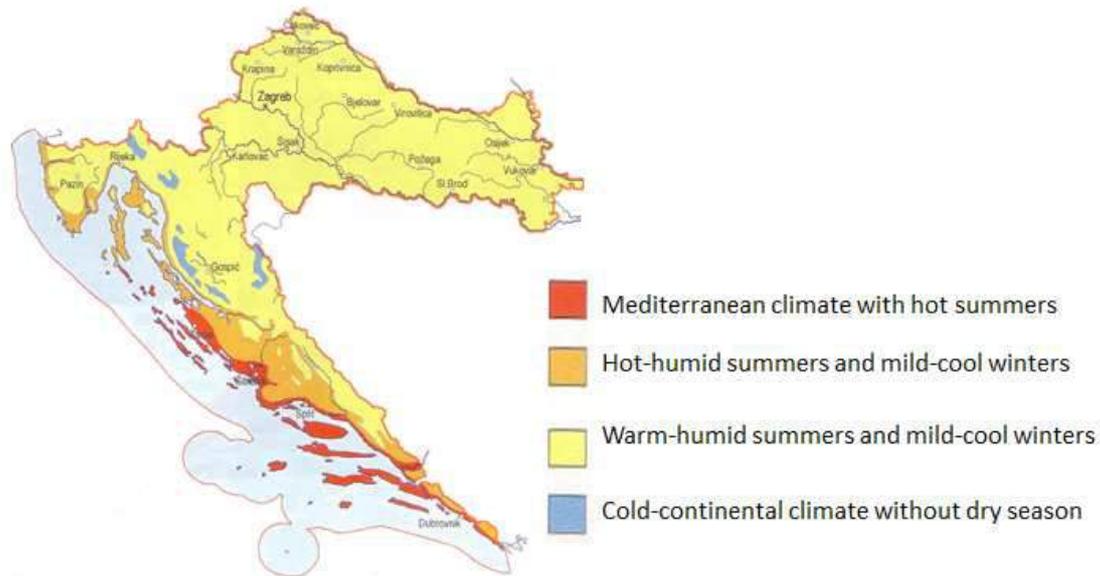


Figure 2: Climate zones in Croatia

Available at: http://www.preventionweb.net/files/22169_20efdr12oct2011wg1croatianastasaho.pdf; accessed: 11th September, 2014.

Croatia is influenced by a Mediterranean and a Continental climate. The Adriatic coast and its surrounding area in the South are characterised by a Mediterranean climate with very warm regions, while the north-west region is the cold part of Croatia. Hot, dry summers and rainy winters with temperatures from 15 to 30°C characterise the coastal area (IPA CP Cooperation Programme II 2014). In general, heavy rainfall is typically for the Dinaric mountain region and the region of Gorski Kotar.

The Croatian weather is mainly influenced by two spheres. On the one hand, the coastal zone of Croatia is – equivalent to the whole eastern rim of the Adriatic, ravaged by Adriatic storms, cyclones and intense bora winds. These Adriatic wind patterns are strongly correlated to very large scale global weather patterns, the Iceland cyclone and the Azores anticyclone (World Bank 2009). On the other hand, Croatia has a part of the typically European weather risks in the plain, which is characterised by storms, hail and heavy precipitation. In line with other countries in the South Eastern and Central Europe, Croatia is highly exposed to natural hazards, especially to floods, wildfires, earthquakes, heat waves, strong winds, and droughts (World Bank 2009), but Samardžija et al. (2014) indicated, that also technological accidents have to be considered in Croatia.

In **¡Error! No se encuentra el origen de la referencia.** an overview on the major disasters in Croatia since 2000 is provided.

Table 1: Major disasters in Croatia since 2000

Date	Crisis Description	# of persons killed	consequences
May 2014	Flood	2	hundreds of evacuees, damages to infrastructure and thousands homeless
February 2014	Flood		no fatal casualties
June 2012	Transport accident	8	-
November 2012	Flood	-	no fatal casualties
January 2010	Flood	-	no fatal casualties
May 2010	Flood		
July 2009	Transport accident	6	55 casualties
September 2008	Transport accident	14	-
August 2007	Fire Accident "Kornati Island Accident"	12	One Badly injured fire fighter
July 2007	Central/Eastern Europe Heat Wave		-
March 2006	Central Europe Floods		-
December 2005	Extreme temperature/Cold Spell	5	-
February 2005	Storm	2	-
July 2003	Extreme temperature/Heat Wave	788	-
May 2002	Transport accident	11	-
2001	Flood	-	1,200 people affected, no fatal casualties
August 2000	Wildfire	1	-
June 2000	Extreme temperature/Heat Wave	40	-
2000	Flood	-	600 people affected, no fatal casualties

1.1.1 Natural Hazards

With an exposition of 11.53% in the World Risk Matrix (UNU-EHS and Alliance Development Works 2014), natural hazards account in sum the majority of hazards in Croatia. In comparison with the other ten countries covered in the report of SEEDRMAI (2008)², Croatia is relative highly exposed to

² In the frame of the desk study the focus is on the region of South East Europe (SEE) and provides risk profiles of the following countries: Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Macedonia, Moldova, Montenegro, Romania, Serbia, Slovenia and Turkey.

extreme temperature, floods and windstorms. Regarding the occurrence of natural events, floods clearly lead the ranking of natural disasters, followed by wildfires and extreme temperatures, as illustrated in Figure 3.

As summarised by Samardžija et al. (2014), the strongest potential losses for Croatian inhabitants are expected from floods, droughts, landslides and earthquakes. The most of the population is exposed to droughts (298,949 citizens exposed) followed by earthquake (57,890).

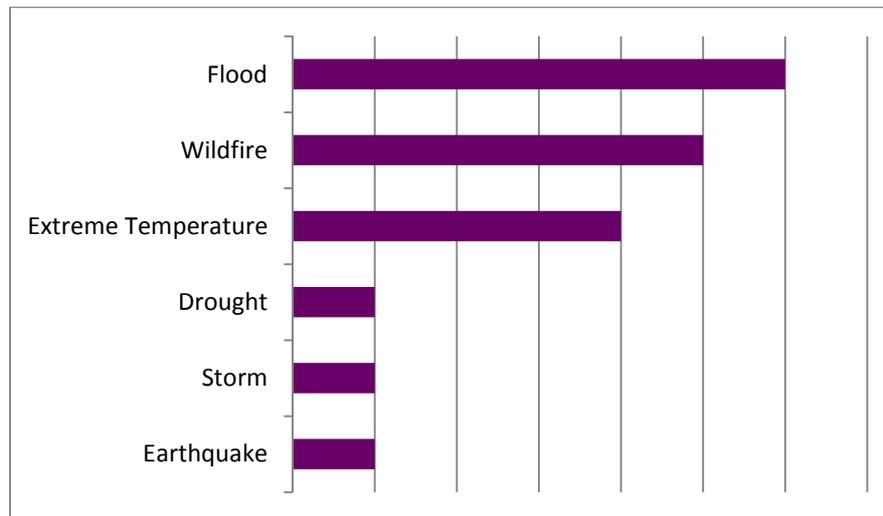


Figure 3: Ranking of natural disasters in Croatia by occurrence

In the frame of a comparative study of the regulations regarding major risk management, earthquakes, forest fires, floods, storms, landslides and drought has been identified as main natural hazards (Higher Institute for Emergency planning 2003). In the reference period of 2003 to 2012, in total 7 major natural events have been observed by the World Bank (2013). They caused a total damage of US 410 million correspond to a share of 0.6 % of the GDP.

According to the database of Prevention Web (2014) floods, wildfires, extreme temperature, drought, storms and earthquakes have been occurred most frequently in Croatia (see Figure 3). Although, floods rank first on the list of observed events in the last 30 years, droughts, extreme temperatures and wildfires caused the most economic damage.

The World Meteorological Organization (2012) explained, that forest fires mainly occur during dry periods throughout Croatia and especially during summer in the coastal areas when fire-fighting interventions require the engagement of substantial material, technical and personnel resources. As a big problem, the organisation emphasised, that an evacuation of large numbers of tourists might be needed. Furthermore, the most people had been killed by heat waves in 2000 and 2003. Until now, the earthquake in 1996 and floods have affected most people in Croatia.

The South Eastern Europe Disaster Risk Mitigation and Adaptation Initiative (2008) indicates, that until now, technological hazards, such as transport accidents caused the highest amount of deaths, followed by extreme temperature. Due to its potential extent floods and earthquakes may affected a wide area and thereby a big part of the population.

As illustrated in Figure 4, with 26 % floods have been registered more frequently in Croatia than major transport accidents and wildfires (20%). Windstorm, i.e. occurred in 2000 incurred a loss of

USD 177.5 million. Nevertheless, referring to PreventionWeb drought and extreme temperature have caused the highest economic losses.

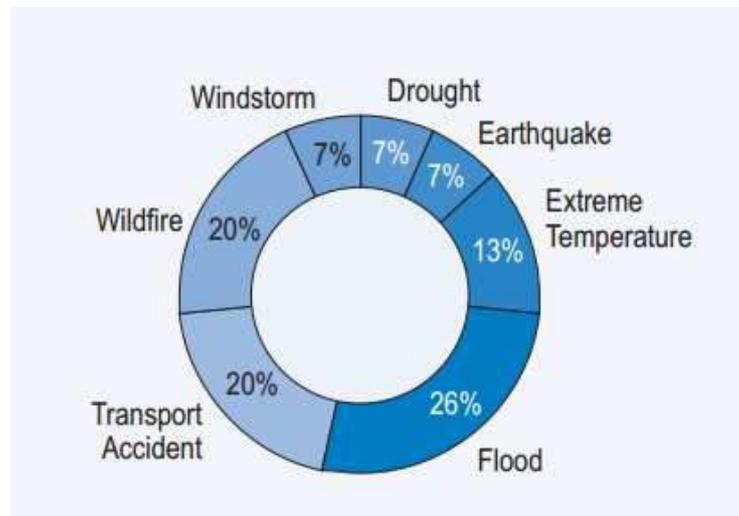


Figure 4: Proportional distribution of hazards in Croatia based on occurrence during 1989-2006
Source: South Eastern Europe Disaster Risk Mitigation and Adaptation Initiative (SEEDRMAI) 2008.

1.1.1.1 Flood

As a member of the Sava River project for flood management (2014), the Sava, Drava, Mura, Danube, Zrmanja, Krka, Cetina and Neretva are belonging to the eight major rivers in Croatia (SEERDRMP, UNDP Croatia, and UNDP 2011).

SEE RDRMP et al. (2011) stated, that Croatia is suffering heavily from meteorological hazards:

River flooding occurs frequently. Croatia is located within the Danube basin and is under the influence of the Danube and Sava rivers and their tributaries. Around 15% of the territory of Croatia territory is prone to flooding on major rivers. This area contains 57 settlements and 87,000 residents. Between 1925 and 2000 23 destructive floods struck in seven different river basins. Flash floods affect 85 settlements containing 160,000 residents.

In the mountain area, flash floods and snowstorms during the winter season frequently occur. Especially Zagreb is threaten by flash floods. Effects of climate change, in particular an increase of the soil moisture and the warming trend will sharpen Croatia's vulnerability to several hazards.

Flood protection systems are extremely complex and comprise a large number of structures that regulate and protect water (Samardžija et al. 2014). As a governmental organisation, Croatian Waters is responsible for the flood risk management, floods risk assessment and for floods defence planning. CW conducts integrated management of Croatian water resources on four river basin districts comprising one or more river basins of the major watercourses or parts thereof, which constitute a natural hydrographic unit (World Meteorological Organization 2012).

According to ICPDR (2012), the flood events in 2010 on the Croatian rivers were caused not only by an extreme precipitation in the territory of Croatia but also due to a large inflow from the upstream parts of the river basin in the neighbouring countries.

1.1.1.2 Earthquake

As found out by the IPA Beneficiary Country Needs Assessment (2011), similar to other Balkan areas, seismic hazards must be taken into account in Croatia. About 36% of the state territory can be threatened by seismic hazards (magnitude from 8-10), and also the rest of the country can make this experience. It has been indicated, that earthquakes caused an economic loss of USD 5 million during the last 33 years. Figure 5 shows the epicentre of about 30,000 earthquakes in Croatia. Every year, earthquakes, which show a magnitude higher than 6 on the Richter scale occur. About 65 earthquakes per year will be perceived by the population.

It has been explained by SEEDRMAI (2008), that the Pannonian Basin is characterised by a typical intra-plate activity with a less frequency of occurrence, but an intensive impact. The highest amount of seismic activity has been observed in the coast area. The latest seismic event was the Jabuka Island Earthquake, occurred in 2003 in the middle of the Adriatic Sea. It has been labelled as one of the heaviest quake within the Adriatic micro plate (South Eastern Europe Disaster Risk Mitigation and Adaptation Initiative (SEEDRMAI) 2008). As critically noted by SEEDRMP (2011), spatial plans concerning the seismic risk are available at the national and the municipal level. A closer look at risk areas has been given to the typical tourist zones at the coast.

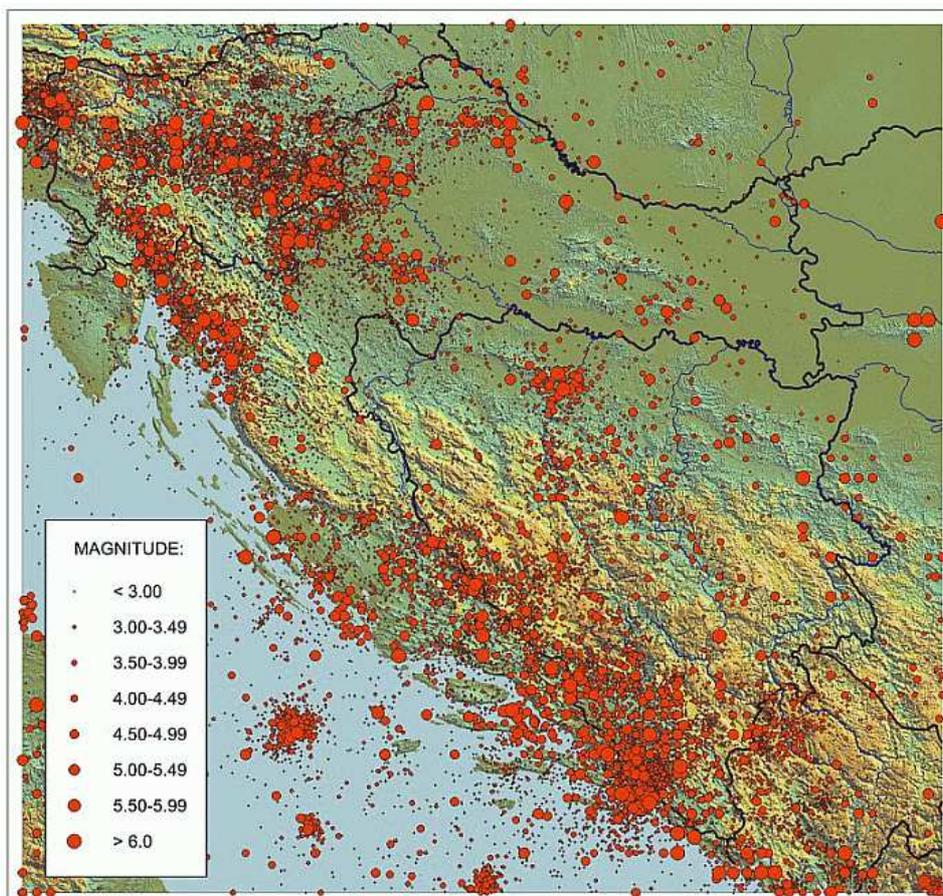


Figure 5: Map of Croatian seismic activity

Available at: <http://seekms.dppi.info/data/map-of-croatian-seismicity>; accessed: 21st September, 2014.

1.1.1.3 Extreme Temperature and related hazards

As emphasised by SEEDRMAI (2008), Croatia is very susceptible to extreme temperatures. An upward trend of warming in summer, a decrease of soil moisture in spring and an uncertainty of surface snow in Northern Croatia have been identified within the Human Development Report (2009). Furthermore, as consequence of the climate change, heat waves will become more likely, which represents an increased probability of wildfires in a broader area (Holcinger 2011). Long periods of extremely hot temperatures have already claimed many deaths per year and caused “an average of annual costs of EUR 176 million between 2000 and 2007. Exemplarily, the heat wave in June 2000 affected the four big cities Zagreb, Split, Osijek and Rijeka – in sum, 200 people and claimed about 40 deaths. Drought has been considered responsible for a huge amount of economic loss, as an example drought in 2003 caused a damage of USD 330 million. Particularly badly affected was the city Dubrovnik in the end of July 2003. Within only a few days, wildfires caused a damage of USD 177.5 million.

In that context it has been explained by the World Meteorological Organization (2012), that long and dry seasons without rainfall, accompanied by high temperatures are likely to severe drought.

The Kornati Island Accident in August 2007 was considered as the largest fire fighters accident in the history of Croatia, which prompted the Office for National Security of Croatian Parliament and the Ministry of Interior to order an in-depth exploration by a voluntary research team composed of researchers from various Croatian Universities and Institutions (Stipanicev and Viegas 2009). In the frame of a post disaster assessment it has been ascertained, that a natural phenomenon known as “burning of non-homogenous gas mixture” i.e. a high temperature burning, with fast expansion of hot gasses caused the accident (Samardžija, Tišma, and Skazlić 2014), whereby a total area of 99,887 square kilometres was burned (Stipanicev and Viegas 2009).

The Mediterranean region as well as the eastern area of Croatia suffers the most from heat waves. Thereby the risk for wildfires will be increased and crops will be devastated.

1.1.1 Technological Hazards

The Higher Institute for Emergency planning (2003) regarded chemical/industrial, traffic and transport-related risks as well as marine pollution and nuclear accidents as relevant technological risks. Although, Croatia does not operate a nuclear power plant, it is surrounded by them.

Located in a distance of 30 square kilometres to Zagreb, the nuclear power plant in Krško (Slovenia) poses a realistic hazard for Croatia. Another nuclear power plant is bordering on the north-eastern area of Croatia (Paks in Hungary) (Republic of Croatia 2012).

1.2 Policy and Governance

There are several levels of civil protection related to emergency situations; international, national, ministerial, regional and local level as well as private sector, volunteers and NGOs.

As explained at the Website of the European Commission (2014):

The bodies responsible for harmonising operations of protection and rescue operational forces at all levels of responsibilities ranging from local to national ones and depending on the type and other specifics of the emergency consider the structure and size of protection and rescue operational forces that are to be engaged.

At the central level, the focus mainly lies on risk assessment, preparation of the policy and legal framework, ensuring the efficient functioning of the protection and rescue system as well as the funding of fire brigades and administrative supervision over fire-fighting organisations (EIPA and ECR 2014).

The Government of Croatia is the responsible body for coordinating activities of national agencies, including several ministries, in particular the Ministry of Defence, the Ministry of the Interior, the Ministry of the Sea, Transport and Infrastructure, the Ministry of Agriculture, Forestry and Water Management, the Ministry of Environmental Protection, Physical Planning and Construction and the Ministry of Health and Social Care (Government of the Republic of Croatia 2005). Based on the Act on the Structure and Scope of Activity of the Central State Administration Authorities, an emphasis lies on the National Protection and Rescue Directorate, which is affiliated to the Ministry of the Interior and integrates a wide range of competences – beginning with the preparation of plans, over the management of operational forces to an overall coordination of various actors of the protection and rescue system. In the current policy, the Ministry of the Interior with the assigned inspectorate for fires and explosions and the Ministry of Defence with the capacity of special fire-fighting forces and the anti-fire escadrille play an important role in the crisis management of Croatia.

If a disaster occurs, the Crisis Management of the Government will be activated, including the Prime Minister and responsible ministers. In general, the civil protection sector is in direct command of the NPRD and local civil protection forces, which provides material assets and equipment during a disaster or major accident.

With a strong emphasis on the self-sufficient principle, the local self-governments are important bodies of the crisis management in Croatia. Due to the fact, that counties are responsible for local issues (Swedish Civil Contingencies Agency 2009), the heads of the local and regional self-government units are mainly in charge to ensure the establishment of civil protection by recruiting, mobilising and equipping appropriate protection and rescue organisations.

At the regional level, the duties include an annually assessment of the status of protection and rescue, if necessary an adoption of threat assessments and drafting of protection and rescue plans, preparing guidelines for the organisation and development of a protection and rescue system, funding of services, performing protection and rescue measures and activities, establishing a Committee for the protection and rescuing at local level, coordination of all bodies in civil protection and fire protection at the County level and in the case of an immediate disaster at the County level, the mobilisation and coordination of all resources needed by the Head of County.

Local authorities are assuming quite similar tasks as the regional authorities, i.e. the obligation to assess the status of protection and rescue annually, preparing guidelines for the organisation and development of a protection and rescue system, take care of the funding etc.

In addition they are responsible for fire protection plans, the establishment of a public fire-fighting brigade and the encouragement of several activities in the area of voluntary fire-fighting associations. In times of emergencies, the coordination of involved bodies at local level rests on local authorities and the Mayor ensures the mobilization and coordination of available resources (EIPA and ECR 2014).

The dominating Law of Protection and Rescue, encourage the self-protection and self-help capabilities of the citizens to “implement measures of personal and mutual protection against threats and the consequences of disasters” (seeKMS 2014). In consequence, a clear statement has been made, that “each citizen has the right and obligation to be trained in protection and rescue and has the right to receive full and timely information about all threats of disasters, as well as

possibilities, measures and activities for protection” (United Nations Office for Disaster Risk Reduction 2009).

1.2.1 Strategy scope and focus

On the basis of a legal analysis, it has been concluded by SEEDRMAI (2008), a clear scope of the Croatian strategy can be recognised. Disaster laws are rather addressing response and preparedness than prevention or mitigation measures. The World Meteorological Organisation recognised the Protection and Rescue Law as the most relevant document concerning the management of disasters.

As mentioned in the frame of the IPA Beneficiary Disaster Risk Reduction Needs Assessment (2011), Disaster Risk Reduction has not been explicitly addressed in an existing strategy. While the Strategic Development Framework 2006-2013 focus on measures like flood control, the Strategy of Government Programs for 2010-2012 refers mainly to response-oriented measures, which are dedicated to improve the protection and rescue and fire-protection systems and the development of an integrated 112 emergency number. Solely within the Spatial Planning Strategy structural measures have been partly addressed. Limitations exist in the area of risk reduction. In contrast to the well-defined risk assessment approaches for natural hazards, the risk of technological hazards have been failed to take into account (United Nations Office for Disaster Risk Reduction 2009). The adoption of SEVESO II Directive has drawn more attention on risks posed by technology/industry.

1.2.2 Monitoring and analytical support to policy making; R&D

As a central contact point for appropriate sciences in the area of protection and rescue, a close cooperation of the NPRD and national academia and research institutions has been established. Mandated to monitor and analyse the protection and rescue situation as well as to undertake efforts to continue the improvement of these skills, the NPRD is responsible for promotions and publications concerning the protection and rescue (Swedish Civil Contingencies Agency 2009). Furthermore, cooperation exists in the area of environmental monitoring. As emphasised by Rademaekers et al. (2013), Croatia has thematic databases, which includes interfaces of various systems measuring parameters, i.e. radiological value, weather, seismologic, air quality etc. as well as procedures for providing data to relevant services.

Due to the fact, that early warning, prevention, preparedness and response is centralised at the NPRD, it can prepare coordinated measures based on existing governmental services, including the Croatian Waters, the NMHS, the Croatian Seismological Survey, the State Service for Public Health and the State Service for Nuclear and Radiological Safety.

It was emphasised by SEEDRMP et al. (2011), that the NMHS maintains a database of historical and recent meteorological and hydrological events including extreme events in line with WMO-standards. It acts as a provider of value-added services in support of hydro-meteorological risk assessment activities and services based on real-time monitoring of hazards. Referring to SEEDRMAP (2007), the membership of NMHS in several organisations entails access to comprehensive weather data, which is essential for the national performance of forecasting and early warning. Further memberships exist at MEDiterranean Experiment (MEDEX) of the WMO and ECMWF (European Centre for Medium-Range Weather Forecasts). On the basis of the Standard Operating Procedures (SOP) for the utilization of the NMHS weather forecasts, a

demanded linkage was made between the operational data utilization and information exchange between NMHS and System 112. Improvements in early warning mechanisms can be expected especially by the membership at the ECMWF. As a 24h/365 days per year service for weather and climate-related satellite data, images and products, EUMETSAT (European Organisation for the Exploitation of Meteorological Satellites) provides relevant data to the NMHS.

In Croatia 380 hydrological stations have been implemented to forecast weather situation. Weather data are also available through the membership at the network of 24 European National Meteorological Services (EUMETNET), which offer also many training exercises. Pursuant to the Act on Radiological and Nuclear Safety, 2010 (OG 28/10), the State Office for Radiological and Nuclear Safety monitors environmental radioactivity using online and offline systems (Republic of Croatia 2013). In Croatia, the Main Flood Defence Centre was established in the Croatian Waters (CW) as a central organizational unit for the purpose of management, coordination and information on flood defence status. According to the ICPDR (2012), a close cooperation exist between CW, the NMHS and NPRD. In the Danube river basin, water level status is monitored on more than 140 automatic water stations and other water stations relevant for immediate flood defence with data collected in real time. Furthermore, the hydro-meteorological conditions and forecasts of basins in the neighbouring countries are monitored.

1.2.3 Policy for Prevention

Within the sector of civil protection, the main activities concerning the prevention phase can be identified, while only few assessments and plans have been prepared at the local level. The NPRD acts in the field of monitoring and the small-scale planning falls within the competences of the local and regional authorities (European Commission 2014). A general threat assessment, and in consequence the preparing of appropriate plans is situated at the NPRD. Especially, its subordinate units, namely the Operations & Analysis Department of the Civil Protection Sector and the Firefighting, Protection and Rescue School are concerned with the development of prevention strategies, i.e. risk assessment, hazard monitoring and drafting SOPs (Swedish Civil Contingencies Agency 2009). The Firefighting, Protection and Rescue School is one of the leading agencies, which takes considerable efforts in standardisation of protection and rescue procedures. At the NPRD a comprehensive data collection has been established, which provides information on all events, accidents and disasters in country as well as on big accidents and disasters abroad, disaggregates their consequences and protection and rescue intervention modalities (World Meteorological Organization 2012). The WHO (2012) indicated, that health-related DRR activities, like mitigation, preparedness planning and recovery activities have been transferred to the county and municipal levels and are implemented on the basis of the specific hazard profiles.

1.2.4 Policy for Preparedness

The Civil Protection Sector and the Firefighting, Protection and Rescue School are also strongly involved in preparedness measures. While the Prevention, Planning and Inspection Department at the first sector assumes mainly the role of monitoring current disasters, the Firefighting, Protection and Rescue School is the central institution, which is organising the training of professional staff. It also offers training sessions for citizens to enhance the self-help capacities and mutual assistance during disasters and major accidents (Swedish Civil Contingencies Agency

2009). The county level is involved in forwarding information to the population and maintains appropriate infrastructure for the public service sector (WHO 2012).

In order to contribute to disaster management, preparedness and response activities were also implemented by the Croatian Red Cross, which prepares disaster response units on local and national level and informs citizens of all ages about correct procedures and behaviour in emergencies.³

1.2.5 Policy for Response

As stated by SamardžijaSamardžija et al. (2014), the authority and responsibility for crisis preparedness and response in Croatia is primarily located at the local level. If the crisis exceeds the capacities at the local level, the NPRD takes over the responsibility at the state level. In the case of an event, the Civil Defence Headquarters of the national, the county and the city level are responsible for the coordination of disaster response preparedness. Chaired by the Deputy Prime Minister, the Crisis Management Headquarter of the Government coordinates the main activities in the face of a disaster (Government of the Republic of Croatia 2005). Furthermore, the Firefighting Sector is focusing on the protection against fire by performing an assessment of the situation as well of the needs of the field staff.

As a main coordination body for the fight against fires, especially if they cross county borders, it is concerned with monitoring of the situation and conducting needs assessment, i.e. record the status of shelters and the manner in which they are used. Whenever it is necessary, the sector “harmonises joint activities with the Ministry of Defence and the Ministry of the Interior related to the engagement of the armed forces and law enforcement forces, respectively, as well as with other state administration bodies and legal entities in the area of protection and rescue”(IPA CP Cooperation Programme II 2014). As operational actors, the NGOs and voluntary organisations play an important role in the response to disasters. In particular, the contribution of the Croatian Fire-fighting Association has been considered as the most important one, because it very often it participates in response operations and its equipment is very well (Samardžija et al. 2014). A GIS featured database supports the NPRD in monitoring of the protection and rescue situation, the collecting and analysis of data on hazards and disaster consequences. Moreover, the location of operational rescue forces as well as equipment and material needs can be traced.

1.2.6 Policy for Relief and Recovery

No clear responsibilities or concepts have been defined for relief and recovery measures in Croatia. Mainly NGOs carry out recovery measures.

The reconstruction of damaged state infrastructure will be arranged by the Republic or the local governments. Due to the fact, that counties and municipalities are responsible for the infrastructure and other public services, they may be held liable for arranging and financing reconstruction efforts (WHO 2012). Also private companies contribute to relief and reconstruction efforts in the aftermath of disasters. Exemplary was the commitment of Coca-Cola HBC to the Central Europe Flood in 2014. As the state of emergency was declared in Croatia,

³ Information is available at: <http://www.hck.hr/en/category/-disaster-preparedness-and-response-63>; accessed: 21st October, 2014.

Serbia and Bosnia and Herzegovina after severe floods, Coca-Cole supports relief agencies at the local level as well as the Red Cross.

The company prompted the assistance of around 3,000 employees and provided water and food. Solely Croatia received 140,000 litres of bottled water.⁴

1.3 Financing

1.3.1 Investing in preparedness

At the national level funding for disaster management and DRR is a combination of a budget allocations for the National Protection and Rescue Directorate, other respective Governmental entities (HMS, RSS, Croatian Waters, Croatian Forests) and funds allocated for the implementation of specific disaster protection plans, i.e. the National Flood Protection Plan, Intervention Plan during Wild and Forest Fires on the territory of the Republic of Croatia etc. Local DRR activities have been supported mainly from national entities. Thus, local governments do not have adequate resources to fulfil their legal mandate regarding DRR (SEERDRMP, UNDP Croatia, and UNDP 2011). Samardžija et al. stated (2014), that the national budget for protection and rescue annually ranges between EUR 60 and 68 million which is some 0.4 percent of the state budget. A major part consists of cost of NPRD (90 percent), CRC (0.1 percent), CMRS (3.9 percent) and partly of CFA (6 percent). These costs have an annual share of 0.2 percent of the state budget. It was indicated, that these organisations also have other funding sources. There is a plan, to distribute the financing sources at the national level also to other ministries, in particular to the MoD, Mol, etc.

According to the estimations of the United Nations Office for Disaster Risk Reduction (2009), the annual cost for the Civil Protection system amounted to around EUR 50 million, which is 0.98 percent of GDP. This includes salaries of public servants involved in Civil Protection, salaries of professional fire-fighters as well as costs for equipment, technologies and emergency assets. At the county level, the allocations for protection and rescue ranged from 0.46 percent to 1.5 percent of the annual budget (1.5 percent allocated by the City of Zagreb). In 2011 the counties have allocated about EUR 15.7 million for protection and rescue.

According to Pollner et al. (2010), Croatia has a budget reserve of USD 5.5 million of annual allocations from the municipal budget fund. 60 percent of total costs for demining measures were financed by the state budget and Croatia's public enterprises and 40 percent by donors, EU-funds and the loans of the World Bank.

1.3.2 Investing in consequence management

In Croatia, there are no specific relief funds for preparing the damage of reducing the impact of disasters. The Government of the Republic of Croatia finances the compensation for disaster damage and for alleviating the effects of natural disasters by a reserve of the national budget (Government of the Republic of Croatia 2005). National budget funds are allocated to the National Protection and Rescue Directorate according to the national planning and budget plan. The budget for recovery and investment is covered by the funds of the Ministry of Health and

⁴ The article is available at: <http://www.coca-colahellenic.com/sustainability/community/emergencyrelief/>; accessed: 12th October, 2014.

Social Welfare. The WHO (2012) explained, that counties receive lump sums from the national budget and their relevant administrations allocate them according to their annual plans.

As determined in Art. 40 of the Law on Protection from Natural Disasters, 97 (NN 73/97) and explained in the Criteria for Assessing Disaster Damage, 1998 (NN 96/98), local or regional bodies can reduce the receivables (taxes) or provide financial relief. Insurances play an important role in financing the consequences of disasters. Insurance to reduce the impact of disasters is considering liability issues and covers damages to property caused by natural disasters and personal injuries caused by human induced risks, i.e. spreading hazardous substances in the environment. The EU Solidarity Fund (EUSF) serves as an effective instrument to provide aid. After the ice storm in January and February 2014, Croatia received EUR 8.6 million to reimburse rescue costs in the affected regions.⁵ In comparison, Croatia was granted aid of EUR 4 million by the EUSF after the heavy rainfall in 2010 to reimburse the cost of alleviation in affected areas (Radovic, Vitale, and Tchounwou 2012).

1.4 Policy review, Evaluation & Organisational Learning

1.4.1 Post-Disaster Assessment

A comprehensive framework for post disaster assessment has been established at the NPRD, which monitors the protection and rescue situation, collects and analyses data on hazards and disaster consequences and keeps the records on operational protection and rescue forces, their location, equipment and material needs, in a single GIS database (SEERDRMP, UNDP Croatia, and UNDP 2011). Due to the fact, that the NMHS has a focus on analysing previous and current disasters, conducting trend analysis and maintains several memberships in appropriate international organisations, post-disaster assessment belongs inter alia to the tasks of NMHS.

As mentioned in chapter 1.1.1.3, the fire accident at the Kornati Island gave rise to a comprehensive post-disaster assessment at the Office for National Security of Croatian Parliament and the Ministry of Interior. The appointed researchers identified some shortfalls within the response to the disaster and defined 37 recommendations for improvements on that basis (Stipanicev and Viegas 2009).

Table 2 provides an overview on some of the most impressive mistakes in the response to the Kornati Fire. As indicated by the authors of the report, despite of the list of mistakes, it should be noted, that the accident present a major challenge for fire-fighting forces due to its unknown nature.

Table 2: Summary of mistakes within the response to the Kornati Island Fire based on the findings of Stipanicev & Viegas (2009)

Subject of mistake	Short description
Equipment	Radio communication of the fire-fighters was not working well
	Only one airplane was in operation in Croatia
	Only 4 Canadair airplanes for fighting forest fires were available in Croatia
Preparedness	The fire protection of the National Park Kornati was not appropriately organized

⁵ Press release is available at: http://europa.eu/rapid/press-release_IP-14-948_en.htm; accessed: 21st September 2014.

	according to existing plans
	Fire fighters were not wearing the complete working uniform resistant to fire
Response	False assessment of the situation – because two other large fires were active in the region, the airplane was sent from Kornati Island to another location
	The rescue of the victims was not organized appropriately

1.4.2 Departmental Lessons Learned systems

Departmental lessons learned systems can be supposed for the NMHS, the NPRD and the Fire-fighting Protection and Rescue School. Ministries have to provide annual reports on threat assessment of their area of responsibility to the NPRD (European Commission 2014). Annually the State Office for Radiological and Nuclear Safety provides a report about the “National Implementation of the Obligations under the Convention on Nuclear Safety” to the Republic of Croatia. Also public agencies, which have been established by the government of the Republic of Croatia, have to deliver annual reports. As an example, the Croatian Environment Agency (CEA), which is dedicated to collect, integrates, and process environmental data, provides annual updates⁶ about the environmental information system, a summary of international efforts in the environmental community and reports about progress in the area of projects and cooperation.

1.4.3 Centralised (national) Lessons Learned system

In order to promote disaster risk reduction beyond departmental borders, the Ministry for Science, Education and Sport established a Curriculum Revision Working Group, which involves the Ministry for Science, Education and Sport, the NPRD, NMHS, the Republic Seismological Survey, the Croatian Red Cross as well as other ministries and experts (SEERDRMP, UNDP Croatia, and UNDP 2011).

As an example, a close cooperation between the NPRD and the NMHS was stipulated by joint training and improvements to the standard operating procedures across agencies linked to the different threat levels and lessons learnt from each disaster event.

1.4.4 International exchange for Lessons Learned

Croatia joins the Euro Atlantic Partnership Council (EAPC), which provides a framework for Planning and Review Process (PARP) in which framework Croatia and NATO define and achieve partner goals. Furthermore, NATO Committee meetings at least twice a year serve as a platform for sharing knowledge and experience between the heads of their national civil emergency planning organisations and by members of national delegations at NATO (THE CROATIAN PARLIAMENT 2002). The international exchange of lessons learned is amongst others, organised department specifically through joint training programs and appropriate curricula with other nations. In November 2014, Croatia joined the conference entitled “Sharing information and solutions to reduce flood risk, and enhancing cross-border cooperation in mitigating risk and flood protection” in Sarajevo. It addressed civil protection professionals, water management experts and decision-makers from Albania, Croatia, Republic of Macedonia, Montenegro,

⁶ Publications of CEA are available at: <http://www.azo.hr/Default.aspx?sec=683>; accessed: 12th September, 2014.

Slovenia, Serbia, Bosnia and Hercegovina as well as professional OSCE staff. The RACVIAC-Centre for Security Co-operation of Croatia participated the event to discuss approaches for reducing potential risks from disasters and respond mechanisms with representatives from other countries.⁷ Training programs in the frame of the Civil Protection Module provide a good opportunity for exchange experience with other representatives and discuss lessons learned by training courses, joint exercises and an experts' exchange system.

1.4.5 Regular policy reviews

Regional authorities as well as local authorities have the obligation to draft a report about the assessment of the status of protection and rescue once a year or upon passing their budget (European Commission 2014). This implicates the adoption of outcomes from the threat assessment and draft protection and rescue plans. At ministerial level, administrative authorities have to draft and forward a threat assessment to the NPRD in the segment applying to the region of their competency.

1.5 Resilience

At all levels (state, county, city and municipality) the Republic of Croatia is providing an estimation of the population's vulnerability, of material and cultural resources and the environment to natural and man-made disasters and major accidents. Based on these estimations at all levels plans for protection and rescue in the response to potential threats have been prepared. Therein, a determination of available capacities as well as equipment, which is on the disposal of each authority level, is provided. As an example, the expert of the County department for Civil Protection (2014) illustrates the principle of preparing plans on the basis of the Plan for Accidental Marine Pollution in the Republic of Croatia. Each county makes own plans and basically, the County Operational Centre (COC) as the body is responsible for the implementation of procedures and measures for predicting, preventing, restricting, preparedness for and response by the county contingency plan. COC is also responsible for operational participation in the implementation of the plan and sub-regional plans. A COC always has his commander, and in this case it is the harbourmaster.

According to National Plan for Interventions, the COC of Split-Dalmatia County takes over the operational actions in the areas of operations of neighbouring COC (i.e. COC from both Šibenik-Knin County and Dubrovnik-Neretva County) but in cooperation with them and under coordination of National Headquarters for Coordinating Search and Rescue in Rijeka (MRCC) in case when the quantity of the pollution exceeds the capacities of a single COC, if more than one county might be threatened and if marine pollution can endanger the marine environment, human health and sea economic use.

1.6 Information sharing and data protection

The NPRD is responsible for the maintenance of a database on operational forces, assets and measures (Swedish Civil Contingencies Agency 2009). However, in the event of a crisis, public media are used and due to the public pressure, sometimes even dictate the answers to certain types of

⁷ Information is available at: <http://www.oscebih.org/News.aspx?newsid=2034&lang=EN>, accessed: November 8th, 2014.

threats. Despite this fact, at the moment, there is no strategy to promote social media for that purpose (Expert Interview 2014). Governmental entities like the NHMS, the Republic Seismological Survey, Croatian Forests, and Croatian Waters collect, store and analyse risk information from their areas of responsibility (Samardžija, Tišma, and Skazlić 2014). All of them are linked to an Operation and Communications Centre (Centre 112), which merge and forwards information from different sources (SEERDRMP, UNDP Croatia, and UNDP 2011).

According to Article 14 of the Information Security Act (NN 79/07), the Office of the National Security Council is the central government body for the coordination of information security measures and standards within the Republic of Croatia and the exchange of classified and unclassified information between the Republic of Croatia and foreign countries and organisations.

“Information security measures and standards include organising special data bases for classified information within the Republic of Croatia, as well as for classified information which is transmitted from other countries, international organisations or institutions with which the Republic of Croatia co-operates.”

Public access to environmental data is based on the Act on the Right of Access to Information (OG 25/13). This Act contains provisions that are in accordance with the following acts of the European Union:

- Directive 2003/98/EC of the European Parliament and of the Council of 17 November 2003 on the re-use of public sector information,
- Regulation 1049/2001 of the European Parliament and of the Council of 30 May 2001 regarding public access to European Parliament, Council and Commission.

Pursuant to Article 18a of the Law on Personal Data Protection (NN 103/03, 118/06, 41/08 and 130/11), the NPRD has appointed clerk for the protection of personal data which:⁸

- takes care of the legality of the processing of personal data
- the realisation of the right to protection of personal data
- cooperating with the Agency for protection of personal data in connection with the implementation of control of personal data
- perform other tasks stipulated by the Law on Personal Data Protection and subordinate regulations adopted thereunder

Within the Aarhus Convention implementation report it was indicated, that the Water Act determines the procedure for ensuring the flow of information between the National Protection and Rescue Directorate, the State Water Inspectorate and Croatian Waters (Republic of Croatia 2013). Based on the Ordinance on the Content, Form and Manner of Keeping Water Documents (OG 120/10), Croatian Waters collects and processes water-related data. Based on the Act on Radiological and Nuclear Safety, 2010 (OG 28/10), the State Office for Radiological and Nuclear Safety monitors environmental radioactivity and publishes the results on the website of the State Office.

Furthermore, information related to nuclear safety and the system of preparedness in case of a nuclear or radiological disaster and other information related to radiological and nuclear safety are available at the website. An extra web page for the citizens is maintained by the Croatian Institute for Toxicology and Anti-doping to inform the public about hazards of dangerous chemicals and protection measures. In Croatia, the Law on the Right of Access to Information (OG 25/13) extends to all public authorities.

⁸ Information is available at: <http://www.duzs.hr/page.aspx?PageID=566>; accessed: 21st September, 2014.

Cooperation for the purpose of data sharing and information exchange has been established with the following organisation:

- IAEA - International Atomic Energy Agency
- ICPDR - International Commission for the Protection of the Danube River
- UN/ECE – IAN System (United Nations Economic Commission for Europe)
- NATO – EADRCC (North Atlantic Treaty Organization – Euro-Atlantic Disaster Response Coordination Centre)
- ECURIE (European Community Urgent Radiological Information Exchange)
- UNESCO IOC (Intergovernmental Oceanographic Commission)
- TWFP (Tsunami Warning focal Point)
- Neighbouring countries (Protocols with Slovenia, Bosnia and Herzegovina, etc.)

In the frame of the Community Civil Protection Mechanism, several tools have been developed to facilitate adequate preparedness and effective response to disasters at the EU level.

- MIC (Monitoring Information Centre) European Union

MIC is located at the European Commission in Brussels, it provides 24 hours/365 days per year information about pending requests for assistance. Dedicated to seek for international assistance if the event exceeds the capacities of the affected country, it monitors the situation in the case of emergencies and major accident within the EU, neighbouring countries and the rest of the world. By a formal request of the affected country, the mechanism can be activated.

- Common Emergency Communication and Information System (CECIS)

In order to provide rapid response by facilitate the communication between the MIC and national authorities; CECIS is designed as a reliable web-based alert and notification system.

According to the representative of the County department for Civil Protection (2014), data on volunteers are primarily located at the level of services like NPRD, fire-fighters, CMRS and RC, and have not been united in one single registry of volunteers.

Moreover, on the basis of treaties, the mutual exchange of information is regulated with the following parties⁹:

- The Act of ratification of the North Atlantic Treaty (NN, MU 3 2009)
- Security Agreement between the Republic of Croatia and the North Atlantic Treaty Organization (NN, International Agreement 14/03)
- Agreement between the Republic of Croatia and the European Union on security procedures for the exchange of classified information (NN, International Agreement 9/06)
- Security Arrangements between the Office of the National Security Council (UVNS) of the Republic of Croatia, the EU Council general Secretariat Security Office (GSCSO) and the European Commission Security Directorate (ECSD) for the protection of classified information exchanged between the Republic of Croatia and the EU (October, 2007)
- Agreement between the Government of the Republic of Croatia and the Government of the Republic of Bulgaria on mutual protection and exchange of Classified Information
- Agreement between the Government of the Republic of Croatia and the Council of ministers of the Republic of Albania on mutual protection of Classified Information
- Agreement between the Government of the Republic of Croatia and the Government of the Republic of Macedonia on exchange and mutual protection of Classified Information

⁹ Information is available at: <http://www.uvns.hr/default.aspx?id=167>; accessed: 17th September, 2014.

- Agreement between the Government of the Republic of Croatia and the Government of the Republic of Estonia on mutual protection of Classified Information
- Agreement between the Parties to the North Atlantic Treaty for the Security of Information
- Agreement between the Government of the Republic of Croatia and the Government of the Czech Republic on mutual protection of classified information
- Agreement between the Government of the Republic of Croatia and the Government of the Slovak Republic on mutual protection of classified information
- Notification on coming into effect of the Agreement between the Government of the Republic of Croatia and the Government of the Slovak Republic on mutual protection of classified information (NN, International Agreements 6/10)
- Agreement between the Parties to the North Atlantic Treaty for Co-operation regarding Atomic Information with Secret Technical Annex to the Agreement between the Parties to the North Atlantic Treaty for Co-operation regarding Atomic Information and Confidential Security Annex to the Agreement
- Notification on coming into effect of the Agreement between the Government of the Republic of Croatia and the Government of the Czech Republic on mutual protection of classified information (NN, International Agreements 8/10)
- Agreement between the Government of the Republic of Croatia and the Government of the French Republic on mutual protection of classified information (NN, International Agreements 7/11)
- Notification on coming into effect of the Agreement between the Government of the Republic of Croatia and the Government of the French Republic on mutual protection of classified information (NN, International Agreements 12/11)
- Agreement between the Government of the Republic of Croatia and the Government of the Republic of Slovenia on mutual protection of classified information (NN, International Agreements 15/11)
- Notification on coming into effect of the Agreement between the Government of the Republic of Croatia and the Government of the Republic of Slovenia on mutual protection of classified information (NN, International Agreements 1/12)

2 Legislation

2.1 Crisis (emergency, disaster) management concept

In sum, there are three strategic papers, which are relevant for civil protection.

Important milestones to promote national security, have been achieved by the “National Security Strategy”, 2002 (NN 79/07) and the “National Strategy for the Prevention and Suppression of Terrorism”, 2008 (NN 139/08).

National Security Strategy

Firstly, the National Security Strategy of the Republic of Croatia, adopted in March 2002 (NN 32/02) and amended in 2004, expresses the political views on national security of the Croatian Parliament as the highest political and legislative institution of the Republic of Croatia.

Within the document security was defined as “a functional area of operation of security institutions and society in general in achieving the security goals and interests of the Republic of Croatia” (Government of the Republic of Croatia 2005). The strategy builds the basis for institutional targets, guidelines and programs to react to “general security challenges and concrete forms of endangering the Republic of Croatia”.

Within the strategy the following principles have been taken into account (THE CROATIAN PARLIAMENT 2002):

- Croatia’s present geo-political position is characterized by its determined effort to advance towards and enter Euro-Atlantic and European security organisations
- State of the security challenges and risks area for the Republic of Croatia
- State of the system and successfulness of national security operations
- Available resources

As described in the National Security Strategy (2002), possible results of natural and technological disasters in the country or a specific region pose a constant security threat for its citizens and material goods.

In detail, the National Security Strategy addresses the following threats (THE CROATIAN PARLIAMENT 2002):

- Terrorism
- Proliferation of weapons
- Leftover mines and explosive devices
- Instability of neighbouring countries
- Natural Disasters
- Technological Disasters
- Infectious disease
- Threats to information systems and the private domain

Against the background of a prospected EU membership, an interdepartmental Commission, chaired by the MoD presented a new National Security Strategy in 2010, which was oriented on existing EU-standards. Aiming on the strengthening of the national security and the NATO collective defence,

therein an involvement of “professionals, the scientific and the general public in the process of developing the strategy”¹⁰ was declared.

Based on the comprehensive risk approach, cooperation on the local, regional and state level has been defined as vital for the achievement of national interests (Samardžija et al. 2014).

Mahečić (2010) indicates, that the National Security Strategy, offers different tools for providing and building the necessary level of the security to Croatia, which are inter alia, an understanding of the necessity to establish cooperation within the state institutions and administrative levels as well as with international and regional counterparts, a comprehensive list of the National Security Objectives that should serve as security policy framework for all the state institutions involved as well as the conceptualisation of pursuing the security policy.

Strategic Defence Review

The Strategic Defence Review built the basis for the practical realisation of Croatia’s National Security Strategy and Defence Strategy (NN 33/02). It provides the direction for developing the defence system and the Croatian Armed Forces to ensure the protection of vital interests of the Republic of Croatia and its citizens. Multiple risks associated with natural and man-made disasters require the contribution of defence capabilities to support civil authorities in the more serious national crisis situations. As stated in the Strategic Defence Review in 2005, the Ministry of Defence focuses mainly on four key scenarios for which effective response capabilities must be developed; these are:

- Regional Crisis with a complex threat to Croatia’s security
- Attack on a NATO Member
- Crisis response operation abroad under the auspices of UN, NATO or the EU
- Natural or man-made disaster in the Republic of Croatia

While the first two ones of the enumeration above were classified as low risky and the scenario of natural and man-made disaster as medium risky, crisis response abroad was assessed with a high risk potential. In order to promote Croatia’s national security, the MoD participates in emergency and civil-military crisis planning, coast guard responsibilities, host nation support and multi-faceted security-related issues by inter-agency cooperation (MINISTRY OF DEFENCE 2005).

National Strategy for the Prevention and Suppression of Terrorism

It has been stated by the Council of Europe (2011), that “Croatia has an integral approach to the prevention and suppression of terrorism which is at the same time adjusted to the particularities of the individual measures and procedures to counter terrorism. The Republic of Croatia has been systematically implementing institutional solutions as well as measures and activities as a reaction to general security challenges and to concrete threats, including international terrorism.” As introduced by Perešin (2013), there is a necessity to draft counter-terrorism strategies because of Croatia’s position within a risky environment. Referring to the already existing models of the NATO and the European Union, Croatia prepared a National Security Strategy, where terrorism has been declared as an international threat. Initially, focusing on terrorism originating at the domestic level, the Criminal Code of 1997 (NN 110/97) transferred the issue of terrorism to a international context. A main characteristic of the Croatian approach is the consideration of several issues, which are heavily interdependent with the area of interest, i.e. human rights and immigration. Thereby, the Office for the protection of the Constitutional Order acted as a coordination body in order to harmonize the approach between the MoD, the MoI and the MFA as well as intelligence

¹⁰ Press release is available at: <http://www.morh.hr/en/news/press-releases/6610-national-security-strategy-draft-presented.html>; accessed: October 21, 2014.

services. After the Homeland War, important goals have been achieved by new obligations for the adjustments in operating in peacetime and the integration into the Euro-Atlantic group. Due to the fact, that the consideration of terrorist attacks were based upon the legislation of Criminal Justice, the necessity of plans, strategies and a clear distribution of responsibilities become apparent. Within the Security Strategy, which is pursuing a standard framework for measures and approaches for specific threats, the Croatian Parliament has been defined as the main responsible instance for security concerns.

The National Strategy for the Prevention and Suppression of Terrorism (NN 139/08) is focusing on prevention and suppression of terrorism and is related to the “National Security Strategy and Strategic Defence Plan”. Currently, the counter-terrorism system involves the intelligence system, the MoI and the MoD. Integrated in the activities of the MoI, the mobilisation of special forces, in particular the Croatian Mine Action Centres and the Croatian fire community becomes effective by the NPRD, while specialised police forces directly subordinated to the MoI.

Additional National Plans of Action

Planning activities of the NPRD in the area of protection and rescue are guided by the Strategic Development Plan of the State intervention units of civil protection for the period from 2014 to 2016.

As another important policy, the National Plan of Action concerning Environmental Impacts, 2002 (NN 46/02) was adopted to determine the measures for the protection of the environment. Specific responsibilities, e.g. from the Croatian Meteorological and Hydrological service (NMHS) were defined within the chapter “Environmental protection and effective environmental management”. In a more detailed way, the roles and responsibilities at different administrative levels and of various actors were covered by the Activity Program for the Implementation of the Special Fire Protection Measures in Republic of Croatia in 2010. Within the intervention plan during Wild and Forest Fires on the territory of the Republic of Croatia, the structure, roles, and responsibilities of relevant agencies, coordination and management systems, capacity building, public information procedures, and the financial support for implementation were determined (SEERDRMP, UNDP Croatia, and UNDP 2011).

Within the Strategy of Government Programs for the period 2011-2013, an assessment of the current protection and rescue systems conclude, that cooperation shall be improved. Therein, the further development of the GIS system by an integration of the 112 system was set on the agenda.

A quite important framework was defined within the Strategy of Government Programmes for 2010-2012, wherein the disaster management was considered as a part of a general concern and a definition of the organisational principle of the protection and rescue system over all involved actors was provided (World Meteorological Organization 2012).

As identified by Perešin (2013), the “Strategic Plan of the Ministry of the Interior and Other Institutions in Function of the Protection and Rescue for the Period of 2012-2014”, is a relevant document, which is based on an overarching comprehension of public security. It implicates strategic measures to deal with criminal acts, accidents as well as with natural disasters – all types of hazards, which may threaten the human life, the personal integrity, the public safety, etc.

In the frame of the Strategy of Government Programmes and State Budget for the period 2010-2012, the overall budget for the protection and rescue system was laid down. Furthermore, it determines the budgetary sources of the different administrative levels and ministerial departments (Samardžija et al. 2014). The direction of the rescue and protection system in the Republic of Croatia based on the Program for Equipping and Technical Development of the National Protection and Rescue Directorate until 2009.

2.2 General crisis (emergency, disaster) management law

It was at , that in particular the Website of the IPA CP Cooperation Program II (2014), the following laws are decisive for the protection against disasters in Croatia.

- Protection and Rescue Act (NN 127/10)
- Fire-Fighting Act (NN 80/10)
- Law on Fire Protection (NN 92/10)
- Act on Protection against Natural Disasters (NN 73/97)

The Law on Protection and Rescue (NN 174/04, 79/07, 38/09, 127/10) has been considered as the primary legal source for regulating civil protection. The Protection and Rescue Act provides a definition of the protection and rescue system, including, amongst others, the tasks of the command and coordination bodies, the activities of the operational communication centre – 112 and provisions for international cooperation (IPA CP Cooperation Programme II 2012). Within the Protection and Rescue Act various threats have been addressed and the distribution of competences in the management of threats suggests an individual focus on specific hazards by each responsible body. The Protection Against Natural Disasters Act defines the term natural disaster and provides the basis for protective measures, the rights and duties of protection officers, evaluates damage and details how to assist affected areas (Swedish Civil Contingencies Agency 2009).

It is supplemented by other laws related to the certain areas of critical infrastructure protection, the mountain rescue (Borić 2014), protection against natural disasters, the organizing element of the fire brigades and fire protection.

As specified at seeKMS (2014), the law regulates the following issues:

- System of protection and rescue of citizens, goods and property in disasters and major accidents
- Management and coordination of protection and rescue activities
- Rights, obligations, specific training and general education of participants in protection and rescue activities
- Tasks and the structure of protection and rescue authorities
- The way to alert and warn
- Guidelines for mobilisation of protection and rescue

In 2007, the Law on Protection and Rescue was harmonized in order to address the SEVESO II Directive. Additionally, more specific legal acts and plans focusing on specific threats like floods, major fires, transport accidents and ionizing radiation, etc. have been developed to regulate the protection procedure in specific cases, i.e. firefighting, protecting humans in mountain areas, protection and rescue measures in accidents and transportation with dangerous substances. At the community level, extra plans for protection and rescue measures in municipalities, cities and the state are available (Swedish Civil Contingencies Agency 2009). Within the Law of Protection and Rescue, the principles of solidarity and self-responsibility encourage citizens to carry out measures of personal and mutual protection against threats and the consequences of disasters.

Furthermore, the planning and financing of the system of protection and rescue is regulated by Articles 40 and 41 of the Protection and Rescue Act (NN 174/04, 79/07, 38/09). Protection and rescue plans at the national level are part of the Croatian Defence Plan, and they incorporate all existing national plans for different types of threats. Plans also establish material, technical resources and sources of funding proposed activities (Samardžija et al. 2014).

- Ordinance on the methodology for making threat assessments and protection and rescue plans (NN 30/14 and 67/14)

As general rules for protection and rescue, the “Regulations on the mobilization and action of operational and rescue forces” (NN 40/08, 44/08) regulate the deployment of operational and rescue forces for protection and rescue activities.

The list of important laws regarding Civil Protection can be extended by the following ones:

- Law on Critical Infrastructures (NN 56/13)
- Act on Radiological and Nuclear Safety, 2010 (NN 28/10)
- Decision on determining the sector from which the central administrative authorities identify national critical infrastructure and lists the order of the sectors of critical infrastructure (NN 108/13)

Regarding the level of the European Union, the following regulations have an effect on Croatia’s disaster management (World Meteorological Organization 2012):

- European Flood Directive on the Assessment and Management of Flood Risks, 2007 (2007/60/EC)
- Council Directive on the freedom of access to information on the environment, 1990 (90/313/EEC)

At the international level, Croatia signed the following relevant treaties:

- Law on Ratification of the United Nations Framework Convention on Climate Change, 1992
- Kyoto Protocol to the Convention on Climate Change, 1999
- Law on Ratification of the United Nations Convention to Combat Desertification in Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa – Convention to Combat Desertification (Paris 1994);
- Cooperation Agreement with WMO, International Civil Aviation Organization (ICAO), and EUMETSAT
- Cooperation Agreement with ECMWF, EUMETNET and Economic Interest Grouping of the National Meteorological Services of the European Economic Area (ECOMET)

2.3 Emergency rule

“The President, as the supreme commander of the armed forces, declares a state of emergency. He is responsible for the defence of the country's independence and territorial integrity” (Inter-Parliamentary Union 2013).

As declared within the Constitution of the Republic of Croatia (NN 85/10):

The President of the Republic shall pass decrees with the force of law and take emergency measures in the event of a state of war or an immediate danger to the independence and unity of the Republic, or when government bodies are prevented from regularly performing constitutional duties. During the time the President of the Republic is making use of such powers, the House of Representatives may not be dissolved. The President of the Republic shall submit decrees with the force of law for approval to the Chamber of Representatives as soon as the Parliament is in a position to meet.

From a practical view, the NPRD can propose a declaration of a state of emergency to the Croatian Government. Samardžija et al. (2014) indicated, that Law on Protection and Rescue (Art. 53)

envisages the mobilisation of citizens, temporary detraction vehicles, temporary restriction of property rights, etc. by a competent civil servant of the NPRD. The constitution determines the deployment of the Croatian Armed Forces to assist firefighting and rescue operations and surveillance and protection at sea.

As laid down in Art. 17 of the Constitution, the Parliament decides by a two-thirds majority of all its members or, if it is unable to meet, at the proposal of the government with the counter-signature of the Prime Minister, by the President, that during a state of war or an immediate threat to the independence and unity of the state, or in the event of severe natural disasters “fundamental freedoms and human rights can be restricted to the extent strictly required by the exigencies of the situation and cannot result in the inequality of persons due to race, colour, sex, language, religion, national or social origin” (EUROPEAN COMMISSION FOR DEMOCRACY THROUGH LAW 1995). Despite the state of emergency, fundamental human rights, such as the right to life, the right not to be subjected to torture, etc. will not be restricted or derogated from. As clarified by the Inter-Parliamentary Union (2013), “the extent of these restrictions must be proportional to the nature of the emergency and cannot lead to unequal treatment of individuals. The work of the parliament is continued under these circumstances, in accordance with the regulations laid down by the Constitution.”

2.4 Specific, department/agency-level legal arrangements and regulations on emergency and disaster management

The establishment of National Protection and Rescue Directorate based on the Act on the Amendments to the Act on the Organization and Scope of Responsibilities of Ministries and National Administrative Organizations (NN 30/04).

The involvement of the staff of the NPRD is regulated by the “Regulations on uniform members of operational and rescue forces of the National Protection and Rescue Directorate (NN 81/09, 115/10) and in general, the “Regulation on the internal organization of the National Protection and Rescue Directorate” (NN 43/12 and 125/14) determines the working principle of the NPRD. Cooperation between specific agencies is regulated by the “Ordinance on the method of cooperation authorized persons Coast Guard and the National Protection and Rescue and the method of exchange of information necessary for their effective and concerted action (NN 40/09).

As stated by the Swedish Civil Contingencies Agency (2009), aside from the MoI, also the MoD, the Ministry of the Sea, Transport and Infrastructure, the Ministry of Agriculture, Forestry and Water Management, the Ministry of Environmental Protection, Physical Planning and Construction as well as the Ministry of Health and Social Care take part in Civil emergency planning. Exemplary, the Strategy of National Security and the Strategy of Defence have been mentioned as inter-ministerial cross-cutting issues (IPA CP Cooperation Programme II 2014). Due to the fact, that security issues are interconnected, at least coordination between the MoI and the MoD is required.

The military-related cooperation in protection and rescue activities is mainly regulated by following laws:

- The Defence Law (NN 33/02)
- Ordinance on the organization, manning, and equipping forces and civil defence units for alerting (NN 111/07)

The Constitution of the Republic of Croatia specifies in Art. 7, that armed forces can be deployed to support the police and other state bodies in the face of a threat posed by nature, in fire-fighting as well as in rescue operations.

Moreover, coordination is necessary with the Ministry of Health and Social Welfare, which is responsible for health issues in national disasters. The Health Care Act, aiming on the protection of health of the population, regulates inter alia the provision of health care services in the MoD and the CAF (WHO 2012).

The participation of state intervention units of Civil Protection is regulated as follows:

- Decision on the Establishment of the State intervention units of civil protection
- Strategic Development Plan of the State intervention units of civil protection for the period from 2014 to 2016
- Law on Participation of the Croatian Armed Forces, police, civil defence, civil servants and employees in peacekeeping operations and other activities abroad (NN 33/02, 92/02)
- Police Act (NN 129/00, NN 41/08)

Additionally, the “Ordinance on the organization, equipping, training, start-up and mode of action of the intervention of fire brigades and reimburse the costs of their activities (NN 31/11)” specifies the principles of deployment of the fire brigades in Croatia. As explained at the Vademecum-Website (2014), the envisaged participation of the private sector in protection and rescue measures and related rights and obligations of individual protection, as well as threat assessment and Protection & Rescue Plans are defined by the Protection and Rescue Act and supporting legislation.

2.5 Specific to the regional and local authorities legal arrangements and regulations on emergency and disaster management

The Constitution of the Republic of Croatia determines three levels of responsibilities for Protection and Rescue (seeKMS 2014). Apart from the state level, measures aiming at emergency and disaster management are located at the local and regional level.

The Act on Community Level, Local and Regional Self-Government defines the responsibility of the county prefects at the county level as well as the competences of the mayors of the towns or municipalities at the local level. Article 135 emphasises the duties of local self-governments (municipalities) in the area of fire protection and civil defence. It was emphasised by the Croatian Fire-fighting Association (2011), that professional and volunteer fire-fighters are equal regarding the fulfilling their duties, but the professional fire-fighting units work on bases of the Law of Public Institutions, and the volunteer fire-fighting units on bases of the Law of Associations of Citizens. Additional 4 fire-fighting intervention-units work in four coastal counties in Dalmatia, and all fire-fighting units are commanded during the summer by the Centre in Divulje near Split, which are part of the National Directorate for protection and safety.

In addition, the decisions below provide guidelines of protection and rescue for the regional and local level.

- The decision on the appointment of the Mayor, Deputy Mayor and members of the Headquarters of protection and rescue the Croatian (NN 53/12)
- The decision on dismissal of a deputy mayor and a part of the Headquarters of protection and rescue the Croatian (NN 99/12)

- The decision on the appointment of Deputy Chief and part of the Headquarters of protection and rescue the Croatian (NN 99/12)
- The decision on the appointment of members of the Headquarters of protection and rescue the Croatian (NN 67/14)
- The decision on the appointment of a member of the Headquarters of protection and rescue the Croatian (NN 143/14)
- The decision on dismissal of members of the Headquarters of protection and rescue the Croatian (NN 143/14)

2.6 Legal regulations on the involvement of volunteers and specialised NGOs

There are several regulations concerning the organisation, attendance, recruitment and the use of units, services and bodies for managing and organising civil protection in Croatia (Swedish Civil Contingencies Agency 2009). In general, the Protection and Rescue Act regulates the involvement of volunteers and NGOs, regarding the rights and obligations of volunteers in the area of protection and rescue and agreements on protection and rescue cooperation between the NPRD and the voluntary associations (Tomin and Barbera 2011).

The legislative framework for the deployment of complementary protection and rescue services is regulated by the following acts:

- Law on the Croatian Mountain Rescue Service (NN 79/06)

The deployment of the Croatian Mountain Rescue Service operations is also regulated by the Protection and Rescue Act.

- Law on the Croatian Red Cross (NN 71/10)

The European Volunteer Centre (2012) indicated, that due to a research lack, the percentage of people declaring engagement in volunteering activities varies from 5 percent to more than 40 percent. Despite the inconsistencies, a positive trend towards volunteering can be stated.

In 2007, the Parliament of the Republic of Croatia adopted the Law on Volunteering, 2007 (NN 58/07), which facilitates the involvement of volunteers at the local and national level by providing “a definition of volunteering, principles and conditions for volunteering, the rights and obligations of volunteers and volunteer implementing organisations, the conditions for conclusion of volunteering contracts, the adoption of a Code of Ethics for volunteers, the issuing of a volunteering certificate, a national volunteer award as well as means for supervising the implementation of this law.”

Within the report of the European Volunteer Centre (2012) the following framework was identified:

- Volunteering legislation and a regulatory framework
- Government policies on volunteering
- Organisers of volunteering activities: organisations and networks at local, regional and national level; local/regional/national institutions
- Volunteering centres and the Croatian network of volunteer centres
- Volunteering opportunities and brokering mechanisms between (potential) volunteers and volunteering opportunities, including on-line placement databases
- Volunteering promotion and raising public awareness of the value of volunteering
- Funding to ensure volunteering programs sustainability
- Academic and civil society organisations (CSO) research projects

The Ministry of Social Policy and Youth is responsible for the implementation of the law. Its implementation will be ensured by monitoring the implementation of the law and collecting feedback from the implementing organisations about the consequences of its implementation. Furthermore, the ministry provides an annual budget of around EUR 128,500 for volunteering.

Furthermore, within the National Strategy for the Creation of an Enabling Environment for Civil Society Development 2006-2011 and its Operational Implementation Plan, basic guidelines for the volunteer development were defined to improve the existing legal, financial and institutional mechanisms, to support civil society development and to achieve the enabling environment for civil society development in Croatia.

Regarding the liability of first responders in an emergency, it was determined in Art. 1047 of the Civil Obligations Act (NN 35/05, 41/08 and 125/11), “if damage is a result of performing an act of public interest for which an approval has been obtained from the competent authority, only a compensation for damage exceeding the usual limits may be required (excessive damage). In that case, however, socially justifiable measures with the aim of preventing the occurrence of damage or reducing the damage may be requested.”

2.7 Legal regulations for international engagements of first responders and crisis managers

As explained by the IPA CP Cooperation Programme II (2012), the status of personnel of bilateral partners is clarified in the bilateral agreements. “The Prime Minister gives the final word on behalf of the whole Government regarding the request for international assistance. He/she has the right to make the decision alone, but he is usually advised by the NPRD General Director and the national headquarters.” It is not considered for the personnel of other international relief actors. This also applies for issues concerning the liability for damage caused by relief personnel.

An international cooperation between the NPRD and equivalent authorities is built upon agreements on the bilateral, regional and international level (NPRD 2014a). International treaties on cooperation in the field of protection from disasters are signed with the following contracting parties.

- Republic of Hungary
- Republic of Slovenia
- Bosnia and Herzegovina
- Slovak Republic
- Republic of Macedonia
- Republic of Albania
- Republic of Montenegro
- Republic of Poland
- Republic of Austria
- French Republic
- Russian Federation

Memorandums of Understandings have been signed with:

- European Union (Community Mechanism for Civil PROTECTION; FINANCIAL INSTRUMENT CIVIL PROTECTION)
- Memorandum of Understanding on the Institutional Framework Initiative for Preparedness and Prevention disaster for South Eastern Europe

In detail, regional cooperation was decided in the frame of:

- DPPI (the Disaster Preparedness and Prevention Initiative)
- SEDM (the South-East Europe Defence Ministerial)
- CMEP SEE (Civil Military Emergency Preparedness South Eastern Europe)

Specific regulations exist in order to guide the engagement in mutual assistance across borders, which are listed below.

- Regulation on the amount of compensation to persons engaged in the protection and rescue outside the Croatian borders (NN 90/06)
- Regulation on the procedure of crossing the border when receiving or sending urgent assistance in protection and rescue (NN 52/06)
- Regulation on the definition of compensation for temporarily seized movable property, to implement measures for protection and rescue (NN 85/06)
- Regulations on the participation of members of operational and rescue forces in the activities of forces for immediate aid in disasters abroad (NN 73/06)
- Law on Participation of the Croatian Armed Forces, police, civil defence, civil servants and employees in peacekeeping operations and other activities abroad (NN 33/02, 92/02)

Furthermore, a SOP was prepared for the coordination between national authorities while sending/receiving international assistance in emergency situations, which determines the responsibilities of all participants, the communication and coordination lines in between them as well as the specific procedures for sending, receiving and “processing” transiting international assistance. The coordination structure in case international teams are also present in the operations is covered by these SOPs (IPA CP Cooperation Programme II 2012). Additionally, an extra SOP for the provision of cross-border assistance in extinguishing the fire of open space between Croatia and Bosnia & Herzegovina exist.

The Decree on crossing national border while sending / receiving international assistance in emergency situations (adopted in 2006) builds the basis for the deployment of forces abroad (IPA CP Cooperation Programme II 2012). As an example, it determines, that

“Visas can be issued expeditiously, exceptionally even at border crossing points. Customs duties and related fees are waived for the relief items and for the equipment of international intervention teams, provided that all items are well documented. As entry is always facilitated by a representative of NPRD (or of its local office), the likelihood of any misconduct or violation of these rules are practically non - existent.”

There is no additional certification procedure for foreign disaster relief personnel. Medical personnel can provide basic healthcare, especially if they are part of a certified USAR team (IPA CP Cooperation Programme II 2012). The national headquarter is responsible for issues regarding the operations and logistics of assisting international teams. As further explained within the Analytical Study on Host Nation Support (2012), should an OSOCC eventually be established, it shall deal with the request via the liaison officer “assigned to it. To provide logistical services for national intervention teams, standard procedures are in place, whose application may be extended to international teams, too, if feasible.” Although, there are no restrictions concerning the import of emergency equipment, the use of own radio frequencies is prohibited, because it may cause interferences with the frequencies of national authorities. Croatia determines free frequencies for international disaster relief teams, which can be distributed in case of need. In the responsibility of a Host Nation, Croatia takes care for

the security and safety of relief personnel, their equipment and relief consignments. In case of security constraints, security advice is provided by the representative of the police in the national headquarter (IPA CP Cooperation Programme II 2012).

In the past Croatia rendered assistance to several disaster-affected nations upon request. These were in the case of forest fires in Montenegro in 2002, fires in Bosnia and Herzegovina, Macedonia and Greece in 2007, forest fires in Israel and Bosnia and Herzegovina in 2010, floods in Slovakia in 2006, floods in Hungary in 2010, floods in Albania in 2011 and severe weather conditions in Montenegro in 2012 (NPRD 2014a). The provision of assistance to Hungary, Bosnia and Herzegovina, Greece was organised by the NPRD as the Croatian contact point for the EU Mechanism (Austrian Red Cross 2014).

3 Organisation

3.1 Organisational chart

The Law on Protection and Rescue defines three levels of responsibilities for the area of Civil Protection. As illustrated in Figure 6, these are the level of the state, the counties and the municipalities or towns.

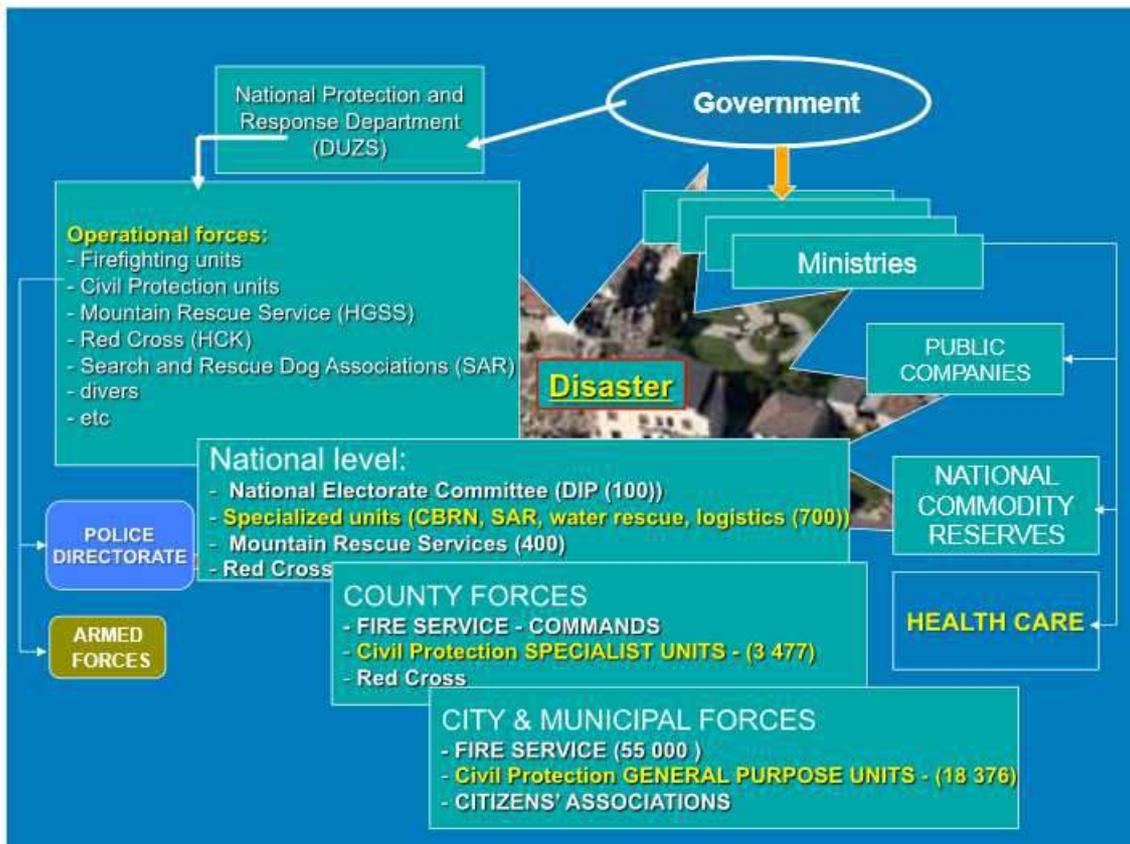


Figure 6: Organisation of emergency response in Croatia (WHO, 2012)

Authorities at the level of regional and local self-governments participate in the implementation of guidelines to ensure the functioning of the protection and rescue system in their area of competence. Furthermore, they are responsible for financing the protection and rescue system at the spatial level concerned. Additionally, regional and local authorities take part in drafting protection and rescue plans, adopt threat assessments and pass general acts for the management of operational forces (IPA CP Cooperation Programme II 2014).

Municipalities and towns are mandated to mobilise all available human and material resources in order to respond to a disaster in their territory. Since the event overwhelms the capacities at the local level, assistance from county level by contacting its prefect can be requested. The county is responsible for the mobilisation of resources within its territory, until its capacities are insufficient. After a request for help at the state level, the NPRD assumes the overall coordination and organises response with support from its subordinate departments.

As defined by the NPRD (2014b), in the event of disasters, major accidents and accidents with dangerous goods on Croatian territory the provision of direct technical assistance, additional capabilities and resources will be ensured by these units. Organised as the operative force for specialist tasks of protection and rescue, they will become mainly active in the field of CBRN, Search and Rescue (SAR), water rescue and logistics. Furthermore, they take part in planning, operational and technical issues related to the preparation and achievement of full operational readiness, equipment and training. In general, a state intervention unit of Civil Protection is composed of professionals and reservists. While professionals primarily fulfil duties related to the establishment of state intervention units of Civil Protection, drafting proposals of development plans, deploying staff and material/technical resources, planning the preparation and implementation of training programs and participate in the planning, organisation and implementation of these exercise, reservist monitors the development of new technologies, equipment and resources, methods and procedures in the protection and rescue and proposes their practical introduction into operational use (NPRD 2014b).

An important agency is the National Headquarter for search and rescue at sea is under the jurisdiction of the governmental coordination. It hosts 48 vessels of the Ministry of Maritime Affairs, Transport and Infrastructure, 38 vessels of the Ministry of the Interior and the air units of the Ministry of the Interior as well as of the Ministry of Defense. However, in case of need a conveyance, environmental units and privately owned vessels or airplanes might be included.

Additionally, the National headquarter for search and rescue at sea has the competence to organize relief operations, i.e. search and rescue at the sea. Both key players are supported by police forces and build the core structure of the Croatian disaster management. As the main legal document, the Law on Protection and Rescue regulates the disaster management, which is supplemented by other laws related to the certain areas of critical infrastructure protection, the mountain rescue (Borić 2014), protection against natural disasters, the organising element of the fire brigades and fire protection. The national coordinating body for the all-hazards approach is also the NPRD, while relevant services and institutions established by the government participate in preparation and implementation of protection and rescue activities and measures. The system is on the operational level subdivided into agencies that cope with specific threat types such as floods, wildfires, mountain rescue and protection, etc. In case of multidimensional incidents, cross-sector coordination is ensured by the NPRD (Samardžija et al. 2014).

In the case of major accidents and disasters, the NPRD has the following duties (NPRD 2014a):

- establishing mandatory guidelines for the management guidelines for risk management and rescue
- implementing the mobilisation of departments and units of the Board and the operational and rescue forces
- coordinating, managing and directing operational command of forces in disasters and major accidents
- directing and coordinates the activity of operational forces in the field of protection and rescue
- performing tasks of informing and alerting the population and coordinate unique alert system in Croatia
- performing inspections of operational power

- cooperating with the competent authorities of other countries and international organisations in the protection and rescue, in order to provide and accept international assistance and joint action
- providing information to the public

The NPRD stated (2014a), the functioning of the National Protection and Rescue system in the 20 counties of Croatia is ensured by its subordinate offices at the county level. Each county has a County 112 centre and a Prevention, Planning and Inspection Department. Protection and Rescue Departments have been established in the major cities Zagreb, Rijeka, Osijek and Split, and National Intervention Units are in place in the county offices at the coast Zadar, Šibenik, Split and Dubrovnik (Radovic, Vitale, and Tchounwou 2012). The units at the county level are dedicated to provide their service in protection and rescue operations, if special skills are required, especially in the case of forest fires.

As illustrated in Figure 7, the NPRD, which is affiliated to the Ministry of Interior, comprises three important divisions, namely the International Cooperation Department, the Director's Cabinet and the Internal Revision Department (Swedish Civil Contingencies Agency 2009). The strategic forefront rests on five sectors, which are focusing on specific issues of civil protection and rescue. These sectors and their tasks will be discussed below.

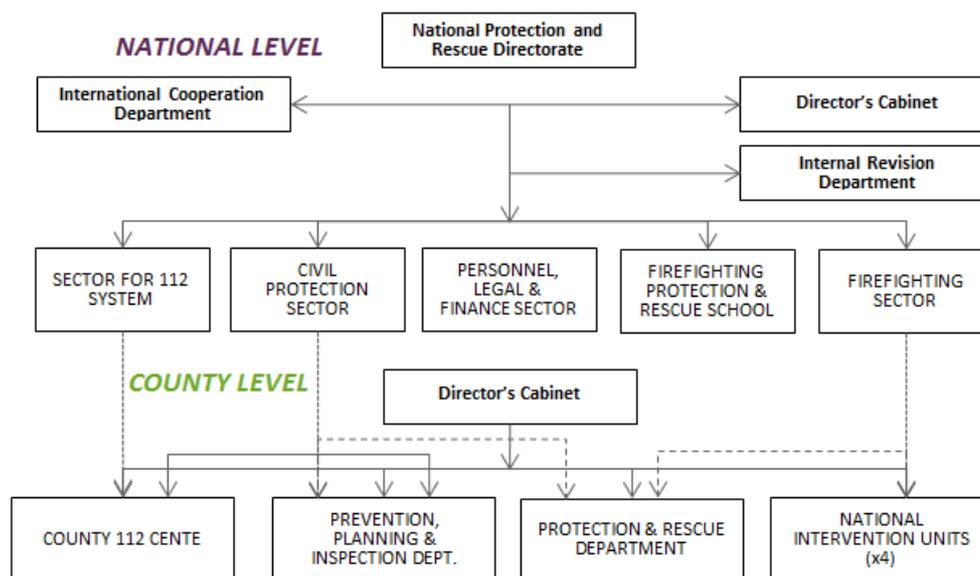


Figure 7: The Structure of the National Protection and Rescue Directorate

Available at: <http://seekms.dppi.info/national-protection-and-rescue-directorate/>; accessed: 17th September, 2014.

The Sector for the 112 System is composed of the national 112 Centre, the Prevention, Planning & Supervision Department and the Communications & IT-Department (Swedish Civil Contingencies Agency 2009). Furthermore, by acting as an operational communication service for data and information management as well as a notification service, it fulfils the duty of crisis communication and has to inform the public as well as authorities and rescue services. The Civil Protection Sector includes two departments – the Operations & Analysis Department and the Prevention, Planning and Inspection Department. The last one directs rescue forces in the case of emergency by assuming mobilisation and coordination tasks. Furthermore, it implements prevention measures, e.g. risk assessment, preparing SOPs, etc. and takes tactical tasks by monitoring current disasters and conducts a need assessment (Swedish Civil Contingencies Agency 2009). In the frame of the central

administration, the Firefighting, Protection and Rescue School is dedicated to prepare plans and standards, monitor training programs and provide training exercises for professional firefighters and commanders of civil protection and rescue staff. Similar to the Civil Protection Sector, the Firefighting Sector is focusing on the protection against fire by performing an assessment of the situation as well of the needs of the field staff. This Sector acts as an overarching coordination body for the fight against fires, especially if they cross county borders. In cases, which require land and air forces, the Firefighting Section works on the harmonization between the Ministry of Defence and the Ministry of the Interior to receive support of the military and/or the police (Swedish Civil Contingencies Agency 2009). Together with the MoI its tasks concerns the preparation of strategies and programs for further implementation of fire protection. Another close cooperation exists with the MoD and the Croatian Fire Fighting Association concerning the pushing forward of intervention plan for large scale forest fires. The National Intervention Units remain under the control of the Firefighting Sector. Additionally, a Personnel, Legal & Finance Sector has been established, which is dedicated to handle the legal, personnel and financial issues, relating to the legislation, maintain a real property data base, prepare contracts, maintain books on business relations and medical insurance policies for employees (Swedish Civil Contingencies Agency 2009). There, the Legal Department, the Personnel Department, the Finance Department as well as the Department for Investments and Procurement have been integrated.

Apart from the dominating role of the independent NPRD, the protection and rescue system relies on professional fire-fighters, volunteers and private specialist contractors. Pursuant to the Constitution of the Republic of Croatia, professional fire-fighters are assigned to local authorities, which provides the financial basis for their performance (Croatian Fire-fighting Association 2011). If necessary, they can be deployed by the central fire-fighting sector. As an important voluntary NGO, the Croatian Red Cross (CRC) is integrated in the National Protection and Rescue System at the national and local level. With its 20 branches at the level of counties and 110 branches at towns and municipalities, the CRC provides first aid, disaster preparedness and response, tracing service, health programs, water life service and humanitarian activities (NPRD and UNDP 2012). The Croatian Rescue and Mountain Service (CRMS) is built upon twenty territorial units. As a specialized rescue service, the main areas of action are the help on rugged terrain during difficult weather conditions and in rescue scenarios, which require special equipment or know-how. A strong cooperation was established between CRMS and the police, the Croatian Armed Forces and fire-fighters. Croatian Mountain Rescue Service gathers the fittest Croatian rock climbers, speleologists, mountaineers and skiers, specially trained in administering of first aid and in all mountain rescue techniques, including helicopter-aided rescuing and search parties in rugged terrain involving the use of rescue dogs. Croatian Mountain Rescue Service has around 500 members, including 25 medical doctors and 12 instructors. In addition, the CMRS is providing first aid to people injured in rugged areas and fosters education and prevention, especially of mountaineering related accidents. Additionally, specialised diving associations, rescue dog services and amateur radio organisations play a role in the protection and rescue system (Samardžija et al. 2014).

Private specialist contractors, which are designated to fulfil protection and rescue activities in their everyday business as well as citizens' associations whose activities are complementary to protection and rescue measures are engaged on the basis of public-private partnership (European Commission 2014). Especially, in the area of disaster risk reduction, ICT companies contribute to the warning and disaster response system (SEERDRMP, UNDP Croatia, and UNDP 2011).

At the level of ministries and agencies, Central State Administration Authorities contribute to the efficient functioning of protection and rescue systems by planning and allocating resources and equipment for protection and rescue needs, collaborate in threat assessment with the NPRD (in the area of their competence) and ensure an appropriate competence level of staff to undertake measures and activities necessary for efficiently carrying out the services of a central state government authority in disaster and major accident situations (European Commission 2014). The Meteorological and Hydrological Service of Croatia (NHMS) is a national centre of excellence based on high standards. Their tasks include the support to economic development, environmental protection, measures for the preservation of life and material goods from natural hazards and related mitigation measures as well as monitoring and observation of hydro-meteorological phenomena (SEERDRMP, UNDP Croatia, and UNDP 2011). Charged with the maintenance and deployment of the network of seismographs and other instruments and collecting, analysing and archiving of seismological data, the the Croatian Seismology Survey, which is part of the Geophysical Institute of the Faculty of Science and Mathematics of the University of Zagreb. Also research on earthquake related issues is one of their key competences. Croatian Waters is responsible for the monitoring of water flow and water level prediction, while the River Section Director for Flood Protection is the competent authority to declare the beginning and the end of the both regular and emergency protection. Strong cooperation exists between Croatian Waters and DHMZ in order to provide “high-quality controlled national and international hydrological data in near real time in agreed format” (SEERDRMP, UNDP Croatia, and UNDP 2011). The Croatian Mine Action Center (CROMAC) is responsible for research on and improvement of mine action techniques, technology and methods, testing of machines, mine detection dogs and handlers, testing and field evaluation of modern technologies, education and expert assistance to the countries in the region and beyond.¹¹

As regulated by appropriate laws (e.g. Act on Defence), assistance from police forces and the Croatian Armed Forces can be requested in the case of major disasters.

The General Police Directorate is managed by the General Police Director and have to fulfil tasks in the area of:¹²

- Monitoring and analysing the state of security and developments leading to the emergence
- Harmonisation, guidance and supervision over the work of Police Directorates and Police Administrations
- Immediate support in particular more complex operations of Police Directorates and Police Administrations
- Contribution to the implementation of the international agreements on police cooperation and other international acts under the competence of the General Police Directorate
- Application of standards for the equipment and technical means
- Providing the basis for the police readiness to act in the state of emergency

3.2 Organisational cooperation

In order to establish cooperation in the field of protection and rescue issues, the NPRD is the focal point for the appropriate counterparts in neighbouring countries as well as for international

¹¹ Information is available at: <http://www.ctro.hr/eng/menu/about-us/article/about-us-12.html>; accessed: 11th October, 2014.

¹² Information is available at: <http://www.mup.hr/1259.aspx>; accessed: 17th September, 2014.

organisations (Swedish Civil Contingencies Agency 2009). As explained at the Vademecum-Website (2014), a Decree on how to receive and send urgent assistance in case of a demanding emergency situation in accordance with the Protection and Rescue Law. The Decree defines the responsibilities of the NPRD, the Border Police and Customs when international assistance is crossing the Croatian state border and the coordination between these authorities. An appropriate SOP has been developed to define the obligations of the NPRD, the Border Police, Customs, the Ministry of Defence, the Ministry of Health and Social Welfare and the Ministry of Foreign Affairs and European Integration. Furthermore, it determines the communication and coordination procedures between the involved actors. Additionally, cooperation has been established with the NATO Euro-Atlantic Disaster Response Coordination Centre (NATO-EADRCC) and the European Union Community Mechanism for Civil Protection.

Regarding the probability of the simultaneous occurrence of events, the County department for Civil Protection (2014) has indicated, that the Croatian system of Protection and Rescue is based on the principle of subsidiarity, meaning that the response to possible crisis at first must be provided by the local government level, then at regional level and finally at the state level – if local capacities are not sufficient. The top priority for the action of these forces are – in any case the saving of human lives and secondly the mitigation of damage to material and cultural good. As priorities certainly those threats will be ranked first, which are well-known that they can turn into major accidents and disasters (Expert Interview 2014). Coordination at the international level is provided by the Government or the NPRD as a central state administration body for this kind of events. Corresponding to that, the NPRD has been incorporated as a focal point for the International Search and Rescue Advisory Group, both for political issues and for operations (INSARAG 2014).

4 Procedures

4.1 Standing Operating Procedures (SOPs) and Guidelines

The County department for Civil Protection (2014) pointed out, that in Croatia SOPs exist, but are mainly related to firefighters, CMRS and NPRD, who have developed their SOPs and are continuing on their improvement. There it was expressively stated, that the NPRD is in charge for drafting plans, preparing appropriate by-laws (Swedish Civil Contingencies Agency 2009) and the launching of standard operating procedures. Due to the fact, that the main actors also provide trainings according to the established plans, they permanently receive feedback from a user-view. It should be noted, that the existence of plans at the national, as well as at the levels of local and regional governments are mainly addressing specific threats. This will become apparent by the title of the plans, i.e. Croatia have Fire protection plans (“Fire-fighting and management”, Flood protection plans, etc. As mentioned by Jeraj (2014), for the case of cross-border activities, Croatia and Slovenia are developing a common Standard operating procedures for fighting open space fires.

The Website of the NPRD provides a comprehensive overview on Standard Operating Procedures, concerning Civil Protection (National Protection and Rescue Directorate 2014):

- SOP for treatment of a single operative - Communication Centre 112 at the fire in the open air
- SOP Croatia – Bosnia & Herzegovina on the provision of cross-border assistance in extinguishing the fire of open space
- SOP to use weather forecast Meteorological and Hydrological Service
- SOP for the operation of a single operative - Communication Centre (centre 112) - Delivered location data of users for calls from mobile telecommunications networks - AMENDMENTS -
- SOP for the operation of the single operations and communications centre 112 in case of an accident in the tunnel
- SOP for the operation of a single operative - Communication Centre 112 in the case of search and rescue operations on the mainland or an island
- SOP for the operation of a single operative - Communication Centre 112 in case of an accident on the highway
- SOP for treatment of a single operative - Communication Centre 112 in case of an accident on the state, county, local and unclassified roads
- SOP in organizing transportation for the purpose of organ transplants
- SOP for border crossing
- SOP for the operation of operational and rescue forces in flood
- SOP on call emergency numbers by which operators of public communications networks Centres 112 and 112 National Centre must allow free calls

The rulebook, developed by National Directorate for Protection and Rescue lays down roles and means for citizen alert system, as well as procedures for citizen alert system related to: origin of a crisis, procedures during the crisis and crisis ending.

The protocol on standard operative procedures of Common operative and communication centre (112 Centre) defines the way of common actions of operational troops (standard operative

procedures) and Common operative and communication centre (hereinafter 112 Centre), procedures for transmission of all available information related to crisis, accidents, big accidents or catastrophes after receiving information through 112 service, procedures of information analysis and forwarding to the operational troops and other participants in protection and rescue operations, as well as obligations of participants in protection and rescue operations towards 112 Centre, aiming at organised and coordinated implementation of protection and rescue operations. It includes also actions of Common operative and communication centre 112 and other participants in protection and rescue operations during fire-fighting action on open space.

The Standard Operative Procedure for action of operative troops for protection and rescue during floods launched by the National Directorate for Protection and Rescue is delivered to harmonise cooperation and action of operative troops for protection and rescue, as well as rescue operations during floods, where actions should follow Plan for protection and rescue on the territory of the Republic of Croatia and other basic legislation, particularly Law on water and National plan for flood defence. By applying SOP, a maximal integration of operative capacities and their efficient implementation within the whole protection and rescue system on the territory of the Republic of Croatia will be assured.

4.2 Operations planning

In general, disaster preparedness plans and contingency plans are in place at all levels (local, regional and national) and will be reviewed, supplemented and tested in practice regularly. County and local governments are responsible for the development of draft protection and rescue plans (i.e. disaster preparedness plans) for their respective administrative units. Preparedness/contingency plans are publicly available and are posted at the county and local self-government web sites (SEERDRMP, UNDP Croatia, and UNDP 2011).

4.3 Logistics support in crises

Regarding the deployment and management of operational forces, within the “Rulebook on mobilisation and action of the Operational Protection and Rescue Forces (NN 40/08, 44/08), adopted by the NPRD, the management, command and coordination of operational forces during disasters were regulated (Samardžija et al. 2014). While protection and rescue headquarters are responsible for the management and command of operational forces at the local and regional level, the NPRD is the competent authority at the national level. Furthermore, the organisation in terms of recruitment, personnel and material of those units is determined by regulations of the “Rulebook on organization, recruitment and equipping of the civil protection units and alerting units” (NN 111/07), passed by the director of the NPRD. As stated by Samardžija et al. (2014) stated, according to the Law on Protection and Rescue, logistics and equipping relies on NPRD warehouses, resources of local and regional self-government units and civil organizations whose members are recruited, depending on the type of the engaged units.

4.4 Crisis communication to general public; Alert system; Public Information and Warnings

As pointed out by the United Nations Office for Disaster Risk Reduction (2009), the system of alerting authorities is based entirely on the emergency number 112. Through this system, reports and signals regarding all levels of emergencies are collected and alerts are issued.

The early warning system is a part of the NPRD and is interconnected with warning centres, monitoring stations and alarm units. Furthermore, sound alarm systems are operated by warning centres, which act as communication hub in times of a disaster. Alarm units forward information about threats to the Warning Centre and alarm the population (Republic of Croatia 2010). As stated by the County department for Civil Protection (2014), there are many ways to warn the citizens. From the simplest such as triggering an alert by sirens to the more complex as it is the use of public media. The sirens are located in the 112 Centres of the NPRD, but have also been established at the local fire departments. Not all sirens of firefighters have been linked to the system 112 of NPRD. These current circumstances have been considered as a sub-optimal, because the forwarding of information, e.g. about the type of danger or the specific threat, might be later than the impact of an event affect the population. It was stated by SEERDRMP et al. (2011), the Standard Operating Procedures of the Integrated Operational-Communicational Centre (Centre 112) defines the way of common actions of operative units and Common operative and communication centre, procedures for transmission of all available information related to crisis, accidents, big accidents or catastrophes after receiving information through 112 service, procedures of information analysis and forwarding to the operational units and other participants in protection and rescue operations.

Furthermore as obligations of participants in protection and rescue operations towards 112 Centre, which is aiming at organised and coordinated implementation of protection and rescue operations have been defined. It includes also actions of Common operative and communication centre 112 and other participants in protection and rescue operations during fire-fighting action on open space. The communication of threats is mainly located at the Sector for 112 System, which operates at the national and county centres as a 24 hour a day – 7 days a week service. The sector comprises the national 112 Centre, the Prevention, Planning and Supervision Department and the Communications and IT Department. The collection and processing of information as well as the notification about events account to the tasks of the 112 Sector.

There central data storage for the collection of real events has been established. Equipped with a public alert system, it is responsible to inform the general public as well as legal persons, the national administration and the emergency and rescue services. Furthermore, it is dedicated to coordinate the transfer of commands and decision between various levels (Tomin and Barbera 2011). If an approaching danger has been detected by a hydro-meteorological forecasting system, warnings will be forwarded to the flood defence centres at the counties, Croatian Waters and the Main Centre of Flood Defence. The last one is responsible to notify the NPRD and update information about current events permanently (ICPDR 2012). According to the Government of the Republic of Croatia (2005), databases for individual risk types are maintained by risk-specific expert groups, i.e. Technical Support Centre (nuclear risk), the National Institute for Toxicology and the Information Centre of the National Oil Company, etc., which are forwarding relevant data to warning centres, the government, Civil Defence Headquarters.

5 Capabilities

5.1 Human resources

At the state level, there are a total of 540 people ordinarily employed in Civil Protection duties, consisting of public servants employed with the NPRD and staff of the 112 system. In the case of an emergency, employees of the NPRD will be supported by 900 private specialist contractors and 50 professional firemen. The county level comprises 180 people in the Civil Protection sector in times of peace, which are mainly employees of the 112 system. In towns and countries of Croatia, 2,300 professional fire-fighters and about 60,000 volunteers can be mobilised for Civil Protection in the case of a disasters. Including human resources of the National Protection and Rescue Directorate (plus the sector for the 112 system), private specialist contractors, professional fire-fighters and volunteers, in total, about 63,970 individuals are involved in Civil Protection in emergency periods. This amount corresponds to approximately 2.15 percent of the national active population (United Nations Office for Disaster Risk Reduction 2009).

According to the Croatian Fire-fighting Association (2011), in Croatia there are 1,835 volunteer fire-fighting units in municipalities and towns, 56 volunteer industrial fire-fighting units, 61 professional public city fire-fighting units, 34 professional industrial fire-fighting units, four intervention units of the Ministry of Interior and in addition, special fire-fighting forces and forces of the anti-fire escadrille of the Ministry of Defence. As represented by the Croatian Parliament (2006), in 2005, the Croatian Armed Forces had a numerical size of 18,479 active military personnel.

The state intervention units consist of teams dedicated to provide measures in the area of CBRN, Search and Rescue (SAR), water rescue and logistics (NPRD 2014b). The state intervention units for the Civil Protection have total personnel of 612, which are composed of 227 members from the Departments in Zagreb, 186 from the Department Osijek and in equal shares of 197 members from Department of Rijeka and the Unit in Split. In all departments and the Unit of Split, the major part of members takes the logistic team.

As already stated by Samardžija et al. (2014), the Croatian civil protection system strongly relies on volunteers which play an important role in all aspects. As illustrated in Table 3, without the contribution of police forces, about 90,402 personnel may participate actively in the case of an emergency.

Table 3: Overview on operational forces for protection and rescue activities in Croatia

Stakeholder Type	Name	Number of Personnel
Voluntary Organisation	Croatian Mountain Search and Rescue Service	~ 750
	Croatian Red Cross	8,852
	Volunteer fire-fighting units of towns and municipalities	56,415
	Volunteer fire-fighters of industrial fire-fighting units	1,621
	Professional fire-fighters in volunteer fire-fighting units	236
	Professional industrial fire-fighters	778

	Professional fire-fighters of public fire-fighting units	2,371
Agency/Department	Croatian Armed Forces	18,479
	Police	unknown
Private business	Private specialist contractors	900
Total		90,402

In Croatia, civil protection forces will be trained on the basis of a regular system of training and courses (European Commission 2014). For the needs of civil protection, the training through a regular system of education is being performed by enlisting adequate programs in the curriculum of elementary schools, and a three-year specialist training for the vocation of fireman. Even so, most of the training is maintained through specialist courses which are being performed in combination, through centralisation or decentralisation, at the state level or at the local self-government level and administration.

5.2 Materiel (non-financial) resources

In Croatia, protection and rescue plans at each administrative level determine the appropriate material and technical means used in the event of a crisis (Expert Interview 2014). Furthermore it has been stated, that there are plans in Croatia to use some military resources when they are needed. Protection and Rescue Plans define what kind of legal and natural persons in the sphere of local and regional governments will be entrusted with tasks to conduct certain activities in the case of disasters and major accidents. The County department for Civil Protection (2014) has named as examples the PP NOS firefighting planes in the case of large forest fires and the helicopters for emergency medical flights and rescuing victims from inaccessible areas.

As stated by the Croatian Fire-fighting Association (2011), the participation of special fire-fighting forces and forces of the anti-fire escadrille of the Ministry of Defence involves, if necessary, the provision of the following special assets:

- 6 Canaders CL 415
- 6 Air-tractors 802 A Fire Boss
- Helicopters of the type Mi-8 and 117-Š of the Croatian army

In the period of 2003-2009, 210 fire-vehicles and a fire-fighting robot produced by DOK-ING Company were acquired. There are the following types of vehicles available at the fire-fighting units in Croatia.¹³

- Attack vehicles
- Water tankers
- Chemical vehicles
- Technical vehicles
- Turntable ladders
- Forest vehicles
- Command vehicles

¹³ Information is available at: <http://www.firegeezzer.com/2011/05/20/the-croatian-fire-service-then-and-now-part-2/>; accessed: 19th October, 2014.

- Other vehicles (used for some special purpose like transport of equipment or personal, industrial fire-fighting, aero ports, tunnels etc.)

Within the National Report for the WDRC, the Croatia Government stated (2005), that at the national level, the Directorate for Strategic Commodity Stockpiles and the Ministry for Economic Affairs, Labour and Entrepreneurship are responsible for stockpiles of food, energy and equipment.

As stated by the Croatian Red Cross, the required “equipment is procured and stockpiled in the central warehouse in Zagreb and in regional warehouses.”¹⁴

The Law on Strategic Commodity Stockpiles, 2002 (NN 87/02) determines the holding of emergency stockpiles, its financing and their facilitation. As defined by the law, in the event of major natural disasters and technical/technological and ecological disasters, agricultural products, foods and non-food products, oil products, materials and raw-materials for production should be available at stock.

In Croatia, storage facilities for commodity reserves are operated by companies. HANDA, an entity under Public Law is responsible to form the state compulsory oil stocks at the level of a 90-day-consumption by 31st July 2012, in line with EU directives.

According to the report of the Petroleum Development Consultant Limited & Energetski Institut Hrvoje Požar (2011), in Croatia the following emergency stock was held in 2010 (see Table 4).

Table 4: Overview on current emergency stock holding in Croatia

Type	Stock (tonnes) held by HANDA, July 2010	Stock (tonnes) held by industry, July 2010
Crude oil	293,043	48,084
Motor gasoil	30,000	10,720
Diesel	25,000	23,920
Jet fuel	0	900
Gas oil	0	4,752
Fuel oil	35,000	7,725

5.3 Training

The Fire Fighting and Protection and Rescue School of the NPRD offers response-oriented specialist courses and trains professional firemen and protection and rescue forces (command headquarters, unit commanders, shelter managers and civil protection commissioners). Training and workshops for county and local government (for mayors, senior management and other relevant staff), as well as for volunteer associations (diving associations, mountain rescue services, volunteer fire departments) are organised by the NPRD. In 2011 on average 50-360 hours of training sessions were completed at national level and 50-80 hours at local level (SEERDRMP, UNDP Croatia, and UNDP 2011). It was mentioned within the IPA Needs Assessment, that “Croatia extensively uses simulation exercises to validate preparedness activities and contingency planning”.

Radovic et al. (2012) emphasised, that employers have an obligation to train employees in rescue and evacuation measures for the case of emergency. There are special regulations concerning the prevention, fire-fighting and evacuation of employees.

¹⁴ Information is available at: <http://www.hck.hr/en/category/-disaster-preparedness-and-response-63>; accessed: 21st October, 2014.

In the frame of an international disaster mitigation process, Croatia offers an international training program for medical response to major incidents to educators.

NMHS is conducting internal capacity building and technical training activities related to DRR, such as evaluation of the suitability of communications, workstations, and software to support DRR; forecasting of hazards including up-to-date training of new forecasting technologies and products; training on DRR processes and similar. In addition, NMHS participates in exercises and drills i.e. concerning nuclear accidents, floods, major traffic accidents etc. to ensure disaster preparedness. Pamphlets, brochures, posters and recorded materials are the methods and instructional materials used by the HMS to provide education and public outreach programmes. The UNISDR (2009) indicated, that the Firefighting Protection and Rescue School of the National Protection and Rescue Directorate maintain many cooperation in the field of Civil Protection, i.e. the United Kingdom's Bournemouth University (courses on international disaster management) and with the Italian training centre FORMEZ (affiliated to the Presidency of the Council of Ministers). Moreover, in the frame of the Stability Pact – DPPI Croatia has stipulated a Disaster Management Training Program, which is embedded in the cooperative network for countries of South Eastern Europe. Based on a common organisation of the Croatian National Protection and Rescue Directorate and the Slovenian Administration for Civil Protection and Disaster Relief special Risk Reduction Training Courses have been offered to professionals.¹⁵ Addressing the response to specific hazard types, training sessions for specific scenarios, i.e. cave accidents, have been established, involving 150 cave rescuers from Croatia and Slovenia.

Croatia is frequently joining international and European training exercises. Croatia is enhancing its national civil emergency and disaster-management capabilities in cooperation with NATO and through participation in activities organized by the Euro-Atlantic Disaster Response Coordination Centre (EADRCC). Croatia also participates in the work of the Senior Civil Emergency Planning Committee. In March 2010 the NPRD representatives participated at the international rescue dog exercise in Slovenia. Republic of Croatia has also participated in the NATO Crisis Management Exercise CMX09. Furthermore, the NPRD participate in the EU Civil Protection Mechanism training programme and in the UN CADRI and DPPI DRR oriented workshops and training (SEERDRMP, UNDP Croatia, and UNDP 2011). Training sessions and other types of educational events are regularly completed in the course of bilateral and international cooperation. In cooperation with the Civil-Military Emergency Preparedness, specific disaster management related training and workshops have been attended. Some important training exercises are provided in Table 5.

Table 5: Overview on some international training sessions completed by Croatia in the last years¹⁶

Year	Program title	Scope
2014, September	Cave Rescue Training	DPPI SEE DMTP Event ¹⁷

¹⁵ Information is available at: http://seekms.dpri.info/cb_opp/disaster-risk-reduction-training-course/; accessed: 21st October, 2014.

¹⁶ Information about EU-related training session is available at: http://ec.europa.eu/echo/files/civil_protection/civil/prote/exercises.htm#2009 (last updated: 10th July, 2014); accessed: 10th August, 2014.

¹⁷ An overview on training sessions in the frame of the Disaster Preparedness and Prevention Initiative for South Eastern Europe (DPPI SEE) is available at: <http://www.dpri.info/programmes-activities/dmtp>; accessed: 29th September, 2014.

		Joint training of Croatia and Slovenia
2014, May	National Road Traffic Collision Extrication Challenge, Skopje, Macedonia	DPPI SEE DMTP Event Coordination exercise
2013, September	Disaster Risk Reduction Training Course	DPPI SEE Event - Disaster Management Training Program of Croatia and Slovenia
2013, September	Cave Rescue Training	DPPI SEE DMTP Event Joint training of Croatia and Slovenia
2013, June	EU TARANIS 2013	Floods
2013, May	TWIST	Tsunami
2012, May	IPA CRO-FLOODS 2012 Field Exercise	Flooding Exercise of the civil protection intervention teams from seven Western Balkan countries and several EU countries
2010	EU TEREX	Earthquake
2010, March	NATO Crisis Management Exercise - CMX 09 ¹⁸	Simulation exercise on political-military decision-making for crisis management
2009, September	EU Danubius 2009	Earthquake
2009	EU-SweNorEx 2009	Earthquake simulation exercise including cross-border management
2008, September	EU HUROMEX 2008	Flooding in two countries in parallel and related accidents

5.4 Procurement

5.4.1 Procurement regulation

Exercised by the department of procurement, the NPRD is the superordinate body for the planning and quantifying of the state's emergency reserves required for the protection and rescue. Regarding the focus of procurement, the County department for Civil Protection (2014) has argued on the basis of its experience, that one should go with the other – that means, equipment and training needs to be procured together. In Croatia the goods and services have to be procured under the Law on Public Procurement for which a compliance with EU Directives can be assumed. At the moment, in Croatia joint/cross-border procurement is under consideration regarding equipment and training (Expert Interview 2014). It has been indicated, that there have already been several meetings with an attempt to jointly apply several projects for EU funding. From the standpoint of the County department for Civil Protection (2014), an additional legislation with regard to cross-border procurement is vitally necessary. Based on previous experiences with cross-border missions, i.e. in Bosnia & Hercegovina, some lacks concerning differences in country-specific SOPs and deficiencies at operational fieldwork became apparent. The unequal standard of neighbouring countries is a hindrance for an interoperable approach and thus pointed out grievances, which should be eliminated as

¹⁸ Information is available at: <http://www.morh.hr/en/news/press-releases/6350-nato-crisis-management-exercise-cmx-09.html>; accessed: 10th August, 2014.

quickly as possible. Hence, any regulation that would facilitate the procurement of goods would be more than welcome.

5.4.2 Procurement procedures

In the Republic of Croatia, the NPRD is responsible for procurement at the strategic level of the state, while at the operational level, where operational forces, i.e. Firefighters, CMRS, etc. are the main actors, each department is free to dispose their procurement on their own.

Article 1 of the *REGULATION ON PUBLIC PROCUREMENT FOR DEFENCE AND SECURITY PURPOSES (NN 89/12)* defined the rules, conditions and public procurement for the following issues:

- the supply of military equipment, including any parts, components and/or subassemblies thereof,
- supply of sensitive equipment, including any parts, components and/or subassemblies thereof,
- works, supplies and services directly related to the equipment referred to in points 1 and 2 of this Article for any and all elements of its life cycle,
- works and services for specifically military purposes,
- sensitive works and sensitive services.

In the course of the procurement regulation, compliance with the Directive 2009/81/EC was given as well as with the Directives 2004/17/EC and 2004/18/EC in the fields of defence and security. The regulation refers to the Public Procurement Act and the Act on State Commission for Supervision of Public Procurement Procedure (NN 21/10).

5.5 Niche capabilities

The best performing parts of the Croatia's civil security system are well trained and well equipped forces, particularly in the fire-fighting (both regular and voluntary forces) and flood protection. Croatia has highly professional and operational protection and rescue capacities at central government level (healthcare, inspections, capacities of relevant public administration bodies and crisis management related services). Their skills and knowledge are one of the crucial assets for the system. Furthermore, specialised knowledge in the area of cave rescuing was established based on the well-established speleological science in Croatia.¹⁹ In 2013, an international conference on the issue of mountain rescuing, where more than 500 of the world's best rescuers participated, was hosted in Croatia by CRMS. The speleological expedition „Lukina jama 2010“ was the occasion for the meeting of Croatian speleologists and colleagues from Bulgaria, England, Slovakia, Czech Republic and Spain.²⁰

¹⁹ Information is available at: <http://www.croatiaweek.com/tag/croatian-mountain-rescue-service/>; accessed: 22nd September, 2014.

²⁰ Information is available at: <http://161.53.55.11/speleo/lukina2010/index-en.html>; accessed: 21st September, 2014.

Close cooperation has been established between state administration bodies, NGOs, public and private companies (Samardžija, Tišma, and Skazlić 2014). The remarkable number of volunteers (about 71,000) can be identified as an important aspect of the protection and rescue system.

Furthermore, Croatia is considered as a Centre of Excellence for training of fire fighters and coordination of response to forest fires in the countries of South Eastern Europe.

As mentioned at ReliefWeb (2009):

Croatia is widely considered as regional leader in the South Eastern Europe, particularly, in the area of wild fires risk management and monitoring and forecasting of meteorological hazards. The Government develops multi-year plans for hazard risk management, including the Protection and Rescue Plan developed by the National Protection and Rescue Directorate (NPRD) which describes the planned activities aimed at strengthening disaster risk management functions.

Croatia is regarded as driver for research on risks and disasters in the South-East region. Due to Croatia's contribution to the harmonization of fire-fighting brigades in the countries of the region through standardization of equipment and procedures, thus promoting regional cooperation and collaboration in disaster risk reduction in South Eastern Europe.

In the view of the County department for Civil Protection (2014), best practices and transferable elements can be found in Fire-fighting, especially airborne task forces (firefighting planes-Canadair) and rescue from hard to reach areas (CMRS).

As emphasised by Samardžija et al. (2014), based on Croatia's experience with the consequences of war, "Croatia has developed humanitarian demining capacities (physical demining, equipment, know-how, and rehabilitation of mine victims) which represent its comparative advantages in Europe and worldwide."

Resources

Legislative acts

Act on Radiological and Nuclear Safety, 2010a (NN 28/10), Zagreb: Narodne Novine (OG).

Information Security Act, 2007 (NN 79/07), Zagreb: Narodne Novine (OG). Available at: https://www.soa.hr/UserFiles/File/information_security.pdf.

Inter-Parliamentary Union. 2013. "STATE OF EMERGENCY." *Hrvatski Sabor (Croatian Parliament)*. http://www.ipu.org/parline-e/reports/CtrlParlementaire/2077_F.htm#defnat.

Law on Critical Infrastructures, 2013 (NN 56/13), Zagreb: Narodne Novine (OG).

Law on Participation of the Croatian Armed Forces, police, civil defense, civil servants and employees in peacekeeping operations and other activities abroad, 2002 (NN 33/02 , 92/02), Zagreb: Narodne Novine (OG).

Law on Protection from Natural Disasters, 97 (NN 73/97)

Law on Volunteering, 2007 (NN 58/07). Zagreb: Narodne novine (OG).

National Plan of Action concerning Environmental Impact 2002 (NN 46/02). Zagreb: Narodne novine (OG). Available at: http://narodne-novine.nn.hr/clanci/sluzbeni/2002_46_02_708.html.

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Driving Innovation in Crisis Management for **European Resilience**

CYPRUS

Capabilities, Organisations, Policies, and Legislation (COPL) in crisis management and disaster response

Responsible Partner: ATOS (Adem Yaşar Mülayim)

Scope and limitations

This study serves as supporting information for further work within DRIVER.

Only limited time and budget has been available for this first general survey, which needs to be considered in terms of scope and completeness of the respective studies.

The author/s of this study is/are responsible for its content and quality.

Overview

Cyprus consists of six districts: Famagusta, Kyrenia, Larnaca, Limassol, Nicosia and Paphos.

In Cyprus, the main mission of the Civil Defence Force is the performance of various humanitarian tasks intended to protect the civilian population and help it recover from the immediate effects of hostilities or disaster as well as to provide the conditions necessary for its survival. The Civil Defence Force is organized by the establishment of civil defence units in almost all the urban areas and all the villages near the cease fire line.

National crisis management & disaster response concept:

In Cyprus, Civil Defence is a department of the Ministry of Interior responsibility. Its main mission is to carry out various humanitarian actions intended to deal with the consequences of disasters, resulting either from natural actions (earthquake, flooding, hurricanes etc.) or from human actions (industrial accidents, armed conflicts etc.).

The Minister of Interior, on behalf of the Council of Ministers, is responsible for the implementation of the Civil Defence Law and the relevant Regulations and has the overall supervision and control of the Civil Defence System. He also undertakes the coordination of the services and organizations which are declared as “essential” for civil defence purposes.

Members of Civil Defence serve either at the General Directorate of Civil Defence (GDCCD) or at one of the five regional managements (RMCD): Lefkosia, Lemesos, Larnaka, Pafos and Ammochostos. Under every Regional Management. Civil Defence Regional Management Offices operate another four departments; First Aid Department, Welfare Department, Neighbourhood Watch Department, Secretarial-Communications Department.

Key stakeholders: Minister of Interior, GDCCD, RMCDs (five regional managements), civil defence units (e.g. Search and rescue teams,), community councils, Cyprus Red Cross, volunteers.

Financing: Other than civil protection purposes allocated to other government agencies 0.0452% of GDP is allocated for Cyprus Civil Defence/Protection organisation.

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List of Abbreviations

GDCD	General Directorate of Civil Defence
RMCD	Regional Management of Civil Defence

1 Policy

1.1 Risk Assessment

In Cyprus key risks and areas of concern are natural and man-made hazards, such as earthquakes, large fires, floods and marine pollution.

Table 1 gives major disasters occurred in Cyprus.

Table 1. Major disasters in Cyprus.

Year	Disasters
2009	Tornado
2008	Forest fire
2007	Forest fire
2007	Extreme temperature, Nicosia, 4 dead
2005	Transport accident, 31 dead, 8 people affected
2004	Storm, Larnaca, 10 people affected
2003	Tornado, Limassol, Larnaca, 30 people affected, estimated damage USD 10 million
2000	Wildfire, Larnaca Sud
2000	Extreme temperature, Nicosia, 5 dead, 400 people affected
2000	Drought
1998	Fire at a military base, Episkopi, 692 people affected
1998	Extreme temperature, 52 dead, 100 people affected
1996	Viral meningitis epidemic, Limassol, Larnaca, Nicosia, 280 people affected
1995	Earthquake, seismic activity and ground shaking, Paphos and Nicosia areas, 2 dead, 1865 people affected, estimated damage USD 4.34 million
1991	Drought
1983	Storm
1970	Storm
1970	Cholera epidemic
1969	Storm, Limassol, 3 dead, 3100 people affected, estimated damage USD 0.1 million
1953	Earthquake, seismic activity and ground shaking, south-west, 40 dead, 100 people affected

1.2 Policy and Governance

The Minister of Interior, on behalf of the Council of Ministers, is responsible for the implementation of the Civil Defence Law and the relevant Regulations and has the overall supervision and control of the Civil Defence System. He also undertakes the coordination of the services and organizations which are declared as “essential” for civil defence purposes. A few years ago the Government launched a major review of its civil protection system, beginning with the amendment of relevant legislation. The system relies heavily on contingency planning made by all the Vital Services and Local Authorities including civil defence, in order to cope with the effects of an emergency situation. Cyprus actively participates in the European Union's Civil Protection Mechanism and harmonizes national policies and programmes with the European Acquis.

The Council of Ministers approves the General Civil Defence Plan, which defines the role, duties and responsibilities of all components of the civil defence system. According to these roles, duties and responsibilities, each component of the civil defence system (mainly the "essential services") has to elaborate civil defence plans in order to deal with contingencies, which may arise either because of war or disaster. The plans are submitted to the Central or District Civil Defence Councils (according to their level) for checking and coordination.

The Civil Defence was reorganised at the beginning of 2000 and new scientific and other personnel were recruited. The Operations Control Centre was created, equipment was acquired, and the Search and Rescue Teams were established. Today, Civil Defence operates in accordance with the amended and consolidated Law of 1996 and the relevant Regulations of 1997, aimed at strengthening and reorganising the Republic's entire civil defence system.

1.2.1 Strategy scope and focus

The main mission of the Civil Defence Force is the performance of various humanitarian tasks intended to protect the civilian population and help it recover from the immediate effects of hostilities or disaster as well as to provide the conditions necessary for its survival. The Civil Defence Force is organized by the establishment of civil defence units in almost all the urban areas and all the villages near the cease fire line. Most of the units are manned by conscripts and volunteers. Civil Defence members receive a basic training and are later trained and positioned in different divisions of the Civil Defence. These are the First Aid, the Telecommunications Section, the Welfare Section and the Fire Fighting, Rescue and the Neighbourhood Watch Sections.

1.2.2 Monitoring and analytical support to policy making; R&D

At the beginning of 2000, new scientific and other personnel were recruited, within the context of the Civil Defence reorganisation.

1.2.3 Policy for Prevention

Civil Defence takes certain prevention and preparedness measures, in co-operation with other involved services, in order to respond in the event of a disaster. Such preventative measures are the following:

- Preparing Action Plans such as the "Enceladus", for earthquakes
- Carrying out various exercises, with different possible scenarios
- Training, equipping and exercising department personnel
- Providing information to the population at regular intervals
- Constructing and designing shelters

Civil Defence prepared educational programs in 2011, to train Civil Defence members including volunteers on matters relating to Civil Defence and specific themes related to each department accordingly.

1.2.4 Policy for Preparedness

Please see the previous section.

1.2.5 Policy for Response

Civil Defence co-operates with other Essential Services on the basis of specific action plans where the ways of dealing with the consequences are defined. This include a series of response measures aimed at enabling essential services to continue to operate, to house and cater for the afflicted, to carry out rescues, to keep up the population's morale and etc.

1.2.6 Policy for Relief and Recovery

The Welfare Department provides shelters, catering and clothing for the homeless, psychological support to the victims and generally provide relief to the population in the event of a disaster.

The First Aid Department mission is to provide First Aid service in the event of a disaster, until medical assistance becomes available.

For mass emergency catering purposes, there is a special Civil Defence Catering Plan, to be implemented in co-operation with other services. To implement the Plan, Civil Defence has a mobile catering unit, the operation of which is undertaken by specially-trained personnel. The unit takes part in exercises to ensure readiness in the event of an emergency.

Civil Defence has implemented a programme for the construction and design of shelters, mainly in the urban areas. For this purpose, civil engineers designed additions and alterations to suitable basements, with the owners' consent, to render them safe for short periods of stay and protection of the civil population. A large number of shelters has already been completed.

Restoration of damage service, headed by the Director of Civil Defence, was introduced after the earthquake in Pafos in 1995, to house the afflicted and to repair damage. The 1996, 1998 and 1999 earthquakes followed in Lemesos and Pafos. The Service's activities continued during the Lemesos

tornado in 2003 and the flooding in Lefkosia in 2004. During these disasters, the Service provided grants to restore the damages. In addition to the above, it had an advisory role in the earthquake control programmes and in upgrading refugee housing estates, schools and other public buildings.

1.3 Financing

Other than civil protection purposes allocated to other government agencies 0.0452% of GDP is allocated for Cyprus Civil Defence/Protection organisation.

1.4 Policy review, Evaluation & Organisational Learning

1.4.1 Post-Disaster Assessment

Restoration of damage service, headed by the Director of Civil Defence, was introduced after the earthquake in Pafos in 1995, to house the afflicted and to repair damage. The 1996, 1998 and 1999 earthquakes followed in Lemesos and Pafos. The Service's activities continued during the Lemesos tornado in 2003 and the flooding in Lefkosia in 2004. During these disasters, the Service provided grants to restore the damages. In addition to the above, it had an advisory role in the earthquake control programmes and in upgrading refugee housing estates, schools and other public buildings.

2 Legislation

2.1 Crisis (emergency, disaster) management concept

The Civil Defence Act was amended and consolidated in 1996¹, and new regulations were enacted in 1997² in order to reorganise and strengthen the whole civil defence system of the republic. These regulations were then updated as shown below:

1. In 2004 and to comply with the EC Act with the Directive 96/82/EK of the council of the 9th of December 1996 for the tackling of major accident hazards involving dangerous substances³
2. In 2006 updated in order to comply with the EC Act with title “Directive 2003/105/EK of the European Commission and the council of the 16th of December 2003 for the amendment of the Directive 96/82/EK of the Council for the tackling of major accident hazards involving dangerous substances”⁴

1

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[http://www.moi.gov.cy/moi/cd/cd.nsf/35BC650D97EC9A1BC2257A30002942C7/\\$file/%CE%9F%CE%99%20%CE%A0%CE%95%CE%A1%CE%99%20%CE%A0%CE%9F%CE%9B%CE%99%CE%A4%CE%99%CE%9A%CE%97%CE%A3%20%CE%91%CE%9C%CE%A5%CE%9D%CE%91%CE%A3%20\(%CE%93%CE%95%CE%9D%CE%99%CE%9A%CE%9F%CE%99\)%20%CE%9A%CE%91%CE%9D%CE%9F%CE%9D%CE%99%CE%A3%CE%9C%CE%9F%CE%99%20%CE%A4%CE%9F%CE%A5%201997.pdf](http://www.moi.gov.cy/moi/cd/cd.nsf/35BC650D97EC9A1BC2257A30002942C7/$file/%CE%9F%CE%99%20%CE%A0%CE%95%CE%A1%CE%99%20%CE%A0%CE%9F%CE%9B%CE%99%CE%A4%CE%99%CE%9A%CE%97%CE%A3%20%CE%91%CE%9C%CE%A5%CE%9D%CE%91%CE%A3%20(%CE%93%CE%95%CE%9D%CE%99%CE%9A%CE%9F%CE%99)%20%CE%9A%CE%91%CE%9D%CE%9F%CE%9D%CE%99%CE%A3%CE%9C%CE%9F%CE%99%20%CE%A4%CE%9F%CE%A5%201997.pdf)

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[http://www.moi.gov.cy/moi/cd/cd.nsf/35BC650D97EC9A1BC2257A30002942C7/\\$file/%CE%9F%CE%99%20%CE%A0%CE%95%CE%A1%CE%99%20%CE%A0%CE%9F%CE%9B%CE%99%CE%A4%CE%99%CE%9A%CE%97%CE%A3%20%CE%91%CE%9C%CE%A5%CE%9D%CE%91%CE%A3%20\(%CE%93%CE%95%CE%9D%CE%99%CE%9A%CE%9F%CE%99\)%20\(%CE%A4%CE%A1%CE%9F%CE%A0%CE%9F%CE%A0%CE%9F%CE%99%CE%97%CE%A4%CE%99%CE%9A%CE%9F%CE%99\)%20%CE%9A%CE%91%CE%9D%CE%9F%CE%9D%CE%99%CE%A3%CE%9C%CE%9F%CE%99%20%CE%A4%CE%9F%CE%A5%202006.pdf](http://www.moi.gov.cy/moi/cd/cd.nsf/35BC650D97EC9A1BC2257A30002942C7/$file/%CE%9F%CE%99%20%CE%A0%CE%95%CE%A1%CE%99%20%CE%A0%CE%9F%CE%9B%CE%99%CE%A4%CE%99%CE%9A%CE%97%CE%A3%20%CE%91%CE%9C%CE%A5%CE%9D%CE%91%CE%A3%20(%CE%93%CE%95%CE%9D%CE%99%CE%9A%CE%9F%CE%99)%20(%CE%A4%CE%A1%CE%9F%CE%A0%CE%9F%CE%A0%CE%9F%CE%99%CE%97%CE%A4%CE%99%CE%9A%CE%9F%CE%99)%20%CE%9A%CE%91%CE%9D%CE%9F%CE%9D%CE%99%CE%A3%CE%9C%CE%9F%CE%99%20%CE%A4%CE%9F%CE%A5%202006.pdf)

2.2 General crisis (emergency, disaster) management law

All the powers regarding civil defence belong to the Council of Ministers

The Minister of the Interior, on behalf of the Council of Ministers, is responsible for the implementation of the Civil Defence Act and the relevant regulations as well as the overall supervision and control of the civil defence system. He coordinates services and organisations which are declared "essential" for civil defence purposes. Thus, the responsibility of the civil defence rests in general with the Ministry of the Interior

2.3 Emergency rule

In case of war or disaster which requires mass mobilization of human resources or means, the Council of Ministers or the Minister of the Interior on behalf of the Council may declare a "State of Civil Defence" for 48 hours (an extension of this period requires the approval of the House of Representatives)

2.4 Specific, department/agency-level legal arrangements and regulations on emergency and disaster management

The Council of Ministers may declare the administration of any Ministry or any Governmental Department/Service or Independent Office or any Public or Private Corporation an "essential service" for civil defence purposes. Any such declaration has a legal effect on the "essential services" concerned in terms of planning, training, preparedness and response, in order to be able to participate effectively in the civil defence system

2.5 Specific to the regional and local authorities legal arrangements and regulations on emergency and disaster management

Members of Civil Defence serve either at the General Directorate of Civil Defence (GDGD) or at one of the five regional managements (RMCD): Lefkosia, Lemesos, Larnaka, Pafos and Ammochostos.

Under every Regional Management, operate Civil Defence Stations and Substations in the towns and within the communities. This is where the volunteers and the citizens serving the Civil Defence attend for training and exercises. Attendance is on fixed days and times of the week. In communities where there are no Civil Defence units, organisation is carried out in co-operation with Community Councils.

2.6 Legal regulations on the involvement of volunteers and specialised NGOs

Legislative provisions were made for the establishment and organisation of civil defence forces and services on an either obligatory or voluntary basis, the training and education of citizens in civil defence, the supply, acquisition and storage of civil defence material, the construction of shelters, the provisions for requisitions and the purchase or lease of movable or immovable property

2.7 Legal regulations for international engagements of first responders and crisis managers

The Cypriot contribution to the international humanitarian assistance and disaster relief operations is provided through the Monitoring and Information Centre (MIC), operated by the European Commission in the Framework of Community Mechanism to facilitate reinforced cooperation in civil protection assistance interventions.

3 Organisation

3.1 Organisational chart

In Cyprus, Civil Defence is a department of the Ministry of Interior responsibility. Its main mission is to carry out various humanitarian actions intended to deal with the consequences of disasters, resulting either from natural actions (earthquake, flooding, hurricanes etc.) or from human actions (industrial accidents, armed conflicts etc.).

The Minister of Interior, on behalf of the Council of Ministers, is responsible for the implementation of the Civil Defence Law and the relevant Regulations and has the overall supervision and control of the Civil Defence System. He also undertakes the coordination of the services and organizations which are declared as “essential” for civil defence purposes.

Members of Civil Defence serve either at the General Directorate of Civil Defence (GDCCD) or at one of the five regional managements (RMCD): Lefkosia, Lemesos, Larnaka, Pafos and Ammochostos. Under every Regional Management, Civil Defence Regional Management Offices operate another four departments; First Aid Department, Search and Rescue teams, Welfare Department, Neighbourhood Watch Department, Secretarial-Communications Department.

The Cypriot contribution to the international humanitarian assistance and disaster relief operations is provided through the Monitoring and Information Centre (MIC), operated by the European Commission in the Framework of Community Mechanism to facilitate reinforced cooperation in civil protection assistance interventions.

The army may support civil protection related to humanitarian tasks.

Private and public organisations that have been declared "essential" for civil defence purposes and Cyprus Red Cross and St John Ambulance and other local associations are other important stakeholders of the civil defence in Cyprus.

Figure 1 gives an outline of the organisational structure.

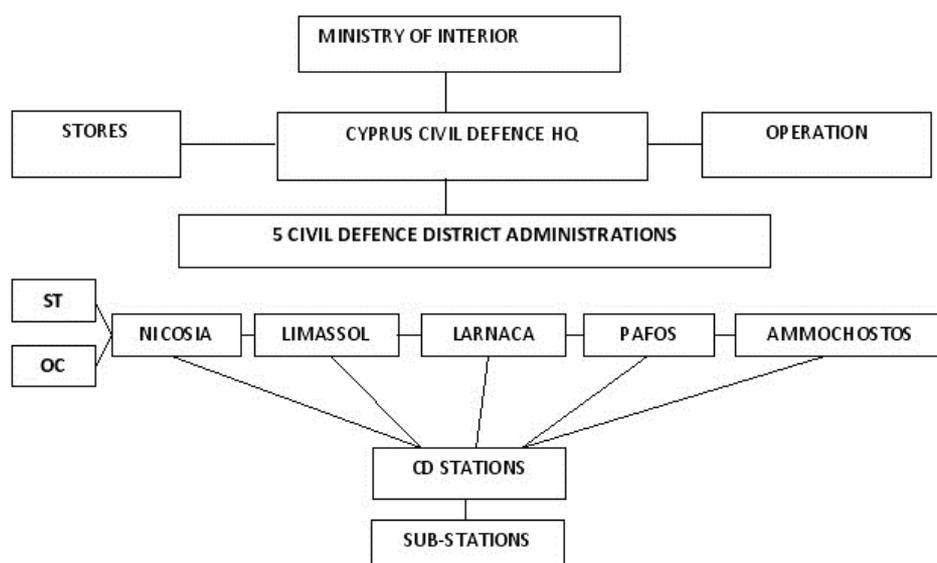


Figure 1: Cyprus civil defence organisational chart.

4 Procedures

4.1 Operations planning

The Council of Ministers approves the General Civil Defence Plan, which defines the role, duties and responsibilities of all components of the civil defence system. According to these roles, duties and responsibilities, each component of the civil defence system (mainly the "essential services") has to elaborate civil defence plans in order to deal with contingencies, which may arise either because of war or disaster. The plans are submitted to the Central or District Civil Defence Councils (according to their level) for checking and coordination.

4.2 Crisis communication to general public; Alert system; Public Information and Warnings

The Civil Defence Administrative Operations Control Centre operates with a permanent staff on a 24-hour basis, which gives great capabilities to the Republic of Cyprus.

Some of the main responsibilities of this Centre are monitoring the electronic sirens system, operating wireless networks, handling information systems, and for the operation of the Centre as a Command Centre in the event of mobilization. In addition to the above, Civil Defence has at its disposal multifunctional mobile operations control centres.

Civil Defence has set up an electronic siren network in towns and communities to warn the population in the event of a threat of a natural disaster or hostile air activities. The siren network has the following abilities:

- to sound the alarm
- to transmit a mobilisation signal
- to transmit vocal messages

When the sirens sound, citizens are obliged to follow both Civil Defence instructions and those of other essential services. Additional analytical information on the subject is provided on the special Civil Defence leaflets, entitled "Black-out" and "Alarm".

Cyprus Civil Defence has established a reliable wireless communication system within its units and other state services, municipalities and communities. This modern system has island-wide range and it is very important in case the telephone network breaks down in the event of a major disaster.

5 Capabilities

5.1 Human resources

In order to prepare for, respond and train to disasters, the Civil Defence Force consists of:

- a permanent and well-organised staff of 33 persons island-wide,
- an interchangeable staff of 45 persons island wide
- around 600 volunteers serving under special terms island-wide
- around 7000 male and female citizens serving Civil Defence island-wide

Private and public organisations that have been declared "essential" for civil defence purposes and Cyprus Red Cross and St John Ambulance and other local associations are other important resources of the civil defence in Cyprus.

5.2 Materiel (non-financial) resources

The Welfare Department provides shelters, catering and clothing for the homeless, psychological support to the victims and generally provide relief to the population in the event of a disaster.

Civil Defence has implemented a programme for the construction and design of shelters, mainly in the urban areas. For this purpose, civil engineers designed additions and alterations to suitable basements, with the owners' consent, to render them safe for short periods of stay and protection of the civil population. A large number of shelters has already been completed.

For mass emergency catering purposes, there is a special Civil Defence Catering Plan, to be implemented in co-operation with other services. To implement the Plan, Civil Defence has a mobile catering unit, the operation of which is undertaken by specially-trained personnel. The unit takes part in exercises to ensure readiness in the event of an emergency.

In case of war or disaster which requires mass mobilization of human resources or means, the Council of Ministers or the Minister of the Interior on behalf of the Council may declare a "State of Civil Defence" for 48 hours (an extension of this period requires the approval of the House of Representatives)

5.3 Training

Cyprus civil defence members are trained as well as the staff of the essential services and departments.

Under every Regional Management, Civil Defence Stations and Substations exist in the towns and within the communities. This is where the volunteers and the citizens serving the Civil Defence attend for training and exercises. Attendance is on fixed days and times of the week. In communities where there are no Civil Defence units, organisation is carried out in co-operation with Community Councils.

Within the European Union Civil Protection Mechanism framework of the Mechanism, the requisite procedures are set out, and training and preparatory exercises are carried out, which provide important benefits to Cyprus, which is geographically located in the easternmost part of the European Union.

National exercise programmes are in place, and both national, regional and local exercises are run, including the following:

- Earthquake exercises, among these “Egkelados”
- Seveso II exercise
- Search and rescue exercises
- Welfare exercises.

Training fields and premises in every district are used as training facilities. The responsible organisation for inter-agency civil protection (horizontal exercises) is the Cyprus Civil Defence.

Resources

Official documents (white papers, strategies, etc.)

- Civil Defence, Annual Report 2011, Ministry of Interior, Republic of Cyprus, February 2012
- Civil Defence, Structure, Capabilities, History, Manpower, Cyprus Civil defence, Republic of Cyprus, 2014
- Civil Defence, Structure, Capabilities, History, Manpower, Cyprus Civil defence, Republic of Cyprus, 2009

Online resources (e.g. websites of key CM organizations)

- www.moi.gov.cy/cd
- <http://www.besafenet.net/>
- <http://www.nereids.eu/>
- <http://www.eutac-project.eu/>
- http://www.mod.gov.cy/mod/CJRCC.nsf/index_gr/index_gr?OpenDocument
- <http://questcity.eu/>
- http://www.moa.gov.cy/moa/fd/fd.nsf/DMLprotection_gr/DMLprotection_gr
- <http://www.redcross.org.cy/>
- www.police.gov.cy
- www.fs.gov.cy

Publications

- BeSafeNet Booklet, Cyprus Civil Defence and Europa
- <http://www.cyprusonfilm.com/index.php?pageaction=fls&modid=Films&catid=9&filid=63>



Driving Innovation in Crisis Management for **European Resilience**

CZECH REPUBLIC

Capabilities, Organisations, Policies, and Legislation (COPL) in crisis management and disaster response

Responsible Partner: AIT (Florian Eicher, Bettina Jager)

Scope and limitations

This study serves as supporting information for further work within DRIVER.

Only limited time and budget has been available for this first general survey, which needs to be considered in terms of scope and completeness of the respective studies.

The author/s of this study is/are responsible for its content and quality.

Overview

In the Czech Republic, the Civil Emergency Planning (CEP) includes “planning, co-ordination and management precautions to ensure preparedness of the state to prevent and manage emergencies and crisis situations threatening the population, the running of the administration, the economy, to perform international security engagements as well as supporting the armed forces in case of state emergencies.” (UNISDR Europe 2013). As an important part of the security system, the Crisis Management in Czech Republic includes the political sphere as well as the strategy of protecting of the population, finance and economy (Swedish Civil Contingencies Agency 2009). A clear division can be identified between the Ministry of the Environment, which is in charge for coordinating activities to achieve the goals of the Hyogo Framework for Action and the Ministry of the Interior as the primarily responsible for disaster risk reduction. Undoubtedly, two ministerial departments can be identified as the predominantly. On the one hand, the department of Security and Crisis Management at the Ministry of the Environment of the Czech Republic and on the other hand, the Department of International Relations at the Ministry of the Environment of the Czech Republic, which has been labelled as the second focal point. The CEP-systems does not cover solely centralised protection approaches, but also processes of prevention planning, preparedness and consequence management at the level of municipalities. The Integrated Rescue System (IRS) is a core mechanism to apply the goals, defined by the Hyogo Framework of Action for the period 2005 – 2015. By coordinating several actors in several areas, especially, rescue and security forces at the level of the state and the local governments as well as legal entities and individuals, it is a main driver to ensure an efficient response to natural disasters. Chaired by the Fire Rescue Service, experts, technical staffs as well as Public Health Authorities have been involved in the system. As indicated by Bakken and Rhinard (2013), the military as a provider of relevant resources plays an important role within the IRS. The mobilisation of rescue forces and operational resources is organised by the operations and Information Centre of the IRS.

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List of Abbreviations

AMSR	Administrative of State Material Reserves
CM	Crisis Management
CEP	Civil Emergency Planning
CRC	Czech Red Cross
DRR	Disaster Risk Reduction
EAPC	Euro Atlantic Partnership Council
ECMWF	European Centre for Medium-Range Weather Forecasts
ECR	European Centre for the Regions
EIPA	European Institute of Public Administration European Center for the Regions
ERCC	Emergency Response Coordination Centre
EU	European Union
EUMETNET	Network of European Meteorological Services
EUSF	European Union Solidarity Fund
GDP	Gross Domestic Product
ICPDR	International Commission for the Protection of the Danube River
ICPDR	International Commission for the Protection of the Danube River
ICPDR	International Commission for the Protection of the Danube River
MoD	Ministry of Defence
MoI	Ministry of Interior
NATO	North Atlantic Treaty Organization
NMHS	National Meteorological and Hydrological Service
OECD	Organisation for Economic Co-operation and Development
SOP	Standard Operating Procedure
UN	United Nations
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNISDR	United Nations Office for Disaster Risk Reduction
UN-OCHA	United Nations Office for the Coordination of Humanitarian Affairs
UNS	Office for the protection of the Constitutional Order
USAR	Urban Search and Rescue
WHO	World Health Organisation
WMO	World Meteorological Organisation

1 Policy

The Czech Republic is a unitary state with a parliamentary system; the Parliament consisting of two houses – the Chamber of Deputies and the Senate. At the lower administrative level, the country is divided into 14 regions and the statutory City of Prague. This division has been in place since 2002, when the Reform of Territorial Administration took place and the counties were replaced by regions. The regions are further sub-divided into municipalities. The legislative and main administrative competences rest on the national level with respective ministries. The political system of the country is best described as a majoritarian democracy with some significant aspects of consensus democracy (European Commission 2014).

The civil security system is rather decentralized. Authority and responsibility for crisis preparation and response rest at the regional level. A state of danger can be declared by the regional council president for the whole region or its part, for a period of maximum 30 days when there is a natural disaster, ecological or industrial accident or if life, health or property of citizens is threatened. When a crisis cuts across the regions, the central government assumes responsibility. Up-scaling to a higher degree, then, is the *state of emergency* which is called by the government for a period of maximum 30 days. The reasons are the same as in the previous case, however, the scale of the disaster must be here “significant”. Typically, the state of emergency is declared when two or more regions are affected by a crisis (Bakken and Rhinard 2013).

<i>Administrative level</i>	<i>Crisis management authority</i>	<i>Consultative and advisory body</i>	<i>Crisis Management Centre</i>
Centre	Government, the prime minister	National Security Council (esp. Committee for Civil Crisis Planning)	Central crisis staff
Region	Regional president (<i>hejtman</i>)	Security council of the region	Crisis staff of the region
Municipality with extended powers	Mayor (<i>starosta</i>) of the municipality with extended powers	Security council of the municipality with extended powers	Crisis staff of the municipality with extended powers
Municipality	Mayor (<i>starosta</i>)	-	Crisis staff of the municipality

Table 1. Structure of Crisis Management in the Czech Republic.

The Security Council is a permanent body. At the regional and municipal levels it consists of the representatives of the regional/ municipal office, basic bodies of the IRS, military and health bodies.

1.1 Risk Assessment

According to Jelinek, Wood and Harvas (2007) has the Czech Republic no national multi-hazard risk assessment available to inform planning and developing decisions. Although an Agreement for national standards for multi hazard risk assessments does exist. Multi-hazard assessment has been

done for some areas or cities but not at the level of the whole state. The main problem is that all measures have been developed for floods, which are a far more frequent disaster type. Much less has been done for other types of disasters which are occurring relatively rarely (Bakken and Rhinard 2013). The Council Directive 2008/114/EC establishes a procedure for the identification and designation of European critical infrastructures (“ECIs”), and a common approach to the assessment of the need to improve the protection of such infrastructures in order to contribute to the protection of people (The General Directorate of Fire Rescue Service of CR 2014).

The most frequent crises in the Czech Republic since its democratic transition in 1989 have been caused by extreme weather conditions, most notably by floods, but also through extreme temperature and storms. In the area of industrial and transportation disasters, the Czech Republic has witnessed only five such events since 1990. These were two explosions – one methane explosion in a coal mine in 1990 and one ammunition explosion in a Soviet army barracks in early 1991 (Bakken and Rhinard 2013).

Table 1 provides an overview of crises between 1990 and 2014 and the number of persons killed, injured, and affected, according to the available data from EM-DAT (2014).

Start	End	Location	Type	Subtype	Killed	Total affected	Est. Damage (US \$ Millions)
01.06.2013	07.06.2013	Prague and its surroundings, Middle Bohemia, North West Bohemia, East Bohemia, South Bohemia	Flood	General Flood	15	1300000	828552
02.2012	02.2012	Opava	Extreme temperature	Cold wave	25		
07.12.2012	07.12.2012		Extreme temperature	Cold wave	7		
11.2010	12.2010	Prague	Extreme temperature	Cold wave	12		
07.08.2010	08.08.2010	Liberec (North)	Flood	General Flood	7	200	
01.06.2010	01.06.2010		Flood	General Flood	3		
15.05.2010	26.05.2010	Ostrava, Petrovice, Moravia-Silesia region	Flood	General Flood	1	1200	190
23.07.2009	24.07.2009		Storm	Local storm	2	12	
22.06.2009	28.06.2009	Novy Jicin, Jaroslav Palas, Prague, Silesia, Olomouc, South Bohemia	Flood	General Flood	13	14450	
18.01.2007	18.01.2007		Storm	Extratropical cyclone	4		150
30.06.2006	30.06.2006	Vranov-nad Dyji	Flood	General Flood		115	
28.03.2006	17.04.2006	Ostrava, Prague, Ves tec, Bonov, Usti nad Labem, Znojmo, Hodonin, Terezin, Theresiens tadt, Melnik, Olomouc, Breclav, Novosedly, Decin	Flood	General Flood	6	4200	
27.12.2005	01.2006	East	Extreme temperature	Extrema winter conditions	15		
17.03.2005	25.03.2005	South Moravia	Flood	General Flood	1		
02.2005	02.2005		Storm	Local storm		3	
07.2003	07.2003		Extreme temperature	Heat wave	418		
29.02.2008	02.03.2008		Storm	Extratropical cyclone	2		50
26.10.2002	28.10.2002		Storm	Extratropical cyclone	2		20

07.08.2002	18.08.2002	Prague, Bohemia, Pilsen, Karlovy, Vary, Zapadocesky, Districts of Central Bohemia, Southern Bohemia, Pilsen, Calsbad and Usti regions	Flood	General Flood	18	200000	2400
01.2002	01.2002		Storm				
08.03.2000	13.03.2000		Flood	General Flood			80
10.05.1996	14.05.1996	Bruntal, Lichnov	Flood	General Flood	1	60	36
02.07.1997	24.07.1997	Moravia, Bohemia regions	Flood	General Flood	29	102107	1850
23.07.1998	27.07.1998		Flood	General Flood	6		52

Table 2. List of Crisis between 1990-2014 according to EM-DAT.

A) Natural hazards

An instructive example for Natural hazards is the flood of 2002 which were the most severe ones in the country’s modern history. According to the International Federation of Red Cross and Red Crescent Societies (2012) in mid-July 2002, the meteorological situation was unfavourable, accompanied by intense torrential rains, especially in the Blansko District and the South Bohemia Region. The IRS was used, large numbers of persons had to be evacuated (1,500 people were evacuated, approximately 100 people were rescued). Since 1998, floods have caused some 700 fatalities in Europe, the displacement of about half a million people and at least 25 billion Euros in insured economic losses. The floods in central Europe cannot be regarded as caused by climate change, but the probability of flooding is estimated to increase as a result of climate change.

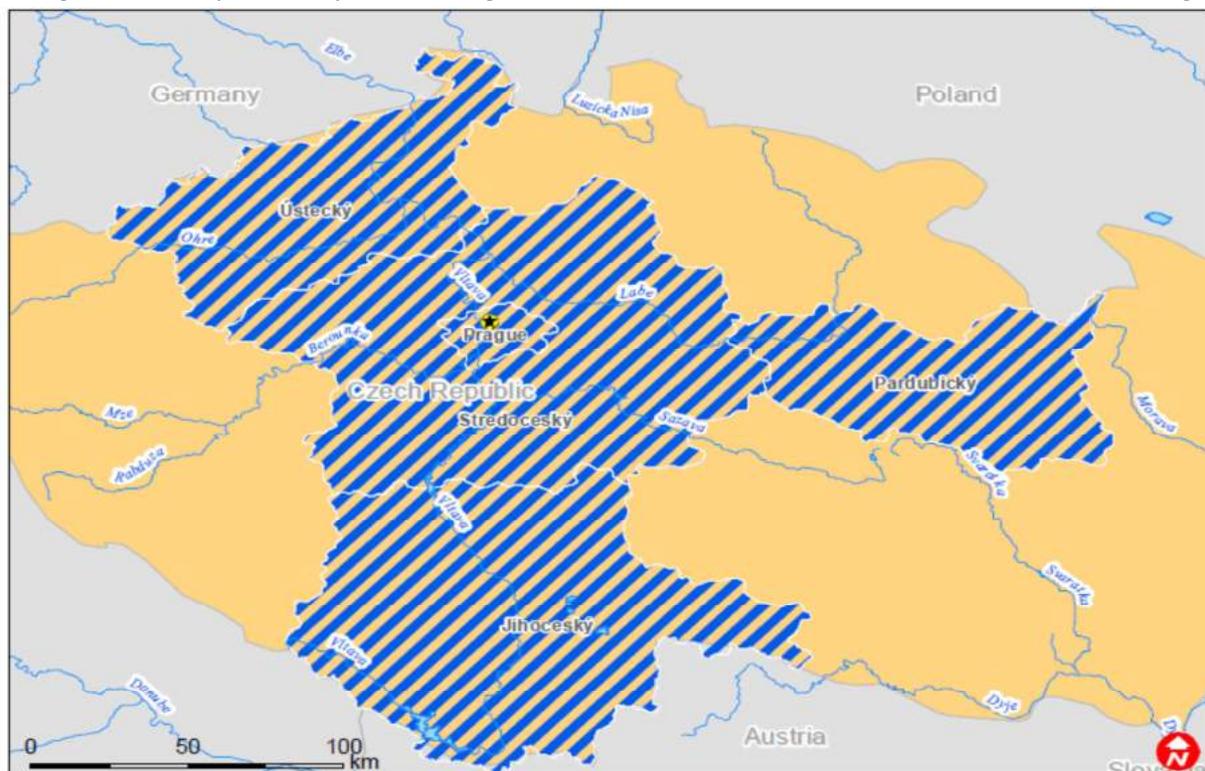


Figure 1: Risk areas of flooding in the Czech Republic according to Red cross Czech republic

Weather conditions indicate phenomena that, in accordance with present understanding, would be caused by climate change (Red Cross EU Office). Figure 1 illustrates the affected Regions the Czech Republic by Floods.

Studies on small-forested catchments showed that annual runoff is projected to decline in 2071–2100 compared to 1967–1990 by 10 to 30%. Impacts on the distribution of monthly flow are projected to be significant, with summer– autumn decreases of 30 to 95%, and winter increases of up to 40%. Mean daily flows are estimated to decrease by 70% from August to November. These results are based on 2 general circulation models, downscaled using 3 regional climate models under two emission scenarios, in combination with a hydrological model (Centre for Climate Adaption). According to ICPDR (2013), due to country location in the upper parts of the international river basins, as well as due to hydrological and geomorphological characteristics, people suffered in the past mainly from fluvial and flash floods caused by long and/or intense precipitation.

However, the diversity of terrain in the Czech Republic, dominated by low mountains and highlands excludes large-scale flooding.

According to Jelinek et al. (2007) have all countries, except the Czech Republic, national or regional coverage of flood hazard maps. In the Czech Republic are only Provincial maps with the periodicity of floods 5, 20 and 100 year available. Figure 2 shows an example of a provincial map on flood hazard.

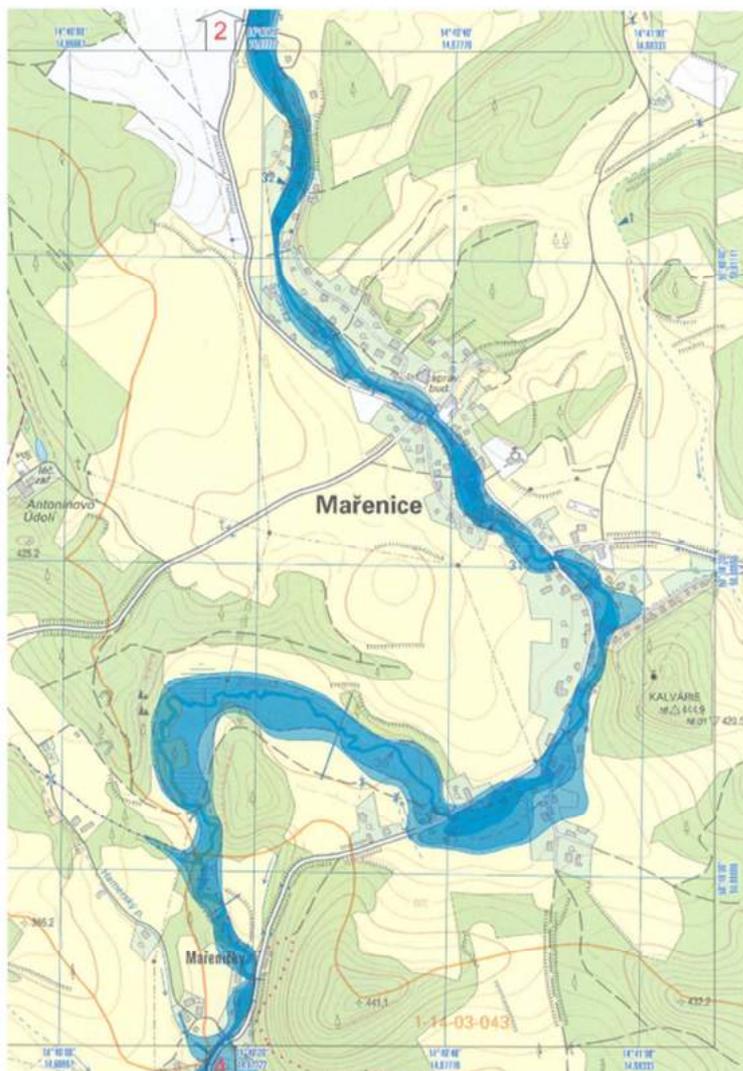


Figure 2. Map sheet of the flood plain from the Svitanka River, Czech Republic

B) Technological hazards

According to Bakken & Rhinard (2013), the Czech Republic has witnessed In the area of industrial and transportation disasters only five such events since 1990. These were two explosions – one methane explosion in a coal mine in 1990 and one ammunition explosion in a Soviet army barracks in early 1991. Furthermore, there were two railway accidents in 1995 and 2008 and a bus crash in 2003

Specific environmental risks are safeguarded under the jurisdiction of the Department of Environmental Risks and Ecological Damage (DERED). They include environmental risks posed by chemical substances, related serious industrial accidents, and handling of genetically modified organisms (GMOs). The DEREED draws national damage prevention policies for these areas, develops systems for evaluating these risks, proposes indicators for their monitoring, and executes specialised state administration derived from relevant legislation. At the same time, the DEREED guarantees activities resulting from the country's membership in international organisations (UNEP, OECD – Chemicals Programme and Working Groups on Industrial Accident Prevention, Biotechnologies, and Nanomaterials) and from ratified international treaties (Rotterdam Treaty, Helsinki Convention on Transboundary Effects of Industrial Accidents, Cartagena Protocol on Biosafety, Stockholm Convention on Persistent Organic Pollutants) in its jurisdiction. Contaminated sites management in the Czech Republic is mainly covered by the Ministry of the Environment and other relevant ministerial bodies. Number of contaminated sites is remediated and the risk to the human health and to the environment is reduced every year. The Department of Environmental Risks and Ecological Damage is the competent authority in this field (Ministry of the Environment of the Czech Republic 2014).

1.2 Policy and Governance

At the beginning of 2013, the Ministry of the Environment of the Czech Republic picked up the baton of Czech National Committee for Natural Disaster Reduction (founded in 2005) and fulfils now the role of National Platform for Disaster Risk Reduction in Czech Republic.

The function of national platform and also a focal point for Hyogo Framework for Action is currently provided by the Ministry of Environment of the Czech Republic. Ministry of the Environment cooperates closely with the Czech National Committee for Natural Disaster Reduction (CNC-GDR), whose members are experts from the following institutions: Ministry of Agriculture, Ministry of Interior, Ministry of Foreign Affairs, Ministry of Regional Development, Headquarters Fire Rescue Service (Ministry of Interior), Czech Hydrometeorological Institute, State Health Institute, State Office for Nuclear Safety, Red Cross, various research institutes and universities, Czech Association of Insurance Companies, private companies, individual members etc. (The United Nations Office for Disaster Risk Reduction 2013).

The crisis management system is relatively simple and quite efficient. The responsibilities are clear. Crisis management works well at the regional level (crisis staffs formed by both administrative as well as operational bodies' representatives). When up-scaled (subsidiarity) to central level the crisis management works also well (Bakken and Rhinard 2013).

1.2.1 Strategy scope and focus

As stated by the international expert, in Czech Republic, *“the strategic approach is not comprehensive focusing only on limited number of prevention and recovery activities.”*

The Czech Republic passed through several severe floods and Early Warning especially for floods is well organized. An important part of the mechanism to ensure the fulfilment of the activities and objectives of the International Strategy for Disaster Reduction and the Hyogo Framework of Action framework for the period 2005 - 2015 is the Integrated Rescue System (IRS). IRS is an effective system of links, rules, cooperation and coordination of rescue and security forces, state and local governments, individuals and legal entities in the joint conduct of rescue and relief work and preparing for emergencies and natural disasters.

The bodies of IRS are the Fire Brigade of the Czech Republic, Emergency Medical Services Providers and the Police of the Czech Republic. Other bodies include: Designated powers and resources of the Armed Forces, Municipal Police, Public Health Authorities, Emergency, Expert and Technical Services, Civil Protection Facilities, Non-profit organizations and associations of citizens, which can be used for rescue and liquidation operations. Fire Brigade is the main coordinator and backbone of the IRS. In practice, this also means that in case of intervention of multiple bodies of the IRS, in the place is usually in charge member of a Fire Brigade, which manages and coordinates the interaction of bodies rescue and disposal operations.

Operations and Information Centre of the IRS mobilizes and deploys the necessary forces and resources of IRS in specific locations. At the strategic level is then the IRS coordinated through regional crisis authorities and the Ministry of Interior.

According to the Law on the IRS the commanding officer of the intervention has at his disposal extensive powers. Commanding officer may, among other things, prohibit or restrict the entry of persons to site, order the evacuation of people or decide on other temporary restrictions to protect life, health, property and the environment.

Preparedness for flash floods remains, mainly due to its different character from common floods on rivers is still a problem.

The non-existence of a complex disaster reduction plans including all types of disaster is caused by differentiation of responsibilities for different ministries. Another reason is that the most probable kind of disaster in the Czech Republic is floods (over 90 % of all disasters). DDR principles have been included in so-called “flood protection plans” with specific responsibilities (Ministry of the Environment of the Czech Republic 2013).

The main aim of the National Platform is to support all actions leading to reduce human, social and economic losses caused by natural disasters. The following goal is to integrate Disaster Risk Reduction into decision making processes at all levels. The ministries, in particular of the Interior, Health, Agriculture and Environment fulfil their proper duties based in the national legislation of the crisis management and they apply the activities and objectives of the International Strategy for Disaster Reduction and the Hyogo Framework of Action for the period 2005 – 2015 (The United Nations Office for Disaster Risk Reduction 2013).

The Ministry of the Environment ensures warning and forecasting services according the information issued by the Czech Hydrometeorological Institute, established by the same Ministry.

The National Platform for Disaster Risk Reduction in Czech Republic focuses mainly on:

- supporting of the risk-aware and resilient society able to prevent disasters and to mitigate their impact,
- strengthening legislation on issues related to disaster risk reduction,
- improving crisis management and international cooperation within the frame of disaster risk reduction,
- improving coordination between governmental, non- governmental and private sector stake holders in the field of natural hazards and disasters.

1.2.2 Monitoring and analytical support to policy making; R&D

According to the Ministry of Environment (2013) Disaster losses and hazards are systematically reported, monitored and analyses, although a disaster loss database does not exist. Reports are generated and used in planning by finance, planning and sectorial line ministries. Hazards are consistently monitored across localities and territorial boundaries. Police investigations have often led “nowhere” when responsibility of larger (both state and private) companies has been undertaken after the floods.

1.2.3 Policy for Prevention

Disaster prevention is coordinated at the level of General Directorate of Fire Rescue Service of the Czech Republic (DG FRS CR) and the regional Fire Rescue Service (FRS). Prevention of crisis situations is mainly linked to protection of critical infrastructure(The General Directorate of Fire Rescue Service of CR 2014).

Some institutions like the Czech Hydrometeorological Institute, Institute for Atmospheric Physics or Water Research Institute of TGM and River Catchment Authorities participate in various projects devoted to flood and disaster reduction. Also some universities participate in such projects and programs (Ministry of the Environment of the Czech Republic 2013).

1.2.4 Policy for Preparedness

Crisis preparedness is provided in the organization (creation of organizational structures, emergency and crisis planning), technical (equipment and other material) and competence (training and education)

According to the Czech Government (2005), Multi-Hazard assessment has been done for some areas or cities but not at the level of the whole state. Programs or policies for disaster preparedness, contingency planning and response exist in form of (Ministry of the Environment of the Czech Republic 2013):

- Programs and policies incorporated by DRR.
- The institutional mechanisms for the rapid mobilization of resources in a disaster, utilizing civil society and the private sector in addition to public sector support.

Many flood kind of disasters in the Czech Republic in the past 15 years, a good system of flood warning and flood protection including “flood plans” for each city and community has been developed, applied and progressively improved. A support from crisis management as well as water (Water Act, Crisis Management Act) legislation has been very important. However, some problems could appear with some other types of disaster which occur very rarely.

Furthermore an anti-flood system in Prague has been finished and also tested. It consists of removable barriers (dykes) together with some new standard dykes in the vicinity of Vltava River. In some communities in the country resilience especially towards flood has been improved while in others has not been improved especially because of a lack of finances. Last two years financing towards increase of resilience has been more difficult because of economic crisis. (Jelinek, Wood, and Harvas 2007)

1.2.5 Policy for Response

The General Director of the Fire Rescue Service (2014) states that the Solution to the crisis is related to the implementation of rescue and relief work, the implementation of measures to protect the affected population, emergency survival measures to ensure functional public administration and critical infrastructure.

The Czech Republic has developed a very comprehensive multi-hazard system based on an integrated early warning system connected with a special rescue and response system. The system passed through several tests during real disasters especially floods occurring last 15 years. Also exercises have been organized on regular basis. The system defines clear competencies of all stakeholders and includes also duties of media in such events. These plans, procedures and resources for extraordinary events have been systematically created and could be released for the use by the proclamation of the state of emergency by the Prime Minister (at the state level) and local authorities leaders (at the regional level). Operational and communication centres create a system throughout the whole state and their functionality has been checked either by real disasters like floods or by regular exercises at various levels. Special attention has always been given to potential failures of nuclear power plants.

Exercises and trainings have been organized regularly, however sometimes only some parts of the whole crises management systems are involved in exercises (Ministry of the Environment of the Czech Republic 2013).

1.2.6 Policy for Relief and Recovery

An inclusion of post-disaster recovery especially has been placed in connection with an enhancement of resilience of newly built houses and infrastructure and have been applied only occasionally. The main problem is a lack of money for inclusion of better resilience in future as a part of post-disaster recovery programs. It is rather difficult to incorporate these measures into the programs. Moreover, it is usually very difficult to find another place (land) for building new houses at safer areas (more distance from rivers). It is cause by relatively high population density and complicated orography of the country (Ministry of the Environment of the Czech Republic 2013).

1.3 Financing

1.3.1 Investing in preparedness

According to the Ministry of the Environment of the Czech Republic (2013) Investments to reduce the risk of vulnerable urban settlements are realized in terms of Investment in drainage infrastructure in flood prone areas and slope stabilisation in landslide prone areas. Nevertheless Training of mason on safe construction technology, Provisions on safe land and housing for low income households and

communities, Risk sensitive regulation in land zoning and private real estate developing and regulated provisions of land titling has not been established yet.

Some investments have been realized with financial support from special EU programs

Realization of such projects and programs strongly depends on current regional and local authorities. In some areas a great success can be seen while in others such projects have not been launched yet

The largest threats to the Czech civil security system stem from its environment: The budgetary cuts resulted in cutting investments and in focusing on “running” the system only. The strongest link is then the functioning of the IRS (including the ability to help abroad) and of crisis management, especially at the regional and also at the state level (when up-scaled to this level) with clearly set responsibilities and procedures (Bakken and Rhinard 2013).

1.3.2 Investing in consequence management

The budget for consequence management mainly depends on state contribution and some projects are covered by the EU. National contingency fund and Catastrophe insurance facilities arrangements are in place to deal with major disasters. Catastrophe bonds are not established yet.

In the absence of adequate flood prevention measures the cost of the damages provoked by increasingly strong floods can be very high. In the Czech Republic, the EIB already financed several reconstruction projects after the catastrophic floods of 1997 (EUR 200 million) as well as the reconstruction of infrastructure (EUR 400 million) and the renewal of Prague’s metro (EUR 80 million) damaged during the 2002 floods (European Commission 2006).

The above mentioned financial arrangements have been established and can be used in declared emergency situations at various levels (state, region, community). Special state reserves of food, material, tools, bridges, fuel, etc., exist and are well maintained for the use in emergency situations (Ministry of the Environment of the Czech Republic 2013).

1.4 Policy review, Evaluation & Organisational Learning

1.4.1 Post-Disaster Assessment

Some losses and damages have been assessed by insurance companies, others especially on the infrastructure (roads, railways, electricity lines, etc.) by companies responsible for maintaining this infrastructure and by the state and regional authorities. An agreed method and procedure have been adopted to assess damage, loss and needs when disasters occur.

Special projects analysing recent losses caused by bigger floods have been launched by the government after each such event showing some gaps, losses and also proposals for future avoiding drawbacks encountered. The reports dealing with evaluation of these floods (Ministry of the Environment of the Czech Republic 2013).

Triggered by recent disasters, the Czech Republic has been prompted to conduct disaster assessment and identify the performance of disaster management. As an example, the floods in Bosnia and Herzegovina, which caused a damage of approximately USD 1.67 billion, have encouraged the Czech Republic to conduct a post-disaster needs assessment and identify shortcomings, e.g. in data accuracy and rapid response capacity. Together with UNEP, the Czech

Republic has launched a project aiming at identified gaps in data collection and communication of natural disasters risks in the hydrology sector.¹

1.4.2 Departmental Lessons Learned systems

The identified documents on civil security in the Czech Republic do not provide requirements or specific mechanism for learning lessons from emergencies to be established.

1.4.3 Centralised (national) Lessons Learned system

Framework or system for assessing the experience of individual emergencies and disasters is not developed. There are not integrated Lessons Learned systems in individual organisations but rather ad-hoc efforts (Expert Interview 2014).

1.4.4 International exchange for Lessons Learned

A system to exchange lessons learnt systematically is not in place (Expert Interview 2014). The Czech Republic has signed bilateral agreements on cooperation with neighbour countries. All the aforementioned agreements include provisions on mutual exchange of information and early warning in case of major disasters. In the frame of some projects, e.g. the transnational project Ceframe, a harmonised flood management strategy will be developed beyond borders.

In the Czech part of the Morava river basin 583 kilometers of river sections were identified as APSFR. In the Czech part of the Vah river basin (Vlára catchment) 34 kilometers of river sections were identified as APSFR.

1.4.5 Regular policy reviews

According to the Expert Interview (2014), Policy reviews leading to incorporation of findings in the policy process take place. Disaster losses are systematically reported, monitored and analysed, a disaster database which is regularly updated could not be identified. It can be maintained that policy are reviewed only when main disasters have happened. However, Reports are generated and used in planning by finance, planning and sectoral line ministries (Ministry of the Environment of the Czech Republic 2013).

1.5 Resilience

The concept of resilience in civil protection, in terms of county's capacity to withstand shocks due to natural and other disasters, to rebuild itself with efficiency and to improve on the pre-existing state wherever possible, has not been explicitly established in the Czech Republic by law or other normative act.

However, according to the European Commission (2006) has the Czech Government devised a national strategy to provide protection to the areas at risk, particularly where there are large concentrations of population. The implementation of this strategy has already started and was supported by the European Investment Bank with a first EUR 60 million loan for Flood Prevention.

¹ Information is available at: <http://www.un.ba/novost/10804/the-czech-republic-and-unep-to-build-capacity-in-disaster-risk-reduction-in-bosnia-and-herzegovina->; accessed: 21st October, 2014.

The EIB loan will finance flood protection investment schemes across the whole country contributing to the reduction of the potentially devastating effects of floods and safeguarding human health. The anti-floods measures will substantially improve the security of the population living in the five Czech river basins (Morava, Labe, Ohre, Odra and Vltava). As these territories are part of the European catchment area discharging water into the Black, North and Baltic Seas, they will also have significant cross-border effects with positive implications for people living along respective rivers in neighboring countries.

Individual actions supported by the loan will cover for example the construction or maintenance of reservoirs and dams, including dry reservoirs, the increase of the flow capacity of watercourse channels, protective dams, discharge channels and tunnels, etc. The Czech Ministry of Agriculture will be the promoter of the flood prevention measures, while local authorities involved in water management, e.g. River Boards, Regions and Municipalities as well as pond managers will be the final beneficiaries of the loan.

Additionally the experience of the Czech Republic Puncuchar, P. (2012) stated that the flood management and the flood prevention lead to the following most important activities/actions:

- The adoption of strategic (conceptual) documents and relevant legislation for improvement of flood prevention
- The improvement of the advanced forecast and early warning systems using high-tech procedures and equipment (radar, ALADIN, mathematical models of run-off etc.)
- The implementation of a robust information systems for dissemination of data from databases of water management bodies and fire-brigades using modern communication technologies (internet, mobiles, TV, wireless)
- Well prepared activities of bodies responsible for flood, rescue and crisis management (flood commissions, crisis committees, mayors, municipalities), which follow from appropriate legislation for the flood prevention and flood defense
- Continuous upgrading of flood plans and activity of flood commissions, their training and checking the communication between the bodies responsible for flood management and flood protection activities
- The identification of flood areas (including determination of “active zones”) and transfer these information to the inhabitants (namely in small municipalities)
- The realization of flood protection measures combining structural technical, non-technical (nature plausible) measures as well as improvement non-structural measures
- Well prepared management of flood flow rates by use of manipulation on dam-reservoirs, polders, removable walls installation etc.
- Development of the close collaboration with the neighboring countries on flood management and on realization of flood defense measures in integrated plans of respective watershed

1.6 Information sharing and data protection

Collection and protection of personal data related to disaster management, in the Czech Republic could not be identified in the entire documents of Crisis Management in the Czech Republic. However, The Ministry of Interior fulfils the task in the area of critical infrastructure resulting from

the membership of Czech Republic in the European Union, provides international exchange of information in this area, serves as the contact point of the Czech Republic in the frame of European critical infrastructure and submits the European Commission reports on tasks of implementation arising from the EU legislation in this area (Government of the Czech Republic 2010). As indicated by ICPDR (2012), public communication and information is partly provided by Flood Information System POVIS, www.povis.cz, where relevant information and documents about implementation of the Directive 2007/60/EC on the assessment and management of flood risks (2007) is provided to the public.

Therefore the Czech Republic joins the Euro Atlantic Partnership Council (EAPC), which provides a framework for Planning and Review Process (PARP) in which framework the Czech Republic and NATO define and achieve partner goals. Furthermore, NATO Committee meetings at least twice a year serve as a platform for sharing knowledge and experience between the heads of their national civil emergency planning organisations and by members of national delegations at NATO.

Beyond the above mentioned The Czech Republic has International bilateral co-operation in the flood prevention as states in the following(Puncuchar, P. 2012).

The cooperation with the Federal Republic of Germany

The Czech Republic shares with the Federal Republic of Germany the longest international boundary (811 km and 290 km is formed by watercourses). The transboundary waters are divided into those falling into Saxon and Bavarian Boundary reach. The cooperation with Saxony was established in 1955 and with Bavaria in 1970. The main activity containing the flood protection is involved in the expert groups No. 1 –“ Water Management Planning and Balancing “ and No. 3 –“Hydrology”.

The cooperation with the Republic of Poland

The co-operation between the countries is governed by Agreement between Governments of the Czech Republic and the Polish People’s Republic, which was signed in 1958. The working group on “Hydrology, Hydrogeology and Flood Protection“ co-ordinates cooperation between the Czech Hydrometeorological Institute and the Polish Institute of Meteorology and Water Management and, in addition, the co-operation of management bodies of water courses realise concrete solution in the Oder River basin. Progress is obvious namely in the organisation of flood warning and forecasting services, implementation of the ALADIN meteorological forecasting model, the use of radar information and improvement in the automation of precipitation and water gauging reporting stations including the use of rainfall-runoff forecasting models in the Oder River basin.

The co-operation with the Republic of Austria

The co-operation with Austria was launched already in 1928 when Joint Technical Commission was established. At present, the co-operation is governed by Convention signed in 1967. The Commission discusses problems associated with maintenance of watercourses, quality and quantity of water, water abstraction etc. For a long period, the Commission has been involved in assessing impacts of Nové Mlýny Reservoirs (on the River Dyje – Thaya) on conditions in transboundary reaches. This issue includes assessment of the reservoirs effects on the flood management and the close collaboration finalised in improvement of the flood situation on Austrian site due to retention of flood waves in mentioned reservoirs.

The co-operation with the Slovak Republic

The co-operation in managing transboundary waters was preliminary agreed in 1992 as the consequence of the division of The Czech and Slovak Federative Republic in two independent

countries from 1993. Expert negotiations concerning preparation of the Agreement between Governments of the Czech Republic and the Slovak Republic on co-operation in transboundary waters were launched in 1996 and finalised in 1999. Joint assessment of water quality, management of watercourses in the Morava River basin and the co-operation on flood protection activities are running continuously.

2 Legislation

The country takes an all-hazard approach and the key functions of the civil security system are embedded in two acts: The Crisis Act and the Act on IRS. A general anchor for these is the Constitutional Act on Security. The leading institution in civil security police making is the Mol. The General Directorate of the Fire Rescue Brigade is then responsible for civil security, including research and education. The main responsibility for the implementation for dealing with crisis rests upon the regions.

2.1 Crisis (emergency, disaster) management concept

The most important documents on crisis management in cases of natural and other disasters are:

- The Law on Crisis Management No. 240/2000
- The Law on Integrated Rescue System No. 239/2000.

These two laws define the responsibilities of the Government, the Central Administrative Offices and the Territorial Administrative Offices plus elements of the Integrated Rescue System. In addition, they stipulate crisis preparedness measures and the limitations that apply to individual rights during crisis. It provides also a set of common principles on how should protection, rescue and relief organised throughout the civil protection system. It also stipulates operational guidance to all professional and volunteer, national and local, state and private forces that based on law or other forms of organised engagement contribute to all or each aspect of protection against natural and other disasters. The Law on Crisis Management and the Law on the Integrated Rescue System cover all levels of government, from national to local. International intervention is governed by political agreements, for example with neighbouring countries.

Besides these two laws are the law on The Law on Securing the Defence of the Czech Republic and the Law on Economic Measures for Solving Crisis Situations related to Crisis Management

- The Law on Securing the Defence of the Czech Republic.

This law, which came into force in December 1999, stipulates the tasks and responsibilities of the Central Administrative Offices, the Territorial Administrative Offices and legal bodies and citizens in order to meet the defence requirements.

- The Law on Economic Measures for Solving Crisis Situations.

This law determines the preparatory economic measures to be taken in crisis situations and adopts economic measures after a crisis situation announcement.

2.2 General crisis (emergency, disaster) management law

The principles of crisis management are codified in the Act No. 240/2000 Coll. on Crisis Management and amending certain acts (the Crisis Act), as amended.

2.3 Emergency rule

According to Art. 5 of the Constitutional Act on the Security of the Czech Republic (No. 110/1998 Sb.; amended by No. 300/2000 Sb.), a state of emergency may be declared by the Government of the Slovak Republic under the circumstances of natural catastrophe, ecological or industrial accident, or other danger which to a significant extent threatens life health, or property or domestic order or security. Art. 3 determines, that the extent of the military service obligation, the duties of the armed forces, of the armed security corps, of the rescue corps and accident services, their organizations, preparation, and supplementation, and the legal relations of their members shall be laid down by statute in such a way as to ensure civilian control of the armed forces.

“If delay would present a danger, the Prime Minister may declare a state of emergency. Within 24 hours of the announcement thereof, the government shall either ratify or annul his decision.”

Special legal conditions apply when a state of emergency is declared. Along with the declaration of this state, the government must strictly delineate which rights will be restricted (in accordance with the Charter of Rights and Freedoms) and to what extent. Declaration of the state of emergency is a part of functional crisis management. None of the declarations has so far provoked complaints (Bakken and Rhinard 2013).

The Constitutional Act on the Security of the Czech Republic limits the state of emergency to aduration of maximum 30 days (extension is possible only with the consent of the Assembly of Deputies). “A state of emergency ends upon the expiry of the period for which it was declared, unless the government or the Assembly of Deputies decides to annul it prior to the expiry of that period.”

Art. 12 of the Constitutional Act on the Security of the Czech Republic determines, that a decision to declare a state of emergency, a condition of threat to the State, or a state of war shall be made public by means of the mass media and shall be promulgated just like a statute. It enters into effect at the moment provided for in the decision.

Based on this law, a state of danger can be declared to overcome unfavorable trends of situation development. The state of danger can be declared by the regional governor as an urgent measure, when lives, health, property, and environment are threatened, provided the intensity does not reach the danger of considerable extent, and it is not possible to avert threats by normal activities of administrative authorities, regional and municipal bodies, IRS (Integrated Rescue System) bodies or entities of critical infrastructure. The Crisis Act also processes relevant regulations of the European Union and modifies specification and protection of European critical infrastructure (Government of the Czech Republic 2010).

2.4 Specific, department/agency-level legal arrangements and regulations on emergency and disaster management

The crisis legislation and particularly the Crisis Act (nr. 240/2000 Coll.) stipulates the rights and obligations of the population in the state of crisis. In this way, the right to information about

prepared crisis measures to protect life, health and property is ensured. The obligations, on the other hand, are relatively generally stated and do not represent an essential part of the functioning of the civil security system. The essential obligation is to – in the state of crisis – obey the call of responsible authorities of crisis management to carry out imposed labour duty; to provide requested material means; or to accept restrictions stemming from crisis measures. A person can reject these obligations should the fulfilling of these endanger his/her life and health or the life and health of other people or if the obligations are against the law. (Government of the Czech Republic 2010)

2.5 Specific to the regional and local authorities legal arrangements and regulations on emergency and disaster management

Executive responsibility primarily rests at the regional level, although also at the local level; mayors of municipalities are responsible for crisis planning and crisis preparedness in their municipalities. At all levels of administration, there is a legal requirement to form a security council. When conducting rescue or disposal works, the services of the IRS are obliged to follow the orders of the commander in place (usually from the fire brigades) or of the mayor of a municipality with extended powers or of the regional president or of the MoI. The regional president has the power to call a state of danger for the region or its part for the time of maximum 30 days with the obligation to inform the MoI. (Government of the Czech Republic 2000)

2.6 Legal regulations on the involvement of volunteers and specialised NGOs

Persons exempted from labour obligation or labour assistance can provide voluntary assistance. The crisis management authority, which decided about restriction of the right or imposed the obligation, is obliged to pay financial compensation. (Swedish Civil Contingencies Agency 2009)

2.7 Legal regulations for international engagements of first responders and crisis managers

The Czech Republic has established a bilateral cooperation with all its neighbours Countries and. Regional, multilateral and cross-border regional agreements exist to facilitate cooperation in the case of crisis. The country actively participates in the EU mechanisms for disaster assistance and at EU crisis-response exercises. The country is traditionally providing rather than receiving assistance.

The Czech Republic has been cooperating on flood protection and warnings by means of participation in Elbe, Oder and Danube river commissions. National platform cooperates closely with the platforms from Germany, France and Poland in the framework of European network of national platforms (ENNP). Some projects have been submitted to European Commission but have not been approved yet. In November 1 and 2, a special Workshop devoted to Flash Floods and early warning organized by the Czech platform, ENNP and the Czech Hydrometeorological Institute will take place in Prague. The Czech Republic shares catchments of some rivers and closely cooperates with its neighbours especially in data and warning exchange (Ministry of the Environment of the Czech Republic 2013).

Financial compensation belongs to the legal or natural undertaking entity for restriction of the right of ownership or the right of use, for provision of material assets, performance of labour obligation or labour assistance. The crisis management authority, which decided about restriction of the right or

imposed the obligation, is obliged to pay financial compensation. Based on mutual agreement financial compensation can also be provided for voluntary labour assistance. According to this clause financial compensation shall be paid within 6 months after termination or cancellation of the crisis state, in the consequence of which the claim for the financial compensation arose.

In case of labour obligation, labour assistance or voluntary assistance where the amount of compensation cannot be determined by the agreement or in accordance with special legal regulations, compensation is determined in the amount corresponding to usual wage for the same or similar work. Determination of compensation for providing material assets is based on the amount of expenses incurred to the obliged person and on usually required compensation for use of the same or similar material means at the time of provision. Crises management authority is entitled to request reimbursement of expenses incurred as compensation for provision of material assets, performance of labour obligation, labour assistance or voluntary assistance, from the inflictor of the accident) or other event, which caused the crisis situation and crises measures had to be ordered. Incurred expenses) are compensated by this reimbursement (Bakken and Rhinard 2013).

3 Organisation

The role of main focal point fulfils the Department of Security and Crisis Management at the Ministry of the Environment of the Czech Republic and as the second focal point serves the Department of International Relations at the Ministry of the Environment of the Czech Republic.

The Ministry of the Environment is coordinating all activities in the field of fulfilling the tasks of Hyogo Framework for Action. The Ministry of the Interior is a lead coordinating institution for disaster risk reduction.

An important part of the Czech system, which ensures the practical application of the activities and objectives of the International Strategy for Disaster Reduction and the Hyogo Framework of Action for the period 2005 - 2015 is the Integrated Rescue System (IRS). IRS is an effective system of links, rules, cooperation and coordination of rescue and security forces, state and local governments, individuals and legal entities in the joint conduct of rescue and relief work and preparing for emergencies caused by natural disasters.

Ministry of the Environment of the Czech Republic and different representatives and experts from the above mentioned institutions are attending joint meetings of the National Platform for Natural Disaster Reduction which take place 2-3 times a year, and are discussing main issues and activities related to the field of disaster risk reduction and prevention (The United Nations Office for Disaster Risk Reduction 2013).

3.1 Organisational chart

The Czech Republic is a parliamentary democracy. The Cabinet, consisting of the Prime Minister and the Ministers, performs the executive powers. The Cabinet, appointed by the President, is responsible to the Chamber of Deputies. The bicameral Parliament consists of the Senate and the Chamber of Deputies.

The National Security Council of the Czech Republic is the governmental advisory body for the security of the Czech Republic. The chairperson is the Minister of the Interior. The other members of the National Security Council are appointed heads of assigned ministries.

To ensure its tasks, the Council has established four permanent working committees. Their responsibilities were assigned by a Government decision in 1998:

- The Defence Planning Committee
- The Civil Emergency Planning Committee
- The Foreign Security Policy Co-ordination Committee
- The Intelligence Activities Committee.

The responsibility for Civil Emergency preparedness in all administrative bodies lies with the statutory representatives. Existing Civil Emergency departments operate in both Central Administrative and Territorial Administrative Offices.

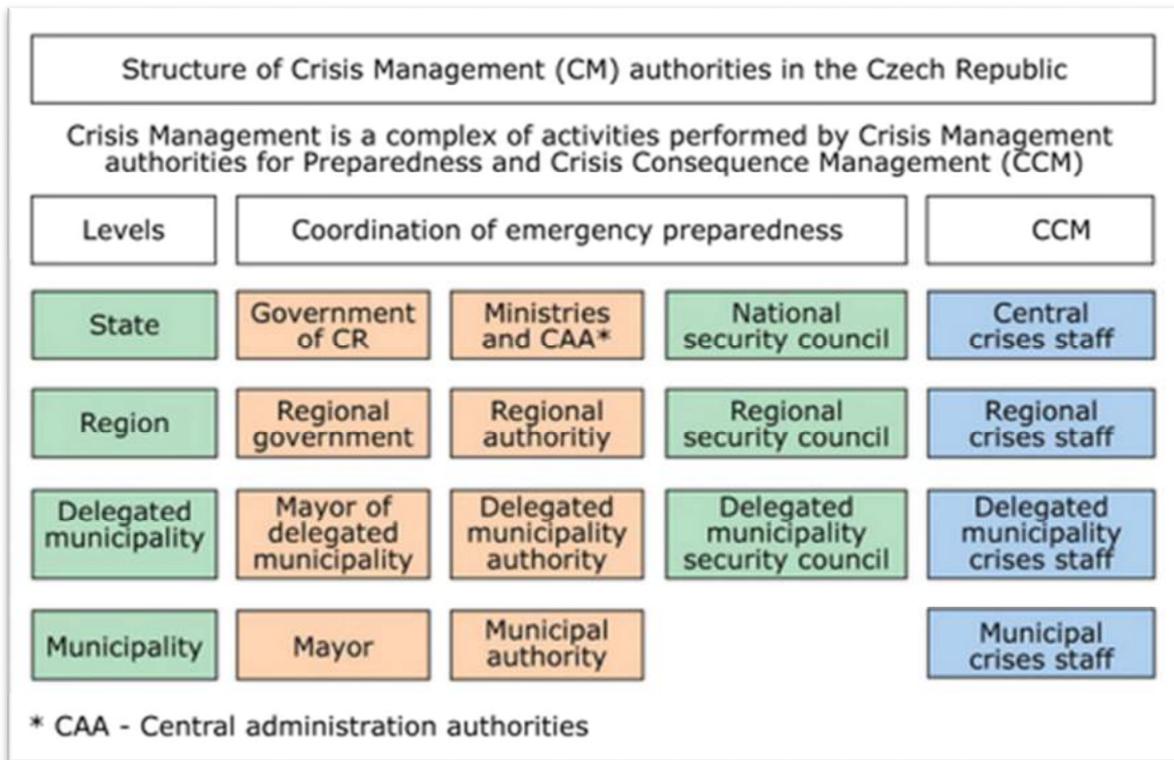


Figure 3. Crisis Management Authorities of the Czech Republic.

The present structural setup:

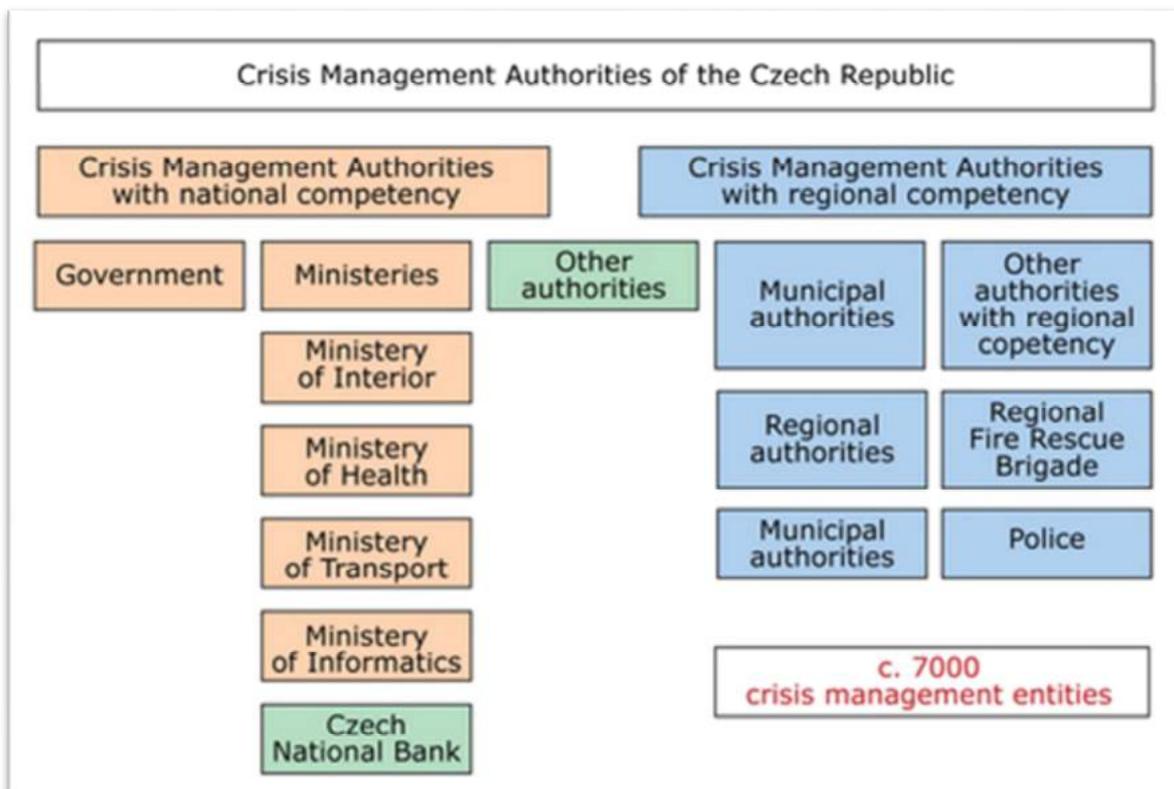


Figure 4. Structure of Crisis Management authorities in the Czech Republic.

- At national level: The Ministry of the Interior (MOI) cooperates with other central administration bodies including municipal authorities in the field of civil protection
- At regional and local level: The regional and municipal authorities work in close cooperation with the central level
- At international level: The MOI coordinates civil protection both at national and international levels and provides future policy guidance and directions for the civil protection process

The role of the Ministry of the Interior (MOI) during non-military crisis situations is to coordinate activities at the inter-ministerial level. The responsibilities of the MOI in non-military crisis situations are the same as the responsibilities held by the Ministry of Defence in military crises. Military forces support civil authorities in emergencies, i. e. when the resources of the local and regional units are inadequate. This support is provided to the Fire Rescue Corps, to the Police and to local authorities. Assistance from the Ministry of Defence is provided in the form of army troops or in cooperation with Civil Protection Rescue Bases. In military crisis, the civil protection provides all the necessary civilian resources for the army. (European Commission 2014)

- Departmental emergency and disaster management arrangements

The civil security system is rather decentralized. Authority and responsibility for crisis preparation and response rest at the regional level. A state of danger can be declared by the regional council president (hejtman) for the whole region or its part, for a period of maximum 30 days when there is a natural disaster, ecological or industrial accident or if life, health or property of citizens is threatened. When a crisis cuts across the regions, the central government assumes responsibility. Up-scaling to a higher degree, then, is the state of emergency which is called by the government for a period of maximum 30 days. The reasons are the same as in the previous case; however, the scale of the disaster must be here “significant”. Typically, the state of emergency is declared when two or more regions are affected by a crisis. (Krulík 2011)- anvil

- Local authorities and arrangements for emergency and disaster management

Mayors of municipalities are responsible for crisis planning and crisis preparedness in their municipalities. At all levels of administration, there is a legal requirement to form a security council. When conducting rescue or disposal works, the services of the IRS are obliged to follow the orders of the commander in place (usually from the fire brigades) or of the mayor of a municipality with extended powers or of the regional president or of the MoI. The regional president has the power to call a state of danger for the region or its part for the time of maximum 30 days with the obligation to inform the MoI. (Act Nr. 239/2000 Coll.)

- Volunteers and volunteer organisations; specialised NGOs

The Voluntary Fire Brigades (VFB) are an important part of the Czech civil security system. They have a long tradition in the country and more than 300,000 members. They are also seen as a large potential also for the future. They are an official part of the IRS (as one of the “secondary” bodies) and are involved in official exercises.

- Private businesses

Legal persons are obliged to prepare for emergencies and to participate in the preparation of emergency plans and to provide assistance during a crisis when requested. They can be asked to do so by the regional president or by the mayor of the municipality. (Act nr. 240/2000 Coll., §29)

In the field of civil security provision, the absolute majority of bodies are public ones. As an example of private bodies, for-profit health rescue services can be mentioned. These are typically smaller than the health rescue services which are established by the regional authorities. They specialize e.g. in the transportation of patients or assist at various cultural and sporting events (paid by the organizer). Usually, one such organization exists in every region although they do not necessarily have an agreement with the regional authority or all health insurance companies.

Being an integral part of the IRS, the flight rescue services must be mentioned as well. Currently, there are 10 stations facilitating air rescue. This represents a very dense network (one of the densest in Europe) covering an overwhelming majority of the territory of the country. (Fojtík 2011) The flight rescue services are operated both by private (eight stations) and by state (two stations) bodies. The latter ones are operated by the Police Air Service and by the army. (DSA undated) So far, there have been no criticisms on the functioning of the flight rescue services (Bakken and Rhinard 2013).

3.2 Organisational cooperation

Civil security is provided by the so-called IRS which is an operating platform to respond to crises. The IRS is made up from three main agencies: the fire brigades, the health emergency services and the police. These usually operate at the regional level; however, a cross-regional or national cooperation. The aim of civil protection in the Czech Republic is, by means of planning, coordination and management precautions, to ensure the preparedness of the state to prevent and manage emergencies and crisis situations threatening the population.

The primary scope and focus of civil protection is to cooperate especially in the following areas:

- Performing tasks related to the protection of the population
- Ensuring the continuous function of the state administration, national authorities and municipal authorities
- Ensuring an acceptable form of social and economic life
- Safeguarding the functionality of critical infrastructure
- Enhancing cooperation between the public and private sectors
- Ensuring the availability of civil resources necessary to ensure security
- Taking measures against weapons of mass destruction used against the civilian population
- Coordinating security research
- Coordinating education in the field of crisis management and the protection of the population
- Planning and assessment of exercises performed by crisis management authorities
- Providing and receiving humanitarian aid and rescue operations
- Solving specific problems and coordinating effective systems of communication with the public as an integral part of the preparedness of the Czech Republic to crisis situations
- Enhancing problem-oriented communication and information systems
- Ensuring civil support of armed forces and security corps activities including coordination of requests for armed forces
- International cooperation in the fields mentioned above.

The responsibility for Civil Emergency preparedness in all administrative bodies lies with the statutory representatives. Existing Civil Emergency departments operate in both Central Administrative and Territorial Administrative Offices.

The Czech Republic has established bilateral cooperation with all its neighbouring countries - i.e. Germany (signed in 2000), Poland (signed 2000), Slovakia (signed 1998) and Austria (signed 1998); and with Hungary (signed 1999). All of these agreements are treaties under international law on help and cooperation in the time of catastrophes and large disasters. (MFA 2005) In addition to bilateral agreements, the country has signed regional and multilateral provisions: it is a member of the Council of Europe, the EU, NATO, the OSCE and the UN. Also the regional organization *Visegrad Group* (V4) is important. The Czech Republic is also a party to the Tampere Convention on the Provision of Telecommunication Resources for Disaster Mitigation and Relief Operations of 1998 (effective since 2006) and the 1992 Helsinki Convention on the Trans-boundary Effects of Industrial 147, Accidents (effective since 2002) (MFA 2006). Coordinating bodies for providing aid in the times of catastrophes in other countries are the MoI and the MFA.

In the field of nuclear safety, the Czech Republic is party to the Vienna Convention on Civil Liability for Nuclear Damage. More importantly, it is also a party to the Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency, Convention on Early Notification of a Nuclear Accident and the Convention on the Physical Protection of Nuclear Material (effective since 1993). (State Office for Nuclear Safety online)

Besides international agreements, also cross-border regional agreements exist to facilitate cooperation in the case of crises as the floods or the storms Kyrill and Emma. This cooperation takes on different forms. Official methods of cooperation exist between the Czech Republic and Poland (signed 2002 by the Czech general director of the fire rescue brigades and by the Polish chief commander of the National Headquarters of the State Fire Service). With Slovakia, too, a similar document (signed 2004 by the president of the fire rescue brigades of Slovakia and his Czech counterpart) exists (Prudil, undated).

Another example is the Agreement on Mutual Cooperation between the Fire Rescue Brigade of the Karlovarsky Region and the German THW Chemnitz (in effect since 2005). Similar cross-border cooperation can be found in the border regions with all three other neighboring states. (Volf, undated) For example "protection against catastrophes" has been an integral part of the Agreement of Cooperation between the Federal Country of Lower Austria and the South Moravian, South Bohemian and Vysocina regions. (Dohoda 2011) The Czech region of Southern Bohemia also has similar agreement in place with Upper Austria.

Only recently, in April 2013, a framework agreement on the cross-border cooperation of the health rescue services was signed between Germany and the Czech Republic. This agreement, signed by the ministers of health of both countries, is a first of its kind in the field of health. It concerns two German federal states (Bavaria and Saxony) and five Czech regions (Liberec, Usti, Karlovy Vary, Pilsen and South Bohemia). In case of a crisis, the backbone of this agreement is the governmental agreement between the Czech Republic and Germany on mutual assistance in disasters and major emergencies. In the coming years, a similar agreement to be signed with Poland is expected (TV RTM 2013).

At the local level in the cross-border regions, cooperation can be found as well although usually focused more broadly to include such areas as environment or regional development. An illustrative example provides the agreement on cooperation between two Czech towns, Rumburk and Varnsdorf, and their two German counterparts, Seiffenhennersdorf a Großschönau. The agreement was

signed by the mayors of these towns in February 2013. One of the areas of cooperation being fire protection and security, especially during emergencies such as natural catastrophes, floods, wild fires, etc. (Bakken and Rhinard 2013).

In general, priorities at strategic level are assigned by Fire Rescue Service of the Czech Republic at central and regional levels (Expert Interview 2014).

4 Procedures

In the Czech Republic, very detailed descriptions of procedures are available, which are widely acknowledged by authorities.

According to the Crisis Act, the preparedness for crises and their management is coordinated by the Mol. The GD FRB (which is a part of the Mol) ensures through its regional offices and territorial districts an efficient coordination of the preparation for crisis situations and their management at the regional, municipal and local level. The regional fire rescue brigades are responsible for crisis preparedness and management in cooperation with municipal bodies. (Plzeň city website)

At the regional level, the regional president (*hejtman*) is responsible for crisis management. He/she chairs the security council of the region (a permanent body) and the crisis staff of the region (non-permanent body, called upon a crisis or exercise thereof). Every region (the regional president's office) has a crisis management department or similar. This is (among other) responsible for analyzing the information for the regional president, informational support to the municipalities with extended powers, coordinating of crisis management and planning of the municipalities with extended powers and for analysis and evaluation of exercises for crisis situations. (Pardubice Region Website)

Members of the security councils and crisis staffs, mayors of municipalities and bodies of the IRS are informed about the emergence of a crisis by the fire and rescue brigades through operational and information centers (regional and sectorial)⁶⁰. Crisis communication then runs through commercial mobile network with a negotiated priority of connection for specified phone numbers when a crisis state is declared. Routinely, information (e.g. meteorological warnings) is provided through the WAP server of the Fire and Rescue Brigades with a text-message notice. Increasingly, an Automated Message Delivery System is used for disseminating information notices and calling of the security councils and crisis staffs.

4.1 Standing Operating Procedures (SOPs) and Guidelines

The principles of crisis management are codified in the Act No. 240/2000 Coll. on Crisis Management and amending certain acts (the Crisis Act), as amended. Based on this law, a state of danger can be declared to overcome unfavourable trends of situation development. The state of danger can be declared by the regional governor as an urgent measure, when lives, health, property, and environment are threatened, provided the intensity does not reach the danger of considerable extent, and it is not possible to avert threats by normal activities of administrative authorities, regional and municipal bodies, IRS (Integrated Rescue System) bodies or entities of critical infrastructure (The General Directorate of Fire Rescue Service of CR 2014).

Humanitarian aid in the region is then organized by the regional fire rescue brigades. If the regional measures are not sufficient, help can be requested from the central level, from the GD FRB under the Mol. During crises, material help can be also requested from the Administration of State Material Reserves. Also the participation of NGOs and citizens' initiative is expected. This is coordinated by a standing working group of the crisis staff. (Conception of Civil Protection 2009)

4.2 Operations planning

Civil protection plans are controlled by the General Directorate (DG), the Fire Rescue Service (FRS) and the regional FRS. Operational organisations and civil protection authorities are all part of the DG Fire Rescue Service and operate as one organisation. The Fire Rescue Service has a unified approach to all kinds of emergencies. Other authorities could be involved according to the type of emergency. (European Commission 2014)

The Czech Republic has established a relatively good system of flood warning and flood protection including "flood plans" for each city and community has been developed, applied and step by step improved. A support from crisis management as well as water (Water Act) legislation has been very important. Also some main made disasters like nuclear events are well covered and regular exercises organized. The recent exercise took place in September 2010. However, some problems could appear with some other types of disaster which occur very rarely

Plans, procedures and resources for extraordinary events have been systematically created and could be released for the use by proclamation of state of emergency by the prime minister and local authority's leaders at state and regional levels. Operational and communication centres create one system throughout the whole state and their functionality has been checked either by real disasters like floods or by regular exercises at various levels. Special attention has always been given to potential failures of nuclear power plants

4.3 Logistics support in crises

The Organisation ASMR provides a coordination role in planning and supporting emergency economic measures. As a matter of priority, the ASMR makes use of material resources of private business entities, and, according to requirements by subject-matter Ministries, the ASMR generates and manages material reserves in commodities, whose ordinary production would not cover for increased consumption in state of crisis/emergency (Administration of State Material Reserves- Czech Republic 2009).

4.4 Crisis communication to general public; Alert system; Public Information and Warnings

The crisis communication is well organized and standardized. The Electronic Communications Act, No. 127/2005 includes a paragraph for the communication with public (2005). It has been explained by the expert, that situational awareness is ensured through an integrated information system at all administrative levels with efficient information provide to population (2014).

The primary means of informing the public about an immediate crisis are sirens, including mobile devices. The "general warning" tone (oscillating tone lasting 140 seconds) is currently used for all kinds of danger. Prior to 2002, different tones were used in connection with different hazards. The warning signal is followed by verbal information (e.g. "danger of flood wave", "chemical accident", etc.). There are about 6,000 sirens installed in the country. In places not covered by the warning signal, the municipality ensures alternative warning through mobile devices of the IRS (fire rescue brigade of the region, police of the Czech Republic) or by a personal notification (through members of the voluntary rescue brigades of the municipality or municipal police).

When a crisis appears, warning is technically provided with the help of the so-called Integrated Alert and Warning System— a system of notification centers located with the fire rescue brigades and other entities involved in the integrated warning system. The system was designed to speed up and improve possibilities of informing citizens in crisis situations. Information comes to the centers from the crisis staff or from rescue services or other entities. Information is collected and notification to citizens is then made through sirens, TV and radio, outdoor speakers and sent through mobile phones and pagers. The notification centers operate at four hierarchical levels: central level (placed with the GD FRB for emergencies beyond the territorial reach of the regional centers; regional level; local level (placed with territorial departments of the fire rescue brigades); and the fourth level (located e.g. with the controlling departments of facilities which can impose serious damage, such as chemical plants) (Bakken and Rhinard 2013).

For early warning the Czech Republic has established the following towards professionals:

- ECURIE (Radiological/Nuclear)
- RAS BICHAT
- MIC
- EADRCC
- IAEA.

These systems are integrated within the civil protection system through the Operational and Informational Centre of the DG Fire Rescue Service of the Czech Republic.

The system consists of:

- Controlling workplace
- Electronic sirens with a controlling unit
- Appliance for transmitting radio signal to control sirens and verbal information transfer.

Operative information is exchanged via walkie- talkies, specialized electronic tools for data exchange on the internet and video conferences. Several web pages exist like the web page of the Czech Hydrometeorological Institute, Fire and Rescue Service, River Catchment Authorities. Also the Czech Flood Commission under the Ministry of Environment has special web pages for floods and flood warnings (Ministry of the Environment of the Czech Republic 2013).

5 Capabilities

In the Czech Republic, an important role is played by the VFB. In 2012, this organization had 345,455 members (including 46,426 children and youngsters). There are 7,810 VFB at the municipal level, 77 district units and 14 regional units of VFB. VFB are typically established by the municipalities and financed mostly through grants from the MoI and the regions. The role of the VFB is also in rescue works and civil protection.

VFB are an important part of the IRS. Especially during floods, the VFB participate in evacuation, warning and humanitarian help. They are also trained and involved in exercises of the IRS. The members of the voluntary firefighters are also assigned to enterprise units such as chemical plants. (Union of Fire Fighters online)

Another important institution from the civic sector is the Czech Red Cross (CRC). In civil security, it focuses most importantly on first aid – both in a form of educational and training activities as well as actual provision of first aid at different events; search for missing persons after emergencies; and on humanitarian aid and disaster relief. In the field of first aid, the CRC is the main actor from the civic sector⁶². The number of members and volunteers (excl. employees) was 27,060 in 2011. The organization operates on the whole territory of the country. It has 70,381 members working in 1,712 local groups. Local groups (municipal level) are the cornerstone. On a higher level, there are 76 district associations. At the top of the organization is then the National Society of the CRC. There are no regional associations – one of the district associations is authorized to deal with regional institutions in every region. (CRC online)

5.1 Human resources

In case of a major disaster, a central Crisis Staff at municipal, regional or even national levels is called upon who will give orders to an on-site commander. The Czech Republic has an "Integrated Rescue System" composed of the Fire Rescue Service, the Police, the Medical Rescue Service, NGOs, the municipal police and others. Commands on site are given by the authority with the largest part in the emergency response.

In the Czech Republic there is a long tradition of voluntary fire brigades with over 300,000 members. Since democratization in 1989, voluntary activities started to develop and to be organized on a professional basis. Volunteering is now seen as an integral part of the new 'information/ post-industrial' society in the Czech Republic. The new volunteers exhibit a short-term, occasional approach to volunteering. Typically, the floods create large waves of solidarity with people helping in the affected areas. E.g. immediately after the floods in 2002, 45,000 donors and volunteers were registered. Other thousands of people were donating through phone-lines or SMS messages (Bakken and Rhinard 2013). Some other local civic organizations focusing at first aid exist as well (e.g. the professional Association of First Aid based in the town of Kladno in central Bohemian Region), yet they are far less important – e.g. the mentioned one has 15 members) (Red Cross EU Office 2013)

The CRC was typically involved during the floods of 2006: The main crisis staff of the CRC was called on 29th March 2006. The crisis staffs of the local groups cooperated with local authorities in the affected territories, e.g. in České Budějovice, Český Krumlov, Písek, Prachatice, Jindřichův Hradec,

Liberec etc. The Red Cross initiated a collection aiming at post-flood assistance to the people. (CRC 2006)

There are also other NGOs active partially in the field of civil security – mostly in organizing money or material collections and voluntary help. The best examples here are the ADRA organization and Caritas which participated in the post-flood assistance. However, the scope of these organizations is much broader and the assistance during crises is not their main focus. There is no official data on the exact number of active members. Typically, all of the mentioned NGOs are not directly financed by the state but they get part of their funding through projects which are financed by the state (by the ministries of Interior and Foreign Affairs in this case).

Legal persons are obliged to prepare for emergencies and to participate in the preparation of emergency plans and to provide assistance during a crisis when requested. They can be asked to do so by the regional president or by the mayor of the municipality. (Act nr. 240/2000 Coll., §29) Cooperation and crisis preparedness, however, have not always gone smoothly. E.g. during the floods of 2002 the Spolana Neratovice plant was flooded, leading to leakage of chloride. In the vicinity of the chemical plant, the highest degree of chemical danger had to be declared. Police closed roads and firefighters sprinkled the area with water mist which would “pull” the gas to the ground. Although the responsible company was sued for the leakage, the case was put to a halt. (Baroch 2004)

In the field of civil security provision, the absolute majority of bodies are public ones. As an example of private bodies, for-profit health rescue services can be mentioned. These are typically smaller than the health rescue services which are established by the regional authorities. They specialize e.g. in the transportation of patients or assist at various cultural and sporting events (paid by the organizer). Usually, one such organization exists in every region although they do not necessarily have an agreement with the regional authority or all health insurance companies.

Being an integral part of the IRS, the flight rescue services must be mentioned as well. Currently, there are 10 stations facilitating air rescue. This represents a very dense network (one of the densest in Europe) covering an overwhelming majority of the territory of the country (Fojtík 2011). The flight rescue services are operated both by private (eight stations) and by state (two stations) bodies. The latter ones are operated by the Police Air Service and by the army. (DSA undated) So far, there have been no criticisms on the functioning of the flight rescue services.

The role of private (for-profit) bodies in other spheres of civil security is slightly more complicated. During the floods of 2002, for example, there was a large group of relatively well organized citizens who in many cases voluntarily participated at the rescue actions, although they were not explicitly asked to do so. These were some 54,000 workers of private security services. Due to the absence of legal regulation of the activities of private security agencies, the integration of these into the IRS remains problematic. (House of Representatives 2002) It has to be noted, however, that this legislation is currently under preparation by the Mol (Novák, undated).

Since 2003 the education on civil security has been again on the primary and secondary schools' curricula.

Recently, the goal of creating a program for education of the population has been set. (ibid.) The main responsibility rests with the Mol, in collaboration with the Ministry of Education, Ministry of Health and the Ministry of Transportation. Typically, the fire brigades are involved in the education of both public and administration. In 2009, the proposition was made to incorporate the topic of civilian protection into the curricula of pedagogic faculties of universities.

The education of teachers to teach the topic of civil security is also supported by the fire rescue brigades. In this way, 1,666 teachers were trained in 2011 in 126 different courses. In sum, more than 16,200 teachers were trained by the year 2012. (HZS ČR 2012) Also, governmental employees at all levels are trained in special courses on civil security management. In total 8,007 servants were trained in 2011. The participation of the mayors of smaller municipalities, however, is rather low compared to others. (ibid.) This can be explained by the fact that for the mayors – unlike the local government officials – this education is not compulsory.

At the central level, the training is organized by the MoI – GD FRB in cooperation with the ministries of Defense, Health, Finance, Environment, Administration of State Material Reserves, Police Presidium and the Security Policy Department of the MoI. The provision of education in the field of crisis management is obligatory by law. Since this legislation entered into force (in 2001), the training has been organized once in every election period (usually after communal elections). So far, the training for mayors has taken place in 2003, 2007 and 2011. (Svitáková 2011)

In the past, the government did run some educational campaigns, including TV spots. So far, the last TV spots directly related to civil security were aired in 2010. (Initiative for Civilian Protection online) In the years 2009-2010, educational spots were aired with the information on important phone numbers (campaign called “What to do When...”). At the regional level, the public is educated through regional press materials, and local radio and TV stations. For example, the Fire Brigades of the Moravskoslezský Region signed a license agreement with two local cable TVs. Six spots on fire and civil protection were made (The General Directorate of Fire Rescue Service of CR 2014).

The following table provides an overview on operational forces as mentioned above:

Table 3. Overview on operational forces for protection and rescue activities in the Czech Republic

Stakeholder Type	Name	Number of Personnel
Voluntary Organisation	Fire Rescue Service (Employed + Volunteers)	300.000
	Czech Red Cross (Employed + Volunteers)	88,000
Agency/Department	Czech Armed Forces	35,000
	Police	18,000
Private business	Private security workers	54,000
Total		495,000

5.2 Materiel (non-financial) resources

Material resources are provided from the “Integrated Rescue System” composed of the Fire Rescue Service, the Police, the Medical Rescue Service, NGO, the municipal police and others. According to Obrusnik (2005) a special institution (State Material Reserve- AMSA) stores emergency relief items and distributes them during and after disaster accordingly with state, regional and local needs.

The generation of state material reserves is encompassed in emergency contingency plans. The ASMR makes sure that resources are contracted pursuant to the requirements of central government agencies. Furthermore, the ASMR supports their financing, renewal, replacement, lending, release,

hiring, sale, storage, keeping and inspection. From the viewpoint of their purpose, the state material reserves divide into material reserve, mobilisation reserve, emergency reserve and humanitarian aid reserve.

The ASMR provides a coordination role in planning and supporting emergency economic measures. As a matter of priority, the ASMR makes use of material resources of private business entities, and, according to requirements by subject-matter Ministries, the ASMR generates and manages material reserves in commodities, whose ordinary production would not cover for increased consumption in state of crisis/emergency (Administration of State Material Reserves- Czech Republic 2009).

Material reserve involves selected primary raw materials, materials, semiproducts and products, designated for supporting national defence capability, for consequence management efforts following emergencies as well as for the protection of vital national economic interests. The material reserve chiefly includes primary mineral inputs for oil, metallurgical, chemical, textile and food industry. A decisive portion of the material reserve comprises an emergency stockpile of oil and selected petroleum products in quantity and structure according to requirements under the Act No.189/1999 Coll., on Emergency Oil Reserve, as amended, which implements in the Czech legal order the European Commission Directive No.1968/414/EHS, amended by EC Directive No.1998/93/ES.

Mobilisation reserve comprises primary raw materials, materials, semiproducts, products, machines and other property designated for ensuring the production of necessary assets for armed forces and armed security services, especially for the state of war or the state of national war threat.

Emergency reserve includes selected primary materials and products, designated principally to ensure critical supplies to sustain the needs of the population and for operations of emergency services and fire rescue service units. The reserve is generated in the case when the necessary materials and products in support of crisis management are not available on national territory in necessary quantity and/or in given timeframe.

Humanitarian aid reserve comprises selected primary materials and products designated for a definite period of time to sustain essential life needs of persons who have suffered a grave material damage in an ongoing emergency. That particularly involves foodstuff for individual consumption, critical sanitary aids and the like. In justified cases, they are transferred to municipal government authorities responsible for their distribution to citizens.

5.3 Training

The Ministry of Interior in order to coordinate the performance of state administration in the frame of crisis management organizes briefings and training sessions and participates in training for acquisition of special professional competence of the crisis management staff. All members of the Fire and Rescue Service of the Czech Republic and members of other fire units are trained to provide effective help in emergencies. Exercises have been regularly organised and the training follows internal Czech standards for crisis management (Expert Interview 2014).

The planning process starts by preparing the annual training plan (national, regional and local). The preparation of annual and monthly exercise plans follows. Each fire station and each regional Fire and Rescue Brigade have their own exercise plans which are coordinated at national level to ensure

that other services (regional Medical Rescue Services, the police, the army, ministries and other bodies of the Integrated Rescue System etc.) are incorporated into these plans.

Exercise facilities include, for instance:

- Any possible parts of real environment
- Any possible real facilities (buildings, factories, collapsed structures, streets, roads, motorways, rivers etc.)
- Local training facilities within regional Fire and Rescue Brigades
- Military training facilities
- Training facilities of other bodies of the Integrated Rescue System.

Guidelines for exercise planning: The guidelines are found in the Directive of the General Director of the Fire and Rescue Service No. 7/2009 on the recommended procedures for preparing and performing exercises. According to the Conception of Civilian Protection (Conception 2013), the authorities are responsible for raising awareness about civil security among the public. The *education on civil security* (called “civil defense” at that time) was completely abandoned in the early 1990s with no substitution, resulting in relatively low knowledge of the population about what to do in the state of crisis.

Since 2004, the country has regularly participated in EU crisis-response exercises. These include EUDREX (October 2004), EUPOLEX (June/July 2005), EURATECH (April 2005), ALBIS (May 2008), EU COMMAND POST (May/June 2010), EU CARPATHEX (September 2011), EU COMMAND POST (November 2012) and TARANIS (June 2013). The range of these exercises varies from floods and earthquakes to chemical, biological, radiological and nuclear threats. (European Civil Protection online) the Czech Republic also takes part in other international exercises, such as the MODEX exercise of civil protection modules organized by the Falck Company in Denmark in January 2013 where the Czech Trauma-team participated. The country participates in the provision of aid under the EU Humanitarian Aid and Civil Protection Directorate General (also known as ECHO). (EDRIS online) The Czech Republic also participates in the EU exchange of experts programme. Under the theme *Improve Crisis Management/ Stronger EU Disaster Response* the country was a lead country in 2012 (FEU 2012) (Bakken and Rhinard 2013).

5.4 Procurement

5.4.1 Procurement regulation

The main tool of the Union Civil Protection Mechanism is the European Emergency Response capability (EERC), which consists of a voluntary collection of in advance prepared Member States response capacities including modules, further response capacities as well as the experts. Joint procurement involves sporadically Slovak Republic, but there is a need for additional legislation. Interoperability is not developed fully (Expert Interview 2014).

Civil protection modules are formed from sources of one or more Member States and they are able to carry out the predefined tasks in the area of response, in accordance with the implemented international instructions. The basic advantage of modules is that they can be deployed at very short notice following a request for assistance through ERCC and can work self-sufficiently and autonomously for a given period of time. At the same time the modules are interoperable with the other ones and are able, if needed, to cooperate with other bodies

of the Union or international institutions, in particular with UN. Modules are registered in the CECIS system and closely connected to European response capacities. Within European Union there are c. 200 modules registered which are split into 17 types (MS Line Publishing House 2014). At present, the Czech Republic makes available through the Mechanism for civil protection EU the following modules (MS Line Publishing House 2014):

- 2x Medium urban search and rescue modules (MUSAR) - a unit for search and rescue operation in cities in medium conditions;
- 1x Heavy urban search and rescue module (HUSAR) - a unit for search and rescue operation in cities in heavy conditions;
- 1x High capacity Pumping Module (HCP) - a unit for the pumping and discharge of large quantities of water;
- 1x Chemical, biological, radiological & nuclear detection & sampling (CBRNDET);
- Flood Rescue Boats (FRB) – a unit for flood rescue in boats;
- 1x Advanced medical post (AMP) – a unit with advanced medical post.

Czech Defense Ministry (MOD) procurement is plagued by lack of transparency and remains an arena for shady business deals. Successive governments seem to have viewed MOD contracts as a way to reward themselves and their political supporters with lucrative business deals, cheap asset sales, and kick-backs. The latest controversial contract for the light-armored vehicles suggests that politicians appear able to manipulate the procurement process by utilizing single source tenders, requiring the use of preferred intermediaries, and paying higher prices than other countries for similar items. Similarly, the case of the barter/sale through EADS of redundant L-159 aircraft for Casa C-295 transport aircraft seemed to be yet another attempt to circumvent an open, competitive tender. As in the notorious 2004 Gripen fighter aircraft procurement, the Czech government has shown little political will to investigate possible high-level corruption. The large Pandur contract and the tender for new light armored vehicles were two key tests of the MOD's ability to successfully conduct large procurements. Czech officials have taken some tentative steps toward cleaning up the procurement system. However, much more transparency is needed within the Czech MOD to prevent politicians and defense officials from manipulating the defense procurement process for personal and political gain.²

- National legislation on procurement not covered by the EU directives

The award procedures for procurement below EU threshold are foreseen by the directive 2004/18/EC. In addition simplified procedures below the threshold can be used. In the simplified procedure below the threshold, the contracting authority shall invite not less than 5 candidates to submit tenders and to demonstrate the fulfilment of qualifications by means of an invitation in writing. The contracting authority shall make public the written invitation in a suitable manner for the entire duration of the time limit for the submission of tenders. The contracting authority has to use the publication forms laid down by the commission regulation, except for the invitation in the below threshold procedure. The forms have to be published at the national web Public Procurement Information System.

² Information is available at: <http://www.globalsecurity.org/military/world/europe/cz-procurement.htm>; accessed: 23rd September, 2014.

5.4.2 Procurement procedures

The Legislation on public procurement according to the Act on Public Contracts provides several options for the contracting authorities to open up a public procurement using of the following procedures (Global Legal Group 2010):

- open procedure;
- restricted procedure;
- negotiated procedure with publication;
- negotiated procedure without publication;
- competitive dialogue; and
- simplified below-the-threshold procedure.

The acquisition of state material reserves and their using provides the Government of the Czech Republic. The state material reserve involves selected primary raw materials, materials, semi-products and products, designated for supporting national defence capability, for consequence management efforts following emergencies as well as for the protection of vital national economic interests (European Defence Agency 2014).

Fire Rescue Services of the Czech Republic have been strongly involved in the procurement of CM Tools, which is well coordinated (Expert Interview 2014). However, the procurement process in cooperation with non-EU countries is not relevant for the Czech Republic.

- Structures responsible for public procurement at central, local and regional level.
 - Office for protection of competition
 - Ministry for Regional Development: it has been established by the Act No. 2/1969 Coll. On establishing ministries and other central authorities of state administration of the Czech Republic, as amended. It is responsible for governmental proposal of legislation on public procurement and concessions contracts.

Every contraction entity is responsible for its own procurements. If contraction entities associate or group in another way for the purposes of common action aimed at the award of a public contract they are considered as the contraction entity.

The Act on Public contracts enables to conclude a contract with central purchasing body. Central purchasing body can be any Contraction authority which is obliged to award public procurement for other contraction entities by contract. It is not created by any state decision.

5.5 Niche capabilities

In the view of the expert, the Czech Republic benefits especially from the relief goods stockpiles and the close cooperation with military actors (Expert Interview 2014). As it has been found out within the ANVIL country study, the Voluntary Fire Brigades with its 300,000 personnel resources provide a

beneficial contribution to the security system in Czech Republic (Bakken and Rhinard 2013). The voluntary organization is participating as an official part at the Internal Rescue System (IRS). Furthermore, Bakken and Rhinard (2013) have indicated, that the provision of assistance of the Czech Republic in several missions abroad have been widely acknowledged.

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Driving Innovation in Crisis Management for **European Resilience**

Denmark

Capabilities, Organisations, Policies, and Legislation (COPL) in crisis management and disaster response

Responsible Partner: ECORYS (Laura Birkman, Linette de Swart)



Scope and limitations

This study serves as supporting information for further work within DRIVER.

Only limited time and budget has been available for this first general survey, which needs to be considered in terms of scope and completeness of the respective studies.

The author/s of this study is/are responsible for its content and quality.

Overview

In 2009, Denmark adopted the Emergency Management Act. This act is detailing all aspects of crisis management. The crisis management approach of Denmark assumes the local level to be better placed to tackle local crisis situations than the national level. Private organisations, volunteers and NGO's participate in Danish crisis management. In particular, Falck Redningskorps Ltd., a large private Danish rescue and fire company operates on a contractual basis within many of the Danish municipalities.

Danish Civil Protection League is also supporting, as a non-profit organisation, with 5,000 members. Also the Danish Red Cross acts in crisis situations. But the major national organisation, also international contact point, is the Danish Emergency Management Agency or DEMA. DEMA handles different aspects of the crisis management policy cycle.

DEMA is organised in four core areas, each covering a part of the Danish emergency response from **prevention** (inspection, counselling, supervision and development of national rules and laws preventing fires and explosions, **Emergency planning** (supervision of other governments and private companies on preparedness planning), **Operational** (National Division, International Division, Chemical Division and Nuclear Division and **training** (via the centre for **Education** and **HR Development**).

The Danish national accounts do not clearly provide an overview on the costs they make to invest in preparedness. Therefore a rough estimation has been made to provide a general idea. The Danish Parliament (Folketing) decides on the **Police** budget. The Parliament sets the Police budget for a 4 year period. In the period 2007-2010 the available annual budget was DDK 7.5 billion (1,008 million euros). The fire services are partially provided by public providers and partially by private operators. The only private operator in Denmark is **Falck**, providing firefighting services for 2/3 of the municipalities in Denmark according to their latest annual report(2013). Besides firefighting services Falck is also responsible for 85% of all ambulance service provided in Denmark. Of the total revenue made in 2013, 46.6% was made in Denmark. The revenue of 2013 amounted to DKK 5.839 million (€ 748 million). DEMA has a staff of 565 employees available divided over 10 different locations (rescue centres and schools). Their annual budget is around DKK 490 million.

The GDP for 2013 was DKK 466.2 billion. The support provided to DEMA is in this case 0.1% of national GDP in 2013. However the costs of DEMA do not cover the entire costs for crisis management as the police forces, the fire brigades as well as the medical assistance play a role in emergency management as well.

Niche capabilities are **Private fire and ambulance services (see above). And the international energy preparedness approach.** A niche preparedness approach of the Nordic countries is found in the energy supply preparedness. The Nordic countries work closely together to create an integrated electricity supply network.

This report gives an overview of the information retrieved from online published resources. As our attempts to contact DEMA and other local experts failed, and many documents with more details were only published in Danish, the current analysis is more high-level than preferred initially. The following aspects need further detail:

- Standing operating procedures. The approach to crisis management, the clear split between local municipal responsibilities and DEMA are clear. However, operational details for the cooperation between these two are not publically available.
- Financing. On a high level, we managed to retrieve information on budgets assigned to crisis management activities. The budgetary details on the sub-aspects (eg. logistics) of the management activities were not retrieved.
- Logistics equipment details were not encountered. The website of DEMA gives a brief overview on the type of equipment DEMA can support municipalities with. Nevertheless, the website does not give an overview of the details of the equipment (eg. technical aspects and number of tools), nor does the website give an overview of the equipment based at the municipal level.

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List of Abbreviations

DEMA	Danish Emergency Management Agency
Falck	Danish private fire fighter service

1 Policy

Denmark is situated in Northern Europe, and extends from the Barents Sea and Arctic Ocean on the north to the Baltic Sea on the south and includes Norway and Sweden. Denmark lies south of Norway and to the southwest of Sweden. Denmark's mainland is Jylland (Jutland), a peninsula that shares a short southern border with Germany and otherwise is surrounded by the North Sea, Skagerrak and Kattegat, and Baltic Sea. Jutland accounts for over two-thirds of Denmark's area, with the rest consisting of Denmark consists of more than 400 islands. Sjælland (Zealand), the largest and most densely populated of the islands, is home to the country's capital of Copenhagen. Ferries, bridges, and small planes connect many of the inhabited islands. (Stone Wyman, s.d.)

Geography and Climate

Denmark is the smallest of the Scandinavian countries in area, at approximately 42,916 square kilometers. (Website Denmark, 2014) configuration as an archipelago gives Denmark a long, irregular



coastline of about 7,314 kilometres, characterized by bays and estuaries, sandy beaches with dunes, and some cliffs (Stone Wyman, s.d.)

As the lowest-lying Scandinavian country, Denmark has the most homogenous terrain, characterized by flat plains, rolling hills, and many lakes, with its highest natural feature topping out at only about 568 feet (173 meters) above sea level. Land cover in Denmark consists of cultivated areas (66%); forests (12%); bogs, meadowland,

heath and sandhills, and lakes (10%), with the remainder devoted to built up and traffic areas (CIA World Factbook, 2014 and Stone Wyman, s.d.)

Denmark's climate is the most temperate of the three Scandinavian countries. Historically, winters are mild and summers cool due to the Gulf Stream and the westerlies. Average temperatures range from a low of about 0.0 °C in January to a high of just over 16°C in August. Within these averages, however, the actual highs and lows fluctuate considerably. (Stone Wyman, s.d.)

Demographics

With 5,627,235 (2014) inhabitants, Denmark is second to Sweden in total population, but the most densely populated of the three Scandinavian countries. The country is highly urbanized, with 85% of its population residing in cities and towns but has a low population density of 130.50 inhabitants per square kilometre (Statistics Denmark 2014).

Economy

The country's economy includes a high-tech agricultural sector as well as prominent companies in several sectors such as pharmaceuticals, renewable energy, and maritime shipping. Although a net exporter of food and energy, Denmark's manufacturing sector relies on imports of raw materials. The Gross domestic product is DKK 466.2 billion (2013) or 253 billion EUR (2013). (DST, 2014; Stone Wyman, 2014)

The next section will detail the risk assessment for Denmark. The risk methodology, former crises and identified risks are discussed.

1.1 Risk Assessment

Risk management techniques, including risk and vulnerability analyses, are used by many private sector companies in Denmark and promoted by various industry associations. Such analyses are not uncommon in the public sector either, and are carried out regularly on subjects such as environmental impact studies, food safety, public health, transportation regulation, infrastructure projects, etc. Within most central government institutions in Denmark, however, systematic use of risk and vulnerability analysis is still not an integrated part of their wider civil contingency planning responsibilities.

Risk assessment methodology

As a result of the Danish National Vulnerability Evaluation from 2004, the Danish Emergency Management Agency (DEMA) developed a generic risk and vulnerability methodology for civil contingency planning. In this context, DEMA's Centre for Resilience and Contingency Planning has produced a model for risk and vulnerability analysis, (RVA model) as a basis for preparedness planning for authorities with civil preparedness responsibilities. Risk and vulnerability analyses are rarely required by law or regulation in Denmark, and use of DEMA's model will be on a voluntary basis. (DEMA, 2014a)

The RVA model is scenario- based and presupposes a process with three phases whereby scenario planning is a pivotal part of the general preparedness planning. The Figure below outlines this process. The model itself is not public.

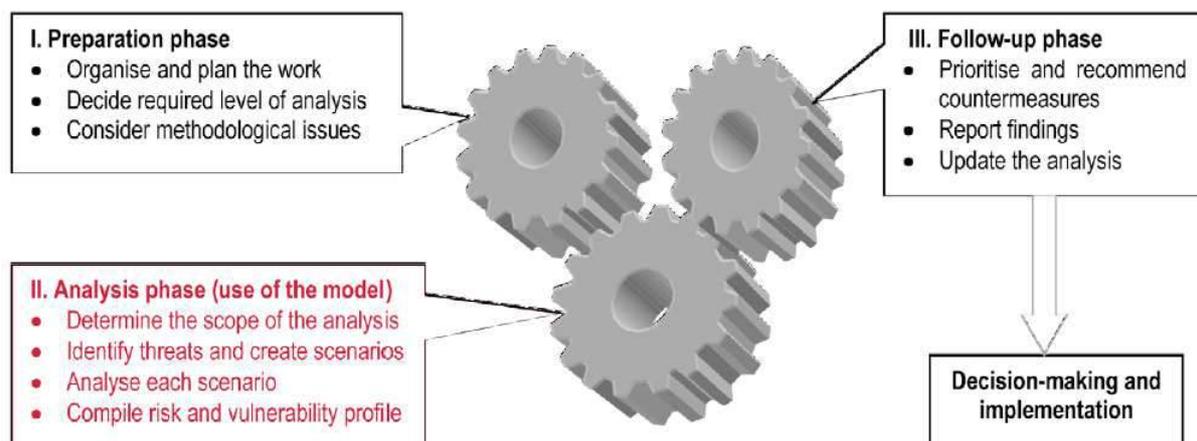


Figure 1.1: DEMA's civil preparedness planning process

The National Vulnerability Evaluation is taking place yearly. However, not update reports after 2004 could be retrieved. (DEMA, 2014a)

Risks

Denmark is a rather safe country compared to others. On the world risk index of UNU (2014), Denmark is ranked 149th on 171 countries. Neighbouring countries Norway and Sweden score a bit better.

Table 1: Position Denmark in the world risk index

		Risk 2014	Exposure	Vulnerability	Susceptibility	Lack of coping capacities	Lack of adaptive Capacities
149	Denmark	2,93	10,87	27,00	15,08	39,49	26,42
158	Norway	2,31	8,58	26,86	14,41	40,05	26,13
162	Sweden	2,19	7,97	27,49	15,39	40,90	26,18

Source: UNU, 2014

The main natural hazard for Denmark is flooding. Flooding is mainly a seasonal risks and occurs in some parts of the country. Parts mostly at risk are Jutland (Jylland) and along the southern coast of the island Lolland. Besides these two major parts under threat, other parts of the country are at risk for flooding as well, as the country consists of around 400 islands of which 82 are inhabited with being Jutland, Zealand (Sjælland) and Funen (Fyn) being the largest ones, both in terms of km² and number of inhabitants. The country as an overall coast line of 7,314 km. (IFEH, 2014)

The main threats, in addition to flooding, identified for Denmark are: fires, storms, snow storms, oil spills, man-made and technical disasters.

The next table sums up former large scale crisis situation in Danish history.

Table 2: Former incidents Denmark

October 2009: Waste Disposal Fire in Toelt
January 2007: Kyrill storm
March 2006: Bird flu
January 2005: Winter storm Gudrun in Denmark, Sweden & Baltic countries
November 2004: Fireworks accident at N.P. Johnsen's fireworks factory in Kolding, Denmark.
March 2001: Collision of the freight ship <i>Tern</i> and the oil tanker <i>Baltic Carrier</i> east of the Danish island of Falster.
December 1999: Violent hurricane.
1988: Railway accident near Soroe (Zealand); 8 dead, 72 injured.
1985: Oil slick from the Jan of Bremen; 20 km of marsh polluted at the island of Laesoe (in the Kattegat).
1984: Oil slick from the Ibn Rochd; pollution at numerous points on the Jutland and Zealand coasts.
1984: Major storms in Jutland causing extensive damage to buildings.
1976: A 1.4 million acres moorland fire at Aabybro (Northern Jutland). Fire action during one month.
1975: Several big forest fires in Jutland lasting weeks.
1975: Fisher trawler loss in the harbour of Hanstholm (Northern Jutland) during a hurricane; 11 dead.
1973: Hotel fire in Copenhagen; 35 dead.
1972: Tank lorry accident in Simmersted (Southern Jutland). Massive phenol pollution in the water supply system and environmental damage to the streams in the area.
1967: Railway accident at Odense (Funen); 11 dead, 30 injured.
1964: Explosion at a gasworks in Copenhagen; 4 dead, 200 injured and extensive damage.
1964: Explosion at a chemical plant in Roenland (Western Jutland); 3 dead.
1959: Fire and explosion on a tourist boat on a lake near Haderslev (Southern Jutland); 53 dead.
1951: Explosion in a mine depot at Naval Base Copenhagen; 16 dead, approx. 50 injured.

Source: EC, 2014

The next tables sum up specifically the number of people killed by storms between 1981 and 2013 and the economic damage by storms between 1990 and 1999 (Table 4).

Table 3: Impact of Danish storms expressed in number of people killed

Disaster	Date	No Killed
Storm	24/11/1981	9
Storm	3/12/1999	7
Storm	7/01/2005	4
Storm	18/01/1983	2
Storm	28/02/1990	1
Storm	27/10/2002	1

Storm	27/10/2013	1
Storm	7/12/2013	1

Source: EMDAT, 2014

Table 4: Impact of Danish storms expressed in damage

Disaster	Date	Damage (000 US\$)
Storm	3/12/1999	2604939
Storm	7/01/2005	1300000
Drought	may/92	751700
Storm	24/11/1981	250000
Storm	25/01/1990	120000
Storm	17/01/2007	100000
Storm	25/02/1990	60000
Storm	28/02/1990	10000

Source: Emdat, 2014

1.2 Policy and Governance

From at least the immediate pre-World War II era through the early 1990s, Denmark's emergency management system was fragmented among several institutions, with a clear distinction between civil defense and civil emergency preparedness to contend with conditions of war and fire and rescue services to address peace time incidents. By 1992, changes in the threat landscape pointed to the need for a more comprehensive approach, starting with new emergency management legislation. In subsequent years, Denmark developed a landmark emergency management policy (2005), initiated ongoing risk assessment to rank threats and set priorities (2005), boosted the resiliency of critical infrastructure (e.g., energy, telecommunications, and transportation), mined lessons from disasters affecting Danes living, working, or traveling abroad (Southeast Asia tsunami, Israel-Lebanon war). (Stone Wyman, s.d)

Recognizing the need for a coordinated, flexible capability to address whatever types of crises might arise, the Folketing (Danish parliament) enacted the Danish Preparedness Act (Emergency Management Act) in late 1992 to promote a comprehensive "rescue preparedness" system. (Stone Wyman, s.d)

The overarching goals of the Act, which took effect at the start of 1993, were to prevent, reduce and remedy any damage inflicted on people, property, and the environment by accident and disasters. Under the Act, each level of government has a specific set of roles and responsibilities for planning, preparedness, and response. A central provision of the statute was the integration of the previously separate State Fire Inspectorate (Statens Brandinspektion) and Civil Defense Agency (Civilforsvarsstyrelsen) into a new Beredskabsstyrelsen, or Danish Emergency Management Agency (DEMA). Subsequent amendments -- together with implementing regulations, directives, guidelines,

and the 2002, 2006, and 2010 political agreements -- have refined the original statute's mandates and authorities in order to address newly perceived threats and to strengthen emergency management policy, procedures, or organizational arrangements. Although the primary statutory basis for Denmark's emergency management system, the Emergency Management Act does not cover all circumstances. Other laws address emergency planning and response to spills of oil and other harmful substances at sea, fire safety, public health preparedness, energy sector contingency planning and IT and telecommunications preparedness. (Stone Wyman, s.d)

- The crisis management approach of Denmark assumes the local level to be better placed to tackle local crisis situations than the national level. The principle of subsidiarity is also the basis for intervention, the most local level equipped for dealing with the situation is appointed as preferred partner.
- On the other hand, Denmark has established a national institution taking care of large scale crises in general and is additionally assisting local municipalities, the institute DEMA. It is the professional organisation also appointed as international contact point. (DEMA, 2014b)

1.2.1 Strategy scope and focus

The crisis management approach of Denmark assumes the local level to be better placed to tackle local crisis situations than the national level.

Private organisations, volunteers and NGO's participate in Danish crisis management. In particular, Falck Redningskorps Ltd., a large private Danish rescue and fire company operates on a contractual basis within many of the Danish the municipalities.

Danish Civil Protection League is also supporting, as a non-profit organisation, with 5,000 members. Also the Danish Red Cross acts in crisis situations.

But the major national organisation, also international contact point, is DEMA. DEMA handles different aspects of the crisis management policy cycle.

DEMA

DEMA is organised in four core areas, each covering a part of the Danish emergency response (DEMA, 2014):

- **Prevention** includes inspection, counselling, supervision and development of national rules and laws related to the technical and behavioural aspects of preventing fires and explosions.
- **Emergency planning** includes supervision of other government, regional or municipal agencies and private companies on preparedness planning.
- **Operational** response (National Division, International Division, Chemical Division and Nuclear Division). The Chemical Division undertakes the following tasks: Analytical chemical investigations of unknown substances, including chemical warfare agents (CWA) and explosives; examinations of dangerous goods and hazardous materials; information on hazardous substances, including the "Guidebook for Emergency Response to

Hazardous Materials Incidents" and "Manual for Response to Hazardous Materials Incidents"; and advisory services, including the Emergency Response Centre.

- The Centre for **Education** and **HR Development** carries out professional educational consultancy services for colleges, centres and the municipal civil protection preparedness system, including training regulations and plans for preparedness staff; training course administration; management and development of both national and internal training courses and exercises; recruitment of staff, staff administration and staff policy; cooperation with national and international universities and civil protection training centres.

1.2.2 Monitoring and analytical support to policy making; R&D

Danish Emergency Management Agency (DEMA) developed a generic risk and vulnerability methodology for civil contingency planning. In this context, DEMA's Centre for Resilience and Contingency Planning has produced a model for risk and vulnerability analysis, (RVA model) as a basis for preparedness planning for authorities with civil preparedness responsibilities. (RVA is also discussed in section 1.1).

1.2.3 Policy for Prevention

DEMA is responsible for a wide range of tasks relating to prevention, including fire prevention. These include drawing up regulations and directives, providing advice and campaigns directed at the general public, authorities and companies. (Danish emergency management act, 2009)

DEMA works with prevention through rules and regulations in areas such as:

- Rules and regulations concerning fire and explosion hazards in enterprises and storage facilities
- Operational directives for community centres, hotels, schools, etc.
- Approval of major stocks of gases and flammable liquids
- Approval of enterprises covered by the Seveso II Directive due to fire and
- Explosion hazard
- Regulations for transport of dangerous goods by road and approval of tanks

(Danish emergency management act, 2009)

DEMA also develops educational material and campaigns aimed at changing behaviour and attitude in respect of fire prevention and emergency management. Each year a number of campaigns are implemented. Examples are:

- Fire prevention campaign aimed at primary school children
- National warning siren campaign along with full-scale testing of national warning sirens

(DEMA, 2014c; Danish emergency management act, 2009)

The municipal level is often performing the operational tasks of prevention. The municipal council shall for example carry out inspections of fire prevention arrangements of enterprises, listed

buildings, buildings in which many persons are gathered, buildings that are inflammable and stores as well as of floating constructions (Art. 36 of part 7 of the Danish emergency management act, discussed in chapter 2). The reports of the prevention analysis are published on the DEMA website. (Danish emergency management act, 2009)

Specific prevention for flooding

The Danish tradition of rather strict spatial planning regulations limits the impact of flooding along the coastline and in case of flooding in uninhabited areas, land is given back to the sea. When flood protection measures are a must, the Danish Coastal Authority mainly opts for beach nourishments or other soft defences.

Three acts of the Danish legislation are important to mention when considering coastal adaptation measures:

- Coastal Protection Act: the municipalities have the right to undertake coastal protection projects when necessary, financed with the money from the local landowners gathered through taxes;
- Nature Protection Act: in the first 300 m zone from the coast no new constructions may be build;
- Planning Act: in the first 3 km from the coast new activities is restricted.

Besides these planning restrictions, climate discussions in Denmark focused mainly on mitigation. Though, in March 2008, the Danish government published a general strategy with regard to climate change adaptation. The main purpose is to support coordination and informed decisions about autonomous measures. The policy document sets the strategic agenda and does not contain any specific analysis or actions yet.

Coastal zones are mentioned only briefly:

- Climate adaptation may become a necessity due to sea level rise and more intense storms;
- Enforcement of the protection structures may be needed based on risk-analyses;
- An integrated flood warning system could be useful in the future.

In this respect, the Local Government Denmark (LGDK), an interest group of Danish municipalities, has set up a discussion forum, offering municipalities the possibility to share good practices in the field of coastal protection and stimulate cooperation between them. Municipalities can also rely on the LGDK for individual consultancy services. (Policy research cooperation, s.d.; Danish Government, 2008)

Niche prevention : preparing elderly

A well-functioning scheme in Denmark is that municipalities have a legal obligation to organise home visits to all persons aged 75 or more at least twice a year. In a 1999 evaluation of this practice, 80 percent of the responding municipalities reported that the scheme had helped them reach groups of 'vulnerable' elderly, which they had not formerly known. (OECD, 2006)

If this approach resulted in a better preparedness for crisis situations is not retrieved, however this niche approach in preparedness planning is worth mentioning.

1.2.4 Policy for Preparedness

The preparedness planning in Denmark is based on three principles: total defense, sector responsibility and risk assessment.

- The concept of “**total defense**” refers to a collaboration and coordination across Denmark’s defense agencies, homeguards, police and rescue management units, and all entities engaged in civilian sector readiness. (Stone Wyman, s.d.)
- A fundamental principle of emergency planning in Denmark is the principle of **sector responsibility**. This means that the authorities or institutions, which are in charge of the day-to-day responsibility of a given area, are also responsible for that area in the event of a major accident or disaster. According to the Danish Emergency Management Act, each Minister is responsible for planning within their respective areas of responsibility. Their tasks are to maintain the functions of the Government and public administration, producing necessary legislation and providing guidance to regional and municipal authorities. This principle of sector responsibility is outlined in paragraph 24.1 of the Emergency Management Act, which reads (Emergency Management Act, 2009):
 - The individual ministers shall each within their areas plan the maintenance and continuation of societal functions in the event of accidents and catastrophes, including acts of war, and provide support for the armed forces.
 - The Minister of Defence coordinates the planning regarding the civil sector's emergency management, cf. (1) and provides advice to the authorities. The Minister of Defence shall carry out that part of the planning that does not rest with other authorities.
 - At the local level, regional and municipal councils are required to prepare contingency plans for their region designed to maintain critical public sector services during emergencies or restore them as quickly as possible . (Stone Wyman, s.d.)
- Since 2005, **risk** and vulnerability **assessment** has been an organizing principle for setting emergency management priorities. An annual vulnerability assessment report will describe selected emergencies that occurred during the year and discusses specific initiatives. (Stone Wyman, s.d.)

Preparedness planning

The purpose of Danish preparedness planning and crisis management is to prevent that major accidents affect life, welfare and environment. All authorities – municipalities, regions and central

authorities – are required to plan for maintaining their most critical functions in event of major accidents and crises.

The Danish fire and rescue service consists of the municipal fire and rescue service, the municipal and national support sites, and the national, regional fire and rescue service.

On a **national level**, the emergency management organisation in Denmark comprises **three levels** which coordinate national-level emergency management. In addition to this, the overall effort in case of **major incidents** that cannot be resolved in the individual regions is coordinated through a **national operative staff** (NOST) or IOS in international crises.

Centralisation and professionalization of response was put forward. Therefore, in 1993, DEMA was created out of the Civil Defence Agency and the Governmental fire inspection. Since 2004, this agency is residing under the Ministry of Defence. DEMA manages national rescue preparedness, supervises and supports national and municipal preparedness and advises the authorities on preparedness planning.

The work and tasks of DEMA are outlined in the Emergency Management Act: Consolidation Act no. 660 of 10 June 2009. (Emergency Management Act, 2009)

The Danish authorities are obliged to plan how operation of vital societal functions may be continued or re-established in the event of accidents or disasters. The authorities comprise departments, agencies, state-owned enterprises, regions, municipalities and other public institutions. Also private enterprises should consider preparing a plan for the continued operation of the company in connection with extraordinary events which cannot be handled by means of ordinary resources and procedures. (Emergency Management Act, 2009)

DEMA's national preparedness approach

The mission of the national rescue preparedness has been laid down on the basis of the political intentions for the preparedness – that is, the Preparedness Act and the political preparedness agreements concluded at any time. The mission is worded as follows: "The national rescue preparedness is to safeguard the population and society against accidents and disasters in the best possible way. The rescue preparedness authorities shall thus work to minimise the harmful effects of accidents and disasters and increase their preventive efforts in an attempt to avoid the occurrence of accidents and disasters." (DEMA, s.d.)

The Danish Emergency Management Agency (DEMA) is responsible for the national rescue preparedness in Denmark. DEMA also handles supervision and counselling tasks related to municipal rescue services and other authorities, general development in the field of preparedness and a series of operative tasks. DEMA is an agency under the Ministry of the Interior and Health, and handles relevant rescue preparedness tasks related to the ministry. Moreover, DEMA is in charge of coordinating the planning of the civil sector preparedness and carries out tasks concerning civil sector

preparedness not allocated to other ministries. Finally DEMA is the Danish national safety authority and responsible for the Danish nuclear emergency preparedness. (DEMA, s.d.)

Apart from the central agency in Birkerød, DEMA consists of ten branches – seven rescue centres and three schools – located around the country.

The DEMA agency works with seven areas of comprehensive preparedness planning:

1. **Programme management – which should be the central, pivotal point of the planning.**
2. **Planning assumptions – analyses and ongoing activities that support planning in the remaining areas.**
3. **Prevention – measures that may prevent incidents or reduce their probability and consequences.**
4. **Training – for all employees who have a role in the organisation’s emergency preparedness.**
5. **Exercises – which all organisations in the guide’s target group should conduct and participate in.**
6. **Evaluations – in order to utilise the learning potential from incidents and exercises.**
7. **Crisis management plans – which describe how the organisation**

DEMA’s approach to Preparedness Planning and Crisis Management



Figure 1.2: Preparedness and crisis management planning

The Preparedness Act is also the statutory basis of the activities of DEMA and the national rescue preparedness. Pursuant to section 1 of the Preparedness Act, the principal objective of the national

rescue preparedness is to prevent, reduce and remedy injuries to persons and damage to property and the environment in case of accidents and disasters, including war or the imminent danger thereof.

Preparedness planning is a continuous process in Denmark. It is believed that only a dynamic system can provide an effective and efficient emergency management system. Emergency management is continuously adjusted to today's risks and threats, as well as from lessons learned and past experiences. The process has to be not only continuous, but also holistic. This means that besides an emergency management plan, there has to be proper methods of prevention, regular training and exercise as well as an ongoing lessons learned process. In that context, DEMA has developed a guide in comprehensive preparedness planning as a voluntary tool for both preparedness planning and crisis management and response, as the elements are interlinked. The guide to comprehensive preparedness planning can be retrieved at brs.dk/eng/Documents/Comprehensive_Preparedness_Planning.pdf. (DEMA, 2009)

Crisis management

In Denmark the crisis and emergency management structure is de-centralized, and on two levels; the national and the municipal level. The operational level has the power to take decisions without first consulting the central/national level. All Danish authorities, central authorities, regional authorities and municipal authorities are all required to plan for maintaining their critical functions in event of major accidents and crises. The authorities have to plan how to handle and manage crises when they strike and assure the continuous functioning and or re-establishing of the vital functions of society as a whole.

National and municipal level crisis management

On a national level, the emergency management organisation comprises three levels which coordinate national-level emergency planning and crisis management, as well as a National Operational Staff (NOST), which coordinates between the different regions. NOST is called in, when an incident can no longer be handled on a regional level alone. On a regional level a Local Operational Staff can be established, coordinated by the local police.

Danish crisis management response is consists of three levels. The first level needs to respond to every sort of crisis and is the municipal level. In case something happens the local police force and the local fire brigades need to go to the scene. The local council needs to assess the scope of the incident and will decide on the number of police men and fire fighters. Also other related decisions will be made by the council. The police force will have the overall response responsibility on site, while the fire brigade has the main responsible actor for fire fighting and rescue operations.

Not every municipality (98 in total) has its own fire brigade. Some municipalities have agreements with neighbouring municipalities and they share the fire brigades. In Denmark it is also possible to conclude a contract with Falck, a private fire brigade, that can provide fire fighting services as well as search and rescue help. (EC, 2014)

If the crisis is larger than one or several neighbouring municipalities the second level becomes operative, the national level. The response is coordinated by DEMA and one of their six regional offices will offer support. All parts of the country are reachable from one of the centres within a two-hour drive. The centres can provide additional equipment e.g. water, lighters, and advanced communication equipment. They can also provide additional man power, especially fire fighters and volunteers, to mitigate the effects of a crisis.

If a crisis affects several municipalities and is also very specific, more specific units become operative (level 3). In case of chemical warfare agents and explosives, DEMA can provide assistance through its National Response Laboratory. In case of a terrorist attack the Danish Center for Biosecurity and Biopreparedness can provide assistance by involving biological agents. Similar activities are carried out by the National Institute of Radiation Protection support radiological threats. If DEMA is no longer to offer the support solely they can ask the armed forces and home guard to assist as well.

Level	Fire & rescue	Environment - emergencies with hazardous substances
1	Municipality within 10-15 minutes + help from neighbouring municipalities	Municipality
2	7 municipal and 6 regional support centres - response time approx. 1 hour	About 50 rescue teams at 6 regional rescue centres and about 45 municipal rescue stations - response time approx. 30 min.
3	6 regional rescue centres - particularly fire and rescue equipment and large forces - response time approx. 2 hours	6 regional rescue centres with special equipment and large forces - response time approx. 2 hours

The overall rescue preparedness in Denmark is designed with the aim of being a single-strand, flexible preparedness, operational at three levels. The three-level preparedness is intended for responding to accidents and disasters occurring without prior warning.

Figure 1.3: Crisis management layers (DEMA, s.d.)

Each Ministry (20 in total) needs to prepare a crisis management plan and develop policies for all areas that do fall under its responsibility. Everything that is not covered by one of the Ministry is covered by the Ministry of Defence. This Ministry formulates all preparedness policies not falling under the scope of one of the other Ministries. The planning efforts are mainly carried out by DEMA on behalf of the Ministry of Defence. DEMA publishes a planning guide, a yearly vulnerability report and holds ongoing information meeting. (DEMA, 2009)

Besides the policies developed by the Ministries and DEMA, municipalities are required to develop contingency plans which need to cover all their municipal functions. Most critical point which needs to have a clear policy is the capability of keeping hospitals function during a disaster. Municipalities also need to be prepared to receive and take care for evacuees and other victims of different types of emergencies, e.g. floods, accidents, terrorist act, and other natural and man-made emergencies.

Nuclear preparedness

DEMA also develops the policy for the nuclear emergency preparedness. This policy includes that Denmark has 24-hours surveillance through a nationwide monitoring system and participates in an international warning network. In case something happens abroad that might affect Denmark the National Police Force will be the main point of contact. (DEMA, 2014)

Nordic energy preparedness

A niche preparedness approach of the Nordic countries is found in the energy supply preparedness. The Nordic countries (Iceland, Norway, Sweden, Finland and Denmark) work closely together to create an integrated electricity supply network. When one of the states involved is confronted with a power shortage, other countries can, via cross border connections, supply energy. This limits the chance of severe blackouts in crisis situations. (The Nordic Forum, 2005)



Figure 1.4: Cross border energy supply Nordic countries

However, Denmark in particular has a significant surplus of power generation, and the production is mainly based on fossil fuels with such stocks normally corresponding to at least 3 months'

production. Thus the vulnerability due to energy shortage seems to be low in this sense. This makes Denmark less vulnerable to blackouts than the other Nordic countries. (Nordic Energy Regulators, 2006)

In Denmark the relevant legislation with respect to contingency planning and crisis management for the power sector is:

- Article 24 of the Civil Emergency Procedures Act
- Article 85 b of the Electricity Supply Act
- Regulation no. 58 of 17 January 2005 governing contingency planning and crisis management for the power sector.
- Regulation no. 917 of 13 November 2002 governing contingency planning regarding fuel storage in the electricity sector.

(Nordic Energy Regulators, 2006)

1.2.5 Policy for Response

At the national level, the Minister of Defense is responsible for the government-wide coordination of civil preparedness planning, for implementation of measures, and for addressing any areas not covered by other ministries. Within the Ministry of Defense, the Office of Emergency Management is responsible for setting the direction of preparedness policy, negotiating and implementing the political agreements, leading international cooperative efforts on emergency preparedness, overseeing DEMA and the Home Guard, and setting performance requirements for them.

Much of the day-to-day responsibility for national coordination of emergency management rests with the DEMA. Other tasks are laid at the municipal level.

Response planning

An accident often requires the response of several authorities, each with their individual responsibility and expertise. In order that an emergency response runs as efficiently and smoothly as possible, it is important that everybody knows their own role and that of others. It is also important that co-operation adheres to predetermined principles that are respected by all parties involved in the emergency response. (DEMA, 2014)

The scene of accident is the place where an accident has occurred and a remedial response is being launched (the working area of the fire and rescue service). The response area is the area in which the overall response takes place (see figure). In the area between the inner and outer cordon, a treatment area for the injured, which is a kind of casualty ward, can be established (the working area of the emergency medical service). (DEMA, 2014)

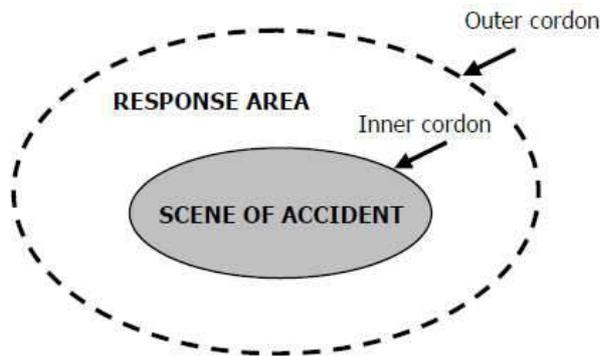


Figure 1.5: Crisis management cordon

In case of major accidents, an Incident Management Team is established which normally comprises leaders from the police, the fire and rescue service and the emergency medical service, but also leaders from other emergency management services may be represented. The coordinating management rests with the police who is therefore responsible for the overall response running as efficiently as possible.

The operational leader of the municipal fire and rescue service is responsible for the technical management of the response at the scene of accident, including responsibility of all deployed units.

The leader of the emergency medical service and leaders of other emergency management services deployed are responsible for the response within each of their individual sectors; cf. the general sector responsibility principle.

DEMA's task

The Danish Emergency Management Agency issues guidelines for the "Incident Command System" describing management conditions and co-operation principles for all types of response covered by the Emergency Management Act. The guidelines also form the basis of instructions for the handling of more specific incidents, e.g. incidents involving chemical substances and acts of terror. The guidelines have been prepared and acceded by the authorities who normally work in a response area. (DEMA, 2014)

1.2.6 Policy for Relief and Recovery

And in response to several flood events in Denmark, national authorities established a flood insurance scheme dedicated to coastal flooding in 1990. Compensation is paid to landowners, companies or farms that have suffered flood damage due to severe storm events. Since 2000, the fund has also been covering compensation payments for forest damages. Means for compensation are collected by an annual tax payment charged through all private fire insurance policies. Whenever a coastal flood takes place, the Danish Storm Council represented by Danish ministries, insurance companies and the Local Government Denmark, amongst others, decide whether or not and to whom compensations will be paid out. (Policy Research Corporation, s.d.)

In case the emergency is larger than the financial capacity of the local government the national government has the possibilities to rapidly make additional funds available in order to support the local government in their response and recovery payments.

1.3 Financing

1.3.1 Investing in preparedness

The Danish national accounts do not clearly provide an overview on the costs they make to invest in preparedness. Therefore a rough estimation has been made to provide a general idea of the costs of investing in preparedness. It should also be noted that crisis management is often organized locally and the local fire brigades and police forces are the first responders to an incident. DEMA is informed, but only become active once the crisis cannot be handled on a local level any more. Below a rough estimation of the preparedness costs is provided.

The police budget

The Danish Parliament (Folketing) decides on the Police budget. The Parliament sets the Police budget for a 4 year period. In the period 2007-2010 the available annual budget was DKK 7.5 billion (1,008 million euros). In the consecutive period (2011-2014) the budget has increased to DKK 8.5 billion, which equals around 1,142 million euros. The budget is divided over the national police and the 12 separate police forces. Each force needs to have his own administrative procedures in place to allocate the budget sufficiently. It should be noted that the budget is not used for crisis management only, as the police force also needs to carry out other tasks, i.e. criminal investigation and safeguarding public order.

The fire brigade budget

The fire services are partially provided by public providers and partially by private operators. A municipality can choose to have its own fire brigade, hire the fire brigade of a neighbouring municipality or can have a contract with a private operator. The only private operator in Denmark is Falck. Currently, Falck provides firefighting services for 2/3 of the municipalities in Denmark according to their latest annual report(2013). Around 65 of the 98 municipalities do have a contract with Falck for firefighting services. The contracts are awarded through public procurement and negotiating. Besides firefighting services Falck is also responsible for 85% of all ambulance service provided in Denmark. Of the total revenue made in 2013, 46.6% was made in Denmark. The revenue of 2013 amounted to DKK 5.839 million (€ 748 million).

The DEMA budget

DEMA, the national emergency management agency, is the main responsible body for developing policies on prevention, preparedness and response. DEMA has a staff of 565 employees available divided over 10 different locations(7 rescue centres and 3 schools). Their annual budget is around DKK 490 million. This more or less equals € 66 million. This budget needs to cover all the costs made

by DEMA, so not only the emergency preparedness and response costs, but also their administrative and personnel costs. The costs are paid by the Ministry of Defense of which DEMA is an agency.

The GDP for 2013 was DKK 466.2 billion. The support provided to DEMA is in this case 0.1% of national GDP in 2013. However the costs of DEMA do not cover the entire costs for crisis management as the police forces, the fire brigades as well as the medical assistance play a role in emergency management as well.

Approach to flooding

The overall principle regarding the implementation and financing of coastal protection in Denmark is that the persons who profit bear the responsibility. Hence, measures need to be initiated, financed and implemented by landowners or arranged for within the municipalities. At national level coastal defence falls under the responsibility of the Danish Coastal Authority (DCA), a division of the Danish Ministry of Transport. The DCA's actions are mainly focused on policy and strategic issues such as:

- Supervising the compliance to coastal defence laws;
- Providing advice with regard to coastal defence;
- Approving regional and private plans for coastal protection works;
- Monitoring coastline changes;
- Issuing warnings with regard to storm tide.

When private landowners feel the need to protect their coastal property, they can submit a project proposal to the DCA. Permission will usually be granted when:

- There is concrete evidence that the landowner will be threatened by violence of the sea within the next 20 to 25 years;
- The project does not harm any nearby Nature 2000 sites;
- The project complies with the coastal planning regulations.

Although most initiatives come from private landowners, municipalities can also initiate coastal protection projects for which the same procedures need to be followed. In this case, projects are financed with local taxes or through public-private partnerships. (Policy research corporation, 2014)

1.3.2 Investing in consequence management

Several actors are involved in investing in consequence management. If objects belonging to the public domain have been damaged, e.g. buildings and roads, the 'government' has to pay. If the objects belong to the national government it will be the responsible ministry that needs to pay, if the objects belong to the regional or local government, these governments will bear the costs. If budgets are tight, the national government can provide assistance. Each of the governments have a budget available for un-expected expenses and these budgets can be used to cover the costs to repair, public roads and buildings if needed.

Also most Danish citizens have insurances that cover damages related to property. According to a Lloyd's report the insurance penetration in 2011 was 2.9% (premiums as a % of GDP). In the list of 42

reviewed countries Denmark was ranked 11th. The list is led by The Netherlands (9.5%), followed by New Zealand (5.2%) and South Korea (4.6%). It should be noted that the penetration rate is not related to the relative risks people are likely to face. The report also calculated if a country is over or under insured by calculating the 'benchmark insurance coverage'. Denmark is ranked number 10, with a benchmark of 1.36, indicated that the country is moderately insured. Citizens are better insured than they strictly need to be, however margins are small.

The industry compared to citizens is relatively poorly insured. The Lloyd's report calculated the insurance penetration rate per industrial sector compared to the GVA of this particular sector to the national GDP (see table below). Taking all sectors into account the overall insurance penetration for Danish industry is less than 0.2%, and Denmark is ranked 16th amongst 18 reviewed countries. Frontrunner is the US with a penetration rate of almost 1%, followed by Ireland (0.87%) and the UK (0.75%).

Table 5: Penetration rate and GVA contribution per sector (2011)

Sector	Insurance penetration	GVA contribution
Transportation and Storage	0.48%	5.70%
Agriculture, forestry and fishing	0.36%	1.18%
Construction	0.29%	5.66%
Wholesale and retail	0.25%	12.84%
Utilities	0.17%	1.93%
Manufacturing	0.14%	14.09%
Accommodation and food service activities	0.14%	1.57%
Professional and administrative services	0.13%	9.03%
Public administration and defence	0.12%	6.20%
Financial and insurance activities	0.09%	4.36%
Information and communication	0.09%	2.11%
Arts, entertainment and recreation	0.07%	1.78%
Education	0.06%	5.35%
Human health and social work activities	0.05%	10.70%
Mining and Quarrying	0.05%	3.96%
Real estate activities	0.00%	9.96%

Source: Lloyd's (2012)

1.4 Policy review, Evaluation & Organisational Learning

1.4.1 Post-Disaster Assessment

No information retrieved. The recent audit on Danish crisis management (see section 1.4.3) however has critique on the post disaster assessment.

1.4.2 Departmental Lessons Learned systems

No information retrieved. The recent audit on Danish crisis management (see section 1.4.3) however has critique on the post departmental approach and knowledge of emergency planning.

1.4.3 Centralised (national) Lessons Learned system

In April 2014, a National Audit Report on the state's preparedness was published. The Audit Office concludes that the key ministries and agencies in preparedness have prepared themselves to deal with major accidents and disasters. The National Audit Office concludes in addition, the Emergency Management Agency has not solved all tasks concerning the coordination of emergency planning satisfying as the Board does not have a comprehensive overall view of contingency planning in Ministries. Finally, the National Audit Office stated that the authorities' efforts in evaluating major accidents and disasters can be improved and that all authorities prospectively writing should evaluate their crisis management at major events and exercises to ensure that the experience is retained and used to improve preparedness.

Some highlights:

- "The Emergency Management Agency has solved the task of supporting ministries contingency planning by establishing a common guide to good contingency planning and providing advice to ministries but has not solved the problem of assessing the consistency of contingency planning satisfactory since it lacks a comprehensive overall view of contingency planning in the ministries and thus not a sufficient basis for assessing the relationship. "
- "The authorities' efforts in evaluating major accidents and disasters and exercises can be improved."
- "The authorities have [...] followed up on the learning points from the terrorist attacks in Norway in 2011 with a view to improving the Danish preparedness. The Audit office agrees. "
- "The National Audit Office finds that all authorities prospectively writing should evaluate their crisis management at major events and exercises to ensure that the experience is retained and used to improve preparedness."

1.4.4 International exchange for Lessons Learned

Danish crisis management organisations participate in international preparedness and crisis management training. A recent example is the SKAG EX11 exercise. The exercise scenario was outbreak of fire on the passenger ferry MS Bohus en route between Strömstad and Sandefjord and a subsequent collision with the smaller bunkering vessel Oslo Tank. Around 3,000 people from approximately 55 organisations, primarily from Norway but also from Sweden, Denmark

and Finland, were involved in SkagEx11. Lessons learned were shared with the nations via the SKAG EX11 way forward report, detailing the exercise, strengths and weaknesses. (DSB, 2012)

1.4.5 Regular policy reviews

No confirmed information was retrieved. Section 1.1.1 on the risk assessment found a DEMA source indicating the existence of an annual Danish National Vulnerability Evaluation. No information was retrieved on the evaluations after 2005. Moreover, recently an audit was performed on the crisis management organisation. Therefore likely policies are regularly under review.

1.5 Resilience

Denmark does not have emergency law in place (see chapter 2) and in principal local authorities need to invest in consequence management. However, in case the emergency is larger than the financial capacity of the local government the national government has the possibilities to rapidly make additional funds available in order to support the local government in their response and recovery payments.

1.6 Information sharing and data protection

Part 6 of the Emergency management act (detailed in chapter 2) deals with radio communication. (Emergency management act, 2009)

The municipal council and the regional council shall ensure that the national radio communication network is used for the carrying out of own and joint emergency management tasks. The Minister in question, the Minister of Defence may lay down rules stating that parties, including individuals, other than the municipal councils and the regional councils shall use the radio communication network.

Moreover, the Minister of Defence may lay down rules on the use of the national radio communication network, including connection and utilisation. Subsequent to negotiations with the Minister of Finance, the Minister of Defence may furthermore lay down rules on the payment for connection to and use of the network.

Data protection is not mentioned in the Emergency management act.

2 Legislation

2.1 Crisis (emergency, disaster) management concept

In 2009, Denmark adopted the Emergency Management Act. This act is detailing all aspects of crisis management.

2.2 General crisis (emergency, disaster) management law

The Emergency management act is adopted and not under review. The act covers all relevant aspect of crisis management.

Outline (Table of contents)

- Part 1 Preliminary provisions
- Part 2 The national fire and rescue service
- Part 3 The municipal fire and rescue service
- Part 4 Deployment of the fire and rescue services
- Part 5 Emergency management planning etc. within the civil sector
- Part 6 Radio communication
- Part 7 Preventative measures etc.
- Part 8 Expropriation
- Part 9 Injunctions, orders etc.
- Part 10 Personnel provisions
- Part 11 Penalties and disciplinary provisions
- Part 12 Amendments to other legislation
- Part 13 Commencement and temporary provisions

The act can be consulted online via:

http://brs.dk/eng/legislation/act/Pages/the_emergency_management_act.aspx

2.3 Emergency rule

The Danish legal system does not provide 'discretionary powers' which means that in case of an emergency or disaster the authorities do not obtain different responsibilities and powers. During each crisis the authorities must follow the regular principles and procedures as much as possible.

This is based on the principle of similarity (one of the five principles playing an important role in Danish crisis management) meaning that the actions undertaken by and the responsibilities of authorities should resemble their normal actions and responsibilities as much as possible under the more extreme circumstances.

2.4 Specific, department/agency-level legal arrangements and regulations on emergency and disaster management

Part 2 of the Emergency management act stipulates that the Minister of Defence supervises the municipal fire and rescue service and that the Danish Emergency Management Agency manages the national fire and rescue service and advises the authorities.

Part 3 however details that the municipal fire and rescue service belongs under the municipal council. The municipal organisations are responsible for delivering the services. Art. 12 says that the municipal fire and rescue service shall be able to provide a justifiable response to prevent personal injuries, damage to property and the environment arising out of accidents and catastrophes, including acts of war. The fire and rescue services shall moreover be able to receive, accommodate and cater for evacuees and other distressed persons.

2.5 Specific to the regional and local authorities legal arrangements and regulations on emergency and disaster management

See 2.4.

2.6 Legal regulations on the involvement of volunteers and specialised NGOs

Art. 13 of Part 3 of the Emergency management act details that the municipal council may enter into agreements with associations, organisations and individuals on their assistance in the carrying out of tasks within the municipal fire and rescue service.

Does crisis management legislation make specific provision for the involvement of NGOs and volunteers? Are there any specific rules or policies on liability or insurance?

Private sector

Falck Redningskorps Ltd. is a large private Danish rescue and fire company, which operates on a contractual basis within the municipalities. Falck Redningskorps Ltd. and other private companies provide ambulance services on a contractual basis at regional level. (EC, 2014)

Volunteers

The Danish Civil Protection League is a non-profit organisation with 5,000 members. It comprises predominantly volunteers in local rescue teams working for the safety of the civil population and aims to be the uniting groundwork for the volunteers engaged in the municipal or the national rescue preparedness. The league also serves support members. Moreover, the League aims to increase the knowledge of preparedness and prevention among the population and through the education of the population to increase their level of self-preservation and robustness. The Danish Civil Protection League is involved in training and educating the volunteers in respect of the following measurements: food provisioning and temporary housing, fire service, rescue work, use of rescue dogs, communication and SAR-teams (Search and Rescue). Additionally, the League offers to all members courses in first aid as well as management courses to a selection of its own members. Furthermore, the League is involved in first aid training of the population, including the capability to extinguish small fires and handle accidental situations before they become major disasters. Moreover, the League offers training in the so-called Heart-Starter (defibrillator) and mediates between supplier and firms needing a Heart-Starter. (EC, 2014)

NGOs

The Danish Red Cross cooperates in crisis situations.

2.7 Legal regulations for international engagements of first responders and crisis managers

DEMA performs a series of internationally oriented tasks presupposing co-operation across national borders. An overall objective of DEMA is to make the national rescue preparedness' personnel available rapidly and flexibly for efficient action abroad. Thus international operations have a high priority. Based on experience the response – when required - can be very rapid. A fully equipped operational taskforce designed according to the specific type of disaster can be deployed within 12 hours. The national rescue preparedness personnel has been brought into action in connection with earthquake disasters, floods, forest fires, refugee crises, etc. The planning of international operations is supported by the formation of a service package concept (flexible manned equipment modules) that can be applied in connection with disaster response and response to complex emergencies. (DEMA, 2014)

DEMA also takes part in a number of international exercises and discussions within the framework of the EU, NATO the UN and the OECD regarding civil protection, humanitarian operations and nuclear emergency preparedness. The international co-operation is described in further detail below. DEMA co-operates closely with the Danish Ministry of Foreign Affairs and non-governmental humanitarian organisations in regard to its international commitment. (DEMA, 2014)

The European Union

In recent years co-operation in the EU concerning civil protection has attracted increasing attention. The intergovernmental co-operation has been strengthened by the adoption of the so called Mechanism, which increases the possibility of using national rescue services for international

operations within and outside Europe. (DEMA, 2014)

This development has increased the Danish commitment in the civil protection field. DEMA thus participates in the following EU forums:

- Meetings of the Permanent Network of National Correspondents and Management Committee for Civil Protection, where experiences are exchanged, projects are carried out and EU funds are administered in the civil protection field.
- The Regulatory Committee
- The Council's Working Party for Civil Protection, in which resolutions and Council decisions regarding civil protection are negotiated. Furthermore, the Director-General of DEMA meets twice a year with the directors-general of the other EU Member States under the chairmanship of the Commission to discuss professional preparedness developments within the EU. In addition, DEMA provides counselling on nuclear emergency preparedness as well as preparedness counselling within other professional fields, including the EU Committee for Civilian Aspects of Crisis Management.

The United Nations

DEMA co-operates closely with the UN, particularly the UN Office for the Co-ordination of Humanitarian Affairs, OCHA. In co-operation with Sweden, the United Kingdom, Finland and Norway, Denmark is party to the International Humanitarian Partnership (IHP). This includes mutual support of equipment modules for the purpose of offering manned support and operational packages to the United Nations, including, among others, OCHA and UNHCR (UN High Commissioner for Refugees). The co-operation furthermore includes joint courses and exercises. DEMA also offers the help of experts to OCHA's UNDAC team (UN Disaster Assessment and Co-ordination). UNDAC teams are sent out to disaster areas to assess the need for aid and to help co-ordinate the international, humanitarian response. DEMA moreover assists the UN in giving courses.

Furthermore, DEMA co-operates with the International Atomic Energy Agency, IAEA, which serves as the world's foremost intergovernmental forum for scientific and technical co-operation in the peaceful use of nuclear technology.

Within NATO, the Senior Civil Emergency Planning Committee (SCEPC) handles civil emergency planning. DEMA and the Danish NATO mission (DANATO) handle the Danish participation in the Committee. The SCEPC has appointed nine planning boards and committees that handle the more detailed, specific emergency planning within the respective fields on the basis of directions from the SCEPC. The planning boards and committees also have Danish representatives from the ministries and agencies in charge of national planning in the fields in question.

Other activities

Through the Council of the Baltic Sea States, DEMA is a member of a working party on nuclear safety and radiation protection. As part of Denmark's sector-integrated environmental assistance in Eastern Europe, DEMA manages a programme with the overall purpose to assist in improving safety and environmental aspects related to the use of nuclear power and ionising radiation in general. DEMA has

established a number of monitoring stations in the Baltic countries, Poland and Russia and has also carried out several projects in the area of improving the safety of the nuclear power plants. Furthermore, DEMA carries out training programmes in the field of emergency preparedness response education. Moreover, DEMA is a member of a national network to improve Danish recruiting for the OSCE and participates in the Nordic Nuclear Safety Research.

International agreements

Denmark has concluded a series of bilateral and multilateral agreements on early notification of nuclear accidents, the exchange of information relating to nuclear facilities and agreements on mutual disaster aid, etc.

3 Organisation

In Denmark the crisis and emergency management structure is de-centralized, and on two levels: the national and the municipal level. The operational at local level has the power to make decisions without first consulting the national level. The intermediate operational level of DEMA's rescue centres can be identified as a third crisis management level.

National level: at national level the ministries are responsible for planning within their respective areas of responsibility. Their tasks are to maintain the functions of the Government and public administration, producing necessary legislation and providing guidance to regional and municipal authorities. Municipalities and regional councils must prepare contingency plans for all assignments that they are responsible for.

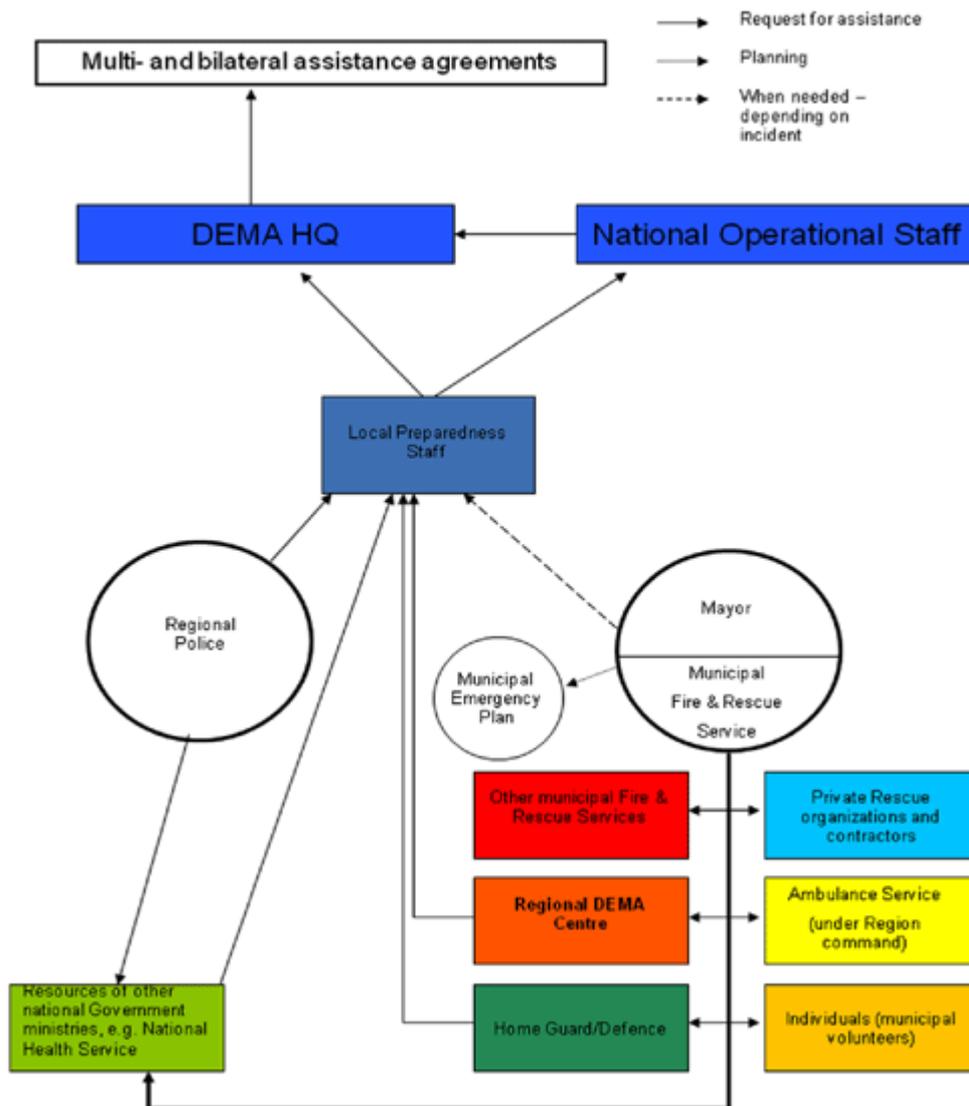
The Danish Emergency Management Agency (DEMA) is a governmental agency that has the coordinating responsibility on behalf of the Minister of Defence. DEMA manages national rescue preparedness, supervises and supports national and municipal rescue preparedness with advices to the authorities on matter of preparedness planning. (DEMA, s.d.)

Local/municipal level: each municipality implements the effort, possibly with assistance from neighbouring municipalities. The municipal support is staffed by the municipalities' own full-time and part-time employees or volunteers while DEMA makes the needed equipment available. If the municipality does not have the capacity to handle an accident with their own resources alone, they can call in assistance from the DEMA emergency centres which send out teams and equipment that can be received all over the country within approximately two hours. (DEMA, s.d.)

3.1 Organisational chart

The next figure sketches the organisational chart in Danish crisis management. The figure clearly shows the distinction between the local municipal organisation (fire fighters and police also fall under this level of crisis management) and the national crisis management authority DEMA. DEMA supports when needed and is organised via local operational staff. In such cases also regional police is assisting in the crisis management.

Table 6: Danish disaster management structure



Source: EC, 2014

DEMA as national crisis organisation

An important organisation for Danish crisis management is the DEMA. As described in chapter 1 DEMA is responsible to carry out the yearly vulnerability assessment and needs to implement the policies of the Ministry of Defence.

Besides these activities DEMA also has six rescue centres which can provide additional operative support to municipalities that are not able to respond to a disaster by themselves. These centres are indicated by the blue box 'local preparedness staff' shown in the figure above.

DEMA also has three trainings centres where emergency personnel can be trained. The graph below shows the internal structure of DEMA.

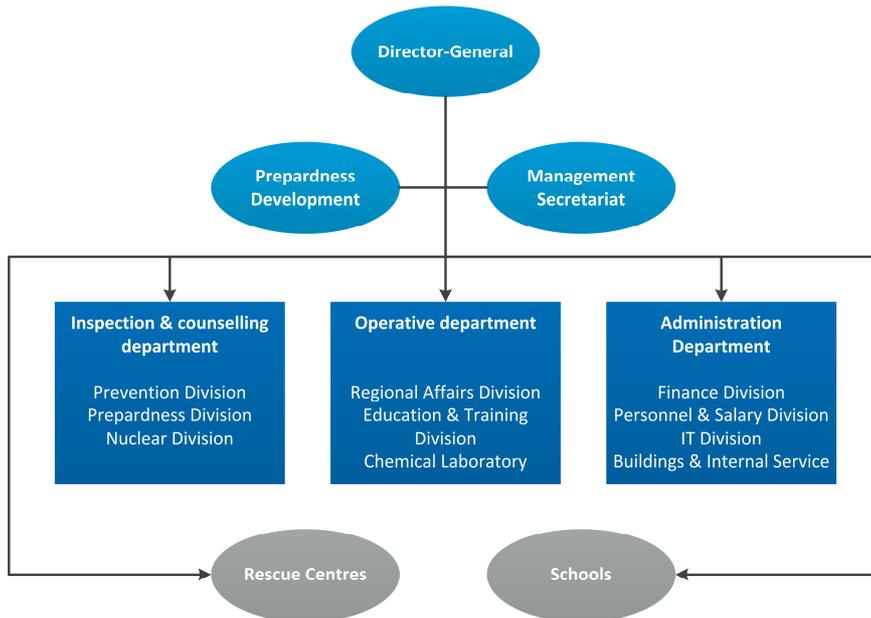


Figure 3.1: DEMA’s organisation

Source: DEMA, 2014

The rescue centres of DEMA are spread over the main islands and are named Nordjylland, Midtjylland, Sudjylland, Sjælland, Hedehusene and Bornholm.. The locations are chosen in order to ensure that every part of the country can be reached within 2 hours from one of the centres. The training locations are more clustered, located on Tinglev, Snekersten and Birkerød. Following figure shows the locations of the DEMA rescue and training centres. (DEMA, 2014)

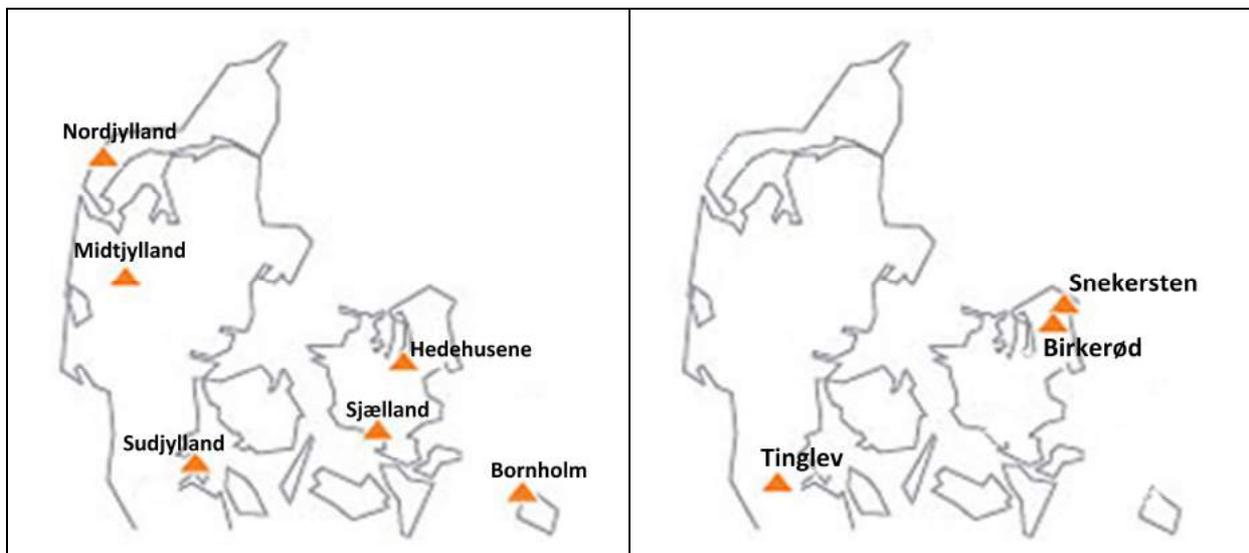


Figure 3.2: DEMA's rescue centres and training institutes

DEMA in the national structure of government

DEMA falls since 2004 under the Ministry of Defence. Before 2004 DEMA was part of the Ministry of Health. The Ministry of Defence needs to coordinate the government wide civil preparedness planning , implement the taken measures and address all areas not covered by the other Ministries.

Within the Ministry of Defence the Office of Emergency Management needs to set the direction of preparedness, policy, negotiating and implementing of political agreements, leading international cooperative efforts on emergency preparedness, overseeing both DEMA and the Home Guard and set the performance requirements for both of them. DEMA is responsible for the day-to-day national coordination of the emergency management. The mission of DEMA therefore is ‘to cushion the effects of accidents and disasters on society and to prevent harm to people, property and the environment’. DEMA has the full responsibility and authority for coordinating the full spectrum of emergency management, from planning/preparedness through response.

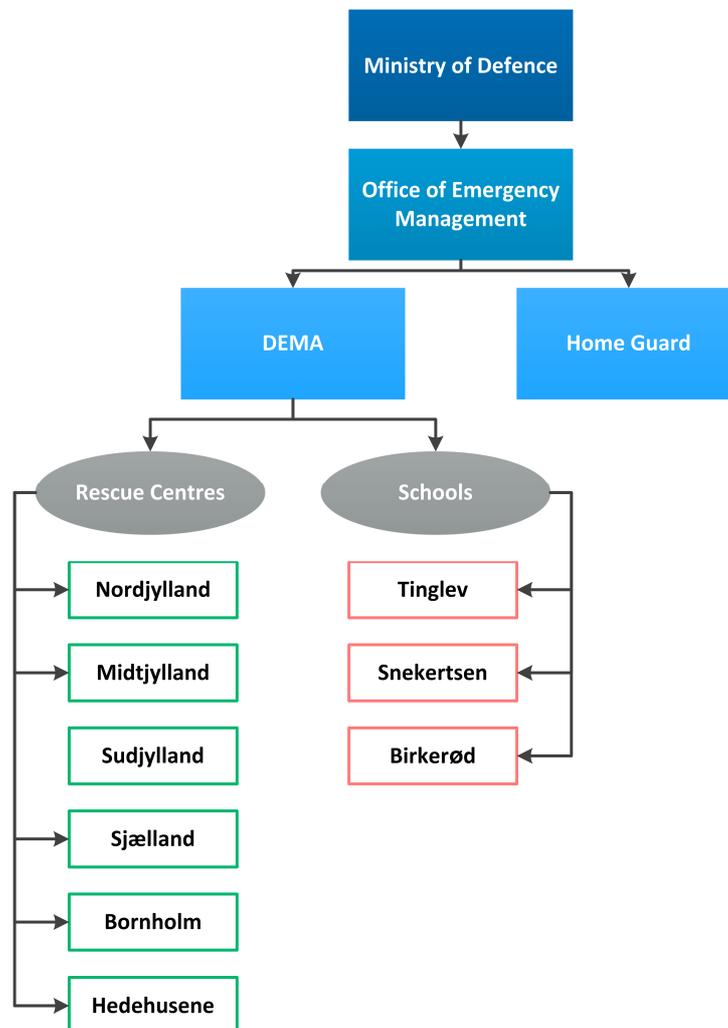


Figure 3.3: DEMA's rescue centres

Source: DEMA, 2014

3.2 Organisational cooperation

Organisational cooperation in national crisis situations

The structure shown above applies to the general crisis management system at the national level. In case of an emergency the local level, i.e. the municipalities, need to start their response procedures

and their police force, fire brigade and medical assistants will be first on the scene. In case the emergency is larger than they can solely manage they can ask for assistance of the DEMA rescue centres. (DEMA, s.d.)b

However it might happen that a crisis is more extraordinary and special skills and decisions are required. In that case the special crisis management system, the so-called Danish National Emergency Management Organization, will be activated. At the governmental 'level three' committees/groups will become operative. These three groups make the necessary decisions on different levels:

- *The Government Security Committee:* this is a high level committee consisting of the Danish Prime Minister (chairman of the committee), the Minister of Economic Affairs and Business, The Minister of Foreign Affairs, The Minister of Defence and the Minister of Justice. If needed this group can be expanded by other ministers.
- *The Senior Official's Security Committee:* this committee consists of the highest civil servants, the permanent secretaries, of the above mentioned Ministries. In addition the Head of the Defence Intelligence Service as well as the Head of Security Intelligence Service are included. Also here other may be included if necessary. The Committee's chairman is the Permanent Secretary of the Prime Minister's Department service.
- *The Crisis Management Group:* contains representatives of the departmental and undersecretary level of the Ministries mentioned above. Also representatives of the Ministries of Foreign Affairs, ministry of Health, the Defence Command Denmark, the National Danish Police and DEMA are presented. The group is chaired by representatives of the Prime Minister's Department
(DEMA, s.d.)b

The committees and groups mentioned above make the decisions. There decisions are executed by an operational staff at national level, the National Operational Staff (NOST).

International cooperation

DEMA is also contact point for international crisis management. Danish Emergency Management Agency (DEMA) provides humanitarian aid abroad on request from a governmental or international organization. The decision to provide support is taken by the Ministry of Defence in concert with the Ministry of Foreign Affairs. It is the Ministry of Foreign Affairs that coordinates and funds the deployment of the Danish governmental humanitarian assistance.

DEMA is an agency under the Ministry of Defence, and it is consequently the Minister of Defence that gives approval of the deployment of the men and women serving in DEMA.

DEMA assists in occurrence of:

Natural disasters

- Technological disturbances
- Situations of conflict and civil war

Quick response tasks can be search and rescue in cases of earthquake and coordination tasks in connection with longer humanitarian missions. DEMA can also contribute to the setting up and daily service of tent based field headquarters for the relief workers. That was the case in connection with the earthquake on Haiti in January 2010.

DEMA can provide humanitarian aid in the fields of logistics, transport, management and specialist knowledge alone or in cooperation with other organizations. There is a close cooperation with the EU, UN and NATO as well as with regional partnerships, such as the Nordic International Humanitarian Partnership (IHP).

Furthermore, Denmark is Member to UNCAD – United Nations Disaster Assessment and Coordination since 1993. Experienced emergency managers are available for UNCAD to assist during a crisis. Depending on the type of crisis a manager is appointed.

Denmark also has a urban search and rescue team available. The team was added to the USAR list in 1992 and since 2010 the team is qualified as heavy. This means that at least 55 experts are available and the team can carry out complex technical search and rescue operations in collapsed or failed structures, with special attention top steel structures. The team can assists in five fields: management, search, rescue, medical and logistic. The heavy team can assist during national crises, but on request can be deployed abroad as well. Requirements for the team, are (based on OCHA – INSARAG External classification / reclassification manual 2014) (DEMA, 2012):

A Heavy USAR Team:

- Is required to have the equipment and manpower to work at a Heavy technical capability at two separate work-sites simultaneously. A separate work-site is defined as: any area of work that requires a USAR team to re-assign staff and equipment to a different location all of which will require separate logistical support. Generally an assignment of this sort would last greater than 24hrs.
- Is required to have both a search dog and technical search capability;
- Is required to have the technical capability to cut structural steel typically used for construction and reinforcement in multi-storey structures;
- Must be able to conduct heavy rigging and lifting operations; and
- Must be adequately staffed and logistically sufficient to allow for 24 hour operations at 2 independent sites (not necessarily at the same two sites; the sites may change) for up to 10 days.

The Danish team consists of 73 staff members and they are divided over five required segments. The team has responded to four international disasters since 1992. (UNOCHA, s.d.)

Table 7: Former international engagements

Emergency	# Personnel	Duration
Iran (Bam) earthquake December 2003	39	10 days

Turkey earthquake, November 1999	42	5 days
Turkey Earthquake, August 1999	42	6 days
Turkey earthquake, March 1992	39	10 days

Source: UNOCHA, s.d.

4 Procedures

4.1 Standing Operating Procedures (SOPs) and Guidelines

No information could be retrieved on the SOP's for DEMA or municipalities. Some operational organisational aspects are retrieved. These are either discussed under chapter 3 or in the next sections. The intermediate operational level of DEMA's rescue centres can be identified as a third crisis management level.

4.2 Operations planning

In Denmark the crisis and emergency management structure is de-centralized, and on two levels; the national and the municipal level. The operational level has the power to take decisions without first consulting the central/national level. The operations planning follows the structure of the policy, as municipal and national institutions have clearly defined limits to act in crises. Private enterprises are also expected to have business continuity plans in case of a major emergency, in order to ensure that the company can continue its vital work and not break down. Each company should be prepared for extraordinary events. DEMA (s.d)b

Section 3.1 clearly showed the policy distinction between the local municipal organisation (fire fighters and police also fall under this level of crisis management) and the national crisis management authority DEMA. This has operational consequences. DEMA supports when needed and is organised via local operational staff. In such cases also regional police is assisting in the crisis management. According to the Danish Emergency Management Act it is the task of the fire and rescue services to prevent, limit and redress personal injury and damage to property and the environment arising from accidents, disasters and catastrophes, including acts of war, or imminent danger of such.

Responsibilities in operational crisis management are detailed in the Emergency management act. This act is discussed in chapter 2. Municipal Level: The municipalities can have either a municipal fire fighting service or enter into a contract with a private company or a voluntary fire brigade. If the magnitude of a crisis is such that special equipment and large amounts of personnel are needed, then the municipalities may call on the assistance of five fire and rescue centres in Thisted, Herning, Haderslev, Næstved and Allinge all on 24-hour turn-out duty. There are also two voluntary response forces deployed in Hedehusene and Herning, which has approx. 400 volunteers. (European Council, s.d.; DEMA, 2014)

The collective response of the fire and rescue services in an emergency, the police, armed forces and other respective emergency services, including counter-terrorist response, will be coordinated by

local emergency staff. Depending on the severity of the accident, i.e in a large scale emergency an Incident Management Team is established.

It normally comprises leaders from the police, the fire and rescue service and the emergency medical service, but also leaders from other respective emergency management services. Lead and coordination is clearly divided between the various services:

- The police: in case of an accident the police has the overall lead and coordination of the emergency management
- The municipal fire and rescue service: the operational leader of the municipal fire and rescue service is responsible for the technical management of the response at the scene of accident, including responsibility of all deployed units
- The emergency medical service and other emergency services needed: the leader of the emergency medical service and leaders of other emergency management services deployed are responsible for the response within each of their individual sectors – “responsibility principle”.

DEMA’s overall role is to issue guidelines for the Incident Command System. These guidelines have been prepared by the authorities who normally work in a response area. Thus, DEMA is responsible for promoting and coordinating planning for accidents and disasters that could have a detrimental and potentially devastating impact on the society and country as a whole. No detailed information could be retrieved on the standards used.

4.3 Logistics support in crises

Art. 20 in Part 3 of the Emergency management act says that the fire and rescue services may demand that any kind of privately-owned tools and equipment and means of transportation together with the necessary crews be made available for the response. (Emergency management act, 2009)

Is the magnitude of a crisis such that special equipment and large amounts of personnel is needed, then the municipalities may call on the assistance of DEMA’s five fire and rescue centres all on 24-hour turn-out duty. DEMA’s centres may dispatch personnel and equipment within five minutes and reach destinations all over the country within approx. two hours.

No detailed information could be retrieved on the exact logistics capacity of DEMA or municipalities. The DEMA website gives an overview, in Danish, of the logistics capacity.

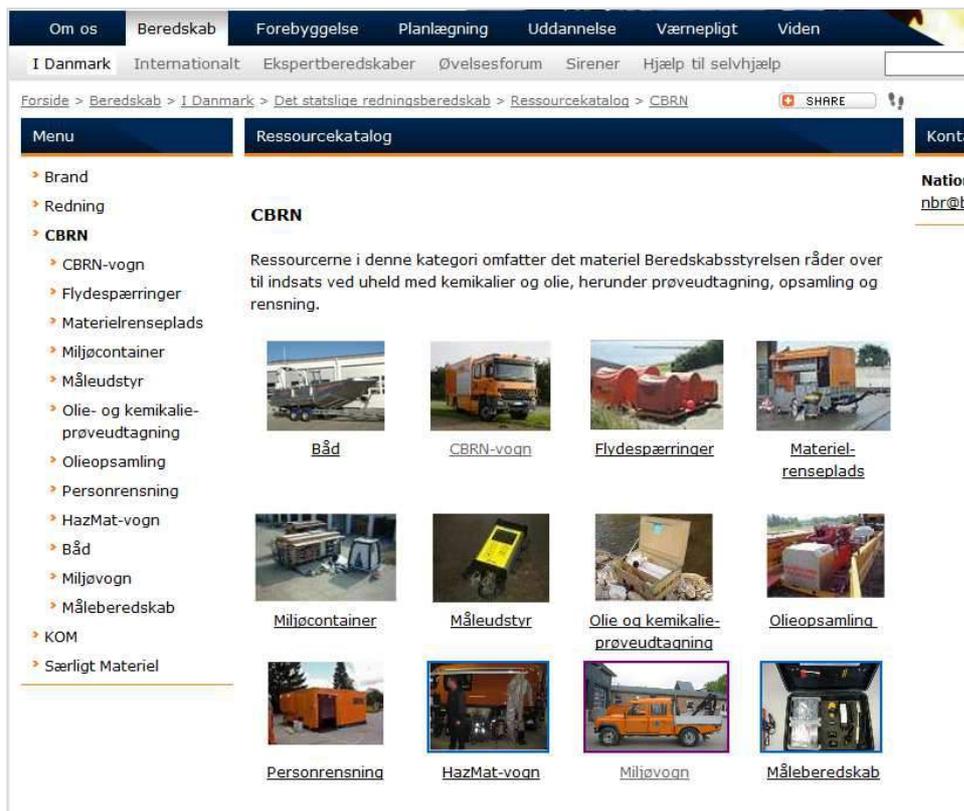


Figure 4.1: Screenshot logistics capacity page on DEMA website

4.4 Crisis communication to general public; Alert system; Public Information and Warnings

When a major accident or disaster involves an acute danger of injury or property damage, it is possible to warn the Danish population of such risk by means of Denmark's national electronic siren warning system. The DEMA operates and maintains the siren network of 1,078 sirens covering about 80% of the Danish population. A separate uninterruptible power supply allows the sirens to work in the event of a power failure. The sirens are fixed to buildings or poles in cities and urban areas with more than 1,000 people. Outside these areas, the police may decide to use mobile sirens. (DEMA, 2014)

In the event of a major accident or a disaster, the police may decide to use the sirens. At the same time an emergency message will be broadcasted by the two national TV stations DR and TV2.

Persons who are hard-at-hearing or hearing-impaired may subscribe to a DEMA warning system to receive text messages. In crisis situations, a dedicated crisis website kriseinfo.dk, will go online. This website was already used for the bird flue crisis.

The European SOS number 112 can be dialled to reach emergency services - medical, fire and police.

5 Capabilities

5.1 Human resources

The fire and rescue centres have turn-out duty. The turn-out duty personnel at the fire and rescue centres are able to depart 24 hours a day within five minutes and reach all parts of the country within approx. two hours. The turn-out duty involves a minimum of 14 conscripts and non-commissioned officers. In the event of major incidents, DEMA can rapidly muster up to 1,200 conscripts, non-commissioned officers and volunteers.

Extended response within 48 hours

The government has decided that, in the event of particularly major accidents, DEMA can call on additional manpower in the shape of 500 former conscripts and non-commissioned officers of the reserve to assist the fire and rescue centres within 48 hours.

Volunteers

In addition to conscripts and permanent civilian employees and non-commissioned officers, a number of volunteers are attached to each fire and rescue centre. These are mainly former conscripts who have signed a contract with DEMA to assist the fire and rescue centres on a voluntary basis, if needed. DEMA also has at its disposal two voluntary response forces deployed in Hedehusene and Herning. They can reinforce the other emergency management systems with approx. 400 volunteers.

Involvement of private businesses

A remarkable characteristic of the Danish fire fighter structure is the choice for privatisation of these services. The largest private fire fighter service is 'Falck'. This company operates for municipalities, in over 2/3th of the country. Municipalities can opt for state or private fire fighter organisational structures. When opting for the private sector, SLA's (Service level agreements) are signed between municipality and the company winning the tender.

Extended preparedness

In case of accidents and disasters occurring with prior warning, including crises or war, calling up a national mobilisation force can extend the preparedness. This force can be built up gradually as needed – basically because the force is divided into two parts. The first part consisting of 500 men must be operational within 48 hours; the second part consisting of 4,500 men can be called up gradually and will require a longer period of preparation.

5.2 Materiel (non-financial) resources

The Liberal Party, the Social Democratic Party, the Danish People's Party, the Socialist People's Party, the Conservative Party, the Radical Liberal Party and the Liberal Alliance Party have entered in 2009 into an agreement regarding Danish Defence for the period 2010-2014. The expected tasks for 2010-2014 were shaped as to comprise – besides monitoring of the national territory and enforcement of sovereignty – a range of more civilian-oriented tasks in support of Danish society, such as search and rescue operations, environmental tasks as well as providing support to a number of other public authorities, such as the police, the emergency rescue services and the tax authorities.

The Danish Armed Forces must perform two types of civilian-oriented tasks: civilian tasks of an authoritative such as the operation of the national ice-breaking services, national maritime environmental surveillance and the state maritime pollution control; and occasional tasks for which the national civilian capabilities in the particular area are either inadequate or less well-suited than the national military capabilities.

The military support to civilians is shaped predominantly in two ways. Firstly, the Danish Armed Forces' helicopter rescue capability is used predominantly to provide support to the civilian community. The agreement stresses that this helicopter rescue capability must continue to operate and support the community. Secondly, the Home Guard's maritime environment protection capability must be strengthened. (DANISH DEFENCE AGREEMENT 2010 – 2014, 210)

5.3 Training

DEMA organises the trainings for professionals and volunteers via their rescue centres. The principal tasks of the centres are to train conscripts for rescue preparedness and to handle the State's perative regional tasks as part of the overall rescue preparedness (that is, mainly by assisting the municipal rescue services).

Each year, the rescue centres train 900 conscripts who serve for three months. During this time, among other tasks, they complete a qualifying fire-fighting course. Furthermore, the rescue centres train 500 conscripts who serve for six months. These conscripts complete a rescue course and a course on hazardous materials (hazmat) as well as the fire-fighting course. The trained conscripts thus constitute a good recruiting basis for the municipal rescue services or a private rescue corps.

Assistance from the regional rescue centres

The regional rescue centres are staffed round the clock. At the request of, for example, the municipal rescue services or the police, the rescue centres provide assistance at fires, as well as for rescue and environmental operations. The rescue centres can respond with special equipment and personnel in force at short notice. The rescue centre personnel also constitutes the basis of DEMA's international operations. The centres of expertise Concerning vehicles, machinery and other equipment, the regional rescue centres function as centres of expertise, each with its own speciality. The purpose of

these centres is thus to gather and further develop professional knowledge, mainly in logistical fields, to the benefit of the overall rescue preparedness.

DEMA's three schools offer a wide variety of rescue and emergency management courses targeting state and municipal rescue authorities, etc. Joint Emergency Management and Leadership Training Programme is the name of a new management training programme for the municipal and national rescue services. The training programme is modular and therefore flexible, enabling personnel to combine courses in accordance with their individual needs and their current or future function. The training programme concentrates on five principal fields: management and organisation, operations, administration, prevention, and teaching and training.

The Danish Emergency Management Agency Academy

The principal task of the DEMA Academy is to plan and run a series of rescue service courses within general management, operations management (co-operating with the Danish Emergency Management Agency Technical School), and first aid and training. As part of the joint management training, the Academy runs courses within management and organisation, administration, teaching and training as well as operations.

The Danish Emergency Management Agency Technical School

The DEMA Technical School plans and runs tactical operative training courses within the fire, rescue and hazardous materials fields. The school trains team and taskforce leaders (in co-operation with the DEMA Academy). The school also offers courses in extrication techniques and tactics, preparedness regarding oil pollution at sea, accidents involving hazardous materials and smoke diving. The school has at

its disposal a training area of 130,000 square metres, where many tactical operative exercises can be carried out and various situations can be trained. A large ruined town, for example, provides the setting for realistic exercises with course participants from the municipal rescue services, the police and other authorities as well as private enterprises.

The Danish Emergency Management Agency Staff College

The DEMA Staff College carries out courses in prevention, in co-operation between the preparedness authorities (staff courses) and in media training.

Special courses

In addition to the Joint Emergency Management and Leadership Training Programme, the schools offer a series of special courses for leaders of voluntary organisations, for partners in the total defence and for personnel participating in DEMA's international operations. The internationally oriented courses include safety, logistics, co-operation, cultural awareness etc.

- National, local and departmental exercises
- Centralised specialist training

- Training of volunteers and NGO personnel
- Cross-border and multinational training activities
- Is there a certification system? What standards are used to define specialists' training requirements?
- Are there specialised training programmes for high-level decision makers?
- Training centres

Universities

On 1 September 2008 Lund University and University of Copenhagen held an opening reception to celebrate the launch of the Master of Disaster Management programme. The aim of the Master of Disaster Management is to provide national and international aid workers, government officials and other professionals interested in any or all parts of Disaster Management with a solid and holistic interdisciplinary background so that they can respect and understand the complex context of acting and working before, during and after a disaster.

The Master of Disaster Management consists of 60 ECTS earned through six intensive courses and a thesis. The programme starts in September and ends in August the following year. The courses from September through February are mandatory. The two elective courses will typically be followed between March and June.

5.4 Procurement

5.4.1 European regulations

The procurement of public contracts needs to be in line with the principles of European treaties and especially with the free movement of goods services, capital and people. Furthermore the procurement needs to comply with the principles of equality, proportionality etc. For some types of procurement additional regulations are codified in directives. Within the European legislation, three different procurement directives apply. These directives are mutually exclusive meaning only one of the directives apply to the public procurement. Directive 2014/25/EU (on procurement of utilities) and directive 2009/81/EC (on procurement in the defence and security industry) are topic specific. If these specific directives do not apply, public sector directive 2014/24/EU is applicable, which is the replacement of directive 2004/18/EC. The aim of the new directive is to simplify the rules on public procurement; improve the participation of SMEs and stimulate cross border joint procurement.

Stimulation of cross border joint procurement is helpful in case of a major internal crisis or a cross border crisis. The directive states in the preamble that contracting authorities should be able to choose to jointly provide their public services in cooperation with other authorities, without being obliged to use any legal form. These services don't have to be identical. The cooperation does not require all participating authorities to fulfil the obligations of the contract, as long as there is a commitment to contribute to the cooperative performance. The preamble points out that there are

difficulties in cross border joint procurement. Therefore new rules have to be made. In these rules, the conditions for cross border procurement have to be clarified, as well as the applicable regulations. In addition, contracting authorities should be able to set up joint entities established under national or EU law. The new rules are specified in article 39 of the regulations.

If the procurement is executed by a centralised purchasing body located in another MS, the procurement shall be conducted in accordance with the national regulations of the MS where the purchasing body is located. In addition, several contracting authorities from different MS may jointly award a public contract, conclude a framework agreement or operate a dynamic purchasing system. Participating contracting authorities will then conclude an agreement that determines all responsibilities of the parties and the internal organisation of the procedure. As said before, the contracting authorities can set up a joint entity. The parties shall decide on the applicable rules on procurement. They can choose the rules of the MS where the entity has its registered office or where the entity carries out its activities.

This project evolves around the procurement related to crisis management, for example the procurement of ambulances, emergency packs or trainings. The utilities directive applies to gas and heat, electricity, water, transport services, ports and airports and postal services (article 8-13). The directive on defence and security applies to supply of military equipment and sensitive supplies. The majority of procurement in crisis management will be procured by normal NCCs and local authorities like the fire department or police and will not be secret. So in most cases the public sector directive (2014/24/EU) is applicable. This chapter will therefore focus on this directive. Keep in mind that the other directives can also be applicable, for example if the army is used to solve a major crisis. The directive is addressed to Member States and has no direct effect on the national regulations. The directive needs to be implemented first.

Scope of the public sector directive

The public sector directive applies to procurement by contracting authorities with respect to public contracts as well as design contests whose value is estimated to be not less than (article 4):

- € 5.186.000 for public works contracts;
- € 134.000 for public supply and service contracts and design contests, awarded by central government;
- € 207.000 for public supply and service contracts or design contests awarded by sub-central contracting authorities.
- € 750.000 for public service contracts for social and other specific services listed in Annex XIV.

This directive should not apply to certain emergency services where they are performed by non-profit organisations or associations, since the particular nature of those organisations would be difficult to preserve if the service providers had to be chosen in accordance with the procedures of the directive. Furthermore the directive does not apply to public contracts with the purpose of providing public communication networks or electronic communication services; public contracts organised pursuant to international rules; several types of service contracts, e.g. rental, legal services

and employment contracts and service contracts based on exclusive rights; and last, public contracts between entities within the public sector (articles 8-12).

Award procedures

On a European level, procurement is executed by the European Commission. The public sector directive contains several award procedures:

- open procedure,
- restricted procedure,
- competitive procedure with negotiation,
- competitive dialogue,
- negotiated procedure without prior publication.

The *open procedure* applies when no other procedure is chosen. In the open procedure, the contracting authority submits a call for tenders. Interested companies may submit a tender. The best offer is chosen, based on the selected award criteria (article 27).

The *restricted procedure* consist of two phases. In the first phase a call for expression of interests is set out. Interest candidates may submit an invitation to tender. The contracting authority will then invite the most suitable candidates to submit a tender. The contracting authority will award the contract to the best tender, based on the selected award criteria (article 28).

In the *competitive procedure* with negotiation any interested candidate may submit a request to participate in the negotiations, in response to a call for competition. In this call for competition, the contracting authority has provided a description of their needs and the characteristics of the works or services to be procured. Only the interested candidates that are invited may submit an initial tender, which will be the basis of the negotiations (article 29). In several cases the negotiation procedure can be used without prior publication, for example when the public contract contains a creative achievement; when there is no competition; when intellectual property rights need to be protected, or when there are reasons for extreme urgency (article 32).

In the *competitive dialogue* any interested candidate can submit a request to participate in response to a contract notice given by the contracting authority. The contract notice provides the information on and the needs and requirements of the contracting authority, as well as the chosen award criteria. The selected interested candidates will join the competitive dialogue, in which the means best suited for satisfying the contract will be defined (article 30).

A new procedure within this directive is the *innovation partnership*. In this procedure, any economic operator may submit a request to participate in response to a contract notice, by providing information for qualitative selection that is requested by the contracting authority. The innovation partnership can be set up with one partner or several partners. Only the economic operators invited by the contracting authority participate in the procedure. After each phase, the contracting authority

may decide after each phase to terminate the partnership or reduce the number of partners within the partnership, based on the targets.

According to article 26, the open procedure and restricted procedure are the standard procedures to apply in case of procurement. The other procedures can be used in a limited number of situations, for example when the service is innovative, or when the technical specifications can't be determined (art. 26, sub 4.).

Contracting authorities can use framework agreements, provided that they apply the procedures in this directive. The agreement can not exceed four years. Contracts within the agreement will be awarded according to the rules in article 33.

In most procedures the candidates are chosen with the use of selection criteria. The selection criteria may relate to suitability to pursue the professional activity; economic and financial standing and technical and professional ability. All criteria need to be related and proportionate to the matter of the contract (article 58).

5.4.2 *National regulations*

Scope

In Denmark, the old procurement directives are implemented without any exemptions. The Danish Tender Act is applicable to all procurement outside the scope of the EU directives, because the threshold value isn't met. In other words, the Danish rules are secondary in relation to the European directives. The Danish act has no threshold value on public works, the value for public services is DKK 500,000

Procurement is executed by the bodies codified in Appendix I of the European directive, which are the state, regional and local authorities and bodies governed by public law. Private entities are only subject to the Danish Tender Act if the public contract is publicly funded.

Procedures

The contracts to which the European directive is applicable all the European procedures are permitted. If the procurement is within the scope of the Danish Tender Act, three different procedures are available: public tenders, restricted tenders or informal bids. There are no restrictions on the use of the procedures, although the contracting authority needs to make sure there is enough competition.

In a public tender the contracting authority announces its intents to contract. This announcement includes technical ability and economical standing of the tenderer. Furthermore the contracting authority should announce if the contract is awarded to the most economically advantageous tender, or the lowest price.

A restricted tender can be performed with or without a prequalification round. The contracting authority In case of a prequalification round, the contracting authority will announce the tender in the press or electronic media. If there is no pre-qualification round, the contracting authority directly invites the chosen participants.

The contracting authority has the authority to negotiate with the tenders, but only with the lowest bidder or with the three most economically advantageous tenderers. This may not result in a substantial change of the project or award criteria.

Informal bids can only be used when the estimated value of the contract is below DKK 3,000,000.

Award criteria

The Danish Tender act prescribes two award criteria: the lowest price or the most economically advantageous offer. If the most economically advantageous offer is used, the contracting authority shall list and explain the sub-criteria, with the relative weight, linked to the public contract. When the lowest price or the most economically advantageous tender has been identified, the tender is awarded to the winner.

5.5 Niche capabilities

Private fire and ambulance services

Remarkably, Danish fire services are partially provided by private operators. The only private operator in Denmark is Falck. Currently, Falck provides firefighting services for 2/3 of the municipalities in Denmark according to their latest annual report(2013). Around 65 of the 98 municipalities do have a contract with Falck for firefighting services. The contracts are awarded through public procurement and negotiating.

Moreover, besides firefighting services Falck is also responsible for 85% of all ambulance service provided in Denmark.

International energy preparedness

A niche preparedness approach of the Nordic countries is found in the energy supply preparedness. The Nordic countries work closely together to create an integrated electricity supply network. When one of the states involved is confronted with a power shortage, other countries can, via cross border connections, supply energy. This limits the chance of severe blackouts in crisis situations.

Resources

Legislative acts

At national level

Overall, the legislative framework for Danish civil preparedness is mainly based on:

- The Constitutional Act of the Kingdom of Denmark
- Acts (three readings in the Parliament)
- Statutory orders/administrative directives/decrees (depending on the legal authority)
- Circulars
- Guidelines.

The major legislative framework for civil preparedness is the following:

- Emergency Management Act (Consolidated Act No. 660 of 10 June 2009, LBK no. 137 of 01/03/2004 as amended)
- Act on Shelters (Beskyttelsesrumsløven (LBK nr. 732 of 20. August 2003)
- Act on Safety and Environmental Control of Nuclear Installations (Lov om sikkerhedsmæssige og miljømæssige forhold ved atomanlæg (LBK no 244 of 12/05/1976).
- At ministerial level
- At ministerial level, there is a number of statutory orders governing civil preparedness within the sphere of responsibility of the respective ministry:
- Order of the Ministry of Environment No 1156 of 18 November 2005 on the control of major accidents involving dangerous substances (Miljøministeriets bekendtgørelse nr. 1156 af 18. november 2005 om kontrol med risikoen for større uheld med farlige stoffer)
- Order of the Ministry of Defence no 765 of 3 August 2005 regarding risk-based municipal fire and rescue service as amended by Order no 872 of 6 July 2007 (Forsvarsministeriets bekendtgørelse nr. 765 af 3. august 2005 om risikobaseret kommunalt redningsberedskab som ændret ved bekendtgørelse nr. 872 af 6. juli 2007).

Inter-ministerial cross-cutting co-ordination

- Legal acts such as The Police Act (Law No. 444 of 9 June 2004 as amended) on general co-ordinating powers.
- The Danish Emergency Management Act on co-ordination of efforts at the accident site.
- At international level
- International intervention is governed by political agreements. Denmark participates in the EU emergency and crisis co-ordination arrangements (CCA), and the Ministry of Foreign Affairs acts as the Danish point of contact in relation to the CCA.

- Military interventions are governed by the Defence Law (Law no 122 of 27 February 2001), while civil interventions are governed by the Civil Preparedness Act (LBK no. 137 of 01/03/2004 as amended).
- Regional agreements

The Council of the Baltic Sea States (CBSS).

Other normative acts

Official documents (white papers, strategies, etc.)

In 2009, Denmark adopted the Emergency Management Act. This act is detailing all aspects of crisis management.

The act can be consulted online via:

http://brs.dk/eng/legislation/act/Pages/the_emergency_management_act.aspx

Online resources (e.g. websites of key CM organizations)

The general DEMA website can be consulted via <http://brs.dk>

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The DEMA website can be consulted via <http://brs.dk>. The website contains publications on crisis management, however often only in Danish.

Expert interviews

No expert interviews were undertaken despite multiple attempts to do so. DEMA did not have the capacity (other urgent priorities) and the Danish Red Cross did not respond either. It is hoped that interviews can be undertaken in a later stage.



Driving Innovation in Crisis Management for **European Resilience**

ESTONIA

Capabilities, Organisations, Policies, and Legislation (COPL) in crisis management and disaster response



Responsible Partner: CSDM (Philip Spassov)

Scope and limitations

This study serves as supporting information for further work within DRIVER.

Only limited time and budget has been available for this first general survey, which needs to be considered in terms of scope and completeness of the respective studies.

The author/s of this study is/are responsible for its content and quality.

Overview

The Estonian crisis management system is based on measures that can be taken in order to protect human life, property and the environment during civil emergencies. In Estonia the highest authority responsible for emergency and disaster management is the Ministry of Interior. It is responsible for policy formulation and its execution in the area of civil security. At regional level county governors are directly responsible to the Minister of the Interior for crisis management matters. The county governor is the highest crisis management authority at regional level. At local level the main body responsible for civil protection is the local government council which has established the local crisis management committee chaired by the mayor.



Figure 1. Logo of the Estonian Rescue Board

The Estonian Rescue Board is directly subordinate to the Ministry of Interior and has a key role in representing Estonia in various international forums such as the UN, EU and NATO and other relevant civil security organisations. Another national government institution under the authority of the Ministry of Interior is the Emergency Response Centre responsible for processing emergency calls to the emergency 112 number and sending out rescue teams to the place of the emergency.

As in the other Baltic Region States the organisational structure is centralised, i.e. coordinated and mostly organised by the central national civil protection authority, as is the case with Estonia, Latvia, Lithuania. Additionally, the use of private rescue services is low in the Baltic Countries.¹

The Defence Forces could be deployed in response of crisis or disaster, but in cases where all the other crisis management capabilities of the state have been exhausted or where the required resources or capabilities are only available to the Defence Forces.

The civil protection expenditures are approximately 0.6% of GDP of Estonia.

The most important non-profit and volunteer organisations in Estonia are regarded the Red Cross, the Estonian Volunteer Fire-Fighters Union, the Estonian Association of Fire and Rescue Chiefs, and the Estonian Life Saving Association and Defence League, who have also been given the task of assisting in rescue work.

¹ EUROBAL TIC Survey: Civil Protection Research in the Baltic Sea Region, p.13

The main regulative framework for civil protection and emergencies is defined by the Emergency Act and the Rescue Act of Estonia.

The National Security Concept of the Republic of Estonia is a key document that establishes the objectives, principles and directions of security policy. The National Security Concept highlights crisis management as one of the essentially important tasks. Another important conceptual document is the Strategy of the Estonian Rescue Board 2015-2025 which plans the Board's activities in a ten year timeframe.

The systems for training in the field of civil protection are quite different in the Baltic region, however they share some basic features. Education in civil protection and rescue has a legal foundation in all of the Baltic Region countries. Basic and advanced education at the national level is standardised through the use of certificates, as well as the development of educational and training curricula. All of the Baltic region states have specialised schools and colleges which carry out education in civil protection and rescue area.²

Estonia has signed regional and multilateral provisions of the Council of Europe, the EU, the NATO and the OSCE for assistance in crisis situations. Estonia is also an active initiator in the field of maritime cooperation and of strategic and operational dialogue among the Baltic Sea countries.

Potential niche capability in which Estonia could realistically contribute to the European crisis management community is the development of software solutions in the cyber defence and the programming of autonomous platforms and systems field of expertise. Estonia could provide software solutions and expertise from which EU member states could benefit and establish new ways for cooperation in the cyber security field.

² EUROBAL TIC Survey: Civil Protection Research in the Baltic Sea Region, p.14

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Figure 3. Organisation of Estonian Rescue Services (Source: Estonian Rescue Board) 33

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List of Abbreviations

ABBR	Spell the abbreviation here
CERT	Computer Emergency Response Team of Estonia
EDRT	Estonian Disaster Relief Team
EFSCA	European Fire Service Colleges' Association
EISA	Estonian Information System's Authority
ERB	Estonian Rescue Board
ERC	Estonian Red Cross
EURASHE	European Association of Institutions in Higher Education
JATE Project	Building Cross-border Capacity to Perform Joint Activities in Tough Environment
MAppERS	Mobile Application for Emergency Response and Support
NISPAcee	Network of Institutes and Schools of Public Administration in Central and Eastern Europe
RIA	Estonian Information System Authority
SDC	Swiss Agency for Development and Cooperation

1 Policy

According to the Emergency Act of Estonia “emergency is an event or a chain of events, which endangers the life or health of many people or causes significant proprietary damage or significant environmental damage or severe and extensive disruptions in the continuous operation of vital services and responding to which requires the prompt co-ordinated activities of several agencies or the persons engaged by them”; while Crisis Management is described as a “system of measures, which includes preventing emergencies, preparing for emergencies, responding to emergencies and mitigating the consequences of emergencies.”³

In other words, crisis management is defined as national arrangements that are prepared and implemented by governmental organisations in cooperation with local governments, private enterprises and non-profit organisations in order to guarantee safety of the population and continued functioning of vital services during an emergency.⁴

Key crisis management activities are considered the identification of potential emergencies or risk analysis; risks to prevent or reduce the severity of consequences of emergency measures in the development and implementation; and the action plans for emergency action (i.e. emergency plans).⁵

The Government of the Republic has the responsibility to develop a national crisis management policy, and direct and co-ordinate the crisis management activities of ministries, the State Chancellery and county governors. It also approves the national crisis management plan and forms a permanent crisis management committee of the Government of the Republic in order to harmonise and co-ordinate crisis management activities.⁶

1.1 Risk Assessment

Estonia’s risk assessment mechanism/procedure is specified in the “Emergency Act”, in force since 2009, and is regulated by the “Guidelines for preparing continuous operation risk assessments”, which is in force since June 2010.

The Emergency Act defines emergency risk assessments as a document, which describes the following on the national and, if necessary, on the regional and local government level:

- the emergency;
- the threats and hazards causing the emergency;
- the probability of the emergency;

³ Emergency Act of Estonia, Chapter I, art.2 (2)

⁴ International CEP Handbook 2009, Civil Emergency Planning in the NATO/EAPC Countries, p.77

⁵ <http://www.rescue.ee/642>, last accessed 18.09.2014

⁶ Ibid

- the consequences of the emergency;
- other important information related to the emergency;
- references to models, source materials and other such information, on the basis of which the risk assessment is prepared.⁷

The Government establishes list of emergencies, concerning the preparation of risk assessments and appoint competent agencies of executive state power to prepare the assessments. At least once in every two years the Government must assess the need to amend the list of emergencies, concerning which risk assessment has to be prepared.⁸

The procedures for organising the preparation of risk assessment of vitally important social procedures, healthcare, safety and security as well as the economic and social welfare of the public, or vital services, are described by the “Guidelines for risk assessment”.⁹

The institution or person preparing a risk assessment submits it to the relevant institution that organises the continuous operation of vital services on a yearly basis.

According to “Guidelines for risk assessment”, a risk assessment consists of the following parts:

- table of contents and a list of persons engaged in preparing the risk assessment;
- analytical part;
- necessary tables and diagrams prepared for performing the assessment;
- risk matrix;
- summary of the risk assessment.¹⁰

The Government forms a permanent crisis management committee which provides an opinion on the guidelines for preparing emergency risk assessments and operations. It also approves the risk assessment summaries of emergencies.¹¹ At regional level, County Governors are directly responsible to the Minister of the Interior for the review of the risk analysis of an emergency of a certain region. At local level, the head of the local government crisis management committee is the rural municipality mayor or the city mayor, who is responsible for reviewing the risk assessment of a certain region.¹²

The key risks and areas of concern in Estonia include extreme weather conditions, more precisely winter storms, extreme temperature, forest fire and flooding. Major transport and technological accidents, such as the sinking of the MS Estonia in 1994 and the Copterline helicopter crash in 2007, have also occurred and have resulted with significant casualties.¹³

⁷ Emergency Act of Estonia, Chapter II, art.6

⁸ Ibid.

⁹ Guidelines for risk assessment, art.2 (1)

¹⁰ Guidelines for risk assessment, art.4 (1)

¹¹ Emergency Act of Estonia, Chapter I, art.3 (1)

¹² http://ec.europa.eu/echo/files/civil_protection/vademecum/ee/2-ee-1.html#bilagr, last accessed 18.09.2014

¹³ ANVIL Project Country Study: Estonia, p.8

The „Gudrun“ storm, which struck the Baltic Sea area and caused considerable floods in the Estonian towns of Pärnu and Haapsalu in 2005, raised enormous attention among population, crisis managers and authorities.

In addition, the fact that more than 22% of the terrain in Estonia is covered with forests increases the risk of fires. Measures are taken by the County Rescue Services to prepare forest fire suppression plans each spring. A development project was launched by the Estonian Forestry Board to increase the fire resistance of forests. Estimation reveals that on yearly basis over 800 forest fires occur in Estonia and it is considered as one of the main hazards.¹⁴

Estonia's security could be threatened not only by natural disasters and catastrophes, but also by infectious diseases and radiation. Despite the fact that Estonia does not possess nuclear plants, the threat of radiation accidents is increased by older type nuclear power plants that are still in operation in the Baltic Sea area. Intensified ship traffic and the increase in the transport of oil and oil products in the Baltic Sea area increase the threat probability of a major marine disasters or extensive environmental pollution.¹⁵

1.2 Policy and Governance

The Estonian civil protection could be best described as centralised due to the fact that the different ministries and agencies are responsible in their respective functional fields for civil emergency issues, while the Ministry of the Interior has overall responsibility for civil protection and emergency situations.

The civil security system is two-dimensional – on one hand, the functional responsibility allows certain ministry to be in charge of a specific emergency or disaster management duty at national, regional and local levels. On the other hand, the area of responsibility is based on geographic mapping of respective areas.

At national level the highest body for civil emergency planning is the Governmental Crisis Committee. The committee's tasks are to monitor national policy on crisis management; to coordinate crisis management on the ministerial and county levels; to present proposals to the national government regarding crisis management issues. The Governmental Crisis Committee is supported by the Ministry of the Interior.¹⁶

¹⁴ Strategic Evaluation on Environment and Risk Prevention Under Structural and Cohesion Funds for the period 2007-2013 – GHK, p.2-3

¹⁵ National Security Concept of Estonia, p.9

¹⁶ International CEP Handbook 2009, Civil Emergency Planning in the NATO/EAPC Countries, p.77

At regional level county governors are directly responsible to the Minister of the Interior for crisis management matters. The county governor is the highest crisis management authority at regional level and chairperson of the County Civil Protection Committee.¹⁷

At local level the main body responsible for civil protection is the local government council which has established the local crisis management committee chaired by the mayor or an equivalent official.¹⁸

The main civil security and emergency management actors are four territorial interagency emergency preparedness committees that are managed by the Estonian Rescue Board.¹⁹ The Board is also the coordinating body at the national level.

The Estonian Rescue Board is a government institution under the jurisdiction of the Ministry of the Interior and has a leading role in planning preparedness for emergencies and the operational management of the four regional rescue centres. It is also responsible for the development and implementation of national rescue policies. Civil protection operational resources in the four regional rescue centres belong to the Estonian Rescue Board.

The Estonian Rescue Board is actively involved in the crisis management mechanism at local, regional and national levels. The county governors report directly to the Minister of Interior and are responsible for crisis management development and planning at regional level. The Board examines and reviews the regional dimensions of the national crisis management system, the regional risk map and the overall preparedness to respond to risks. The Estonian Rescue Board also organizes crisis management training, supports the regional civil protection agencies and establishes and maintains the territorial crisis committee which is chaired by the head of the regional crisis centre.

The Board has the responsibility to review and implement the national crisis management systems at local level. Other key duties include risk mapping, development and enhancement of holistic disaster prevention and maintaining preparedness. The Rescue Board provides training concerning preparedness, responsiveness and consequence management, as well as support for local government agencies dealing with emergency management, in terms of communication systems and coordination.²⁰

1.2.1 Strategy scope and focus

The Estonian crisis management system is based on measures that need to be taken for the protection of the population, property and the environment during civil emergencies. The aims of crisis management system are:

- To define possible emergency situations by risk analyses;

¹⁷ Ibid, p.77

¹⁸ ANVIL Project Country Study: Estonia, p.9

¹⁹ Ibid p.13

²⁰ Ibid., p.10

- To define prevention and mitigation measures for emergency situations;
- To develop crisis management plans;
- To prepare crisis management structures;
- To guarantee mitigation resources;
- To deal with emergency situations;
- To organise the management of public information and early warning;
- To organise emergency management training courses;
- To restore critical infrastructure services.

During the last decade Estonia has several significant crises affecting the civil security system. These include the flooding of the Northern Baltic Sea following the 2005 storm, the Copterline transportation accident in 2005 and the cyber-attacks in 2007. These cases revealed some requirements to improve the Estonian crisis management system, including situational awareness and rapid response mechanisms. Following inquiries made at political level there have been improvements in operational, tactical and strategic perspective in the civil security system.²¹

The fact that the overall risk of natural hazards or crises in Estonia is relatively low along with the policies and measures taken by the state authorities for prevention, preparedness, response and recovery in crisis situation, ensures that the Estonian crisis management system is well prepared and equipped.

Estonia is the only country in Europe to increase the salaries of police officers and rescue workers. In addition, the 2014 Security Policy document of the Ministry of Interior reveals that Estonia has built upon previous years to achieve better life-saving capabilities, decrease in crime, increased number of volunteers and community involvement, improved fire and traffic safety and faster response of the emergency response teams.²²

To a great extent people feel safe in Estonia. More than 95% of the residents of Estonia consider the Rescue Board to be a highly trustworthy organisation.²³

1.2.2 Monitoring and analytical support to policy making; R&D

The Estonian Academy of Security Sciences develops activities of Internal Security and Law Enforcement related subjects including rescue and crisis management. The Research and Development activities of the Academy include innovative learning technologies such as Virtual Training Exercises as tools for joint instruction and evaluation of crisis management command and control both on operational and strategic level. New training methods, such as the above mentioned systems, play an important role for the development and training of prepared crisis management specialists. The Academy has a leading role as centre of excellence of Internal Security in Estonia and has participated many valuable research and development projects with EU Agencies, such as CEPOL

²¹ ANVIL Project Country Study: Estonia, p.24

²² Ministry of Interior, Security Policy 2014, p. 2-4

²³ Strategy of the Estonian Rescue Board 2015-2025, p.11

and FRONTEX, as well as networks and European-wide cooperation bodies, such as EFSCA, EURASHE, NISPAcee, The Baltic University Network and others.²⁴

The highlight annual event is the International Internal Security and Law Enforcement Conference, held every year in the month of November in Tallinn. The seminar gathers high-level international scientists and security experts that exchange ideas and discuss innovative views of current developments and future trends on societal security affairs.²⁵

A research and development asset that contributes to crisis management activities is developed under the supervision of the Estonian Information System Authority and is named the Virtual Situation Room (VSR). VSR has been created as a platform for crisis prevention which enables efficient cooperation between service providers, government agencies and also between service providers themselves. The VSR communication platform allows sharing of situational data between government agencies responsible for detecting, managing and preventing crises and companies providing vital services. The VSR also provides platform for analysis and visualisation of data, providing training using actual and simulated events, and for improving crisis management communication, decisions and procedures.²⁶

The modernisation and adoption of new technologies to improve the effectiveness for prevention and rescue efforts is foreseen in the Strategy of the Estonian Rescue Board. This process includes training and practice processes, adoption of e-solutions for prevention efforts and introduction of contemporary fire safety related technological solutions to the population.²⁷

1.2.3 Policy for Prevention

Estonia's security policy is aimed at preventing threats as well as responding to them in a swift and flexible manner. Estonia's security is ensured through co-ordinated foreign and domestic policy measures.²⁸

In the Emergency Preparedness Act it is stated that crisis management committees shall be formed in counties in order to organise preventive and preparatory work in the field of crisis management and to respond to emergencies. Coordination and cooperation between civil protection and disaster prevention are provided by the Estonian Rescue Board.²⁹

²⁴ <http://www.sisekaitse.ee/eass/index.php?id=14084&highlight=crisis,management>, last accessed 18.09.2014

²⁵ <http://www.sisekaitse.ee/eass/index.php?id=14084&highlight=crisis,management>, last accessed 18.09.2014

²⁶ <https://www.ria.ee/vsr/>, last accessed 18.09.2014

²⁷ Strategy of the Estonian Rescue Board 2015-2025, p.38

²⁸ National Security Concept of Estonia, Unofficial translation, p.4

²⁹ http://ec.europa.eu/echo/files/civil_protection/vademecum/ee/2-ee-3.html, last accessed 18.09.2014

According to the Rescue Act, the functions for prevention work of the Rescue Board are immediately applied, unavoidable and urgent activities on land and inland water bodies upon the occurrence of a rescue event, countering and eliminating a threat and alleviating the effects of a rescue event.³⁰

The Estonian Rescue Board conducts risk mapping, develops and enhances holistic disaster prevention and maintains preparedness. The Board also has the responsibility to review and implement the national crisis-management systems at the local level.

The prevention efforts of the Rescue Board have resulted in decrease in number of accidents due to work done on prevention. In order to improve the quality of rescue service operations the Estonian Rescue Board has acknowledged the need for involving new technologies that would make it possible to reduce both the response time of reaching affected people and the damage caused by accidents. Volunteer rescue brigades continue to gain strength in Estonia as well, and their increased involvement in not only rescue operations but also prevention efforts is an important asset.³¹

The Estonian Information System's Authority (EISA) is part of the administrative area of the Ministry of Economic Affairs and Communications, responsible for large-scale cyber incident, maintains and updates an emergency handling plan.³²

Additionally, Estonia applies measures for preventing the spread of environmentally hazardous substances, and the neutralisation of sources of pollution on land and sea. In terms of prevention of marine pollution, the country is developing vessel traffic regulation and surveillance systems in the Baltic Sea. Remote surveillance of marine pollution is being developed, including air surveillance aimed at the early detection of pollution and the identification of the origin of the pollution.³³

With regard to forest fires, the emergency measures for mitigating the consequences are established in the Fire Safety Act and include spatial planning, specific prerequisites for forest fires or landscape protection, as well instructions to the vital service providers and the public.

1.2.4 Policy for Preparedness

The policies and procedures for response in emergency situation are defined by the Emergency Act of Estonia. Forest fire is considered as one of the most hazardous threats in the Estonian landscape that require national preparedness and prevention measures. The Ministry of the Interior has established an emergency plan, which provides a comprehensive directions for emergency management related to forest fire. The plan anticipates the participation in the management of emergencies of the Rescue Board and the Police and Border Protection Service, primarily for protection of public order, evacuation, traffic management, monitoring of flights; the Environment Agency for consulting and environmental assessment; the Environmental Inspectorate for consulting

³⁰ Rescue Act, Chapter II, art.5 (4)

³¹ Strategy of the Estonian Rescue Board 2015-2025, p.16

³² <https://www.mkm.ee/en/ministry-contact/crisis-regulation>, last accessed 18.09.2014

³³ National Security Concept 2010, p.19

and environmental assessment; the Environmental Research Centre for conducting an air quality assessment; various health care providers, local governments responsible for evacuation and critical service providers.

The Rescue Board ensures preparedness and readiness for tackling forest fires through special rescue capabilities and management of the involvement of volunteers. In case of large-scale forest fire Estonia has signed mutual assistance agreements with Finland, Sweden and Latvia for cooperation.

Furthermore, in such scenario, the international assistance could be sought through the NATO EADRCC and the European Union's Civil Protection Mechanism. Consideration of the risks involved in the planning stages is needed in order to raise the awareness of the local authorities through development of education and training programmes for local government officials.

In order to be prepared for reacting in emergency situations Estonia organises training exercises involving cooperation of all key sectors – civil, local governments, state authorities, business and non-profit entities. Rescue workers for crisis situations are trained and prepared by an emergency readiness and rescue training system, which includes:

The Rescue College of the Public Service Academy – specialised in preparation of college-educated specialists for Rescue Service, and the Estonian Rescue School of the Public Service Academy in Väike-Maarja – specialised in preparation and training of fire fighters and rescuers.

1.2.5 Policy for Response

The policies and procedures for response in emergency situation are defined by the Emergency Act of Estonia. The Act also regulates the declaration of, the response to and the termination of an emergency situation.³⁴

The Government, upon declaring emergency situation, has to appoint a minister to direct and coordinate the response to the emergency due to which emergency situation was declared.³⁵

The crisis management committee of the Government of the Republic has to assist the agencies responding to emergencies in the organisation of exchange of information and the coordination of the response to the emergency. It also has to assist the emergency situation response coordinator in the coordination of the response to the emergency due to which the emergency situation was declared and if required to perform other duties assigned by the emergency situation response coordinator. The crisis management committee makes proposals to the Government of the Republic and the emergency situation response coordinator for the implementation of measures established in legal acts during the emergency.

³⁴ Emergency Act, Chapter I, art.1

³⁵ Emergency Act, Chapter III, art.18 (1)

The emergency situation response coordinator has the right to issue orders for responding to the emergency to the coordinator of emergency situation work and the state and local government agencies appointed by the Government. The orders are given in the form of administrative acts.³⁶

The Estonian Rescue Board is responsible for preparation for an emergency and ensuring a response thereto on the basis of the Emergency Act. The emergency response functions of the Emergency Response Centre include receipt and processing of an emergency call to the emergency 112 phone number or a notification received in another manner and an order to respond to the Rescue Board and a provider of emergency services.³⁷

The vision of the Estonian Rescue Board is to reach the level achieved by the Finland, Sweden, Denmark, Norway and Iceland by the year 2025, in terms of the level of rescue-related safety and in terms of the number of accidents and extent of consequences.³⁸

The key steps for response to emergencies encompass immediate notification to the emergency 112 helpline, followed by an immediate reaction by the relevant agencies or legal persons for notifying the Ministry of Interior. The next step for response in a crisis situation is to warn the public of the impending risk of the occurrence of an emergency, if the failure to inform the public may endanger human lives and health or cause major infrastructural damage. The government of Estonia or the relevant crisis management authorities may use the media for informing for an emergency situation.³⁹

In 2005 major storm the Estonian Government enforced the media to inform people in timely manner and without interpreting the government announcement. A website was created where all the government announcements, warnings and other information were stored. The Governmental Crisis Management Committee and local crisis management committees were set up in Pärnu and Haapsalu. The data from the storm was analysed, proposals regarding the compensation of the damages were drafted and sent to the Government.⁴⁰

The experience from the 2005 flooding contributed to the development of a more systemic response, planning and streamlined crisis management in Estonia. It also enhanced the communication between the crisis management actors and improved the cross-border cooperation and information exchange between agencies in Estonia and Finland.⁴¹

³⁶ Emergency Act, Chapter III, art.18 (2)

³⁷ Rescue Act, Chapter 2, art. 5. 9 (1)

³⁸ Strategy of the Estonian Rescue Board 2015-2025, p.21

³⁹ Emergency Act, Chapter III, art.10

⁴⁰ Are Kont, Jaak Jaagus, Kaarel Orviku, Valdeko Palginõmm, Urve Ratas, Reimo Rivis, Ülo Suursaar, Hannes Tõnisson, *The 9 January 2005 storm impact on the Estonian coastal area*, p.54

⁴¹ ANVIL Project Country Study: Estonia, p.14

1.2.6 Policy for Relief and Recovery

The Estonian Disaster Relief Team (EDRT) is a rescue unit that provides international cooperation and can operationally take part in international rescue actions as well as to react to emergencies in Estonia. Since its establishment in 1996 the EDRT has participated in more than 20 international training exercises and missions in Indonesia, Pakistan and Latvia. The EDRT consists of five teams: search and rescue team (U-SAR); medical team (MED); chemical team (NBC); support team (SUP) and a group of experts (EXP).⁴²

When conducting disaster relief, responding to natural or technological catastrophe, conducting search and rescue operations, or when liquidating extensive pollution to the environment, the Defence Forces could be employed without announcing the emergency situation or state of emergency.

The crisis management structures within the area of governance of the Ministry of Defence are ready to support the civilian structure in compliance with the crisis management plans that are developed by the Ministry of the Interior and approved by the Government.

The Defence Forces, with the support of the Defence League, are the primary supporter of the civilian authorities in ensuring domestic security in case of crisis. Acknowledging that the Ministry of the Interior has the overall responsibility for ensuring domestic security and crisis management, the Defence Forces are employed to settle civil emergencies in cases where all the other crisis management capabilities of the state have been exhausted or the required capabilities are only available to the Defence Forces. The use of the Defence Forces for ensuring domestic security is only possible by a decree from the Government of the Republic.⁴³

1.3 Financing

1.3.1 Investing in preparedness

Investing in emergency preparedness is one of the most important factors when it comes to crisis management. The Government by regulation establishes the bases and procedures for financing the response to the emergency due to which emergency situation was declared.⁴⁴ The planning of financial resources needed to implement the objectives of the national strategy will be in accordance with the planning of the state budget. Due to the objectives, particular attention will be paid on increased funding of volunteers, proportion of investments and increased wages. The Civil protection expenditures, according to data of the European Commission, are approximately 0.6% of the GDP of Estonia.⁴⁵

⁴² ANVIL Project Country Study: Estonia, p.19

⁴³ Estonian National Defence handbook 2010, p.43

⁴⁴ Emergency Act, Chapter III, art.20

⁴⁵ EC, Vademecum, Country profiles - Estonia – prevention & preparedness, last accessed 18.09.2014

The Strategy of the Estonian Rescue Board 2015-2025 foresees increase in financing for the available technology and equipment with an appropriate service life and safety requirement. Investments currently account for 2.8% of the Rescue Board's budget. The Strategy also expects increase in the average salary of Rescue Board employees in order to match the average salary in the public administration and national defence sectors.

In accordance with the trends in volunteer rescue, it is planned to increase the amount invested in the competence of volunteer rescuers to 1.5 million euros by the year 2016.⁴⁶

Contributing factor for the decreasing number of fatalities caused by fires and drowning is the increased budget for prevention work. In 2014, Estonia allocated over 700,000 euros.⁴⁷

Additionally, Estonia has signed framework agreements with the Swiss Agency for Development and Cooperation (SDC) for the implementation of two projects related to emergency preparedness. The first one was for prevention and management of natural disasters worth around 1,3 million euros. The project lasted over two years and resulted in improved fire safety of the Estonian social and health service institutions, decrease of the potential fire sources in these institutions and improving the preparedness among the staff to react in danger situations.⁴⁸

The second similar project was for strengthening information and communication technology systems of the Emergency Respond Centre and the grant was estimated at almost 1,67 million euros. This project lasted for three years and resulted in improvement of the time needed for responding and processing emergency calls and sending rescue vehicles. The projects will also aid the establishment of an emergency management monitoring system onto an electronic map, which will enable to display information regarding the location of the emergency caller and the location of the available rescue vehicles.⁴⁹

Moreover, state financial support for volunteers has increased significantly in recent years, reaching 938,874 in 2013 and 1,146,748 euros in 2014.⁵⁰

Estonia has developed good collaboration with the private sector, as the Estonian civil security authorities are looking at solutions for improving and upgrading their data exchange and operational efficiency. Many private entities actively take part in the EU funded projects and programmes in civil security domain.⁵¹

⁴⁶ Strategy of the Estonian Rescue Board 2015-2025, p.34

⁴⁷ Ministry of Interior, Security Policy 2014, p.9-11

⁴⁸ <http://www.fin.ee/prevention-and-management-of-natural-disasters-increasing-fire-safety-in-social-and-health-service-institutions/?highlight=crisis,management>, last accessed 12.09.2014

⁴⁹ <http://www.fin.ee/pe3>, last accessed 13.09.2014

⁵⁰ Strategy of the Estonian Rescue Board 2015-2025, p.40

⁵¹ ANVIL Project Country Study: Estonia, p.24

1.3.2 Investing in consequence management

The January 2005 “Gundun” severe winter storm that struck Estonia and the Baltic Sea area could provide an example for understanding the processes related to investing and allocating funding for consequence management.

Following the storm, the EU Solidarity Fund granted Estonia 1.3 million euros for mitigation and recovery. The damages were estimated at 48 million euros, of which 28,2 million were attributed to the private sector and 19,6 million euros to the public sector. The rapid activation of the EU Solidarity fund aided the restoration of power lines and communications systems which was completed within few days after the storm. Any further postponement would have resulted in much higher costs.⁵²

At national level, the Government allocated more than 1,4 million euros compensation in support to the most deeply affected people, with low income to purchase basic goods, and for support of immediate repair works.

At local level, dry firewood, pumps for watering out the flooded houses and organising cleaning of the dirt left by the storm were allocated by that the local administration allocated in the aftermath of the storm. Pärnu City Government has covered the expenses of its citizens with low income for heating, roof restoration and electricity. The total amount allocated for 208 families is about half a million euros.

At international level, the Red Cross, UNICEF and Norway (Buskerud County) all allocated funds in support of the affected population.

The insurance companies have compensated damages caused by the storm amounting to 11.7 million euros.⁵³

The 2005 storm was the biggest natural disaster to hit Estonia since its independence in 1991. The data provided above clearly reveal that the main responsibility for covering the costs of such crisis lies with the Estonian government and the local government authorities. Depending on the scale of the damages inflicted, there are other actors that allocate funds and efforts for mitigation.

1.4 Policy review, Evaluation & Organisational Learning

1.4.1 Post-Disaster Assessment

N/A

⁵² Are Kont, Jaak Jaagus, Kaarel Orviku, Valdeko Palginõmm, Urve Ratas, Reimo Ravis, Ülo Suursaar, Hannes Tõnisson, *The 9 January 2005 storm impact on the Estonian coastal area*, p.54

⁵³ Are Kont, Jaak Jaagus, Kaarel Orviku, Valdeko Palginõmm, Urve Ratas, Reimo Ravis, Ülo Suursaar, Hannes Tõnisson, *The 9 January 2005 storm impact on the Estonian coastal area*, p.51

1.4.2 Departmental Lessons Learned systems

The Crisis Management Bureau of the Ministry of the Interior conducted an analysis following the emergency situation caused by the 2005 storm, based on the information received from the counties and ministries.⁵⁴ The report analysed the actions of the different state offices that reacted during the storm as well as the description of the problems that became evident as a result. The analysis also presented proposals for improving preparedness in emergency situations and preventive measures that need to be implemented in order to avoid difficulties in similar situations in the future.

1.4.3 Centralised (national) Lessons Learned system

In Estonia there is no specific lessons learned system or framework outside of the competence of the Ministry of Interior and the local/regional authorities.

Following the events in 2005, it was analysed that there is a need for informing the people about anticipating risks in case of natural hazard or other extreme situation, the informational exchange between the relevant institutions need to be improved and the operational radio communication between the institutions subordinated to the Ministry of Interior should be developed.

The Prime Minister tasked the Minister of Finance to set up a Committee for assessing the damages with the Secretary General of the Ministry of Finance acting as Chairman. The members include secretary-generals of involved ministries and county governors of the three most affected counties.⁵⁵

The Committee assessment document noted and recommended measures that include updating the crisis plans of several ministries and counties and improvement in the information service and better communication between the authorities. Additional highlighted measures were the need of improved forecast and prognoses of the water level rise velocity and enhanced cooperation between neighbouring countries.

1.4.4 International exchange for Lessons Learned

Estonia evaluates and exchanges lessons learned in the field of crisis management through collaboration in various cross-border and international exercises and activities. See point 3.2 for more information regarding cross-border cooperation.

1.4.5 Regular policy reviews

The Estonian Rescue Board has the responsibility to review and implement the national crisis management systems at local level. The Board also conducts risk mapping, develops and enhances holistic disaster prevention and maintains preparedness. The Board supports the local government agencies with regard to communication systems and coordination, as well as provides

⁵⁴ <https://www.siseministerium.ee/13310/?highlight=emergency,act>, last accessed 18.09.2014

⁵⁵ Are Kont, Jaak Jaagus, Kaarel Orviku, Valdeko Palginõmm, Urve Ratas, Reimo Rivis, Ülo Suursaar, Hannes Tõnison, *The 9 January 2005 storm impact on the Estonian coastal area*, p.53

comprehensive training for preparedness, response and consequence management where it is deemed necessary.⁵⁶

At regional level, County Governors are responsible for the review of the risk analysis of an emergency of a certain region. At local level, the head of the local government crisis management committee is the rural municipality mayor or the city mayor, who is responsible for reviewing emergency policies and risk assessments of a certain region.⁵⁷

In addition, the crisis management plan of a county has to be reviewed by the county crisis management committee, which on its part presents opinion to the county governor. County governors shall review crisis management plans as necessary but not less frequently than once in every two years. An amended crisis management plan shall be submitted to the Minister of Internal Affairs for approval.⁵⁸

The same procedures apply for local and rural municipalities or cities, where the crisis management committee is the main responsible entity. The crisis management plans are reviewed not less frequently than once a year and are submitted to the county governor.

Following the Fukushima nuclear accident and in concert with changes in legislative framework, Estonia has revised its Emergency Preparedness and Response procedures, with special attention to communication between the authorities and to the public. In order to assess the capabilities and the preparedness of Estonia to respond to nuclear or radiological emergency, the country hosted the Emergency Preparedness Review Mission of the International Atomic Energy Agency in 2011.⁵⁹

1.5 Resilience

Resilience concepts are namely developed for critical infrastructures such as the supply of basic services like water, food, energy, transport, housing, communications, etc.

Resilience concepts need also to take into account the necessity to anticipate, to plan and to implement in the crises time a substitution process aiming to deal with a lack of material, technical or human resources or capacities necessary to assume the continuity of basic functions and services until recovery from negative effects and until return to the nominal position.⁶⁰

⁵⁶ ANVIL Project Country Study: Estonia, p.10

⁵⁷ http://ec.europa.eu/echo/files/civil_protection/vademecum/index.html, last accessed 17.09.2014

⁵⁸ Emergency Preparedness Act, p.7

⁵⁹ Estonian National Report on lessons learned and actions taken in response to the Fukushima Daiichi nuclear accident, p.5

⁶⁰ <http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/1072-drs-07-2014.html>, last accessed 15.09.2014

The resilience capability of Estonia to prevent and avert security threats depends on the readiness to maintain critical services. In promoting and enhancing resilience concepts, the state cooperates and involves other members of civil society, thus improving social cohesion and social risks are prevented. The prevention of social risks is addressed in the national economic and social policy.⁶¹

In order to ensure the resilience of critical services, Estonia develops operational capability to recover interrupted services, provides sufficient reserves and action plans. Continuous evaluation and monitoring of risks that may disrupt or cause malfunction in critical services is conducted.⁶²

Moreover, to safeguard the state's resilience, a plan for organising the functioning of national command and control and guaranteeing continuity of government in the event of risk situation and crises shall be drafted under the co-ordination of the Ministry of Defence.⁶³ The Rescue Board also develops emergency plans and maintains resilience of the country.

Besides the National Security Concept of Estonia and the National Defence Strategy resilience concept is not used in other policy or legislative documents, nor in academic research in the disaster management domain.

1.6 Information sharing and data protection

According to the Rescue Act disclosure of personal data is permitted only in such case and to such an extent it is unavoidably necessary for the notification of a threat or a rescue event. In order to perform its functions a Rescue Board or other rescue authority may process personal data on the bases of and pursuant to the procedure provided for in the Personal Data Protection Act.⁶⁴

Since the unprecedented cyber-attacks in 2007, Estonia unequivocally acknowledged the need to protect information systems and data. The coordinated cyber attacks against the Estonian government, banks, media and telecommunications companies demonstrated vulnerability of the information systems as one of the important aspects of national security.⁶⁵

The 2008-2013 Cyber Security Strategy of Estonia was developed by experts from various ministries and agencies. The document recommended the development of a national legal framework for cyber security concerning areas which are either not covered or are insufficiently covered by the existing legislation.

The analysis showed that Estonia's current legal policy for IT is decentralised and, in fact, partly contradictory. For instance, Estonia has adopted a liberal policy concerning the use of e-services and the information society generally; at

⁶¹ National Security Concept of Estonia, Unofficial translation, p.17

⁶² Ibid, p.17

⁶³ National Defence Strategy, Ministry of Defence, p.26

⁶⁴ Rescue Act, Chapter 4, 14 (2)

⁶⁵ Cyber Security Strategy of Estonia 2008-2013, p.6

*the same time, the policy for personal data protection is rather conservative and the regulation of information society services complies only with the EU's minimum requirements.*⁶⁶

Furthermore, the Strategy emphasizes on the importance of the establishment a clear legal basis for processing any kind of personal data. The Personal Data Protection Act aims at fulfilling this as it provides general organisational, technical and physical security measures to ensure the availability, integrity and confidentiality of data.

However, it is necessary to point out that for national security reasons exceptions to the Personal Data Protection Act should be made, as EU Directive 95/46/EC on the protection of personal data and the Council of Europe Convention ETS 108 allows. The Cyber Security Strategy of Estonia recommends that these exceptions could be formed by amending the Personal Data Protection Act or through a separate regulation addressing the protection of the critical infrastructure.⁶⁷

According to the Rescue Act, the Ministry of the Interior shall establish a database for the collection of data related to operations and proceedings related to the functions of the Rescue Board for the efficient and speedy performance of the functions of a rescue service agency and for the performance of efficient supervision. The official name of the database is *rescue information system* and its chief processor is the Rescue Board.⁶⁸

Estonia participates in the Mobile Application for emergency Response and Support (MAppERS) project. It is funded by the European Commission and it is aimed at identifying gaps in the information sharing system in terms of territorial knowledge, risk prevention and emergency.

Further, it deals with human role as "crowd sourced mappers" through the development of a smart phone application that allows sharing of precise, GPS-localised information regarding the location of risk situations from the population to civil protection operators in a contest of geospatial response. The implementation of the project implies the design and testing of a smartphone application for volunteers and for citizens to be used as a communication device between citizens, volunteers and headquarters during phases of emergency.⁶⁹

The expected results of the project, with its completion scheduled for the end of 2015, include creation of a collaborative user environment for emergency response and support during crisis, raising public awareness and easy-to-use "human-data" input for crisis management.⁷⁰

⁶⁶ Cyber Security Strategy of Estonia 2008-2013, p.18

⁶⁷ Ibid., p.19-20

⁶⁸ Rescue Act, Chapter III, art. 9.(1)

⁶⁹ <http://ec.europa.eu/echo/node/2628>, last accessed 10.09.2014

⁷⁰ MAppERS kick off meeting - Preparedness & Prevention 2013 Call, PowerPoint Presentation by Simone Frigerio

2 Legislation

The 2013 Anvil Country Study describes the legal statute of the Estonian civil security system as:

*fragmented and rests upon formal distinct bodies of formal legislation at the state and regional levels. From the functional perspective, the statutory basis is divided into laws for different emergency response services, sector specific regulations, and provisions for a formal state of emergency and for other kinds of disasters and crises. The Estonian civil security is a mixture of one level or institution coordination and, on the other, a combination of versatile vertical and horizontal control and command lines. A bottom line principle is to support the local decision-making process as much as possible.*⁷¹

The main regulative framework for civil protection and emergencies is defined by the Emergency Act and the Rescue Act of Estonia.

The Emergency Act, in force since June 2009, provides the legal basis for crisis management, preparation of and responding to emergencies. It regulates the use of the Defense Forces and the National Defense League in responding to emergency situations and rescue operations.⁷² It also defines the mechanisms to be activated in the case of large scale natural or man-made disasters. The Emergency Act lists 42 vital services which are provided by public sector agencies, and imposes duties on authorities to maintain the sustainability of vital services as well as on service providers to provide vital services.⁷³

The Rescue Act provides the functions, organisation and rights of a rescue service agency and the rights and obligations of voluntarily participating persons in the activity of a rescue service agency. The specifications of the organisation of the rescue service agency activities are provided by the State of Emergency Act.⁷⁴

The main civil security and emergency management actors are four territorial inter-agency emergency preparedness committees that are managed by the national rescue board.⁷⁵

2.1 Crisis (emergency, disaster) management concept

The National Security Concept of the Republic of Estonia is a key document that establishes the objectives, principles and directions of security policy. The National Security Concept highlights crisis management as one of the essentially important tasks.

⁷¹ ANVIL Project Country Study: Estonia, p.12

⁷² Emergency Act of Estonia, Chapter I, art.1

⁷³ <https://www.ria.ee/documents/>, last accessed 14.09.2014

⁷⁴ Rescue Act, Chapter I, art.1

⁷⁵ ANVIL Project Country Study: Estonia, p.2

The Concept foresees as a vital task the readiness and preparedness for crisis management. The document emphasises on the importance of preventive diplomacy and the efforts in the prevention of conflicts through exchange of information and dialogue between partners. Participation in crisis management operations of NATO and the European Union as well as in NATO Response Force and EU battle groups is also described as an integral part of Estonian security policy.⁷⁶ Further, the concept envisages that Estonia's national security relies on the membership in NATO and European Union, as well as to close cooperation with its allies and international partners.⁷⁷

Another conceptual document concerning crisis management is the Strategy of the Estonian Rescue Board 2015-2025. It plans the Board's activities in a ten year timeframe. The Strategy has been developed in accordance with the foundations of safety policies, development plans and other governmental planning documents. The document stresses on the importance on the changes in the operating environment of the Board, the impact of the globalisation processes and advanced technologies, the social economic environment. In addition, it sets out objectives which target fewer fatalities caused by fires and drowning, decline in number of rescue events and operations and property damage.⁷⁸

The implementation of the strategy will be monitored and analysed on a yearly basis. An assessment will be developed regarding the progress made towards the established objectives. Following the completion of the analysis, proposals will be made to update the strategy and the related documents as appropriate.⁷⁹

2.2 General crisis (emergency, disaster) management law

The Emergency Act is in force since June 2009 and provides the legal bases for crisis management, including preparing for and responding to emergencies. *The Act also regulates the declaration of, the response to and the termination of emergency situations and the use of the Defence Forces and the National Defence League in responding to emergencies, performing rescue operations and ensuring security.*⁸⁰

The Act sets out the arrangements for the organisation of the preparation for emergencies, including for emergency risk assessments and plans, crisis management exercises and the organisation of responding to emergencies.⁸¹

The Emergency Preparedness Act provides the legal basis for the organisation of emergency preparedness and for crisis management by the government, government agencies and local governments. The Act defines the crisis management tasks and the duties of the responsible

⁷⁶ National Security Concept of Estonia, Unofficial translation, p.12

⁷⁷ Ibid, p.4

⁷⁸ Strategy of the Estonian Rescue Board, p.23-26

⁷⁹ Strategy of the Estonian Rescue Board, p.42

⁸⁰ Emergency Act, art.1 (1)

⁸¹ Emergency Act, p.2-9

institutions with regard emergency preparedness.⁸² The tasks for crisis management require preparation of risk assessments in order to identify possible emergencies, the possibilities for avoiding them, as well as for mitigating the consequences. As other crisis management tasks listed are the preparation of crisis management plans, the organisation of crisis management training, and the build-up of the structure of units for responding to emergencies. The authorities must ensure the necessary resources for responding to emergencies, organising the informing of the population and raising public awareness on responding to an emergency.⁸³

Furthermore, the Rescue Act provides the functions, organisation and rights of a rescue service agency and the rights and obligations of persons participating voluntarily in the activity of a rescue service agency. The Rescue Act defines the rescue service agencies and their functions, as well as the participation in international rescue work and explosive ordnance disposal.⁸⁴

2.3 Emergency rule

The State of Emergency Act, which entered into force on 16 February 1996, provides the basis, conditions and procedures for declaration of a state of emergency, the competence of authorities managing a state of emergency, as well as the measures to be implemented during a state of emergency, and the rights, duties and liability of persons during a state of emergency.⁸⁵

A state of emergency is declared on the basis of the Constitution of the Republic of Estonia in case of a threat to the constitutional order of Estonia, and when it is not possible to eliminate a threat to the constitutional order of Estonia without the implementation of the measures provided of the State of Emergency Act. According to the Act, the Government can declare a state of emergency throughout the state for no longer than three months. During a state of emergency, acts and other legislation are valid unless the State of Emergency Act does not provide otherwise.⁸⁶

A threat to the constitutional order of Estonia may arise from an attempt to overthrow the constitutional order of Estonia by violence; terrorist activity; collective coercion involving violence; extensive conflict between groups of persons involving violence; forceful isolation of an area of the Republic of Estonia; prolonged mass disorder involving violence.

The Act also defines that during a state of emergency *it is possible to restrict in the interest of national security and public order the following rights and liberties of persons:*

- 1) the right to free self-realisation;
- 2) the right to liberty and security of person;
- 3) the right to freely choose domain of activity, profession and employment;
- 4) the right to freely participate in political parties and some

⁸² Emergency Preparedness Act, Chapter II

⁸³ Ibid.

⁸⁴ Rescue Act, p. 1-12

⁸⁵ State of Emergency Act, Chapter I, art.1

⁸⁶ State of Emergency Act, Chapter I, art.6

types of non-profit associations; 5) the right to freely possess, use and dispose of property; 6) the right to inviolability of home; 7) the right to freedom of movement and to choice of residence; 8) the right to leave Estonia and to settle in Estonia; 9) the right to confidentiality of messages sent or received by post, telegraph, telephone or other commonly used means; 10) the right to freely access information disseminated for public use; 11) the right to access, pursuant to the procedure provided by law, information held by state authorities and local government bodies and in state and local government archives; 12) the right to freely disseminate ideas, opinions, beliefs and other information by word, print, picture or other means; 13) the right to assemble peacefully and to conduct meetings without prior permission.⁸⁷

When declaring a state of emergency state authorities and rural municipality or city governments shall notify the President of the Republic, the Government of the Republic and the Commander of the Defence Forces of the threat to the constitutional order of Estonia that has occurred. The crisis committee, established by the government for the implementation of measures regarding the threat, develops the state policy and action plans to forecast, prevent and eliminate the threat. The committee also develops an analysis concerning the prevention and the planning of elimination of the emergency situation and presents the results to the Prime Minister.⁸⁸ The Prime Minister is the head of state of emergency.

During a state of emergency, the head of state of emergency may give orders to the chief of internal defence and to heads of governmental authorities and local government bodies. Furthermore, the Prime Minister may restrict the freedom of movement partially or in the entire territory of Estonia, provide broadcasters with information relating to the state of emergency and issue other orders by authorisation of the Government of the Republic.⁸⁹

The Government, upon declaring emergency situation, has to appoint a minister to direct and coordinate the response to the emergency due to which emergency situation was declared.⁹⁰ Estonia has not officially declared a state of emergency after its new independency in 1991.⁹¹

2.4 Specific, department/agency-level legal arrangements and regulations on emergency and disaster management

The Rescue Act provides fundamentals of activity of rescue service agency, the functions of the rescue service agency and the measures of the Rescue Board.⁹²

⁸⁷ State of Emergency Act, Chapter I, art.4

⁸⁸ State of Emergency Act, Chapter I, art.8

⁸⁹ State of Emergency Act, Chapter I, art.18

⁹⁰ Emergency Act, Chapter III, art.18 (1)

⁹¹ ANVIL Project Country Study: Estonia, p.25

Duties of rescue service agencies and the organisation of inter-agency crisis management exercises are set out in the Emergency Preparedness Act.

The leading responsibility in the field of crisis management in Estonia is held by the Ministry of Interior. The ministries and agencies are responsible in their respective areas for the following:

- Ministry of Internal Affairs - maintenance of public order, fire extinguishing and rescue work, organisation of protection of data banks;
- Ministry of Economic Affairs - functioning of the energy system, organisation of supply with staple goods;
- Ministry of Agriculture - organisation of supply with food;
- Ministry of Finance - functioning of the financial system;
- Ministry of Social Affairs - organisation of health care, social insurance and social welfare, provision of psychological and social aid, assistance to refugees and the evacuated, labour force calculation;
- Ministry of Transport and Communications - organisation of telecommunications, postal services and transport;
- Ministry of Culture - organisation of protection of cultural property;
- Ministry of the Environment - organisation of environmental protection and monitoring.⁹³

According to the Emergency Preparedness Act the duties of the ministries are as follows:

- to perform risk assessment in order to identify the emergencies which may occur in its area of government. The Ministry of Defence does not perform risk assessments;
- to prepare a crisis management plan and ensure the implementation thereof in an emergency;
- to form a structural unit in the ministry or designate one of the departments to be responsible for the general organisation of crisis management in the area of government of the ministry;
- to form a crisis management team;
- to determine the crisis management duties of agencies and inspectorates in the area of government of the ministry;
- to plan the use of resources necessary for responding to an emergency;
- to direct the responding to an emergency in its area of government;
- to organise crisis management training in its area of government;
- to perform an assessment in its area of government in order to identify the resources which are necessary for participation in international crisis management.⁹⁴

⁹² Rescue Act, p. 1-12

⁹³ Emergency Preparedness Act, p.2-4

⁹⁴ Emergency Preparedness Act, Chapter II, art.5 (7)

2.5 Specific to the regional and local authorities legal arrangements and regulations on emergency and disaster management

Estonians historically have a tradition of preference of the local self-government instead of strong state power.⁹⁵ At regional level, the responsibility for civil security is shared between the fifteen county rescue services, which have since 2005 been subordinated to the national rescue board. At local level, the four regional services are the highest civil emergency planning authorities.⁹⁶

The Emergency Act sets out that the local rescue service agencies of the Rescue Board have to form permanent regional crisis management committees to operate in their respective regions. The main responsibilities of this regional committee include monitoring and analysing the crisis management system, including the preparation for emergencies, responding to emergencies and ensuring the continuous operation of vital services in the region; analysing the probability of the occurrence of emergencies and making proposals to the government crisis management committee and the respective competent agencies; reviewing the part of the emergency risk assessment concerning the area of activity of the crisis management committee; assisting the emergency situation response coordinator in the coordination of the response to the emergency; assisting agencies responding to emergencies with regional effect in the organisation of exchange of information and the coordination of the response to the emergency.

Additionally, the regional crisis management committees are responsible for the organisation of regional crisis management exercises; for informing the public of the emergency and forming a territorial crisis management committee. The head of the local rescue service agency is the chairman of the regional crisis management committee.⁹⁷

The rural municipality or city government establishes the statutes and approves the staff of the crisis management committee of the local government. The draft statutes and the staff of the crisis management committee have to be agreed with the local rescue service of the Rescue Board.⁹⁸ The Minister of the Interior shall establish the statutes and approve the staff of the regional crisis management committee.

At local level the local governments resolve all issues, concerning the common interests and the lives of the local community members, meaning that the state cannot interfere and take decision. Additionally, local governments have budgetary autonomy and the right to collect taxes.⁹⁹

All local government towns and rural municipalities are equal in their legal status. Because of the one-tier local government system there is no directly elected representation of people on regional

⁹⁵ ANVIL Project Country Study: Estonia, p.11

⁹⁶ Ibid., p.3

⁹⁷ Emergency Act, Chapter I, art.4

⁹⁸ Emergency Act, Chapter I, art.5

⁹⁹ https://www.eesti.ee/est/teemad/kodanik/riik/eesti_vabariik_2/uldandmed_ last accessed 3.10.2014

level. In each county a regional association of local authorities may be formed. The Territory of Estonia Administrative Division Act provides the administrative division of the territory of Estonia and the procedure for its alteration.¹⁰⁰ Estonian territory is divided into 15 counties, while there are 227 local government units in Estonia among which there are 33 towns and 194 rural municipalities. All local authorities are a part of a county.¹⁰¹

2.6 Legal regulations on the involvement of volunteers and specialised NGOs

Chapter 7 of the Rescue Act provides the basis for the participation of volunteers in the activities of the relevant rescue service agency. Further, rescue service agency may enter into civil law contracts with legal persons for organising the activity of volunteer rescuers participating in rescue work and prevention work. The Act provides definition of volunteer rescuer, the procedures for acceptance, training and participation in prevention work, social benefits and guarantees, the work organisation and other related provisions.¹⁰²

The Estonian crisis management legislation emphasises on the role of the private sector at all levels of preparedness but not so much at the level of response. The role of non-profit relief organisations is limited because after the independence of Estonia in 1991 the sector has not yet fully developed. However, the existing non-profit organisations are included in all public crisis management structures and major exercises.

According to the contingency plans, the most important non-profit and volunteer organisations in Estonia are the Red Cross, the Estonian Volunteer Fire-Fighters Union, the Estonian Association of Fire and Rescue Chiefs, and the Estonian Life Saving Association and Defence League, who have also been given the task of assisting in rescue work.¹⁰³

In 2013 the “National development trends in volunteer rescue work 2013-2016” document was issued. The document’s main aim is to develop a nationwide volunteer rescue work network that brings together different people from the society with trained professionals.

There are also several national support organisations created by citizens or private entrepreneurs. These include the Defence Involvement Fund, the Estonian Injured Veterans Association, the Estonian Border Guard Officers Union, and the Estonian Reserve Officers Union.¹⁰⁴

¹⁰⁰ Local Government In Estonia, Mol Brochure, p.3

¹⁰¹ Ibid.

¹⁰² Rescue Act, Chapter 7, art.37

¹⁰³ ANVIL Project Country Study: Estonia, p.23

¹⁰⁴ ANVIL Project Country Study: Estonia, p.20

2.7 Legal regulations for international engagements of first responders and crisis managers

Participation in international rescue work and explosive ordnance disposal outside the territory of the Estonia takes place on the basis of a request for help submitted under an international rescue agreement or by a Member State of the European Union or on the basis of the Participation in International Civil Missions Act.

The procedure for sending a team to perform rescue work and explosive ordnance disposal is established by the Estonian government by a regulation. Under an international agreement the Rescue Board may involve an administrative authority of another country in rescue work on the territory of Estonia. The Estonian Rescue Board may be involved in rescue work on the territory of another country, the procedures for which is regulated according to the international agreement.¹⁰⁵

The purpose of the International Civil Missions Act, entered into force in April 2011, is to organise the system of participation in civil missions and to create a clear legal basis therefor. It also solves issues regarding salary, insurance and training of experts. The Act provides the possibility to also send experts employed in the private sector and freelance experts on a mission. The expenses related to preparation and participation in missions is covered from the state budget, usually from the funds allocated to the Ministry of Foreign Affairs or the Rescue Board. Furthermore, the Act defines the area of responsibility in the preparation and participation in mission.¹⁰⁶

¹⁰⁵ Rescue Act, Chapter 6

¹⁰⁶ <http://www.riigikogu.ee/index.php?id=67130>, last accessed 19.09.2014

3 Organisation

3.1 Organisational chart

The Republic of Estonia is a parliamentary republic. The government has the executive power and the function of coordination and supervision of institutions of the executive power of the state and is comprised of the prime minister and up to 14 ministers. Administratively, Estonia is divided into 15 counties and each county is led by a county governor. Counties consist of local governments that are led by local government councils. There are 227 local governments that consist of 194 rural municipalities and 33 towns.

In Estonia the highest authority responsible for emergency and disaster management is the Ministry of Interior. It is responsible for policy formulation and its execution in the area of civil security. The Estonian Rescue Board is directly subordinate to the Ministry of Interior and has a key role in representing Estonia in various international forums such as the UN, EU and NATO and other relevant civil security organisations.

The Rescue Board also develops emergency plans, develops communication systems for the rescue services, coordinates the fire-fighting and rescue operations when necessary, develops the legal basis for civil security mechanism, drafts the general principles and rules for fire-fighting and rescue work and its applications.¹⁰⁷

Additional national government institution under the authority of the Ministry of Internal Affairs is the Emergency Response Centre. It is responsible for processing the receipt and processing of an emergency call to the emergency 112 phone number, sending out rescue teams, ambulance, other needed technical means and rescue specialists to the place of the emergency, as well as informing the chairman of the local crisis commission of the county or the local administration in case of a crisis.¹⁰⁸

¹⁰⁷ ANVIL Project Country Study: Estonia, p.13

¹⁰⁸ <http://www.rescue.ee/23023>, last accessed 13.09.2014

Civil protection

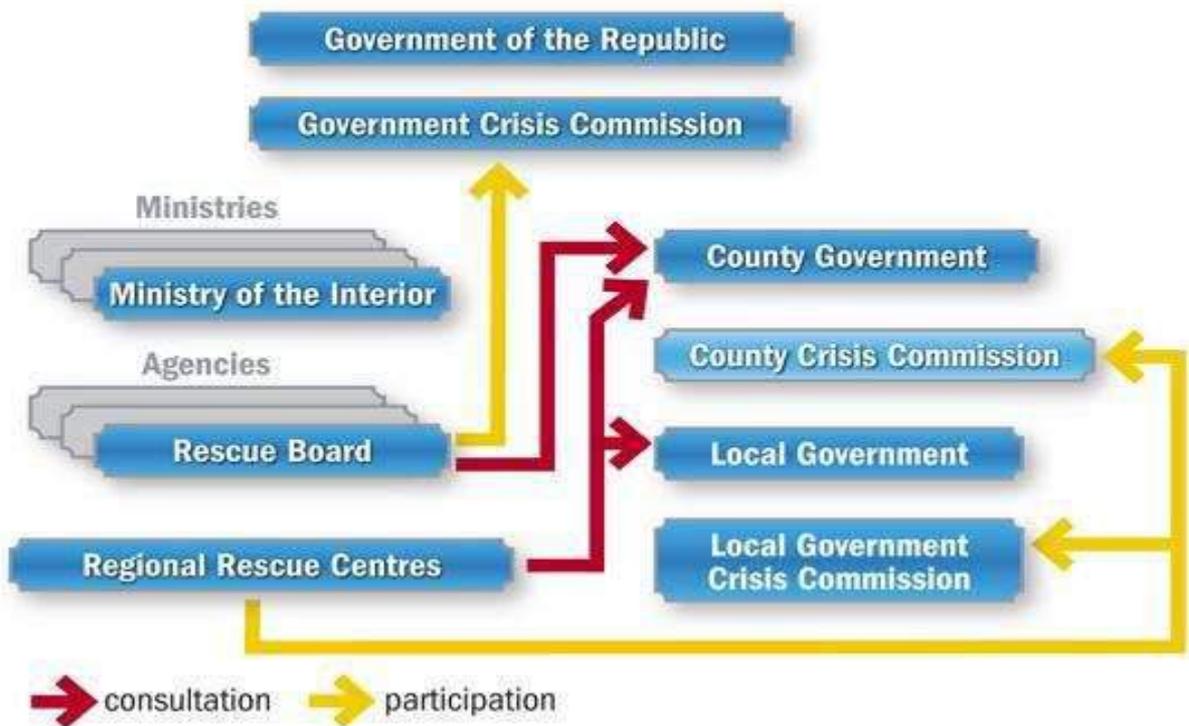


Figure 2 Organisation of Estonian Civil Protection (Source: Estonian Rescue Board)

Organization of Estonian Rescue Services



Figure 3. Organisation of Estonian Rescue Services (Source: Estonian Rescue Board)

The Estonian Rescue Board’s tasks include:

- Participation in national and international development and implementation of crisis management policy;
- Providing advice to the Minister of the Interior regarding crisis management plans and risk analyses;
- Presenting proposals for the development of communications and early warning systems;
- Providing advice to local governments on crisis management matters;
- Coordinating crisis management related cooperation activities of the local governments with non-profit organisations and foundations;
- Planning and participating in crisis management training;
- Participating in crisis management related research activities;
- Conducting and coordinating crisis management activities in the rescue field;
- Participating in national and international crisis management operations;
- To gather, analyse and transmit national and international information related to emergency situations.¹⁰⁹

The Police and Border Guard Board agency employs more than 5000 people. The main tasks of Police and Border Guard Board are the securing of the external border of the European Union and the security and public order within the state and the investigation and prevention of offences. The tasks are divided between four work areas: border guard, public order, criminal police, and citizenship and migration. Police and Border Guard Board is a police authority and all officers, regardless of their position are police officers.¹¹⁰

The Defence Forces could be deployed in response of crisis or disaster, but in cases where all the other crisis management capabilities of the state have been exhausted or where the required resources or capabilities are only available to the Defence Forces. In principle, the Defence Forces and the Defence League participate in the crisis management without using military activities or weapons.¹¹¹

The Defence League has a military supportive role in case of civil emergencies and disasters. This includes also the National Cyber Defence League.¹¹² The Estonian Defence League is a volunteer militarily organised national defence organisation operating under the rule of the Ministry of Defence and part of the Defence Forces.

The National Defence League Act establishes the legal basis and portrays the activities of the Estonian Defence League, which may include participation in resolving an emergency, in rescue work and ensuring the safety according to the procedures provided in the Emergency Act.¹¹³

¹⁰⁹ International CEP Handbook, p.77

¹¹⁰ <http://www.politsei.ee/en/organisatsioon/>, last accessed 16.09.2014

¹¹¹ Estonian Defence Handbook 2010 p.42-43

¹¹² ANVIL Project Country Study: Estonia, p.20

¹¹³ The Estonian Defence League Act

The Defence League incorporates other affiliated organisations such as Women's Home Defence, Young Eagles and Home Daughters. Altogether the number of enlisted volunteers in action is 21,000.¹¹⁴

The Department of Critical Information Infrastructure Protection at the Estonian Information System's Authority (RIA) works in the field of protection of information systems that are needed for the sustainability of vital services. The department is responsible for planning the protection for the state's critical public and private information systems on the national level. The Computer Emergency Response Team of Estonia (CERT) handles the protection of the information systems necessary for the provision of vital services.¹¹⁵

The most important non-profit and volunteer organisations in Estonia are regarded the Red Cross, the Estonian Volunteer Fire-Fighters Union, the Estonian Association of Fire and Rescue Chiefs, and the Estonian Life Saving Association and Defence League, who have also been given the task of assisting in rescue work.¹¹⁶

In Estonia the most significant non-governmental organisation is the Estonian Red Cross (ERC). Founded back in 1919 the ERC has over 3900 members including 500 active volunteers. The ERC has 257 trained volunteers which are prepared to act during the emergency situation. The ERC works in cooperation with Ministry of Interior, Ministry of Social Affairs, Estonian Rescue Service, Police and Border Department. In 2013 in cooperation with the Finnish RC the ERC started the training of volunteers for participation in foreign missions. The structure of the organisation consists of network of 16 local branches. The General Assembly meets every four years and elects the ERC Chairman, Head Committee, the Executive Board, as well as the auditing commission and the commission of statutes and ethics. Every local branch has its own board and auditing commission. Main income of the ERC is 3,9% of the gambling games budget.¹¹⁷

The Estonian authorities are looking at potential solutions for improving and upgrading the existing operational capabilities for data exchange. It is likely that many private entities will take part in the EU funded projects and programmes within the civil security domain.¹¹⁸

Another non-governmental entity is the Estonian Neighbourhood Watch (ENW) which is a civic initiative aiming at increasing the sense of security of citizens at their homes. It emerged as a citizens' reaction towards a dramatic cut in the number of police officers in 2000. The task of this association is to be an organisation that unites non-governmental associations dealing with neighbourhood watch and to share information and training regarding civil security issues.¹¹⁹

¹¹⁴ <http://www.kaitseliit.ee/en/edl>, last accessed 13.09.2014

¹¹⁵ ANVIL Project Country Study: Estonia, p.22

¹¹⁶ *Ibid.*, p.23

¹¹⁷ <http://www.redcross.ee/en/index.html>

¹¹⁸ ANVIL Project Country Study: Estonia, p.24

¹¹⁹ *Ibid.*, p.4

3.2 Organisational cooperation

Estonia has signed regional and multilateral provisions of the Council of Europe, the European Union, NATO and OSCE for assistance in crisis situations. However, Estonia has not officially requested assistance in the form of international support or cross-border assistance.

Operational cooperation within the European Union and Estonia has taken place mainly by information exchange and joint events and exercises.¹²⁰ Estonia actively participates in several working parties as well as hosting conferences regularly. Estonia has been an active initiator in the field of maritime cooperation and of strategic and operational dialogue among the Baltic Sea countries. The European Commission contributes to research and professional civil security training, which has been mainly facilitated by the Estonian Academy of Security Sciences.

The Academy is a state institution that provides professional education for civil servants, under the umbrella of the Ministry of the Interior. Its goal is through internal security related academic education, research and development activities to create a secure state and conditions for stable development across the state of Estonia.¹²¹

Cross-border operation cooperation is essential in crisis management due to the fact the emergency may affect more than one country, for example in a major flood or forest fire. Therefore the development of transnational cooperation between states and international organisations in disaster management remains a key task. Another benefit of such cooperation is in the cases in which one state does not have enough resources and capabilities to cope with the emergency situation on its own. In such scenarios it is necessary to have effective cooperation with the neighbouring countries and international organisations.

Estonia has signed a series of agreements for cooperation in the rescue and crisis management domain with its immediate neighbours. Additionally, Estonian experts participated in EU Civil Protection Mechanism missions during EU citizens' evacuation from Lebanon through Cyprus (2006); in Environmental Assessment Mission in fire devastated areas of Nagorny-Karabakh (2006); in the floods in Ukraine and Moldova (2008); in the disaster following the 2010 earthquake in Haiti; the floods in Pakistan (2010) and Moldova through BaltFloodCombat (2010).¹²²

BaltFloodCombat is a cross-border cooperation project between Estonia, Latvia and Lithuania. The three Baltic States are represented respectively by the Estonian Rescue Board, Latvian Fire and Rescue Service and Lithuanian Fire and Rescue Department under the Ministry of the Interior. The project is within the framework of Preparatory Action of the Civil Protection Mechanism and is funded by the European Commission. The European Commission finances 80% of the project while the remaining funding comes from the national budgets. The aim of the project is to create reliable and efficient national flood response capacity, and also to establish and register in CECIS a

¹²⁰ ANVIL Project Country Study: Estonia, p.28

¹²¹ Ibid, p.28

¹²² Jevgeni Jutkevits, Eva-Liisa Ristsoo, Kriisireguleerimise osakond, Päästeamet Sügis, 2010, p.2

multinational High Capacity Pumping (HCP) module, consisting of commonly trained personnel and up-to-date equipment. Main objectives of the project include enhancing national flood response capability; strengthening European rapid response capacity, and also to discover, through innovative approach, possibilities and ways of multilateral civil protection capacity building.¹²³

Estonia conducts operational cooperation with the EU through the Estonian Disaster Relief Team's participation in the following EU exercises: ESCEX (2004), Finland and EU POLEX (2005), Poland, which simulated earthquake and other related emergencies in a fictitious third country; DANEX Denmark (2006), which anticipated terrorist accidents and severe weather scenarios; FLOODX (2009), Netherlands, exercising reaction in flooding situation; and EU CREMEX (2011). Additionally, Estonia participated in 2010 AMPS EU Civil Protection Mechanism and 2011 MUSAR exercises in Germany/Netherlands.

Another on-going cross-border cooperation initiative was established in 2007 with the Estonia - Latvia Programme. The programme is implemented according to the principles of European Territorial Cooperation and it supports cross-border cooperation between the two countries. It is funded by the European Regional Development Fund, the Republic of Estonia and the Republic of Latvia. The objective of the Programme is to promote sustainable development and economic competitiveness through achieving an integrated and cross-border approach to economic, social and environmental development in ways, which involve and benefit local people and communities.¹²⁴ Under the Estonia – Latvia Programme the JATE Project (Building Cross-border Capacity to Perform Joint Activities in Tough Environment) was created and implemented by the Estonian Rescue Board and the Latvian State Fire and Rescue Service.

This project's goal is to look for ways for improving the initial reaction capabilities in remote areas and for rescue events. The aim is to reduce the response times and capacity building in areas where access is difficult or limited, and there are no fire-fighting water supplies needed.¹²⁵

Further, the Framework Agreement between Estonia and Latvia for mutual assistance in the event of natural or technological disasters relates to the co-operation and rendering of mutual assistance in the event of a disaster with the aim of preventing or avoiding human casualties and damage to the health, environment and property. According to the Framework Agreement either country could request assistance directly from the competent authorities of the other Contracting Party. The competent authorities maintain direct contacts and for Estonia they are the Ministry of Internal Affairs; the Rescue Board; and the Radiation Protection Centre.

Moreover, the Estonian Rescue Board and the Republic of Latvia have signed national fire and rescue cooperation agreement, which foresees joint actions for implementing and facilitating the provision of assistance and cooperation in cross-border rescue operations, to develop operations applicable to

¹²³ http://www.baltfloodcombat.eu/index.php?option=com_content&view=article&id=22:whats-new-in-15&catid=29:the-cms, last accessed 13.09.2014

¹²⁴ <http://www.estlat.eu/programme/about-programme/>, last accessed 17.09.2014

¹²⁵ <http://www.estlat.eu/supported-projects/?project=65>, last accessed 19.09.2014

common procedures and plans, and to develop cooperation in research and development programs reflecting the information and disaster response experiences.¹²⁶

Estonia has signed agreement with the Government of the Kingdom of Sweden for emergency prevention, preparedness and consequence management. According to this agreement the countries will cooperate in the development of appropriate preventative measures to protect people, the environment and cultural heritage and other assets of natural, technological and environmental disasters. The Parties undertake to provide mutual assistance within its means and in accordance with the cooperation agreement.¹²⁷

Additionally, agreement with Finland for maritime and aeronautical search and rescue has been signed. Its provisions extend to the responsibilities, the operational guidelines and implementation of the maritime and aeronautical search and rescue cooperation.¹²⁸

The operational cooperation of Estonia in the Baltic region and with the EU is also conducted with the Baltic every day accident, disaster prevention and resilience (BaltPrevResilience) project. The project organised between Sweden, Finland, Estonia, Denmark, Poland and Latvia. The project coordinator is the Swedish Emergency Management Agency (MSB). Other partners in the project include Finnish National Institute for Health and Welfare, Injury Prevention subdivision (THL), Estonian Rescue Board, Frederikssund-Halsnæs Fire & Rescue Service, FHFRS, Denmark, Main School of Fire Service Warsaw, SGSP, Poland, Jelgava City Municipality, JCM, Latvia and Karlstad University of Sweden. In addition to the seminar are invited to participate in the Norway, Iceland and Lithuania Representatives.¹²⁹

The aim of the project is to prevent and reduce consequences of accidents and crises and to create a common understanding of accident statistics and evaluation of experiences. It also aims at establishing a platform for sharing statistics, experiences, best practices and methodology for lessons learned.¹³⁰

¹²⁶ Framework Agreement between the Government of the Republic of Latvia and the Government of the Republic of Estonia on Mutual Assistance in the Event of Disasters

¹²⁷ <http://www.rescue.ee/oigusaktid/leping>, last accessed 12.09.2014

¹²⁸ <https://www.riigiteataja.ee/akt/79169>, last accessed 19.09.2014

¹²⁹ <https://www.msb.se/en/About-MSB/International-co-operation/EU-work/EU-project-BaltPrevResilience/About-the-project/>, last accessed 18.09.2014

¹³⁰ Ibid.

4 Procedures

4.1 Standing Operating Procedures (SOPs) and Guidelines

N/A

4.2 Operations planning

The ANVIL study identifies four levels of responsibility for operational crisis management: state level, regional level, municipal/county level, and private/volunteer level, and also describes the operational procedures in case of crisis:

Operational crisis management responsibility typically lies with the counties and independent cities and municipalities. Depending on the character of the crisis and available resources, local and regional authorities may include permanent staff for civil security tasks. Once a state of emergency or state of disaster has been declared, the counties or independent cities may form specialized task forces that are led and coordinated by the local political actor or institution. Specialized state agencies will provide assistance when needed and when the situation escalates.¹³¹

Civil protection planning in Estonia consists of risk-based planning, holistic preparedness planning, national contingency planning (central, national), planning methodologies, risk analysis and risk assessment methodologies. Particular feature of the planning mechanism is the bottom-up approach where plans are prepared at local, regional and national levels. Every national institution concerned has to prepare its own contingency plans.¹³²

The Government Regulation No. 17, in force 21 June 2010, titled “Guidelines for preparing continuous operation plans”, regulates the organisation of the preparation of plans for the continuous operation of vital services provided by a provider of vital services. The document provides specific guidance for the organisation of the preparation of plans, the preparation of plans itself and the terms and conditions for introducing the plan.¹³³

According to the Emergency Act an emergency plan is a document, which describes the organisation and the management structure of responding to emergencies, the responsibilities of the agencies

¹³¹ ANVIL Project Country Study: Estonia, p.15

¹³² http://ec.europa.eu/echo/files/civil_protection/vademecum/index.html, last accessed 19.09.2014

¹³³ Government Regulation No. 17, passed 08.06.2010, regarding “Guidelines for preparing continuous operation plans”

participating in responding to emergencies and the organisation of informing the public of emergencies. These components are valid at national and, if necessary, on the regional and local government level. The Government is responsible for the establishment of a list of emergencies that require preparation of an emergency plan and enacts the competent agencies of the executive state power to prepare it.¹³⁴

The Government establishes a list of emergencies, identifying which emergency plan has to be prepared, and subsequently appoints the competent executive power agencies to prepare the emergency plan. The emergency plans are then approved by a regulation of the Estonian Government. The plans need to be updated regularly, at least once in every two years, while the Government has the obligation to amend the list of emergencies at least every two years. The guidelines for preparing the emergency plans are established by a regulation of the Minister of the Interior.¹³⁵

4.3 Logistics support in crises

The Estonian Disaster Relief Team occasionally participates in international humanitarian missions, as it was the case in 2012, when the Team provided logistical support to the UNHCR refugee camp in Dollo Ado, Ethiopia.¹³⁶

N/A

4.4 Crisis communication to general public; Alert system; Public Information and Warnings

According to the Emergency Act all crisis information in Estonia is organised in order to conduct crisis management based on early warning signals. There are three crisis management committees on national level, on regional level and on local level. In case of an emergency they are called together and take necessary actions to solve it.¹³⁷

According to the procedures set out in the Emergency Act in case of emergency, natural persons must notify immediately the 112 emergency helpline about the impending risk they have encountered. Agencies or legal persons have to notify the Ministry of the Interior of the emergency that has occurred in the fulfilment of their responsibilities or in their area of activity.

The Government has the obligation to establish the procedures for notifying the public of the impending risk of the occurrence of an emergency and the response to the emergency, the

¹³⁴ Emergency Act, Chapter II, art.2 (7)

¹³⁵ Ibid, p.5-6

¹³⁶ <http://vm.ee/et/node/2714>, last accessed 15.09.2014

¹³⁷ AN ANVIL Project Country Study: Estonia VII, p.21

requirements for the information to be communicated as well as the organisation of exchange of information between the agencies and persons responding to the emergency.¹³⁸

The Estonian Information System Authority (RIA) coordinates the cooperation, development and administration of the state information systems and also organises activities related to information security and handles the security incidents occurred in Estonian computer networks.¹³⁹ The RIA provides advisory services for the providers of public services on how to manage their information systems and if required monitors them. In addition, RIA is an implementing entity of the structural assistance of the European Union.¹⁴⁰

An early warning system is expected to be implemented, allowing the public to be notified of the occurrence of accidents and emergencies. The system will be able to warn about the possible failure in communication and power. In 2011, the Rescue Board with the Estonian National Broadcasting implemented a project for providing operational information to the public, in case of emergencies.¹⁴¹

Additionally, Estonia has an automated Early Notification System that is in place for emergencies, composed of 10 Permanent Monitoring Stations. However, the systems' capabilities are outdated and in need of an upgrade.¹⁴²

The country also has an early radiation warning system which is used to identify and notify of any radiation accidents at nuclear plants in neighbouring countries. Estonia devotes efforts to enhance radiation protection, as well as to ensure the safety of nuclear power plants and reduce radioactivity within the Baltic Sea region.¹⁴³

The business sector and the non-profit sector will be more and more involved in the development of capabilities and measures for adapting to climate change.¹⁴⁴

¹³⁸ Security Policy 2014, p.69

¹³⁹ ANVIL Project Country Study: Estonia, p.21

¹⁴⁰ Ibid., p.22

¹⁴¹ Security Policy 2014, p.69

¹⁴² Estonian National Report on lessons learned and actions taken in response to the Fukushima Daiichi nuclear accident, p.5

¹⁴³ National Security Concept 2010, p.19

¹⁴⁴ Ibid.

5 Capabilities

5.1 Human resources

Over the last four years the Rescue services in Estonia have significantly improved based on the experience from past crises and emergency situations. There are more than 6,000 people working in the field of civil security in Estonia.¹⁴⁵ For example, air rescue units are capable of reaching people and ships in need of assistance within one hour and 45 minutes, while helicopter and airplane crews are on duty from 09.00 to 17.00 to perform patrol flights.¹⁴⁶

During one of the crisis events of 2010 - snow storm Monika, which hit Estonia at the beginning of December, the rescue crews were required in various places in northern and central Estonia where nearly 200 vehicles with total of 600 people were trapped in snow. In less than 24 hours the rescue teams managed to conduct an operation and 177 people were evacuated from the trapped vehicles.¹⁴⁷ Despite conducting a successful operation in very inhospitable weather conditions, the rescue team required more available capabilities, more particularly, modern off-road rescue vehicles. Improved crisis communication between the involved actors is another identified shortfall from the operation.

In 2010, with the support of the European Fund for Regional Development, the Rescue Board acquired specialised technology and equipment for responding to various types of rescue events. This allowed the Board to considerably improve the efficiency of responding to chemical accidents, oil pollution capture works, and the logistical support and management of large scale rescue works. Moreover, the capability of responding to floods was improved by the joint programme of the Baltic States, or also known as the BaltFloodCombat. The joint Baltic unit participated in two foreign missions in 2010, eliminating the consequences of floods in Poland and Moldova.

The Rescue Board has trained a response team of over 15 members, with the aim of increasing the number of trained specialists.

Since 2011 the rescue capability was enhanced through restructuring - nine units were closed and the rescuers were transferred to other insufficiently manned units. In 2013 Estonia had 65 units with 24-hour capability, with at least three rescuers on alert at all times and able to offer real assistance to people in case of an accident. The speed of the rescuers to reach people also improved, compared to previous years. Another result from the restructuring of the rescue services was the improved service coverage as rescue workers are 15 minutes away from 93% of the population.

¹⁴⁵ ANVIL Project Country Study: Estonia, p.15

¹⁴⁶ Ibid, p.51

¹⁴⁷ Security Policy 2011, p.57

The decrease in the number of fatal accidents, compared to 2011, reveals the high standard and preparation of the rescue capability and rescue units.¹⁴⁸

Estonia has developed the capability to provide rescue and humanitarian aid that meets international standards and allows the country to send the Estonian Disaster Relief Team (EDRT) to tackle disasters and crises.¹⁴⁹

The fundamental goal of the Estonian Disaster Relief Team is to ensure the readiness of the country to participate in international rescue and humanitarian aid operations and, when necessary, react to possible emergencies in Estonia. The Team has been sent on missions by the Foreign Ministry in cooperation with the Estonian Rescue Service if a request by the UN, EU, or nations has been submitted. The EDRT has participated in humanitarian aid missions in Namibia, Pakistan, and Indonesia, as well as in Poland, Moldova and Latvia.¹⁵⁰

The specialists in the Disaster Relief Team are primarily in the fire-fighting or rescue service, however there are representatives from the border guard, police force, medical institutions, and other government or private institutions. The operational capability envisages a search and rescue unit, a medical unit, and a chemical unit. The team also comprises of a support unit and expert group.

In 2013 the number of certified volunteer rescue workers increased significantly to almost 1300 volunteers distributed along more than 100 units and contributing over 2,500 working hours to fire safety prevention and disaster response. In the 2014 Security Policy document, prepared by the Ministry of Interior, is anticipated that by 2016 Estonia should have 1600 volunteers for prevention and rescue work. Where possible, volunteers are also provided with equipment and other technical aids. Volunteer maritime rescuers participated in 31 rescue operations in 2013, compared to 23 in 2013 while 54 people were saved by the police and volunteers together. Volunteers also participated in joint trainings and drills.¹⁵¹

Additionally, Estonia is in cooperation with other countries, pursuing safety of navigation in the Baltic Sea along the Gulf of Finland. In this regard special attention is paid to search and rescue at sea and the development of capabilities of detecting and response to marine pollution.

5.2 Materiel (non-financial) resources

The Government forms an operation stockpile, or contractually secured resources in case of an emergency, to be used for mitigating the consequences of a crisis. Usually these stockpiles contain health and food supplies.¹⁵²

¹⁴⁸ Security Policy 2014, p.27

¹⁴⁹ <http://vm.ee/en/estonia-provider-humanitarian-aid>, last accessed 19.09.2014

¹⁵⁰ Ibid.

¹⁵¹ Security Policy 2014, p.38-44

¹⁵² Emergency Act, Chapter III, art.42

The state healthcare stockpile shall be formed by the Ministry of Social Affairs or an agency in the area of governance of the Ministry of Social Affairs appointed by a decree of the Minister of Social Affairs. The state food stockpile shall be formed by the Ministry of Agriculture or an agency in the area of governance of the Ministry of Agriculture appointed by a decree of the Minister of Agriculture. Other stockpiles shall be formed by state agencies appointed by orders of the Government of the Republic. Entities forming the state operation stockpiles shall be responsible for the organisation of the storage, use, control, and renewal and reporting of the stockpile.¹⁵³

The government establishes by regulation the procedures for storage, use, control and renewal and reporting of state operation stockpiles.¹⁵⁴

Moreover, Estonia has signed a contract for the procurement of a multifunctional ship intended for localising pollution incidents and for pollution control. In addition, in 2014 Estonia purchased various life-saving capabilities that include 90 thermal cameras, 12 hydraulic equipment and 17 telescopic poles for the 66 state rescue crews. The use of thermal cameras helps rescue crews effectively identifying the location of people in premises filled with thick smoke while the telescopic rescue poles will improve the water rescue capability.¹⁵⁵

One of the main hazards and area of concern for Estonian crisis management authorities is forest fire. In order to better respond and ensure preparedness of the population, vital service providers and enterprises, and to mitigate the consequences of forest fires, the State Forest Management Centre (RMK) placed over 250 labels “Fire” and installed fire separators in over 340 kilometres of actively visited forest areas.¹⁵⁶

In 2015 the Estonian rescue workers are expected to be equipped with additional aerial ladders and trucks that will enable the team to reach people in need of assistance in higher buildings and places.

5.3 Training

The Emergency Act of Estonia states that national emergency response exercises shall be conducted at least once in every four years. The aim of the exercises is to assess the procedures and capability of responding to one or more emergencies, which includes all the competent agencies. The procedures for these exercises and the capabilities required shall be approved by the crisis management committee of the Government at national level. At regional and local levels the time and the organiser of regional emergency response exercises and emergencies as well as the

¹⁵³ Ibid., art. 42 (4)

¹⁵⁴ Ibid., art 42 (7)

¹⁵⁵ Security Policy 2014, p.78

¹⁵⁶ http://www.rescue.ee/vvfiles/0/LISA1_RA_Metsa_maastikutulekahju.pdf, p.11

capabilities that are assessed, shall be approved by the regional crisis management committee and local crisis management committee, respectively.¹⁵⁷

Nationally, there are two main organisations that provide extensive preparation for future rescue workers. The Rescue College of the Academy of Security Sciences and the Rescue School located in Väike-Maarja.

The Rescue College organises four year higher education programme which allows students to acquire knowledge of rescue management, crisis management, monitoring of fire safety and prevention in the field of rescue work. The obtained qualifications and knowledge could then be applied in the speciality of rescue service, in the field of fire safety supervision, crisis management and operational service.

The Rescue School in Väike-Maarja provides vocational training that specializes in preparation of rescuers, rescue specialists, or dispatchers. The educational programmes use situational simulations to which every person taking on employment is exposed. Estonia also maintains cooperation with foreign countries in the field of rescue training and education, which include Finland, Poland, Sweden, Latvia, Lithuania and Russia. Additionally, close interaction with the Rescue Board, the Regional Rescue Centers as well as with Tallinn University of Technology has been developed.¹⁵⁸

Training of volunteers is an important task for the Estonian crisis management authorities. In cooperation with the Ministry of Interior, the Rescue Board and the Police and Border Guard a seminar was held in 2010 for sea and lake rescue volunteer associations. Further, a yearly 2-day training event is organised, in order to practise and improve the skills needed during sea rescue operations and to practice cooperation between different parties.¹⁵⁹ It is anticipated that by 2016 Estonia 30% of the volunteer rescuers for prevention and rescue work should undergo at least 10 hours of regular training of national rescue units.¹⁶⁰

The Estonian Ministry of the Interior develops the exercises while the Estonian Disaster Relief Team (EDRT) regularly participates in international exercises.¹⁶¹ The Estonian Disaster Relief Team participated in the 2008 NATO Uusimaa exercise conducted in Helsinki, Finland. The aim of the exercise was to practice the Euro-Atlantic Disaster Response Coordination Centre procedures and Euro-Atlantic Response Unit capabilities, in order to improve nations' ability to respond to a disaster. Furthermore, the collaboration and information sharing between international organisations and the capabilities of crisis management teams were exercised.¹⁶² The exercise enhanced the effectiveness of the national capabilities to effectively coordinate consequence management operations.

¹⁵⁷ Emergency Act, Chapter II, art.8

¹⁵⁸ <http://www.sisekaitse.ee/eass/index.php?id=14072&highlight=crisis,management>, last accessed 19.09.2014

¹⁵⁹ Security Policy 2011, p.52

¹⁶⁰ Security Policy 2014, p.38-44

¹⁶¹ http://ec.europa.eu/echo/files/civil_protection/vademecum/ee/2-ee-3.html, last accessed 18.09.2014

¹⁶² <http://www.rescue.ee/suuroppus-uusimaa-2008>, last accessed 16.09.2014

Other recent examples of cross-border and multinational training exercises include the sea rescue training event 2010 Baltic Sarex in Denmark and the joint practice and training event with sea rescue volunteers at Võsu. The EU Chemical and Radiological Emergency Management Exercise 2011 (CREMEX 2011) exercise was organised by the Estonian Ministry of Interior with the contribution by the EU, and its aim was to test the understanding, knowledge and response in the framework of the Union Civil Protection Mechanism.¹⁶³

One of the main deliverables of the exercise was the testing of the coordination of assistance through the EU Monitoring and Information Centre, as well as the successful testing of the Estonian Emergency Act. The exercise provided valuable experience to the Civil Protection teams from the different participating EU members and organisations which participated.

The exercise exploited the opportunity to use a complicated CRBN scenario within two different locations in Estonia – the city of Tartu and in Tallinn Airport, thus involving all relevant authorities who have their role in Estonia responding to Chemical and Radiological incidents.

The exercise managed to achieve its objectives and to test and verify the operational and strategic procedures for resolving CRBN emergency, as well as to test the EU Mechanism for Civil Protection and coordination. CREMEX 2011 also accomplished its goals by enhancing operational cooperation between all involved parties and provided learning opportunities, and also by providing valuable lessons learned for tactical response and inter-organisational co-operation.¹⁶⁴

5.4 Procurement

5.4.1 Procurement regulation

N/A

5.4.2 Procurement procedures

Public procurement in Estonia is regulated by the Public Procurement Act and supplemented with several regulations of the Government of Estonia. The Ministry of Finance is the institution responsible for public procurement policy, related legislation, providing supervision and consulting.

Public Procurement notices are published on-line in the central State Public Procurement Register and all contracting authorities and suppliers have access to the information. Additionally it is possible for suppliers to access electronic tendering documents in case the contracting authority has made them available in the register. The number of public procurements carried out in Estonia in 2012 was around 9000 with total value of almost 1,6 billion euros.¹⁶⁵

¹⁶³ <https://www.siseministeerium.ee/cremex2011eng/>, last accessed 19.09.2014

¹⁶⁴ <https://www.siseministeerium.ee/cremex2011eng/>, last accessed 19.09.2014

¹⁶⁵ <http://www.fin.ee/public-procurement-policy>, last accessed 18.09.2014

5.5 Niche capabilities

Estonia has to carefully concentrate its R&D investments in a few niche areas, where it can achieve excellence.¹⁶⁶

The BaltFloodCombat initiative is already producing excellent results in reacting to floods. The capabilities of the three-nation initiative could be deployed in EU member states in need of immediate support in tackling emergency situations caused by floods. In the near future the initiative intends to work not only for strengthening national and European rapid response capacity in one of the most common types of disaster, but also to show, through the innovative approach, possibilities and ways of multilateral civil protection capacity building. The team has been deployed in the 2014 floods in the Western Balkans and in Moldova (August 2014).¹⁶⁷

Additional niche capability in which Estonia could realistically contribute to the European crisis management community is the development of software solutions comprised of several knowledge elements, which include cyber defence, programming of autonomous platforms and systems, etc.

Following the cyber-attacks in Estonia, the state has focused efforts for ensuring the safety of its critical infrastructure and maintaining vital services. Many experts and IT specialists have been trained and prepared to work in this environment. Estonia could provide software solutions and expertise from which EU member states could benefit and establish new ways for cooperation in the cyber security field.

An example in this sphere is the establishment of NATO Cooperative Cyber Defence Centre of Excellence. It is a NATO-accredited research and training facility dealing with education, consultation, lessons learned, research and development in the field of cyber security. Membership at the Centre is open to all NATO nations but cooperation projects are also conducted jointly with NATO partner countries, academia and the private sector. The Sponsoring Nations of the Centre of Excellence are Czech Republic, Estonia, France, Germany, Hungary, Italy, Latvia, Lithuania, the Netherlands, Poland, Slovakia, Spain, United Kingdom and the USA.

The EU could potentially develop cooperation with the Centre for collaboration on projects related to the cyber security domain, or even establish similar centres for research and analytical activities in the field.

Furthermore, Estonia has been an active initiator in the field of maritime cooperation and of strategic and operational dialogue among the Baltic Sea countries. Many projects have been initiated in this

¹⁶⁶ Defence Research & Development: Lessons from NATO Allies, International Centre for Defence Studies Project Report, p.37-39

¹⁶⁷ http://www.baltfloodcombat.eu/index.php?option=com_content&view=frontpage&Itemid=28, last accessed 17.09.2014

domain, where Estonia could contribute not only to cross-border cooperation, but also in international exercises, events and missions.

Resources

Legislative acts

Emergency Act, adopted 15 June 2009
Rescue Act, adopted 5 May 2010
Emergency Preparedness Act, adopted 22 November 2000
Public Procurement Act, adopted 24 January 2007
Fire Safety Act, adopted 5 May 2010
Personal Data Protection Act, adopted February 2003
State of Emergency Act, adopted 10 January 1996
Civil Missions Act, adopted 9 February 2011

Other normative acts

Guidelines for preparing continuous operation risk assessments, adopted 21 June 2010
Estonian National Report on lessons learned and actions taken in response to the Fukushima Daiichi nuclear accident
Emergency Preparedness of Estonia, Report of the National Audit Office to the Riigikogu, Tallinn, 16 May 2007

Official documents (white papers, strategies, etc.)

National Security Concept of Estonia, adopted 12 May 2010
Ministry of Defence, National Defence Strategy of Estonia 2011
Ministry of Interior, Security Policy 2010
Ministry of Interior, Security Policy 2011
Ministry of Interior, Security Policy 2013
Ministry of Interior, Security Policy 2014
Strategy of the Estonian Rescue Board 2015-2025
Ministry of Defence, Cyber Security Strategy 2008

Online resources (e.g. websites of key CM organisations)

<https://www.siseministerium.ee/> - Ministry of Interior
<http://vm.ee/en> - Ministry of Foreign Affairs
<http://www.kaitseministerium.ee/en/documents> - Ministry of Defence
<http://www.fin.ee/> - Ministry of Finance

<http://www.rescue.ee/> - Estonian Rescue Service

http://ec.europa.eu/echo/files/civil_protection/vademecum/index.html - EC ECHO - Civil Protection

http://www.astra-project.org/06_winterstorm_study.html - ASTRA Winter-storm study

<http://www.estlat.eu/programme/activities-supported/> Estonia – Latvia Programme

http://www.baltfloodcombat.eu/index.php?option=com_content&view=frontpage&Itemid=28
– BaltFloodCombat organisation

<http://www.welcomeurope.com/europees-nieuws/supporting-estonia-in-dealing-with-storm-disaster-in-2005-9911+9811.html#afficheTexte>

Publications

ANVIL Project Country Study: Estonia, Timo Hellenberg and Pekka Visuri, June 2013

Are Kont, Jaak Jaagus, Kaarel Orviku, Valdeko Palginõmm, Urve Ratas, Reimo Rivis, Ülo Suursaar, Hannes Tõnisson, *The 9 January 2005 storm impact on the Estonian coastal area*

Tomas Jermalavičius, *Defence Research & Development: Lessons from NATO Allies*, International Centre for Defence Studies Project Report, November 2009

Terhi Elomaa & Anna Halonen, *EUROBALTIC Survey: Civil Protection Research in the Baltic Sea Region*, November 2007

Christer Pursiainen, Sigrid Hedin And Timo Hellenberg, *Civil Protection Systems in the Baltic Sea Region - Towards Integration in Civil Protection Training*, Aleksanteri Institute, Helsinki, 2005

Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters, United Nations International Strategy for Disaster Reduction

Christopher, S. Chivvis, *EU Civilian Crisis Management- The Record So Far*, RAND National Defense Research Institute, 2010

International CEP Handbook 2009 - Civil Emergency Planning in the NATO/EAPC Countries, Swedish Civil Contingencies Agency (MSB), 2009

Terhi Elomaa & Anna Halonen, *EUROBALTIC Survey: Civil Protection Research in the Baltic Sea Region*, University of Helsinki (2007)

Expert interviews

Expert from the academic field (13 November 2014)



Driving Innovation in Crisis Management for **European Resilience**

EUROPEAN UNION ORGANISATION

Capabilities, Organisations, Policies, and
Legislation (COPL) in crisis management
and disaster response

Responsible Partner: EOS (Nicola Iarossi, Luigi Rebuffi, Klaudia Tani)

Scope and limitations

This study serves as supporting information for further work within DRIVER.

Only limited time and budget has been available for this first general survey, which needs to be considered in terms of scope and completeness of the respective studies.

The author/s of this study is/are responsible for its content and quality.

Overview

Crisis management in the European Union (EU) is a multidimensional field, insofar as it touches upon different policy fields, both within and outside the EU, with competences scattered amongst the various EU Institutions. The Treaty of Lisbon, which entered into force in 2010, foresees several major developments in the discipline, which will have implications for Crisis Management operators in the Member States and should be taken into account in CRISYS.^[2]

Three main bodies are dealing with the Crisis management in the EU institutional context: DG-ECHO mostly involved with internal EU dimension and the coordination of the European Member States, The European External action Service (EEAS) involved with the external dimension and the EU Council representing the single member states which are composing the Union. A certain number of specific bodies and emergency's centers have been developed in order to get common situation awareness, coordination of the joined Member states' intervention, actuations of the European policies and management of financial support allocated from the European Budget via the actuations of different projects in the work programme or co-financing of certain incurred expenditures.

The main scope of the European bodies consist in the coordination of the European intervention actuated on the field by the Member States first responders, support with European funds Humanitarians Aids activities, Crisis Management response (in a limited extent) and the actuations of European prevention, preparedness policies into the Member States. All the approach, including the European Civil Protection Mechanism is addressed to this scope. For this reason, no peculiar field-assets are owned and operated directly by the European Bodies but Emergency Centers, like the ERCC (Emergency Response Coordination Center in DG ECHO) and Crisis Rooms (in EEAS and The EU Council) with relevant IT Tools for supporting the European Union mission in the Crisis Management and Civil Protection area.

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List of Abbreviations

ABBR Spell the abbreviation here

1 Policy

1.1 Risk Assessment

In response to a call from the Council, the European Commission has developed near real-time alert systems for the EU Civil Protection Mechanism's Participating States with the aim of improving its rapid analytical capacity. A cross-European Commission cooperation has facilitated the development of disaster forecasting and disaster management tools.

The Institute for Environment and Sustainability (IES) has developed the European Flood Alert System (EFAS) and the European Forest Fire Information System (EFFIS). EFAS alerts the Emergency Response Coordination Centre (ERCC) on the most severe flood events and EFFIS provides daily meteorological fire danger maps and forecasts up to six days before, including maps of burnt areas and damage assessment.

The Global Disaster Alerts and Coordination System (GDACS), developed by Joint Research Centre and used jointly by the EU and UN, is a fully automatic 24/7 alert system which gathers data about natural events (earthquakes, tsunamis, tropical storms, floods and volcanoes).

Meteo alarm is an online alert platform established by the European meteorological services, which issues European weather warnings.

An agreement with the European Mediterranean Seismological Centre (EMSC) has allowed earthquake detection in the Mediterranean area to be considerably quicker and accurate, by adding sensors in Tunisia.

The European Commission also cooperates with the Intergovernmental Oceanographic Commission (IOC-UNESCO) on the establishment of a tsunami warning system for the North Atlantic and Mediterranean region.

Early warning and monitoring systems are developed and financed by the Civil Protection Financial Instrument. Systems focus on the EU Member States' territory. ^[1]

1.2 Policy and Governance

The EU has got a broad set of instruments and structures to respond to crises and catastrophes both inside and outside the EU. These instruments and structures are found within the European Commission as well as the European External Action Service (EEAS).

The EU's ability regarding aftermath CM has developed over the last decade, however, in separate strands. Today the EU's MSs cooperate more and more together in order to prevent and respond to natural or manmade disasters and to the acts of terrorism both inside and outside the EU.

In addition to having bilateral and multilateral arrangements the basis for the EU-level cooperation of the MSs is found within the European Commission.

The main instruments/ structures for EU aftermath CM are under the EU Commission:

- Civil Protection (Commission, DG ECHO),
- Humanitarian Aid (Commission, DG ECHO),
- Consular Protection (Commission),
- EU Solidarity Fund (Commission)

Under the External action Services:

- Aftermath CM actions under the Instrument of Stability (EEAS)
- CSDP (EEAS), where tasks as humanitarian assistance and rescue support can be included,
- the new function of "Managing Director for crisis response and operational coordination (EEAS). This function is supposed to promote coordination within the EU, and more specifically between the Commission and the EEAS in relation to disasters outside the EU.

Under the Council of the European Union:

- the Crisis Coordination Arrangements (CCA). The purpose of CCA is to promote coordination at a high political level in the EU in relation to crises having an impact on several MSs or being of 'political significance' for the EU. For an overview of the EU's instruments and structures for aftermath CM, see the figure below. ^[3]

1.2.1 Strategy scope and focus

The EU's role is limited to the coordination and promotion of cooperation between national, regional, and local disaster response capacities (art. 6 of the Treaty on the Functioning of the European Union), especially for preparedness and response phases as defined in the Treaty of Lisbon (art. 196 TFEU). This process started only a decade ago and the EU does not, as yet, have any highly sophisticated in-house competence in the various domains pertaining to crisis management.

Coordination concerns, as already indicated (see Table 1), civil protection assistance inside and outside the EU, humanitarian assistance, military and civil (police, reconstruction.) operations outside the EU. Regarding the latter, such action falls under the so-called Common Security and Defence Policy (CSDP), which is part of the EU's external tools, with specific decision-making procedures and actors involved.

The Union has been able, as we will show, to play an active role in coordinating and supporting crisis management operations, as well as in establishing platforms for information sharing and early warning. In the words of one Commission official, the EU strives, in its disaster response, to be first in and last out. In this sense, the EU and its Member States seek to act comprehensively when disaster strikes – from immediate protection and humanitarian relief, to longer term development and risk mitigation and preparedness. Indeed, the EU touts its ability to work following the “comprehensive approach” described above, covering coordination of all aspects of a crisis, including prevention, with wide range of instruments at its disposal. [2]

1.2.2 Monitoring and analytical support to policy making; R&D

The European Commission's Humanitarian Aid and Civil Protection department (ECHO) is committed to developing every year a strategic plan in order to co-ordinate and to programme its activities efficiently and in an appropriate manner adopting an impartial approach based on needs. To ensure maximum transparency, ECHO's annual strategies are available to the public.

In order to establish consistency in the allocation of resources to different countries according to their respective needs, regardless of pressure of any kind, and to guarantee the credibility and transparency of Community humanitarian aid - the European Commission has developed a set of rigorous needs assessment tools.

ECHO, in fact, has developed a two-phase framework for assessing and analysing needs in specific countries and crises. The framework provides an evidence base for prioritisation of needs, funding allocation, and development of humanitarian implementation plans (HIPs).

The first phase is based on the Global Vulnerability and Crisis Assessment (GVCA) tools. The GVCA is a tool based on national indicators and composite data that allows for a comparative analysis of countries to identify the level of vulnerability/ crisis. The first component identifies the most vulnerable countries, where humanitarian needs are likely to be greater in the event of a disaster, using a vulnerability index; the second component identifies countries that are effectively in a humanitarian crisis situation corresponding to the ECHO intervention criteria, by means of a crisis index. Taken together, the two indices define the priorities for intervention.

As compendium to the GVCA another tool is used: the Forgotten Crisis Assessment (FCA). The FCA is a methodology which identifies serious humanitarian crisis situations where the affected populations are not receiving enough international aid or even none at all.

The second phase of the framework focuses on the sub-crisis context and response analysis, carried out jointly by ECHO experts in both the field and in the Brussels headquarters. ^[1]

1.2.3 Policy for Prevention

There are both formal and informal principles that guide EU-cooperation in aftermath CM. The principles on subsidiarity, no duplications, **collective responsibility** and solidarity pave the way for aftermath CM actions in the EU.

The third principle is referred to as the principle of collective responsibility that implies that the MSs collectively are responsible for the prevention of and the preparedness for a crisis in the EU. The MSs have the responsibility to carry out preventive and preparatory measures at the national level. When measures are taken at the national level considerations must be taken of the fact that if national crisis prevention and preparedness are not undertaken, this may cause damage to the EU as a whole since crises today tend to be transnational. ^[3]

The adoption of these principles doesn't allow to identify exact "responsibilities" in the policy actuation, out of the political mandate given to the relevant Commissioner and the service structure (Director General, Director of the specific Directorate, Heads of Unit.) of the relevant EU Commissions Departments called also Directorates-General (DG-ECHO and the External Action Service).

1.2.4 Policy for Preparedness

It is still improbable, due to legal and political constraints, that the EU will be able to create its own civilian protection corps (as suggested in 2005 by the Barnier Report). The EU is instead planning, as indicated in the Commission's Communication on crisis response, to create a "European Emergency Response Capacity", which would consist in a pool of pre-identified national assets voluntarily made available, and on stand-by, for immediate deployment in EU-led disaster response operations. These assets could be deployed, as advocated by the European Parliament under the designation of an EU Civil Protection Force to increase the visibility of EU action. The following principles stated in the Communication should be recalled since they will guide the work on the development of the EU disaster response capacity in the near future:

- Geographic coverage: inside, outside

The EU should be able to respond more effectively to disasters both inside the EU and outside the EU.

- Nature of disasters: all types

The EU disaster response capacity should address all types of disasters (other than armed conflicts) that overwhelm national response capacities and result in a need for EU assistance.

- Comprehensive approach abroad

A fully coherent approach for disasters outside the EU will need to bring together the different instruments that could possibly be deployed depending on the nature of the crisis. The objective should be to identify and deploy the most appropriate resources to respond to any given disaster.

- Central role of UN for humanitarian assistance

EU assistance should act in accordance with internationally agreed humanitarian principles when responding to humanitarian needs caused by disasters outside the EU. Improved EU coordination will help strengthening the central coordinating role of the UN.

- Balance response, prevention, preparedness

An approach that balances response with disaster prevention and preparedness will be the cornerstone of the EU strategy on disaster management.

- Cost-effectiveness

Improving cost effectiveness will lead to more efficient ways of delivering assistance, such as pooling of assets to reduce costs and avoid duplication of efforts.

The setting-up of the EU Emergency Response Capacity responding to the above guiding principles requires progress to be made in the near future, especially in terms of planning, assets, deployment and coordination. ^[2]

The adoption of these principles doesn't allow to identify exact "responsibilities" in the policy actuation, out of the political mandate given to the relevant Commissioner and the service structure (Director General, Director of the specific Directorate, Heads of Unit.) of the relevant EU Commissions Departments called also Directorates-General (DG-ECHO and the External Action Service).

1.2.5 Policy for Response

There are often great expectations that the Lisbon Treaty will solve EU's challenges regarding coordination between the Union's different institutions and CM structures. But the fact is that responsibility within the EU for aftermath CM is divided between the EEAS and the Commission.

Consequently new forms of cooperation need to be developed. Regarding EU-assistance the modalities for coordination between the institutions will be set in a decision adopted by the Council on a joint proposal by the Commission and HR/VP. The COSI (Standing Committee on Operational Cooperation on Internal Security) set within the Council for ensuring that operational

cooperation on internal security is promoted and strengthened within the Union and the Political and Security Committee (the PSC) shall assist the Council in this respect. The importance of further EU-coordination between different EU-instruments is highlighted through the Solidarity Clause (article 222) which reads as follows:

“The Union and its MSs shall act jointly in a spirit of solidarity if a MS is the object of a terrorist attack or a victim of a natural or man-made disaster. The Union shall mobilise all instruments at its disposal, including the military instruments of the MSs, to:

- prevent the terrorist threat in the territory of the MSs;
- protect the democratic institutions and the civilian population from any terrorist attack;
- assist a MS in its territory, at the request of its political authorities in the event of a terrorist attack;
- assist a MS in its territory, at the request of its political authorities, in the event of a natural or a man-made disaster.”

Furthermore, it is stipulated that if a MS is the object of a terrorist attack or victim of a natural or a man-made disaster, the other MSs shall offer assistance at the request of the political authorities of the stricken MS. The MSs shall to that end coordinate their measures within the Council.

The Lisbon Treaty has introduced a new function, the High Representative of the Union for Foreign Affairs and Security Policy and Vice president for the Commission (HR/VP). The role of the HR/VP is three-fold: to represent the Council in foreign affairs and security policy, to be the Commissioner for external relations as well as to be one of the Vice-Presidents of the Commission.

A European External Action Service (EEAS) has been established comprised of officials from relevant departments of the General Secretariat of the Council and of the Commission as well as staff seconded from national diplomatic services of the MSs that in turn will work in close cooperation with the diplomatic services of the MSs. The EEAS will assist the HR/VP.

In 2010 a new function for crisis response and operational coordination was established within the EEAS. The purpose of this function is to provide for coordination between the EEAS and the Commission instruments, especially the Monitoring and Information Centre (MIC) recently replaced and updated by the new Emergency Response Coordination Centre (ERCC), when a disasters strikes.

On 2 December 2010 the first so called “Managing Director for crisis response and operational coordination” was appointed, Agostino Miozzo. The Managing Director (further on referred to as “the Director”) has got the task of promoting coordination within the EU, and more specifically between the Commission and the EEAS in relation to disasters outside the EU. The Director is a member of the Corporate Board of the EEAS, thus working under the direct authority of the HR/VP. The Director shall support HR/VP in ensuring coherence and coordination of the EU’s external actions, notably as regards crisis response and management. For example the Director shall support HR/VP to develop appropriate coordination mechanisms with the Commission, not least DG ECHO, assist EU MSs in crisis response outside of Europe and regarding the liaison with

UN agencies, international and civil society organisations. Furthermore, the Director is responsible for ensuring effective and coherent cooperation within the EEAS, more specifically between the CM and Planning Directorate (CMPD), the Civilian Planning and Conduct Capability (CPCC), the EUMS and the SITCEN (see below). In relations to disasters outside the EU, the Director shall “[...] define strategic lines to be followed in bilateral and multilateral contacts and coordinate of the relevant headquarter services and EU-delegations.” Finally HR/VP may delegate specific tasks and missions to the Director related to crisis response.

The EU-delegations have got an enhanced mandate to coordinate the EU’s actions in third countries. The EU-delegations will take over the political coordination between the MSs and obtain a strengthened role in relation to the EU’s civilian and military operations. The purpose is to achieve more coordinated and coherent EU action.

The Lisbon Treaty gives the Commission power to initiate legislation in the area of consular protection, for example directives to enhance cooperation and coordination. The Council in turn may also as a consequence of the Lisbon Treaty adopt acts by qualified majority (as in the area of Civil Protection). Moreover, the Lisbon Treaty underlines an increased need for a “European dimension to consular protection”. Since 2007 the Civil Protection Mechanism can be utilised to support consular assistance to the EU citizens in major emergencies in third countries. In relation to the bombings in Madrid in 2004, the Mechanism was for example used to evacuate EU citizens. Moreover, during crises for example in Libya and Egypt in 2011 and in Haiti in 2010, information sharing and coordination of assistance among EU consular authorities was made possible through an EU secure website “Consular On-Line” provided by the Joint Situation Centre (SITCEN, an intelligence agency of the EU). In March 2011 the Commission presented a Communication on the state of play and the way forward to further develop the cooperation. ^[3]

1.2.6 Policy for Relief and Recovery

One of the main EU activity impacting on the relieving policy is the Humanitarian Aids.

Based on international humanitarian principles and as set out in the European Consensus on Humanitarian Aid, the EU provides needs-based humanitarian assistance with particular attention to the most vulnerable victims. Aid is channelled impartially to the affected populations, regardless of their race, ethnic group, religion, gender, age, nationality or political affiliation.

The EU provides remedy to all major crises zones around the world including Syria, South Sudan, and the Central African Republic, as well as countries facing post-conflict instability, such as Côte d’Ivoire. The EU also plays a crucial role in assisting and raising awareness of “forgotten crises” – often protracted crises which escaped the media and international community’s attention. Recently, the EU has been instrumental to focus attention on the dramatic situation in the Central African Republic.

EU humanitarian aid covers areas such as: food and nutrition, shelter, healthcare, water and sanitation, and others. Aid, funded by the EU, is carried out in partnerships with international organisations and humanitarian NGOs. ^[1]

In order to support the recovery of stricken areas with the EU territory, the EU set up a specific fund (the Solidarity Fund).

1.3 Financing

1.3.1 Investing in preparedness

In the field of civil protection, the EU plays an "enabling role" to support, coordinate or supplement the actions of Member States in the prevention of, preparedness for, and response to disasters.

The primary responsibility for the protection of people, as well as the environment and property, including cultural heritage, lies with Member States.

Consequently, it is Member States who bear the financial costs of most civil protection actions, leaving the EU civil protection budget relatively small (compared to that for humanitarian aid). Whereas, the EU civil protection budget can only offer limited incentives, Structural Funds can support with more substantial funding.

The budget for the implementation of the Union Civil Protection Mechanism for 2014-2020 is €368.4 million (0,04 % of the EU budget allocated in the Financial Framework 2014-2020) of which €223.7 million shall be used for prevention, preparedness and response actions inside the EU and €144.6 million for actions outside the EU. These amounts are complemented by contributions from non-EU countries that participate in the EU Civil Protection Mechanism, namely Norway, Iceland and the former Yugoslav Republic of Macedonia. ^[3]

1.3.2 Investing in consequence management

The EU Solidarity Fund (EUSF) was established in November 2002. The purpose was to enhance the EU's ability to respond to major disasters, to show and articulate solidarity with disaster struck regions within the EU and to support the recovery of stricken areas. The total amount of EUSF is set to 1 billion Euros per year. Previously there had been no fund or programme available in the area of Civil Protection at the EU level, since it had been exclusively the competence of the MSs. In order to be granted from the EUSF there are three categories which need to be fulfilled: The total costs of the damages amount to over three billion Euros (in 2002 prices) or more than

0,6 % of a country's Gross National Income (GNI); a neighbouring country or accession country is seriously affected by the same crisis, but does not suffer damages that meet the criterion set up for the first category and; regions are seriously affected by disasters. The total annual assistance to regions can amount to a maximum of 7,5 % of the total budget for the EUSF. ^[3]

1.4 Policy review, Evaluation & Organisational Learning

1.4.1 Post-Disaster Assessment

For Civil Protection, specific requirements for interim and ex-post evaluation are provided in the Decision on a Union Civil Protection Mechanism (Art. 34).^[1] This regulation, COM (2011) 9344, has been recently adopted in the 2013; thus the process to acquire and manage the Lesson Learned is pretty new.

This evaluation process comprises the achievement of lesson learned for all the operation conducted by using the European CM mechanism, thus the ones organised from the ERCC.

The adoption of the lesson learned process have been recalled in the Council Conclusion from the Danish Presidency of the EU, which reported some guidelines for the adoptions of the lesson learned process.

1.4.2 Departmental Lessons Learned systems

Within the above mentioned program of evaluation and lesson learned captures, the Emergency Response Coordination Center (ERCC) adopt its own process for evaluating the lesson learned in each operation where the Center is involved.

1.4.3 Centralised (national) Lessons Learned system

In the EU, the centralised system for lesson learned is exactly the one managed by DG-ECHO.

1.4.4 International exchange for Lessons Learned

The lesson learned procedure is organised in the way that, at the end of each evaluation activities for the specific operation, a meeting with all the stakeholders involved in such operation are involved. In case of participation or cooperation with international organisation, the relevant operators/representatives are involved and part of the lesson learned assessment

process. As example of such meeting could be considered the one kept after the operation in response of the recent Philippine Tsunami Disaster (2013).

1.4.5 Regular policy reviews

The European Commission's Humanitarian Aid and Civil Protection department (ECHO) is committed to developing every year a strategic plan in order to co-ordinate and to programme its activities efficiently and in an appropriate manner adopting an impartial approach based on needs. To ensure maximum transparency, ECHO's annual strategies are available to the public.

In order to establish consistency in the allocation of resources to different countries according to their respective needs, regardless of pressure of any kind, and to guarantee the credibility and transparency of Community humanitarian aid - the European Commission has developed a set of rigorous needs assessment tools. [1]

Correct implementation of EU-funded operations is ensured by several layers of checks and monitoring, at internal level and by external actors.

Controls performed by the Commission

The main aspects of the control strategy developed by the Commission include supervision and monitoring procedures and ex-ante/ex-post controls.

- Strict selection and quality control mechanisms for partners under the Framework Partnership Agreement that the Commission signs with NGOs and international organisations¹⁵ defining the requirements for financial credentials and expertise of partners;
- Appraisal of project proposals and on the spot project monitoring through a network of the Commission field experts (technical assistants) worldwide;
- Regular field visits to projects by geographical desks, auditors and the Commission management;
- Obligation for partners to produce reports after the end of each operation to justify their expenses. A thorough analysis of these reports and checks on eligible expenditure are carried out by operational and financial desk officers at the Commission;
- Regular evaluations are undertaken, focusing on major country operations, partners and thematic issues. The results of these are posted on the Commission's website;;
- EU- funded humanitarian aid activities implemented by external parties (partners and contractors) are subject to financial and systems audit;
- All Commission services have an internal audit capacity. This provides an independent and objective opinion on the quality of the internal control systems and assists the Director General and management in controlling risks and monitoring compliance.

The monitoring mechanisms listed above should not be seen in isolation. Each contributes to providing reasonable assurance on the legality of transactions and their general compliance with relevant rules. [4]

1.5 Resilience

As a follow up to the Communication “The EU approach to resilience: learning from food security crises” (October 2012), Council Conclusions were adopted in May 2013 and the Resilience Action Plan issued in June 2013. The Action Plan provides the framework for continuing and scaling up EU efforts for resilience at different levels (from policy and advocacy to tools and methods) and with concrete country/region strategies and specific cases. In 2014, the Commission will contribute to implementing the resilience agenda and will, in particular, integrate resilience as a driver for quality and aid effectiveness of its humanitarian response and development assistance. Closer co-operation within Commission services and with the EEAS will be pursued. Resilience will be systematically included as an element in the Humanitarian Implementation Plans (HIP). Better coordination between development and humanitarian objectives and interventions will be pursued, based on a common analysis of risks and vulnerabilities. In October 2013, a joint instruction letter on the implementation of the Commission's approach to resilience was sent to Ambassadors of the EU Member States, heads of EU Delegations and heads of ECHO field offices. The letter sets out the expectation that resilience will “be streamlined and integrated as a priority in our programming (humanitarian/development, EU/Member States) in order to allow the EU's external assistance to make a difference to the most vulnerable.

The resilience approach must bring sustainable benefits to the most vulnerable populations and households, taking into account the diversity of needs of women, children, men and the elderly, who may suffer from multiple factors of vulnerability including those coming from the climate change. Action is required at various levels and dimensions. In line with its experience and added value, the Commission will in particular contribute to action at community level.

The EU approach to resilience acknowledges national governments' responsibility to build resilience. Building resilience is a long-term process that needs to be context-appropriate and embedded in national policies and planning for development. In order to contribute effectively to this agenda, the Commission will engage in a more structured way with governments at local and regional level as well as central level. A central objective of resilience is to address underlying, and linked, causes of people's vulnerability. This requires that multi-faceted actions be supported by humanitarian and development assistance partners over the short, medium and long term.

In this context, the Commission will increasingly be involved in joint planning processes with the Member States that have the potential to play a key role in supporting the resilience agenda. The Commission will work in close partnership with other donors, multilateral agencies and Civil Society Organisations in support of National and Regional resilience strategies. The Intra-ACP resilience building programmes as well as the AGIR initiative in the Sahel and the SHARE initiative in the Horn of Africa provide a framework for co-ordination. Elsewhere, the Commission will seek to develop

strategic and operational partnerships, at all levels, to optimise different expertise and added value behind resilience objectives. [4]

1.6 Information sharing and data protection

1.6.1 Please describe whether the country/ IO has adopted specific policies, measures or derogations from EU law with regard to data protection

Various mechanisms are in place to ensure coordination and exchange of information crisis response and humanitarian aid activities in general, including:

- Member States and the Commission meet regularly in the Council Working Group on Humanitarian Aid and Food Aid (COHAFA). Exchange of information on overall strategies and on responses to specific crisis situations features regularly in the agendas of COHAFA;
- Crisis reports are shared with Member States. They contribute to the development of shared assessment and understanding on the situation on the ground and thus contribute to the overall coordination of the EU response;
- Exchanges with partners both at headquarters and at the field take place regularly;
- EDRIS (European Disaster Response Information System) collects data on Commission and Member States' humanitarian aid activities;
- At international level, the Commission continues to participate in well-established fora such as the Good Humanitarian Donorship and the ICRC Donor Support Groups. It will chair the OCHA Donor Support Group in 2014;
- Regular exchanges of views on the EU's response to crisis take place in the European Parliament (DEVE Committee);
- ECHO organises ad hoc crisis coordination meetings of the EU services (including ARGUS meetings) and participates in broader inter-service meetings aimed at exchanging information (such as e.g. Crisis Platform meetings organised by the EEAS).] [4]

EU is supposed to not derogate from its own laws, thus the EU laws concerning data privacy protection compliancy is fully adopted by the EU institution also in the scope of crisis management activities.

1.6.2 Does the country/IO have registers/databases of volunteers?

The Regulation No 375/2014 of the European Parliament and the Council on establishing the European Voluntary Humanitarian Aid Corps ('EU Aid Volunteers initiative') dated 03/04/2014 establish a database for the registered volunteer organisations as at the article 13:

Database of EU Aid Volunteers

1. *Candidate volunteers who have successfully passed the assessment referred to in Article 12(5) shall be considered to be EU Aid Volunteers and shall be eligible for deployment. They shall be included as such in the database of EU Aid Volunteers.*
2. *The Commission shall establish, maintain and update the database of EU Aid Volunteers, including as regards the availability and eligibility of EU Aid Volunteers for deployment, and shall regulate access to and the use of it. The processing of personal data collected in or for this database shall be carried out, where relevant, in accordance with Directive 95/46/EC and Regulation (EC) No 45/2001.^[7]*

1.6.3 Does the country have or plan to use data gathered from social media during crises? If so how? (e.g. "crowd sourcing" and "crowd tasking", "citizen as a sensor")

No specific plan results for using data gathered from social media, although the EU is co-funding different R&D project in this specific area and a specific software module gathering information from the social media is already implemented in one of the situation awareness system in the Emergency Response Coordination Centre (ERCC).

2 Legislation

2.1 Crisis (emergency, disaster) management concept

There are both formal and informal principles that guide EU-cooperation in aftermath CM.

The principles on subsidiarity, no duplications, collective responsibility and solidarity pave the way for aftermath CM actions in the EU.

The principle of subsidiarity is central in aftermath CM. A crisis or a disaster shall be managed at the lowest possible level, such as the national or the local level. Preventing and responding to disasters is first of all a national responsibility. When national capabilities are overwhelmed, EU MSs can, however, request assistance through the Civil Protection Mechanism (see below) or through other bilateral or regional agreements. The importance of the principle of subsidiarity in the EU in general is, inter alia, underlined through a new provision in the Treaty of Lisbon which paves the way for a greater possibility for the national parliaments exerting influence on the EU policy process to see to that subsidiarity is being considered.

Closely interlinked to the principle of subsidiarity is the second principle to not duplicate capacities and structures that already exist. In other words, capacities that already are present at the national level and at the local level shall not be established at the EU level as well.

The third principle is referred to as the principle of collective responsibility that implies that the MSs collectively are responsible for the prevention of and the preparedness for a crisis in the EU. The MSs have the responsibility to carry out preventive and preparatory measures at the national level. When measures are taken at the national level considerations must be taken of the fact that if national crisis prevention and preparedness are not undertaken, this may cause damage to the EU as a whole since crises today tend to be transnational.

The last principle is the principle of solidarity that can be described as the very essence of the cooperation within the EU. The principle of solidarity indicates that the MSs shall support each other in the event of a major crisis or emergency. The Civil Protection Mechanism and the Crisis Coordination Arrangement (CCA)⁸ are two concrete examples of this principle. The importance of solidarity provided in crisis situations amongst EU MS has increased over the years, not least as a consequence of the many terrorist attacks and the natural disasters that have struck Europe during the last decade. This has, inter alia, paved the way for the introduction of a solidarity clause in the Lisbon Treaty.

The 'General Provisions on the Union's External Actions' in the Lisbon Treaty includes two new articles, which stipulate that the Union shall define and pursue common policies and actions and work for a high degree of cooperation in all fields of international relations in order to:

- preserve peace, prevent conflicts and strengthen international security;
- assist populations, countries and regions confronting man-made or natural disasters.

Hence, there is an apparent ambition expressed in the Lisbon Treaty to develop a more coherent EU response to disasters outside the Union. [3]

2.2 General crisis (emergency, disaster) management law

Cooperation within Civil Protection could be traced to the end of the 1970s in relation to the managing of marine pollution. During the 21st century, the scope of the European cooperation in this area has deepened and broadened and today it covers cooperation to prevent, prepare and respond to disasters. At present, the cooperation in the area is based on two legal acts:

- the Council Decision establishing a Community Civil Protection Mechanism from 2001 (a revised version was adopted in autumn 2007);
- the Council Decision establishing a Civil Protection Financial Instrument adopted in 2007.20 Both legal acts are currently being reviewed and work is ongoing on updating them during 2011.

The Lisbon Treaty provides the area of Civil Protection with a specific article – Article 196 'Civil Protection', and formally establishes Civil Protection as an area of 'shared competence' between the Union and the MSs.21 Shared competence means that the EU is given the competence to carry out actions to support, coordinate and complement actions undertaken by the MSs. However, the measures carried out by the EU shall not replace those of the MSs, nor shall EU legislation comprise the harmonization of national legislation.22 Article 196 on Civil Protection stipulates that supportive, coordinating or complementary measures carried out by the Union shall be made with a view to increasing the efficiency of the systems for crisis prevention, preparedness and response to natural and manmade disasters. These measures shall aim to:

- Support, coordinate and complement those measures taken at a national, regional or local level concerning the prevention of risks, the preparedness of the MSs' actors within the area of Civil Protection as well as the response to natural and other disasters within the EU,
- enable rapid and efficient operational cooperation between Civil Protection capacities of the MSs and to
- ensure coordination between international actions as regards Civil Protection.

Prior to the Lisbon Treaty, each MS had the opportunity to block a decision. The establishment of measures necessary to achieve the objectives referred to above will from now on be taken in accordance with the ordinary legislative procedure, which involves a strengthened legislative role for the European Parliament and a qualified majority as the ordinary voting procedure in the Council. [3]

2.3 Emergency rule

No specific emergency rule introduction is envisaged in the EU legislation. Even the most recently adopted regulation in this scope doesn't introduce variation on the obligation and responsibilities comprised at MS level or by the other EU regulation in place. For example, the "Decision for the introduction of a New Union Mechanism of Civil Protection " (Decision No 1313/2013/EU), is stating at the Chapter 1 / Article 1 the following points:

"5. The Mechanism shall not affect Member States' responsibility to protect people, the environment and property on their territory against disasters and endowing their emergency management systems with sufficient capabilities to enable them to cope adequately with disasters of a magnitude and nature that can reasonably be expected and prepared for.

6. The Mechanism shall not affect obligations under existing relevant legislation of the Union or the European Atomic Energy Community or under existing international agreements." [8]

2.4 Specific, department/agency-level legal arrangements and regulations on emergency and disaster management

A set of specific legal arrangements has been established by the European Commission, The Council and the European parliament in dedicated areas.

The Treaty of Lisbon underpins the commitment of the EU to provide assistance, relief, and protection to victims of natural or man-made disasters around the world (art. 214), and to support and coordinate the civil protection systems of its Member States (art. 196). It further mandates the European institutions to define the necessary measures for such actions to be carried out.

The following is an overview of the legal framework which has been established to-date:

- Regulation No 375/2014 of the European Parliament and the Council on establishing the European Voluntary Humanitarian Aid Corps ('EU Aid Volunteers initiative') - 03/04/2014
- Decision No 1313/2013/EU of the European Parliament and of the Council on a Union Civil Protection Mechanism - 17/12/2013
- Regulation (EC) No 1257/96 concerning humanitarian aid - 20/06/1996
- Commission Decision 2010/481/EU, Euratom amending Decision 2004/277/EC, Euratom as regards rules for the implementation of Council Decision 2007/779/EC, Euratom establishing a Community civil protection mechanism - 29/07/2010

- Commission Decision 2008/73/EC, Euratom amending Decision 2004/277/EC, Euratom as regards rules for the implementation of the Mechanism -20/12/2007
- Commission Decision 2007/606/EC, Euratom laying down rules for the implementation of the provisions on transport - 08/08/2007
- Commission Decision 2004/277/EC laying down rules for the implementation of Council Decision 2001/792/EC - 29/12/2003
- Council conclusions on the development of the external dimension of the European Programme for Critical Infrastructure Protection - 09/06/2011
- Council conclusions on Integrated Flood Management within the European Union - 12/05/2011
- Council conclusions on Further Developing Risk Assessment for Disaster Management within the European Union - 11/04/2011
- Council Conclusions on Host Nation Support - 02/12/2010
- Conclusions on Innovative Solutions for Financing Disaster Prevention - 08/11/2010
- Council conclusion on Psychosocial support - 21/05/2010
- Council Conclusions on a Community framework on disaster prevention within the EU - 30/11/2009
- Council Conclusions calling for civil protection capabilities to be enhanced by a European mutual assistance system building on the civil protection modular approach (16474/08) - 28/11/2008
- Council Conclusions on Reinforcing the Union's Disaster Response Capacity – towards an integrated approach to managing disasters - 16/06/2008
- EP resolution on Community approach on the prevention of natural and man-made disasters - 21/09/2010
- European Parliament resolution on stepping up the Union's disaster response capacity - 19/06/2008
- Commission Staff Working Document on EU Host Nation Support Guidelines - 01/06/2012
- Commission Staff Working Paper on Risk Assessment and Mapping Guidelines for Disaster Management - 21/12/2010
- COM(2010)600 Communication Towards a stronger European disaster response: the role of civil protection and humanitarian assistance - 26/10/2010
- COM(2009)82 Communication on a Community approach on the prevention of natural and man-made disasters - 23/02/2009
- COM(2008)130 Communication on Reinforcing the Union's Disaster Response Capacity - 05/03/2008
- Commission Staff Working Document SEC(2007)1721 Towards Better Protecting Citizens against Disaster Risks: Strengthening Early Warning Systems in Europe - 14/12/2007^[1]

2.5 Specific to the regional and local authorities legal arrangements and regulations on emergency and disaster management

NOT DIRECTLY APPLICABLE FOR THE EU ORGANISATION.

2.6 Legal regulations on the involvement of volunteers and specialised NGOs

Regulation No 375/2014 of the European Parliament and the Council on establishing the European Voluntary Humanitarian Aid Corps ('EU Aid Volunteers initiative') dated 03/04/2014 *"establishes a European Voluntary Humanitarian Aid Corps ('the EU Aid Volunteers initiative') as a framework for joint contributions from European volunteers to support and complement humanitarian aid in third countries. This Regulation lays down the rules and procedures for the operation of the EU Aid Volunteers initiative and rules for the provision of financial assistance and applies to:*

- 1. selection, training and deployment of EU Aid Volunteers to support and complement humanitarian aid in third countries;*
- 2. actions that support, promote and prepare the deployment of EU Aid Volunteers to support and complement humanitarian aid in third countries;*
- 3. actions inside and outside the Union aimed at building the hosting organisations' capacity for humanitarian aid in third countries."* [7]

2.7 Legal regulations for international engagements of first responders and crisis managers

Depending on specific emergency a particular "Term of reference" is adopted within the EU bodies operating in such situation. Rules of engagement for the CM operators or first responders involved into international operation follow the UN/OCHA guidelines in such respect.

3 Organisation

3.1 Organisational chart

Although different EU Commission Directorates result involve, the European Union Organisation affecting Civil Protection and Crisis Management Coordination and Support is structured in three “Institution”:

1. The European Commission - Directorate General for Humanitarian Aids and Civil Protection
2. The European External Action Service
3. The European Council.

The European Commission – Main Structures for Aftermath Crisis Management (CM)

Civil Protection and Humanitarian Aid (DG ECHO)

The main instruments for EU crisis response are found within DG ECHO and consist of the Civil Protection Community Mechanism and the Emergency Response Coordination Centre (ERCC) as well as the EU instruments for humanitarian aid.

The Mechanism constitutes the basis of cooperation within the area of Civil Protection. It is a structure through which participating states voluntarily may pool their Civil Protection capacities to crises-stricken countries inside or outside the EU that have requested help to all types of major emergencies including natural and man-made disasters such as acts of terrorism, technological, radiological and environmental accidents.

The Mechanism involves the participation of all EU MSs, Norway, Iceland, Liechtenstein and Croatia.²⁹ At the EU level, the ERCC serves as the focal point for the participating states’ national contact points. It is accessible 24/ 7. ERCC serves as a forum for the access and the sharing of information between the participating states, it provides early alerts and information on interventions carried out through the Mechanism as well as facilitates co- ordination of assistance by matching offers of assistance put forward by participating states to the needs of disaster-stricken countries requesting help. The ERCC’s state-of-the-art crisis situation centre provides monitoring and analytical capacity, and has close links with EU research programmes and research organisations to foster and utilize innovation in crisis response and management. The ERCC and the national contact points communicate through the reliable web-based alert and notification application Common Emergency and Information System (CECIS), mentioned above, as well as the ERCC Portal for wider dissemination of information. Moreover, there is a Civil Protection financial instrument that was adopted in 2007, which enables financial support for activities regarding prevention, preparedness and response to a crisis. Up to 50 % of the total transportation costs, with exceptions for materiel, may also be financed through the instrument. The instrument covers a period from 2007 to 2013 and amounts approximately 190 million EUR. From mainly having been focusing on the handling of a disaster, cooperation in the area of Civil Protection now also includes prevention.^[3]

The Emergency Response Coordination Centre (ERCC), operating within the European Commission's Humanitarian Aid and Civil Protection department (ECHO), was set up to support a coordinated and quicker response to disasters both inside and outside Europe using resources from 31 countries participating in the Union Civil Protection Mechanism. The ERCC replaces and upgrades the functions of the previous Monitoring and Information Centre (MIC). With a capacity to deal with several simultaneous emergencies in different time zones, around-the-clock, the ERCC is a coordination hub facilitating a coherent European response during emergencies helping to cut unnecessary and expensive duplication of efforts. It collects and analyses real-time information on disasters, monitors hazards, prepares plans for the deployment of experts, teams and equipment, and works with Member States to map available assets and coordinate the EU's disaster response efforts by matching offers of assistance to the needs of the disaster-stricken country. Better planning and the preparation of a set of typical disaster scenarios will further enhance the ERCC's capacity for rapid response. The ERCC also supports a wide range of prevention and preparedness activities, from awareness-raising to field exercises simulating emergency response. [1]

EU Commission Humanitarian Aid Department (ECHO) finances humanitarian aid outside the EU to e.g. the UN, the International Committee of the Red Cross (ICRC) or other non-governmental organisation (NGOs) that implement the humanitarian aid. ECHO has got considerable financial means, around 640 million Euro/ per year but limited operational capacity. Besides the head office in Brussels, ECHO has got field offices around the world. [3] The DG-ECHO organisation chart at October 2014 is represented in the following figure:



Figure 1: Organisational Chart of DG-ECHO, Oct. 2014

The following Figure, instead, compares the main aspects of both instruments, EU Civil Protection and humanitarian aid. [3]

	Humanitarian Aid	Civil Protection (MIC)
What?	Funding from EC budget (€930 million in 2009). Active donor: programming and policy development in the field of humanitarian aid.	Voluntary contributions of assistance in kind from Member States (experts, specialised teams, equipment, other material assistance). Budget of Civil Protection Financial Instrument = EUR 189 million over seven years.
To whom?	Implementing partners (UN specialised agencies / Red Cross/Crescent movement/ NGOs / international organisations).	Government of affected country
Geographical scope?	The most vulnerable population(s) in third countries, mainly in developing countries.	Inside and outside the European Union.
Type of disaster?	Natural and man-made disasters (wars, conflicts, forgotten crises etc.).	Natural and man-made disasters (complex emergencies rather the exception).
Timescale?	Immediate aftermath of crisis and beyond (presence of humanitarian needs).	Acute stage only (normally max. 2-3 weeks).

Figure 2: European Humanitarian Aids and Civil Protection Concept

Others involved Directorates:

In aftermath CM, the **Secretariat-General of the Commission** has got an important role to ensure coordination between different Directorate General (DGs) and services. The EU CM Unit was established in 2008 in order to improve the Commission’s internal CM. The Commission’s security office is the operative point of contact for ARGUS staffed 24/7 (24 hours 7 days a week, see below).

Early warning and rapid alert systems (DG Energy and Transport, DG Health and Consumers, DG Home Affairs, DG ECHO).

Early warning and rapid alert systems for different crises that could have severe consequences for many MSs are found within the Commission. These different systems have developed sector-wise and their establishment is often a result of specific events. There are for example systems for radiological emergencies (ECURIE) within DG Energy and Transport, chemical and biological threats (RAS BICHAT, RAS CHEM), contagious diseases in humans (EWRS), threats to animal health (ADNS), threats to plant health (EUROPHYT), threats in food and feed (RASFF), threats to consumer health

and safety (RAPEX) within DG Health and Consumers, threats against critical infrastructures (CIWIN) within DG Home Affairs and Civil Protection incidents (CECIS) and global disaster monitoring (GDACS) within DG ECHO.

For cross-sectorial crises the Commission's Secretariat-General holds a coordinating role by operating a Web-based network (ARGUS). The network enables rapid information exchange between a range of Commissions departments and ensuring high-level political coordination. All DGs have got a designated point of contact for ARGUS, but all DGs are not allowed to feed information into the system. Besides promoting the internal coordination of the Commission, ARGUS also consists of a Web portal where MSs' permanent representations to the EU and the Council Secretariat may take part of non-classified information in case of a crisis.^[3]

The Directorate General for Regional Policy (DG-REGIO) is instead in charge of the EU Solidarity Fund management, while the Directorate General for Justice (DG-JUSTICE) is dealing with the Consular protection in case of crisis and the related EU citizens evacuation mechanism.

The European External Action Service – Main Structures for Aftermath CM

The newly formed European External Action Service (EEAS) is the main policy-making organ responsible for political and security-related aspects of crisis management, the so-called Common Foreign and Security Policy (CFSP) and the Common Security and Defence Policy (CSDP), under the responsibility of the High Representative for Foreign Policy.^[2] The High Representative of the Union for Foreign Affairs and Security Policy and Vice president of the European Commission (HR/VP) has the overall responsibility for the policy development regarding the EU's external actions.^[3]

Within the EEAS, a distinction is made between crisis response and CM. The first includes swift and short-term measures, which are the responsibility of the Managing Director for Crisis Response and Operational Coordination (see paragraph 1.2.5).^[3] The EEAS was, originally, not intended to have a disaster response role beyond its political, security and defence remit. However, after the Haiti earthquake, it was decided that the EEAS should play a wider role in coordinating activities which concern the whole of the Union's external action. The post of "managing director for crisis response and operational coordination" was therefore created. The director's role is to support the High Representative in "coordinating and ensuring coherence in the EU's external relations when it comes to crisis management and response; assist in developing mechanisms within the EU institutions, and with third parties for better communication and coordination". However, this position is recent and the clarification of the mandate is under development (see Section II).^[2] The second includes long-term measures including for example stabilization and capability development, which is the responsibility of one of the HR/VP's deputy secretary-general.^[3]

The HR/VP office relays to different structures and related Instruments for attuating Civil Protection policies and actions. The structures connected with the Instruments of Stability and the Common Security and Defence Policy are exposed hereafter:

DG External Action (DG RELEX) and the Instrument for Stability

The HR/VP also is the Commissioner for External Relations. DG RELEX has established a crisis room that provides support as well as monitoring and information services during a crisis or a regular operation. The crisis room has contacts with the EU-delegations on the ground in an affected country in issues concerning aftermath CM or political crises. Work is on-going on merging SITCEN and DG RELEX crisis rooms. The purpose of the Instrument for Stability (IfS) is to prevent or take care of situations of instability in third countries, for example as a consequence of disasters or in high or low intensity conflicts. Focus is on conflict prevention, CM and peace building. IfS is used within the scope of the development tools within the European Commission, however, when the latter are not able to intervene in time. [3]

Civilian aspects of CSDP and its Support to aftermath CM and recovery

The Union is developing also a Common Security and Defence Policy (CSDP), covering all questions relating to EU's security, including the progressive framing of a common defence, should the Council so decide. The CSDP was given a range of CM functions (known also as the "Petersberg tasks") under the Amsterdam Treaty. They include inter alia humanitarian and rescue operations, peace-keeping, and combat operations in CM, including peace-making. [3] CSDP has two fields of action:

- a civilian crisis management structure, which deploys Police, Justice, and Public Administration experts to conflict zones to substitute locally deficient structures, or help reform local security sectors;
- a military, peacemaking and peacekeeping component.

In this area, major changes were introduced with the entry into force of the Lisbon Treaty. First, the military and civilian CSDP components which were previously managed by the Council structures (DGE) have both been transferred into the EEAS and most importantly, integrated into the same department with the objective to better coordinate their work. Civilian-military cooperation has already started developing at the planning stage, at capability level as well as in the field. This is not, as we will see, the case yet between military and civil protection tools deployed under Commission's coordination. [2]

Since the first civilian deployment in 2003, civilian CSDP missions have extended their scope (police, monitoring, justice, security sector reform, border assistance), nature (non-executive e.g. having a mandate only to advise and executive e.g. a mandate to take the enforce decisions), geographic location and size. Civilian experts (seconded and contracted) are deployed in civilian CSDP missions. As a matter of fact, civilian CM has become the most frequently used tool under CSDP. [3]

The CSDP civilian CM structure is composed by different bodies:

- the Civilian Planning and Conduct Capability (CPCC)
- the Committee for Civilian Aspects of CM (CIVCOM)
- the CM and Planning Directorate (CMPD)

The Civilian Planning and Conduct Capability (CPCC) is responsible for an autonomous operational conduct of civilian CSDP missions. Under the political control and strategic direction of the PSC (Political and Security Committee, assisting the Council decision) and the overall authority of the High

Representative, the CPCC ensures the effective planning and conduct of civilian CSDP CM missions, as well as the proper implementation of all mission-related tasks. [3]

On civilian issues, the PSC is provided with recommendations and advice by CIVCOM (Committee for Civilian Aspects of CM), a working group at expert level. Main tasks: to assist PSC and other Council bodies by acquiring a comprehensive view of the means available to the EU and MSs to respond to a crisis; to improve EU's CM capability e.g. by developing and implementing lessons learned, common standards and best practices, helping to ensure a higher degree of coherence in EU strategies, helping to improve co-ordination of resources and exchange of related information in the EU.

In addition to the CPCC and CIVOM, the newly established CM and Planning Directorate (CMPD) operates as an integrated structure for strategic planning of CSDP civilian and military missions, and also for supporting the various aspects of CSDP development.

Military aspects of CSDP and its support to disaster response

Whereas the civilian CM provides the EU a tool for supporting post-conflict societies in rebuilding basic functions and institutions of a state, the CSDP military CM capabilities are often described as the military arm of the EU. The key EU bodies relevant and specific to the CSDP military CM are [3]:

- the European Union Military Staff,
- the European Union Military Committee
- the Joint Situation Centre.

The European Union Military Staff (EUMS) provides in-house military expertise for the High Representative of the Union for Foreign Affairs and Security Policy (HR) and performs early warning, strategic planning, and situation assessment. The EUMS is the only permanent integrated military structure of the European Union. Established on 11 June 2001, the EU Military Staff receives taskings from the EU Military Committee (which represents the Chiefs of Defence of all the MSs). It exhibits a permanent strategic planning capability, i.e. the "analysis of the implications of political objectives, the desired end-state, restraints, constraints, and capabilities needed for a particular operation". Furthermore the EUMS runs the EU Operational Centre, a skeleton Operational Headquarter (OH) for CSDP missions that can be upgraded to an active OH, if needed and requested by MS.

The European Union Military Committee or (EUMC) is composed of the Chiefs of Defence (CHOD) of the MSs, who are regularly represented by their permanent Military Representatives (MilReps). It has a permanent chairman, selected by the CHOD of the MSs and appointed by the Council. The EUMC is the military counterpart to the CIVCOM.

The Joint Situation Centre (SITCEN) is implemented within the Council General Secretariat and is also run by the EUMS. It provides 24/7 intelligence, analysis and early warning and serves as communications hub for the HR and EUSR. [3]

The Council of the European Union – Main Structures for Aftermath CM

The EU's Crisis Coordination Arrangement – CCA

For emergencies/crises, more specifically crises having a harsh and broad impact on several MSs, are of rapidly spreading nature and/or of political significance that require coordination on political level within the EU, there is the EU emergency and crisis coordination arrangement (CCA). The CCA was formally agreed in 2005. The main purpose of the CCA is to facilitate the ability of the MSs and the commissions to coordinate the information to the public and CM actions. Crises which develop slowly and over time or more “ordinary” crises affecting MSs shall be managed according to the ordinary procedures and structures within the EU.

The Presidency shall in consultation with the affected MSs, with assistance from the Council Secretariat and the Commission, decide whether or not a crisis calls for the triggering of the CCA in Brussels.

The core function of the CCA consists of the CCA Steering Group that is set up in relation to a crisis, thus not being a permanent structure. The group shall prepare and facilitate the decision-making process of COREPER II⁴⁰. The group brings together the Council Presidency (the permanent representative), affected MSs (permanent representatives), the General Secretariat of the Council (the Secretary-General or Deputy Secretary-General and the European Commission (Secretary-General)). The group works as a preparatory body to decision-making in COREPER II, where decision is taken on planned actions to be undertaken. A decision is then formally taken by the Council.

The Steering Group replaces the normal working procedures in the Council. The Group support the Presidency in identifying proposals for possible EU responses to the crisis.

To support COREPER and the Steering Group, there is a CCA Support Machinery that gives advice adjusted to the specific crisis. The need of support from the Support Machinery is coordinated by a Support Group that is composed by officials from the Council Secretariat and the Commission, namely: The Director of SITCEN (Joint Situation Centre); the Head of the Councils Press Office; the spokesperson of the HR/VP and of the Commission; Commissions ARGUS- representative as well as other specific expertise needed from for example the Presidency or the MSs.

A MS or an EU-body that has acknowledged a crisis may activate the CCA through a specific call to the SITCEN. The Director of SITCEN in turn informs the Presidency, the Directors of the Private Office of the Secretary-General and Deputy Secretary-General of the Council and the Commission (ARGUS duty service) about the situation. The Presidency's EU ambassador confers with the Council Secretariat (Secretary-General) and the Commission (Secretary-General) and the EU ambassadors of the affected MSs whether or not to trigger the CCA and activate the Crisis Steering Group. The formal decision is taken by the Presidency's EU ambassador in discussion with its government.

Joint Situation Centre (SITCEN)

The EU Situation Centre is implemented within the Council General Secretariat and is run by the European Union Military Staff (EUMS). It provides 24/7 intelligence, analysis and early warning and serves as communications hub for the HR/VP and the European Union Special Representatives (EUSR).^[3]

3.2 Organisational cooperation

Three main coordination and cooperation activities could be highlighted from the EU actors in the Crisis Management occurrence:

1. CSDP Coordination with Civil Disaster Response and MSs
2. Coordination and cooperation with UN/OCHA
3. Coordination and cooperation with NATO/EADRCC

CSDP Coordination with Civil Disaster Response and MSs

In case of a major disaster abroad, the European Emergency Response Centre at DG ECHO requests military assets (mostly available transportation capacities) from the EU Movement Planning Cell within the EUMS (EEAS). The request is then preceded to the Multinational Movement Coordination Centres in Eindhoven (air transport) and Athens (transport by sea). From there the national Points of Contacts (typically within the national Ministries of Defence) are contacted and asked for available assets on a case-by-case basis. The gathered information is reported back to the EUMS that in turn coordinates the different possible contributions from MSs and reports back to DG ECHO. In order to allow for fast reactions the PSC is only involved, if bigger assets are requested. As for all CSDP instruments, there is no action foreseen for incidents inside the EU.

Despite political issues for the CSDP bodies to act inside the EU, every year the EUMS is involved in a large scale, though table-top exercise, the Crisis Coordination Arrangement Exercise (CCAEx), that plays through a large scale disaster affecting several MSs (coordinated by SITCEN).^[3]

Coordination and cooperation with UN/OCHA

There are no legal provisions for disaster response in an international context beyond customary law. There are, however, non-binding guidelines and agreements that have been developed, for example within the framework of the Inter-Agency Standing Committee (IASC), which are highly accepted among most of the humanitarian organizations. Humanity, neutrality, impartiality and independence are the leading principles for humanitarian assistance. Moreover the so called “humanitarian imperative” prevails, which means that humanitarian needs that occur in a country first shall be managed by the affected country. However, if the state or other institutions in the country are not able to manage the humanitarian situation, other countries and organizations have got a responsibility to provide support in accordance with international law.

When crises and catastrophes strike outside the EU, the UN (namely the UN Office for the Coordination of Humanitarian Affairs, OCHA), has got the overall responsibility to coordinate all humanitarian assistance to a stricken country. This is a provision that is highly acknowledged within the EU, among the Commission and most of the MSs. When the EU Civil Protection Mechanism was established in 2001 MSs’ humanitarian assistance to an affected country could from that day on not only be given for example bilaterally or through the UN, but also through the EU. Thus there was a need to broaden cooperation between the EU and UN as regards humanitarian assistance from the already existing cooperation in relation to financial aid to cooperation in humanitarian assistance

missions as well. A core ambition of the EU today is to enhance cooperation with other international actors, especially the UN.

At present, the humanitarian aid system is undergoing a reform. In 2005 criticism was put forward regarding the lack of coordination in the humanitarian system. The purpose of the reform is to enhance predictability, accountability and partnership. The UN has got two main coordinative functions.

- First, OCHA coordinates the humanitarian actors within the so called “cluster-system”, This system was also created as a result of the humanitarian reform. There are around 10 clusters which are led by appointed cluster leads (UN bodies), for example: Coordination of camps (UNHCR/IOM), water and sanitation (UNICEF), health (WHO), emergency shelter (UNHCR/IFRC), food and nutrition (UNICEF), IT/telecommunications (OCHA/UNICEF/WFP); logistics (WFP), early recovery (UNDP), education (UNICEF and Save the Children Alliance) and agriculture (FAO).
- Second, OCHA coordinates humanitarian actors within the On-Site Operations Coordination Centre (OSOCC). The purpose of the OSOCC is to assist the local authorities to manage the disaster by for example coordinating international search and rescue teams. Moreover, the OSOCC enables the exchange of information and coordination between involved actors, which include governmental and non-governmental organisations, but also regional organisations like the ERCC. [3]

Coordination and cooperation with NATO/EADRCC

Besides the EU and the UN, states cooperate within NATO/ Euro-Atlantic Partnership Council (EAPC) to coordinate disaster relief assistance in case of an emergency. The Euro- Atlantic Disaster Response Coordination Centre (EADRCC) is the focal point.

CM is one of NATO's fundamental security tasks. It can involve military and non-military measures to respond to a threat, be it in a national or an international situation. NATO began developing Civil Protection measures in the event of a nuclear attack as early as the 1950s. NATO member countries soon realized that these capabilities could be used effectively against the effects of disasters induced by floods, earthquakes or technological incidents, and against humanitarian disasters. An assistance scheme first set up in 1953, in the aftermath of devastating flooding in Northern Europe, was comprehensively reviewed in 1995 when it became applicable to partner countries in addition to NATO member countries. As a result, the Euro-Atlantic Disaster Response Co-ordination Centre was established in 1998 to co-ordinate aid provided by different member and partner countries to a disaster-stricken area in a member or partner country. NATO also established a Euro-Atlantic Disaster Response Unit, which is a non- standing, multinational mix of national civil and military elements that have been volunteered by member or partner countries for deployment to the area of concern.

The Euro-Atlantic Disaster Response Coordination Centre (EADRCC) is a “24/7” focal point for coordinating disaster relief efforts among NATO member and partner countries. The EADRCC’s main function is to coordinate the response of NATO and partner countries to natural or man-made disasters within the Euro-Atlantic area. The Centre has guided consequence management efforts in more than 45 emergencies, including fighting floods and forest fires and dealing with the aftermath

of earthquakes. Since 11 September 2011, the EADRCC has also been tasked with dealing with the consequences of CBRN incidents, including terrorist attacks. Most recently, the countries of the Mediterranean Dialogue (MD) and the Istanbul Cooperation Initiative (ICI) were given direct access to the Centre. The Centre also functions as an information-sharing tool for NATO and partner countries on disaster assistance. It organises seminars to discuss lessons learned from NATO-coordinated disaster response operations and exercises. In addition, it holds an annual large-scale field exercise with a realistic scenario for effective interaction. Recent exercises have included scenarios such as a terrorist attack using chemical agents.

All these tasks are performed in close cooperation with the European Union (in particular the Monitoring and Information Centre) and the United Nations Office for the Coordination of Humanitarian Affairs (UN/OCHA), which retains the primary role in the coordination of international disaster relief operations. The EADRCC is designed as a regional coordination mechanism, supporting and complementing the United Nations in its efforts. Furthermore, the EADRCC's primary function is coordination rather than direction. In the case of a disaster requiring international assistance, it is up to individual NATO and partner nations to decide whether to provide assistance, based on information received from the EADRCC. [3]

Furthermore we can report that, at strategic level, CSDP Crisis management tasks are implemented by the following coordinated bodies: CMPD, EUMS, CPCC, Situation Centre, Satellite Centre, EDA. [2]

Beside the CMPD, EUMS, CPCC described in the organisation chapter, the EEAS has a number of 24/7 monitoring and rapid response centres, notably the Situation Centre, the European Union Satellite Centre, the Watch-keeping Capability, and the Crisis Room. Their role is to purely gather information on crisis regions (within the realm of foreign, security and defence matters) and disseminate it to Member States, Brussels authorities, and EU actors on the ground. Discussions are currently ongoing internally as to the rationalisation of these response rooms. The European Defence Agency (EDA)'s role is instead to stimulate the development of capabilities meeting specific CSDP missions requirements. The Capability Development Plan identifies the needs in the capability field and suggests to MS different ways in which those capabilities should be shared, pooled or developed via common programmes in order to deliver deployable means for the conduct of CSDP operations. [2]

4 Procedures

4.1 Standing Operating Procedures (SOPs) and Guidelines

For the aspect of CM concerned with the solidarity actions within the EU Member States, the work on SOPs is part of the recommendations toward European Commission in the Council Conclusion on Host National Support of 2nd December 2010 which, at recital 14.e invites to:

- consider whether the use of agreed standards and certificates regarding the quality of assistance and personnel offered could facilitate overcoming existing legal issues/barriers and step up work on Standard Operational Procedures (SOPs) for modules so as to improve the overall Host Nation Support..^[9]

For the International co-operation , instead,

In 2007, the European Commission and OCHA agreed on Standing Operating Procedures (SOPs). These procedures have not been updated since then, thus not reflecting the merge of EU Civil Protection to DG ECHO and the new provisions of the Lisbon Treaty. ^[3]

4.2 Operations planning

The recently adopted “implementing rules of pool of asset” give a mandate to ERCC for the definition of response plan for each kind of CM intervention. However, no specific standard to follow have been defined.

4.3 Logistics support in crises

A framework contact with the broker Kuehne and Nagel, is in place, to allow, on request of the member states providing voluntary modules, to provide transport and logistic service for the CM modules offered.

When the transport is managed directly from the donor Member States, up to 55% of the costs of transporting assistance (and up to 85% in certain circumstances) can be co-financed by the European Commission. ^[1] The case of 85% co funding felt on the situation of the so called “registered asset”, the CM modules each member States have pre-declared as available to be employed, under voluntary base, in the CM operation coordinated from the Emergency Response Coordination Center (ERCC). Furthermore, a funding of 100% is foreseen in case of temporary warehousing of critical assets in transit during the transport toward and backward from the crisis areas.

Recently, the emergency defined by the Ebola crisis, create the condition in DG-ECHO for supporting a planned logistic, at least, in case of evacuation from the crisis zone.

4.4 Crisis communication to general public; Alert system; Public Information and Warnings

Public information and warnings felt under the unique responsibility of the single Member States. None of the European Organisations or Institution is committed to this scope.

5 Capabilities

5.1 Human resources

Beside the EU Commission, EEAS and EU Council personnel operating the CM structures described at chapter 3, the CSDP has the possibility to mobilize other human resources during CM missions.

Civilian CSDP missions are conducted mainly using personnel seconded by MSs and all civilian personnel serve in the missions on a voluntary basis.

The EU states to be able to plan and conduct simultaneously a series of operations and missions, of varying scope:

- Two major stabilisation and reconstruction operations, with a suitable civilian component, supported by up to 10 000 troops for at least two years;
- Civilian-military humanitarian assistance operations lasting up to 90 days;
- Around a dozen CSDP civilian missions (inter alia police, rule-of-law, civilian administration, Civil Protection, security sector reform, and observation missions) of varying formats, including in rapid-response situations, together with a major mission (possibly up to 3000 experts) which could last several years.
- To take the decision to launch a mission within 5 days of the approval of the CM Concept by the Council and specific civilian CSDP capabilities to be deployable within 30 days of the decision to launch the mission.

Four main priority areas of EU civilian CM of CSDP, the following capabilities are committed:

- **Police:** To carry out police operations, from advisory, assistance and training tasks to missions. MSs have undertaken to provide more than 5000 police officers (5761), of which up to 1400 can be deployed in less than 30 days.
- **Strengthening the rule of law:** To strengthen or restore credible functioning judicial and penitentiary system. MSs have committed to provide 631 officers (prosecutors, judges, prison officers).
- **Civilian administration:** To strengthen or restore a functioning civil administration; a pool of experts of 565 in total to be deployed at very short notice.
- **Civil Protection:** The aim of the Civil Protection priority area in the context of EU CM was envisioned to provide, or assist in providing, all possible protection and support to ensure the survival of populations during a crisis while at the same time it was underlined and recognized

that this type of interventions to respond emergencies are of a humanitarian nature. The priority area of Civil Protection has not gained the same weight as the other three priority areas of CSDP civilian CM. [3]

Furthermore the mechanism is providing the so called Civilian Response Teams (CRTs). Civilian Response Teams are not per se a priority area but an instrument to be used for 1.) early assessment of a crisis situation, 2.) in support of the establishment of a civilian CSDP mission (when appropriate), 3.) in temporary support of a EUSR or an ongoing civilian CM operation. Approximately 200 experts belong to the CRT pool with a variety of expertises. [3]

5.2 Materiel (non-financial) resources

The main material resources connected with the European Civil Protection mechanism are not directly owned by the European Institution; the resources are committed from the MS organisations and organised by using the concept of Modules.

The Modules are considered by the Commission to be the type of resources most used and therefore needed for operations.

Modules are the heavy type of inventoried resources. They are the type of complex and large resources that would be mobilised for major disasters. The Modules are the results of an EU pilot project launched in 2007 with the objective to enhance European preparedness and response efforts. The Commission invited Member States to structure their national civil protection resources in so-called civil protection modules, consisting of task and needs-driven pre-defined multinational arrangements. This was a way to better structure the EU response system with self sustained service packages. The intention was also to provide a standardised model for Member States to better structure and coordinate their resources.

Modules should therefore comply with a set of criteria/requirements defined in a technical framework under the Mechanism, in particular be self-sufficient - meaning deployable at short notice with the necessary logistics (accommodation, power supply, sanitation, storage, etc) for a period of 96 hours (or more, depending on the type of asset) – and interoperable together and with third responders. Modules could be established by Member States in 13 pre-defined areas of intervention to which the Commission added 4 additional categories in 2010 (see diagram). They were and are still considered to be the one most useful for disaster response. In January 2009, the European civil protection rapid response capacity included a total of 86 modules registered in the CECIS database. It was foreseen that this number would increase in 2010 by 39 additional modules, meaning 47% of the total number of modules registered with the effect of increasing the balance between the modules (see table hereunder).

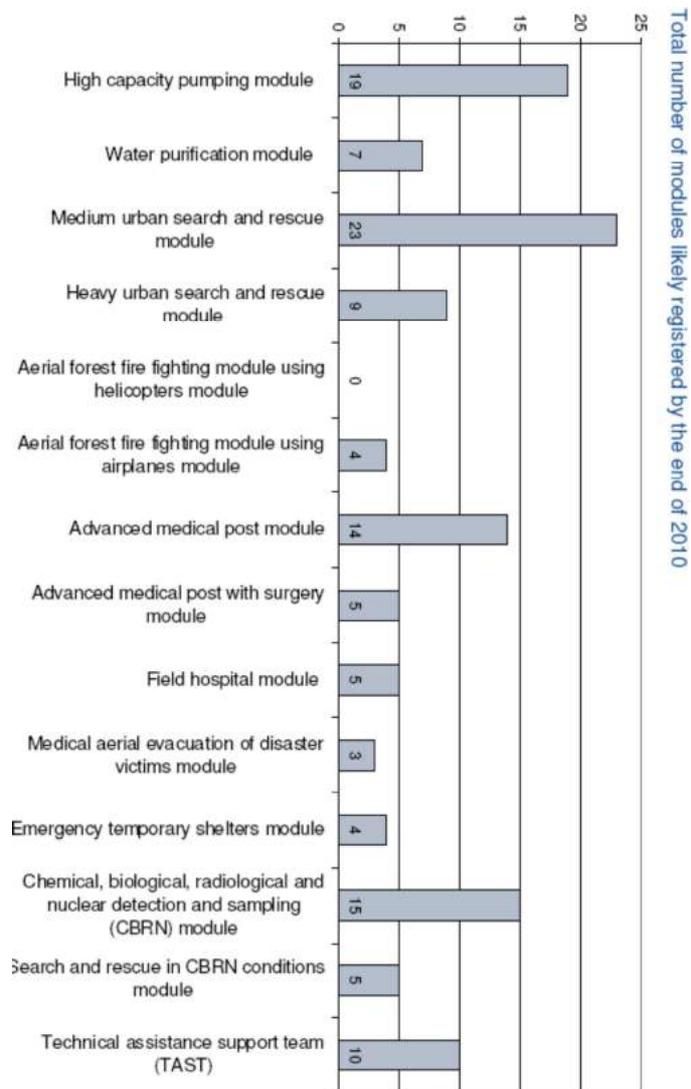


Figure 3: CM Modules

The diagram shows that most of European capacity is concentrated in:

- medium urban search and rescue
- high capacity pumping
- CBRN detection and sampling
- advanced medical posts.

A few modules have also been registered for heavy urban search and rescue, water purification, forest fire fighting with planes, search and rescue in CBRN conditions, advanced medical posts with surgery, medical aerial evacuation and field hospitals. In 2009, the Mechanism was still lacking modules for forest fire fighting with helicopters and emergency temporary shelter. The Mechanism's capacity also includes technical assistance support teams (TASTs) providing support functions to the Modules and Assessment Teams, such as kitchens, shelter, IT, logistics, communications, etc. (of which 7 have been registered).

In addition to resources complying with the requirements of civil protection modules, Member States have additional response capabilities that can be deployed for external assistance on an ad hoc basis. Since these assets are not standardised in modules, the inventory developed by Ecorys (see table hereunder) has some gaps, particularly because Member States' reporting varied in terms both of item descriptions and their quantification (if at all). Therefore, the table does not include quantities of these additional types of resources, because a meaningful attempt to quantify is not possible with the currently available information. Indeed, as already explained, the European Commission itself does not have a comprehensive, up-to-date database of non-standardised national assets. Furthermore, Ecorys or the ERCC (Emergency Response Coordination Centre) has not quantified assets such as tents and sandbags which are presumed to exist in large quantities

Table 1: Response Resources by types.

Other reported types of response resources	
First aid / medical care related resources	First aid and emergency care (including psychological and psychosocial support)
	Emergency mobile hospital
Logistics / transport related response resources	Transport, logistics and storage
Maritime response related resources	Marine Pollution team
	Marine SAR team
	Technical Diving Team
	Diving rescue team
	EMSA capacities (see description below)
Search and rescue related resources	Canine search and rescue team

	Detection and handling of explosive material
Sampling and detection related resources	Decontamination in case of a biological and or chemical attack
	Sample collection teams with equipment (Chemical)
	Decontamination in case of a radiological or nuclear attack
	Detection teams with equipment (Radioactivity)
	Ecological laboratory with mobile unit
Fire fighting related resources	Fleet of medium to high capacity aircraft used in 2007 by the Member States includes 24 for France, 16 for Italy, 18 for Portugal, 27 for Spain and 21 for Greece
Assistance / support related resources	Expert pool
	Coordination/assessment experts
	Water purification
	Container kitchens / Emergency food supplies
	Emergency shelter

In addition to Modules and national response resources, we can also add a third category of response capabilities, namely disaster-specific response tools financed directly by the EU, via its own agencies (such as oil spill response tools) or via so-called “pilot-projects” under the request of the European Parliament (as is the case for fire fighting related resources) (both are included in table 7 above).

The EU oil spill response capacity includes a set of pre-positioned response vessels not owned, but directly contracted by the European Maritime Safety Agency (EMSA) which can be used, through the ERCC, in case of civil protection needs¹. However, while the resources available are extensive, it is not certain that they are fully able to respond to major disasters, particularly as a rapid reaction force². The Figure and Table below indicate the current contracted EMSA specialised oil spill response vessels.

The EU also launched a pilot project, the EUFFTR – European Fire Fighting Tactical Reserve – with the aim of providing an overview of the fire fighting fleets of the Member States. Information made available to the Commission included 24 medium to high capacity airplanes for France, 16 for Italy, 18 for Portugal, 27 for Spain and 21 for Greece. Some Member States not particularly subject to fire disasters do not have their own capabilities. As part of this pilot project the Commission also purchased with a framework contract two fire-fighting aircraft Canadair from a private company. These are located in Bastia under the responsibility of the French crisis management authorities, but are to be deployed directly by the ERCC according to a pre-defined timeframe. This is intended particularly to support countries without their own capabilities or provide a tactical reserve in case national resources are insufficient.

¹ ECORYS, *Strengthening the EU capacity to respond to disasters*, pp. 138-141.

² Ibid.

Furthermore, military resources can be requested if a disaster critically overwhelms non-military response capacities, as recalled by the so-called “European Consensus on Humanitarian Aid” signed by all EU Member States and Institutions. It underlines the limited and supportive role that military assets should play when used in a disaster relief context, and recalls the need to follow the relevant OCHA guidelines in this respect. The guidelines reaffirm the basic principles of humanitarian intervention (humanity, neutrality, and impartiality) and underline that military assets should play a complementary, last resort role in humanitarian and civil protection interventions:

- Military assets should be seen as a complementary tool to existing relief capabilities so as to provide specific support to specific requirements;
- All relief is under the overall responsibility of the affected state, and is complemented by military assets;
- Such assets should in principle be unarmed;
- Such assets should be used by the UN as a last resort, ie, in the absence of other effective civilian solutions to fill an urgent need;
- The role of military assets should not be direct humanitarian assistance;
- The use of such assets should be clearly defined in time;
- Such assets should be self-supporting during their time of deployment to a disaster zone;
- On-site civ-mil coordination are under the guidance of the humanitarian aid coordinator. Critical areas for coordination include security, logistics, medical, transportation, and communications.

In the event of a major disaster the EUMS it is also able to provide a strategic movement coordination unit making use of the Multinational Coordination Centre for strategic lift in Athens and Eindhoven and coordinating with the relevant Point of Contacts in the MS. [2]

EUMS also runs databases that (i) are listing military assets of MS in the areas of transport, logistics, medical, CBRN (Chemical, biological, Radiological and Nuclear) and engineer support and (ii) are providing contact data of experts from various fields of expertise who can be called at short notice. [3]

Finally, the ERCC has at its disposal, within the CECIS, a ‘Pool of Experts’ database. This database comprises experts disposing of Mechanism training (OPM or higher), who are “in principle available” at short notice for Assessment and Coordination missions sent through the ERCC. It was foreseen at its inception that Participating States would appoint Contact Points in charge of updating yearly the availability of experts. It should be noted, however, that the system was up for review by the end of 2009. [2]

5.3 Training

The Civil Protection Mechanism runs an active and comprehensive training programme, offering experts a deeper knowledge of the requirements of European civil protection missions, and improving their coordination and assessment skills.

The programme offers a wide range of courses from basic training to high-level courses for future mission leaders. Special courses are also available aiming to prepare for specific aspects of missions such as security training or assessments. ^[1]

To ensure an efficient, rapid and flexible response, an extensive training programme is available for national technical, coordination and assessment experts, as well as for personnel involved in the civil protection modules.

The training programme is an essential part of the Community Mechanism. It is crucial in preparing experts for international civil protection assistance interventions inside, as well as outside the European Union. It also provides an excellent platform for experience-sharing and networking between national experts from participating countries. The programme involves training courses, joint simulation exercises and an exchange programme, where experts can learn first-hand about similar responsibilities under different national systems.

Since it was launched in 2004, the training programme has developed and expanded significantly and now includes 12 courses. The target group is wide, which opens the training programme to many different categories of experts. These can range from assessment and coordination experts to specialists within a certain field of work, such as marine pollution experts, environmental experts (landslides waste management, dam stability etc), experts in geo-hazards or logistics in emergency operations, and medical staff.

All courses combine theory and field experience, as well as international guidelines and standard operating procedures. They all contain practical exercises (field and table-top) based on different emergency scenarios where participants get the opportunity to practise their skills in a realistic setting. ^[6] The proposed courses, represented in the following pictures,

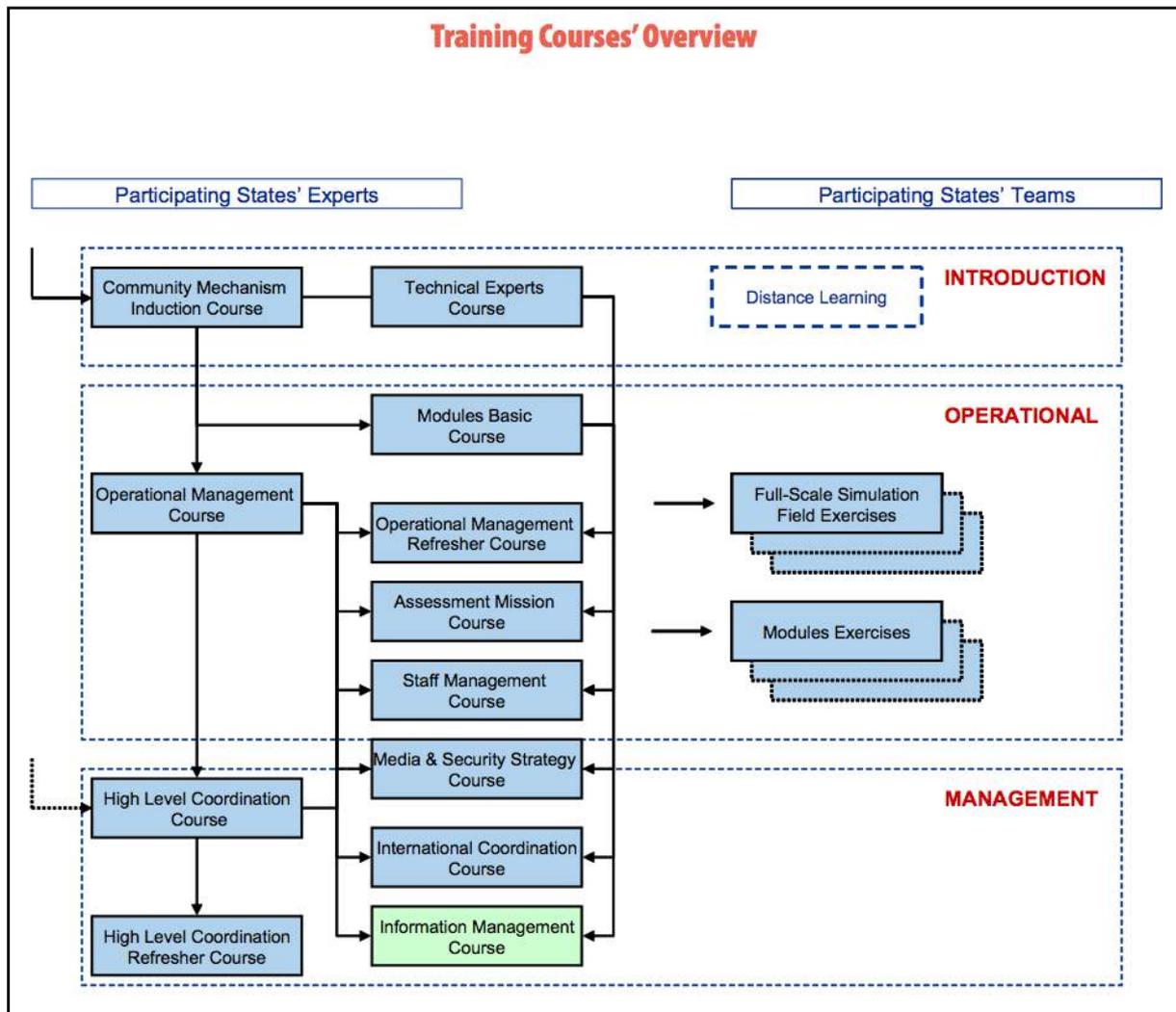


Figure 4: Training Courses

are grouped in these categories:

- **Community Mechanism Induction Course (CMI).** The Community Mechanism Induction Course (CMI) is a six-day introductory course and the entry point to all courses offered within the Community Mechanism training programme. The course is aimed at team leaders, deputy team leaders, managers, experts and administrators who are likely to be involved in international civil protection assistance interventions. The overall objective of the CMI is to introduce participants to the Community Mechanism and provide them with the basic knowledge and skills to prepare themselves for international civil protection missions, both within and outside the Community Mechanism's geographical area.
- **Operational Management Course (OPM).** The Operational Management Course (OPM) is the second course in the training programme and is open to those who have previously followed the Community Mechanism Induction Course (CMI). The six-day course targets national experts and European Commission officials who have been selected as potential team members or liaison officers of an assessment or coordination team sent by the European Commission to facilitate assistance support and coordination in the field.

- High Level Coordination Course (HLC). The High Level Coordination course (HLC) is the third general course in the training programme and is aimed at experts who have been selected as managers of a team deployed by the European Commission to facilitate coordination assistance in emergencies. HLC participants should have followed the Community Mechanism Induction (CMI) course and the Operational Management Course (OPM), before attending this course.
- Operational Management Refresher Course (OPMR) and High Level Coordination Refresher Course (HLCR). The field of emergency response is a constantly changing environment. No two emergencies are exactly the same. New actors enter the field or existing ones have their mandate changed. Changing situations and the development of new techniques and equipment mean experts need to learn about the latest developments, as well as refresh knowledge gained on earlier courses. The training programme offers two such courses: the Operational Management Refresher Course (OPMR) and the High Level Coordination Refresher Course (HLCR). These courses are open to participants who have attended either the OPM or HLC.
- Assessment Mission Course (AMC). The Assessment Mission Course (AMC) is a five-day specialised course for those who have previously followed the Community Mechanism Induction (CMI) and the Operational Management Course (OPM). The intended target group is national experts and managers in the field of coordination, European Commission officials and experts from partner organisations likely to be involved in international civil protection interventions.
- Staff Management Course (SMC). The Staff Management Course (SMC) is one of the specialised courses open to participants who have completed the Operational Management Course (OPM). However, since this course is closely related to the Assessment Mission Course (AMC) and the Media and Security Strategy Course (MSC), it is recommended that participants who plan to attend all three courses do so in the following sequence: AMC, SMC, MSC.
- Media and Security Strategy Course (MSC). The six-day Media and Security Strategy Course (MSC) is one of the specialised courses open to participants who have completed the Operational Management Course (OPM). However, since this course is closely linked to the Assessment Mission Course (AMC) and the Staff Management Course (SMC), it is recommended that those who plan to attend all three courses should try to do so in the following sequence: AMC, SMC, MSC.
- International Coordination Course (ICC). The six-day International Coordination Course (ICC) is one of the specialised courses of the training programme and is open to participants who have completed the Operational Management Course (OPM).
- Information Management Course (IMC). The ability to provide accurate information in a timely manner to the appropriate stakeholders is of utmost importance during disaster response

interventions in order to facilitate the delivery of assistance. Therefore, the five-day Information Management Course (IMC), focusing solely on information management, has been developed. The IMC is the latest addition to the training programme and is open to participants who have completed the Operational Management Course (OPM).

- Technical Experts Course (TEC). Experience from previous civil protection assistance interventions has shown that, as well as training assessment and coordination experts, there is also a need to train technical specialists for expert interventions. The Technical Experts Course (TEC) is a six-day course designed specifically for technical experts such as marine pollution and water management experts, environmental experts (landslides, waste management, dam stability etc), geo-hazard or logistics experts, medical staff and infrastructure engineers.
- Modules Basic Course (MBC). The Modules Basic Course (MBC) is a new course within the training programme. The target group is key staff from participating countries that would be deployed with their civil protection module to an emergency within or outside the European Union. Key staff can include team leaders, deputy team leaders, liaison officers or communications officers. It is recommended (but not compulsory) that participants attend the Community Mechanism Induction (CMI) course before going on to the Modules Basic Course (MBC).

For each cycle of training courses, the total number of course places are divided between the Participating States. This quota is based on the reported training needs of the country as well as the size of the country. To administrate training-related issues, each Participating State has appointed a national training coordinator who is responsible for identifying and nominating experts to attend the training courses. It is therefore not possible for individual national experts to sign up for a course directly. A list of national training coordinators can be found on the website of the Civil Protection Unit of the European Commission. Information on the training programme can also be found on the virtual On-Site Operations Coordination Centre (OSOCC), which is a virtual platform developed by the Emergency Response Coordination Centre (ERCC) in the United Nations Office for Coordination of Humanitarian Affairs (UN OCHA) in Geneva, Switzerland. To increase collaboration with other international actors and facilitate cooperation in the field, partners such as other European Commission services, the United Nations and the Red Cross Red Crescent Movement are invited to participate in relevant courses.^[6]

The EU exchange of experts system is designed to complement a training programme tailored to the needs of civil protection interventions within the framework of the Community Mechanism for civil protection. It is open to the participating states of the civil protection mechanism and the following eligible third countries:

- Albania, Bosnia and Herzegovina, the former Yugoslav Republic of Macedonia, Montenegro, Serbia, Turkey and “Kosovo” (this designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence).
- Eastern Neighbourhood countries: Armenia, Azerbaijan, Belarus, Georgia, Moldova and Ukraine

- Southern Neighbourhood Countries: Algeria, Egypt, Israel, Jordan, Lebanon, Libya, Morocco, Palestine and Tunisia

The Civil Protection Mechanism's experts exchange system allows for the secondment of civil protection experts to participating states. This exchange of experts provides participants with knowledge and experience on all aspects of emergency intervention and the different approaches of national systems.

The objective is to learn different techniques used, study the approaches taken within other emergency services or other relevant organisations with special expertise, and/or present or follow short training modules. The duration of an exchange may vary from a few days to two weeks. By offering such a broad spectrum of possibilities, the EU exchange of experts makes a significant contribution to the further development of the Community mechanism for civil protection.

Since December 2006 the Federal Agency for Technical Relief (THW), Germany, has been appointed by the European Commission as coordinator of the EU exchange of experts. THW has been responsible for its promotion as well as for its administrative and financial management. ^[5]

5.4 Procurement

5.4.1 Procurement regulation

In addition to financing decisions linked to humanitarian aid, the European Commission's Humanitarian Aid and Civil Protection department (ECHO) issues calls for tender for implementing specific activities. Such calls are regularly updated on the Calls for tender page (<http://ec.europa.eu/echo/node/623>). ^[1]

The following table is reporting the call for tender topics from the 2008 up to date.

Table 2: DG-ECHO Calls for Tenders, 2008-2014 ^[1].

2014	Provision of Cloud Services for ECHO Exercises on civil protection modules, technical assistance and support teams and European Union civil protection teams Development of a programme for peer reviews in the framework of EU cooperation on civil protection and disaster risk management Programme of Exchange of Civil Protection Experts
2013	Provision of VSat Service & Mobile Satellite Telephony & Data Services for DG ECHO Provision and replenishment of medical kits and other medical supplies in the EU and in third

	<p>countries</p> <p>ECHO-FLIGHT Service - Provision of air transport service for the Directorate-General for Humanitarian Aid and Civil Protection - ECHO</p> <p>Exercises on civil protection modules, technical assistance and support teams and European Union civil protection teams</p> <p>EU Aid Volunteers: Preparatory actions 2013</p> <p>Supply of training and support services to the Directorate-General for Humanitarian Aid and Civil Protection (ECHO)</p> <p>Evaluation of Implementation of the European Consensus on Humanitarian Aid</p>
2012	<p>Multiple Framework Contract for the Evaluation of Humanitarian Aid and Civil Protection Activities</p> <p>Provision of transport and other logistic support services, in the EU and in third countries, in the framework of Civil Protection and Humanitarian Aid operations</p> <p>Establishment of the European Emergency Response Centre – provision, installation and maintenance of specialised equipment for crisis rooms</p> <p>Exercises on civil protection modules, technical assistance and support teams and European Union civil protection teams</p> <p>Audit support services</p> <p>Framework contract for the production and distribution of Video News on DG ECHO's actions in the world</p>
2011	<p>Framework contract for the production and distribution of Video News on DG ECHO's actions in the world</p> <p>Provision of expertise to assist policy development in humanitarian aid</p> <p>Exercises for Civil Protection Modules and Technical Assistance and Support Teams (2 lots)</p> <p>Framework contract for services related to offering capacity to design, plan, conduct and evaluate Community Civil Protection Mechanism Courses (7 lots)</p> <p>Common Emergency Communication and Information System</p> <p>Framework Audit Contract</p>
2010	<p>Preparatory Action on an EU rapid response capability (2010/C 64)</p> <p>Design, plan, conduct and evaluate exercises for civil protection modules and technical assistance and support teams (2010/S94-140246)</p> <p>Organisation of a European exchange of experts in civil protection (2010/S75-111239)</p> <p>Strengthening the EU disaster management capacity - good practices on disaster prevention (2010/S 37-053087)</p>
2009	<p>Service Contract to provide Aircraft ground and air support services for the Commission's Directorate-</p>

	General for Humanitarian Aid (ECHO) in Sub-Saharan- Africa with focus on the Democratic Republic of Congo (DRC) and on Kenya
2008	Framework contract for training services in humanitarian aid contracts

Beside the tenders a series of service contracts are issued in order to procure a more wide range of services and products relevant to the more ordinary administration. Es an example, in 2013, the Directorate-General for Humanitarian Aid & Civil Protection (ECHO) of the European Commission signed 30 service contracts covering inter alia web communication and development, audiovisual productions, communication support and service, publications and visibility material, press relations, other general communication actions, e.g. awareness raising activities in relation to the EU Children of Peace initiative and the launch of the Emergency Response Coordination Centre. The relevant contracts for provision of services are detailed below. ^[1]

Table 3: DG-ECHO Service Contracts, 2013 ^[1].

Contract n°	Contractor	Action	Amount in EUR
ECHO/INF/BUD/2013/00001	SYSTEMAT	PURCHASE OF IT EQUIPEMENT	654,51
ECHO/INF/BUD/2013/00002	MOSTRA	COMMUNICATION SERVICES FOR CIVIL PROTECTION FORUM AND INAUGURATION OF EMERGENCY RESPONSE COORDINATION CENTER	121.426,89
ECHO/INF/BUD/2013/00003	CROIX-ROUGE DE BELGIQUE	VISIBILITY	4.925,00
ECHO/INF/BUD/2013/00004	ECONOCOM PRODUCTS & SOLUTIONS BELUX	PURCHASE OF IT EQUIPEMENT	2.685,51
ECHO/INF/BUD/ 2013/00006	PUBLICATIONS OFFICE OF THE EUROPEAN UNION	STORAGE AND MAILING SERVICE, 1st QUARTER 2013	1.902,92
ECHO/INF/BUD/2013/00007	PUBLICATIONS OFFICE OF THE EUROPEAN UNION	PRINTING OF LEAFLET	436,00
ECHO/INF/BUD/2013/00008	PUBLICATIONS OFFICE OF THE EUROPEAN UNION	PRINTING OF LEAFLET	436,00
ECHO/INF/BUD/2013/00011	EURONEWS CONVENTION	AUDIOVISUAL PRODUCTION	133.154,93
ECHO/INF/BUD/2013/00013	STICHTING EUROPEAN JOURNALISM CENTRE (EJC FOUNDATION)	VISIT BY JOURNALISTS TO EU-FUNDED HUMANITARIAN PROJECTS	56.885,26
ECHO/INF/BUD/2013/00015	ASSOCIATED PRESS TELEVISION NEWS LIMITED	AUDIOVISUAL PRODUCTION	4.090,00
ECHO/INF/BUD/2013/00016	CREASET	PRODUCTION OF VISIBILITY MATERIAL	3.123,50
ECHO/INF/BUD/2013/00017	NOVACOMM CONSORTIUM	WEB SERVICES AND DEVELOPMENT FOR 2013 AND 2014	465.000,00
ECHO/INF/BUD/2013/00018	PUBLICATIONS OFFICE OF THE EUROPEAN UNION	STORAGE AND MAILING SERVICE, 2nd QUARTER 2013	2.081,41
ECHO/INF/BUD/2013/00019	CREASET	PRODUCTION OF VISIBILITY MATERIAL	105.446,20
ECHO/INF/BUD/2013/00021	STICHTING EUROPEAN JOURNALISM CENTRE (EJC FOUNDATION)	VISIT BY JOURNALISTS TO EU-FUNDED HUMANITARIAN PROJECTS	54.152,26
ECHO/INF/BUD/2013/00022	D.P.I. SPRL	PRODUCTION OF VISIBILITY MATERIAL	300,00

ECHO/INF/BUD/2013/00023	INTERNATIONAL RESCUE COMMITTEE	EVENT	530,00
ECHO/INF/BUD/2013/00024	MUSIC&SOUND	PURCHASE OF CAMPAIGN MATERIAL	81,10
ECHO/INF/BUD/2013/00025	TIPIK	COMMUNICATION SUPPORT AND SERVICES FOR 2014	120.000,00
ECHO/INF/BUD/2013/00026	CREASET	PRODUCTION OF VISIBILITY MATERIAL	3.160,00
ECHO/INF/BUD/2013/00027	AVP SA/NV	RENT AND INSTALLATION OF EQUIPMENT FOR "AIDEX" EVENT	422,50
ECHO/INF/BUD/2013/00028	CRAENEM	PURCHASE OF MAPS	1.032,78
ECHO/INF/BUD/2013/00029	IGEP	PRINTING OF CALENDARS 2014	2.475,00
ECHO/INF/BUD/2013/00030	PUBLICATIONS OFFICE OF THE EUROPEAN UNION	STORAGE AND MAILING SERVICE, 3rd QUARTER 2013	2.686,57
ECHO/INF/BUD/2013/00031	ASSOCIATED PRESS TELEVISION NEWS LIMITED	AUDIOVISUAL PRODUCTIONS	119.648,00
ECHO/INF/BUD/2013/00032	IGEP	PRODUCTION OF VISIBILITY MATERIAL	14.546,48
ECHO/INF/BUD/2013/00033	MOSTRA	AUDIOVISUAL PRODUCTION	34.075,45
ECHO/INF/BUD/2013/00034	MOSTRA	AUDIOVISUAL PRODUCTION AND PHOTOGRAPHY	5.130,78
ECHO/INF/BUD/2013/91001	MOSTRA	ORGANISATION OF EVENT AND CAMPAIGN	349.696,21
ECHO/INF/BUD/2013/91002	FONDAZIONE PUNTO.SUD	DEVELOPMENT AND MAINTANCE OF PARTNER WEBSITE	68.200,00

5.4.2 Procurement procedures

The procurement of major services (training, logistic frameworks, etc...) are defined by the single Unit within the European Commission Directorate General in the for of "call for proposal". This preliminary definition is then posed under an "inter-service consultation" where all the other Directorate Generals could provide suggested amendment, and under a consultation given from the relevant Program Committee composed by representatives of each Member States. The final configuration will finally be published as part of the annual work programme implementation.

5.5 Niche capabilities

No niche capabilities are available directly under the EU organisations dealing with the Crisis Management.

Resources

Legislative acts

[7] Regulation No 375/2014 of the European Parliament and the Council

[8] Decision for the introduction of a New Union Mechanism of Civil Protection “ (Decision No 1313/2013/EU)

Other normative acts

[9] Council Conclusion on Host National Support of 2nd December 2010

Official documents (white papers, strategies, etc.)

[4] Annual Strategy for Humanitarian Aid in 2014: General Guidelines on Operational Priorities

[6] The European Community Civil Protection Mechanism Training Programme Brochure (ISBN 978-92-79-14179-9)

Online resources (e.g. websites of key CM organizations)

[1] <http://ec.europa.eu/echo/>

[5] <http://www.exchangeofexperts.eu/Training>

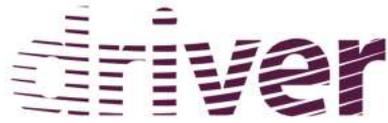
Publications

[2] CRYISIS project - Disaster and Crisis Management Capabilities in the EU: current situation and trends

[3] ACRIMAS project - The Political and Legal Framework of EU Aftermath CM - ACRIMAS_D2-1

Expert interviews

DG-ECHO / ERCC, Oct. 2014



Driving Innovation in Crisis Management for **European Resilience**

FINLAND

Capabilities, Organisations, Policies, and Legislation (COPL) in crisis management and disaster response

Responsible Partner: FhG-INT (Isabelle Frech, Maike Vollmer)



Source: Finnish Ministry of the Interior http://www.intermin.fi/en/ministry/the_flag_and_arms_of_finland

Scope and limitations

This study serves as supporting information for further work within DRIVER.

Only limited time and budget has been available for this first general survey, which needs to be considered in terms of scope and completeness of the respective studies.

The author/s of this study is/are responsible for its content and quality.

Overview

Finland has set the objective to become the safest country in Europe with the most effective rescue services. If the country's exposure to disaster risks appears lower than other EU or OECD countries, its specific vulnerabilities to major shocks justify such ambitious public policy goals. The high dependence on critical infrastructures and global supply chains for the security of Finnish society and economy, its sparse population in remote areas, and its Nordic climate conditions are all factors shaping the risk portfolio Finland has to manage and prepare for. In this context, Finland has developed advanced policies and capacities in risk management, with well-established cutting-edge national strategies. These are based on whole-of-society approaches to secure the vital functions of society, and to develop self-awareness. These policies benefited also from a high level of trust among citizens, a cooperative attitude in society and a sense of solidarity, and high-quality public services from national to local levels. Furthermore, considerable use of research and information and communications technology (ICT), and the highly developed education system and social policies in Finland, contribute to an effective national risk management system which takes advantage of state-of-the-art innovations.

The Finnish disaster risk management system boasts:

- An ambitious **whole-of-government and whole-society approach** to address all-hazards and threats.
- A strong sense of autonomy and self-preparedness among the population.
- Well-developed interactions with the private sector to **ensure business continuity**.
- A significant **use of research and technological innovation** to support policies and capacities.
- An **open-data policy** allowing appreciable availability of risk-related information.
- **Government agility**, with a willingness to reform and learn from past experience.
- Strong regional cooperation mechanisms supporting risk management.¹

The Finnish civil security system could be characterised by a high degree of decentralisation and divided tasks based on substantial expertise of and competences across levels and issues. A main role in this heavily decentralised system takes the **Ministry of the Interior** with its **Department for Rescue Services**, which, inter alia, directs and steers regional rescue services (22), maintains oversight of their coverage and quality and is in charge of the preparedness and organisation of rescue services at national level as well.

Funding for risk management comes from different sources such as Government budget, municipalities' budget and specific financial mechanisms. As in most other European and OECD countries, Finland has not made a comprehensive estimation of the resources spent on disaster risk reduction from the national to the local level. (Peer Review Report, 2014).

¹ Key findings of the *Peer review report Finland* (2014)

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List of Abbreviations

CM	Crisis Management
DRR	Disaster Risk Reduction
FEI	Finnish Environment Institute (finish name: SYKE)
FMI	Finnish Meteorological Institute
HFA	Hyogo Framework for Action
PMO	Prime Minister's Office
MoJ	Ministry of Justice
MFA	Ministry for Foreign Affairs
MoD	Ministry of Defence
MoI	Ministry of the Interior
MoAF	Ministry of Agriculture and Forestry
MoE	Ministry of the Environment
MoF	Ministry of Finance
MoSAH	Ministry of Social Affairs and Health
MoEE	Ministry of Employment and the Economy
MoTC	Ministry of Transport and Communications
MoEC	Ministry of Education and Culture
NESA	National Emergency Supply Agency
OECD	Organisation for Economic Co-operation and Development
SYKE	Finnish Environment Institute (=FEI)
TUVE	Turvallisuusverkko (Government Security Network)
VITRE	Viranomaisverkko (Public Authority Network)

List of Definitions

Comprehensive concept of security	The comprehensive concept of security comprises security issues which, if exacerbated, may turn into threats that can jeopardise or seriously harm Finland, Finns or the functions vital to Finnish society. Wide-ranging threats include premeditated action such as the use of military force, terrorism or interference with information networks. They can also occur spontaneously, such as widespread failures of the electric grid or extreme forces of nature.
Disturbance	This is a threat or an occurrence which endangers security in society, capacity to act or the population's living conditions. Co-operation and communication of the authorities and other actors on a wider or more intensive scale are needed to manage the situation.
Threat assessment	An assessment of a competent authority or another actor, based on a threat scenario and regarding the tasks the authority is responsible for and disturbances. The scenario concretely describes the origin of the threat, target, method of implementation, probability, effects on the authority's tasks as well as response options and the time required for advance preparations.
Threat scenario	A threat scenario is a general description of disturbances in the security environment. It presents the impact mechanism, source, target and impact on the target, probability and the most serious disturbances in the threat scenario that are identified.

1 Policy

1.1 Risk Assessment

1.1.1 Key risks and areas of concern

In Finland, the most likely types of *natural disasters* are hydro meteorological disasters with an emphasis on floods, storms, forest fires and problems caused by exceptional temperatures and drought. In addition to these, the Finnish Policy Framework also takes into account that Finnish people abroad can be affected by earthquakes, tsunamis and volcanic eruptions.

The *impact of climate change* on Finland's ecosystems and society is evaluated by the Finnish Environment Institute (FEI) based on different climate change scenarios. It is expected that climate change may raise the risk e.g. for floods.

As can be seen from table 1 and 2, Finland is a country with a very low risk profile in terms of major natural disasters in general and of a specific type. The most disastrous incident for Finland in terms of natural disasters was the Tsunami in the Indian Ocean in 2004, which caused death for 179 Finnish citizens.

Regarding *man-made disasters*, there have been some technological disasters and transportation accidents. The sinking of the M/S Estonia in September 1994 is still the most disastrous civil security crisis in Finnish history. The ship with 989 people was en route from Tallinn to Stockholm over-night. The Estonia was in international waters but near Finnish territory, and therefore Finland was responsible for the international rescue operation. In total, 852 persons died.²

Due to the low risk profile there is, e.g., no national earthquake hazard map. Thus, only nuclear power plants need an earthquake risk assessment, in addition to a thorough evaluation of the risk of coastal flooding regularly updated for their sites. Single-hazard risk assessments also exist for specific *man-made risks* such as chemical incidents, and air and shipping accidents. Nuclear risks are a significant threat with the country having four nuclear reactors and a fifth under construction, as well as a number of significant cross-border nuclear risks from neighbouring countries.

Table 1: Disaster Risk of Finland and of neighbouring countries according to the World Risk Index 2014

Overall Rank	Country	World risk index	Exposition	Vulnerability	Susceptibility	Lack of coping capabilities	Lack of adaptive capacities
1.	Vanuatu	36,50	63,66	57,34	36,40	81,16	54,45
128.	Russia	3,85	9,38	41,05	21,59	58,80	42,76
138.	Latvia	3,45	9,26	37,30	21,12	55,19	35,57
146.	Lithuania	3,01	8,88	33,91	18,58	49,36	33,78
156.	Estonia	2,43	7,23	33,57	18,67	51,15	30,89

² Country Study: Finland. The ANVIL project. June 2013

158.	Norway	2,31	8,58	26,86	14,41	40,05	26,13
161.	Finland	2,24	8,19	27,38	15,60	39,39	27,17
162.	Sweden	2,19	7,97	27,49	15,39	40,90	26,18
171.	Qatar	0,08	0,28	30,30	8,97	44,76	37,16

Source: WorldRiskReport (WRR) 2014 by United Nations University - Institute for Environment and Human Security (UNU-EHS) <http://www.worldriskreport.com/>

Table 2: (Top 10) Natural Disasters in Finland for the period 1900 to 2014

Type of disaster		# of Events	Date	# of persons killed	# of persons affected	Damage (000 US\$)
Flood	General flood	1	25.05.2005	-	400	-
	ave. per event			-	400	-
Storm	Unspecified	2	both 25.01.1990	-	-	10000
	ave. per event			-	-	5000

Source: EM-DAT: The OFDA/CRED International Disaster Database, www.emdat.be - Université catholique de Louvain - Brussels - Belgium

1.1.2 Risk assessment approaches

Finland has adopted several approaches to risk assessment, driven by different aspects and objectives. Due to the low risk profile, the approaches preliminary doesn't aim on assessing risks for specific disasters, meaning what could *cause damage*, but focuses on what could *be damaged*, for whatever reason.

As a result, at the national level, the *Security Strategy for Society* (see 1.2) has adopted a risk assessment approach based firstly on the identification of the vital functions of Finnish society that have to be secured in all situations, and their vulnerabilities.

Risk zones are defined for the whole country based on the national incident database as well as on vulnerability information derived from population density and the built environment. These data are aggregated through a high-technology GIS-based mapping of the country on a 1-km resolution grid. To each square kilometre is attached a risk probability correlated with a level of service which requires emergency first responders to be present in a certain time period.

There are four risk zones, corresponding to 6-minute, 10-minute, 20-minute, or no-limit time periods. This technology-based and practical approach provides the regional rescue services (see chapter 3) with a *tool to plan the capabilities required* on a regional basis as requested by the Rescue Act (see chapters 2+5).

These regional risk assessments are carried out and updated regularly by the rescue authorities.

A process for the evaluation of probabilities and potential impacts of major disasters has been established and criteria defined, under the leadership of the Ministry of the Interior. There are seven categories of consequences with pre-defined thresholds for casualties, economic impacts and environmental impacts from small to very severe.

The rescue services have identified 89 of such significant national risks in 15 rescue regions with this methodology.

Between these two approaches, of threat scenarios to vital functions on one side and the practical level of capability planning of rescue service required for daily incidents on the other, methodologies for the quantitative assessment of significant national risks are in the process of being harmonized.

In addition to these national and regional all-hazards risk assessments, several processes have been conducted to assess specific risks. For instance, the first phase of the EU flood risk management directive has been implemented, under which 21 areas with potentially high flood risk have been identified and are currently being mapped, under the responsibility of the Ministry of Agriculture and Forestry. A risk map for urban flooding has been completed for Helsinki and started for a number of other cities.

The 2014 Peer Review Report on Finland's implementation of the Hyugo Framework for Action evaluates the current risk assessment process as followed:

The risk assessment process in Finland would benefit from a more comprehensive approach and better coordination from the national to the local level. This should include improving the methodology for assessing large-scale risks nationally and the harmonisation of regional risk assessments. Flood risk assessment efforts should continue to map and characterise potential impacts of fluvial and urban floods, including water levels at the housing scale, so that prevention and emergency preparedness can be precisely tailored.

1.1.3 International Cooperation with regard to risk assessment

The 2014 Peer Review Report on Finland's implementation of the Hyugo Framework for Action describes the international cooperation in terms of risk assessment as followed:

There is a strong and historic cooperation among the Scandinavian countries as well as around the Baltic Sea with the Council of the Baltic Sea States. Joint monitoring and data sharing is effective through the common weather radar mosaic, produced together with Sweden and Norway. Trans-boundary rivers are also jointly monitored together with neighbouring countries.

Issues of specific concern related to the Baltic Sea such as the risk of a major shipping accident or pollution control are followed closely by the riverine countries and joint actions are conducted. To prevent pollution, for instance, there is a permanent airborne observation and regular contacts with the Russian authorities. The risk of nuclear accidents in neighbouring countries is also taken into consideration in the risk assessment.

At EU level, Finland is a participating country in the European Civil Protection Mechanism⁶, which facilitates cooperation in civil protection between European countries in order to improve prevention, preparedness and response. The risk assessment being prepared by the Finnish authorities will contribute to the work being developed at EU level on risk assessment.

In addition, within the EU Strategy for the Baltic Sea Region, finalised at the end of 2013, Finland contributed actively to a project aiming at the development of scenarios and the identification of gaps for all main hazards in the Baltic Sea region.

On a regional basis, Finland participates in the Baltic Marine Environment Protection Commission, which regularly develops joint risk assessments of the Baltic Sea environment and plans for measures to respond to major maritime incidents. Finland cooperates also with the other Nordic countries within the framework of the Council of the Baltic Sea States (the civil protection network coordinates joint measures in the field of civil protection, critical infrastructure protection and emergency preparedness issues), the Barents Euro-Arctic Council (joint committee on rescue cooperation) and the Arctic Council (emergency prevention, preparedness and response working group).

1.2 Policy and Governance

The objective of the Finnish Government is to make Finland the safest country with the most effective rescue services in Europe, as highlighted in the “*Security Strategy for Society*”³ adopted in 2010. This ambition is reflected in a comprehensive legal and policy framework for disaster risk reduction, which has been significantly renewed over the last years.

The Finnish disaster risk management policy is clearly set out in a number of key documents, including the Security Strategy for Society, the Finnish Security and Defence Policy Report and the Internal Security Programme.

Policy making in context of disaster risk reduction is done on the national level, following the mentioned Security Strategy for Society. Disaster preparedness is implemented at all levels of society. All administrative sectors are obligated to draw up preparedness plans and maintain preparedness in case of emergency conditions or disturbances in normal conditions. Responsibility lies with the authorities, to which the duties are assigned by law, following a concept of competent authorities, meaning that tasks are distributed based on substantial expertise and competences of each authority.

Another rule is the principle of strict legality in the administration. Horizontally, every sector has rather independent powers in decision making, and also vertically the possibilities of upper administrative levels to lead directly over the lower levels are restricted by law.

The homepage⁴ of the Security Strategy for Society states:

The functions vital to society must be secured in all times: in normal conditions as well as in crises. In the security strategy for society the vital functions form the basis for preparedness. The following are regarded as vital functions:

- Management of Government affairs
- International activity
- Finland’s defence capability

³ “Security Strategy for Society”, Government Resolution 16.12.2010, Finnish Ministry of Defense

⁴ <http://www.yhteiskunnanturvallisuus.fi/en/vital-functions>

- Internal security
- Functioning of the economy and infrastructure
- The population's income security and capability to function
- Psychological crisis tolerance

All actors in society – authorities, companies, organisations and communities involved in security studies – play an important role in securing these functions.

The Security Strategy for Society lists 49 strategic tasks clustered under the above mentioned seven vital functions for society, which aim to secure these vital functions in case of disturbances⁵ and assigns responsibilities to diverse Ministries (the competent authority) for each of these tasks, relevant to their own sphere of operation. (see table 3). Thus, many ministries are involved in the Security Strategy. Tasks related to disaster risk reduction e.g. are under the responsibilities of the Ministry of the Interior, for emergency preparedness and response, Ministry of Agriculture and Forestry together with Ministry of the Environment is responsible for prevention of floods and droughts, and Ministry of Finance and other sectorial ministries, for business continuity.

37 possible disturbances to these tasks and thus, to vital functions have been identified and are clustered in 13 threats scenarios⁶ as described on the homepage of the policy⁷:

Threat models have been compiled as the basis of preparedness for the security strategy for society. They are descriptions of situations that may endanger security in society and its vital functions. Threat models consist of the following:

- a serious failure of the power supply
- serious disruptions to telecommunications and information systems
- serious disruptions to logistics
- serious disturbances in the community infrastructure
- a serious disruption to food supply
- serious disturbances in the finance and payments system
- failing access to public finances funding
- a serious disturbance in the public health and well-being
- major accidents, extreme weather conditions and environmental threats
- terrorism and other type of crime posing a threat to society
- serious disturbances in border management
- political, financial and military pressure, and
- the use of military force (see also 3.1).

⁵ see List of Definitions

⁶ see List of Definitions

⁷ <http://www.yhteiskunnanturvallisuus.fi/en/threats>

The authorities, organisations and companies can plan their preparedness by adapting the threat models to their own operating environment. For example, in many municipalities a preparedness plan has been drafted on the basis of the Security strategy for society.

This **all-hazards and threats and whole-of-government approach** provides a uniform basis for strategic preparedness to all Finnish institutions from the national level to municipalities, as well as to private sector organisations and NGOs. It is complemented by a number of decisions, strategies and guidelines related to preparedness and crisis management, issued by the Government and different administrative sectors.

The **Prime Minister's Office** also maintains capacities for crisis management (see chapter 3). **National technical agencies**, such as the Finnish Meteorological Institute, Finnish Environment Institute (SYKE), Emergency Response Centre Administration and National Emergency Supply Agency, have specialised mandates for hazard monitoring and mapping, and early warning – or to ensure supplies availability, respectively (see 1.2.2 and 4.4).

At the local level, the 320 **municipalities** have a mandatory responsibility to provide welfare as well as rescue services for their citizens. In this **strongly decentralized political system**, municipalities can regroup themselves at the regional level to manage these services with varying administrative borderlines depending on the policy domain.

There are currently 22 **rescue regions** in Finland (see chapter 3), where rescue services organise their operations. As part of the Government's structural policy programme, the aim is to reduce the number to 11⁸. While they are under the responsibility of local authorities, the rescue services have to follow guidelines and regulations from the **Ministry of the Interior**, operated by the **Department for Rescue Services**, which oversees their coverage and the quality of services in the rescue regions.

Since a **2010 reform**, Finland has a more streamlined regional state administration to control and regulate policy implementation at the local level in areas related to disaster risk reduction, such as environment, land use or safety. The reorganisation of the administrations may continue in the future with on-going reforms to reduce the number of municipalities. Finally, the specificity of the Åland Islands autonomous region makes its risk management policy rather independent from that of the central government.

Table 3: Strategic tasks which are central to securing society's vital functions and the ministry responsible for the development of each strategic task

STRATEGIC TASK	RESPONSIBLE MINISTRY
Management of Government affairs	
Guaranteeing the proper functioning of the Government	PMO
Finland's activities in the European Union and securing the national preparation and handling of EU matters	PMO
Functioning of Government communications	PMO
Maintenance of the Government's situation picture	PMO
Securing the rule of law	MoJ

⁸ Finland's legal preparedness for international disaster response – Host Nation Support Guidelines. Finnish Red Cross 2014.

STRATEGIC TASK	RESPONSIBLE MINISTRY
Holding elections	MoJ
<i>International activity</i>	
Maintaining contacts to foreign states and key international actors	MFA
Protecting and assisting abroad Finnish citizens and those residing in Finland on a permanent basis	MFA
Securing Finland's foreign trade	MFA
Comprehensive crisis management	MFA
International military crisis management	MoD
International civilian crisis management	MoI
International disaster response	MoI
<i>Finland's defence capability</i>	
Finland's military defence	MoD
Supporting the other authorities	MoD
<i>Internal security</i>	
Guaranteeing protection under the law	MoJ
Public order and security	MoI
Emergency services and maritime search and rescue	MoI
Flood risk management and dam safety	MoAF
Emergency response functions	MoI
Oil and chemical spill response on land and water	MoE
Border management	MoI
Immigration control	MoI
The management of a major influx of asylum seekers	MoI
<i>Functioning of the economy and infrastructure</i>	
Acquiring and allocating financial resources	MoF
The financial system and money management	MoF
Safeguarding the insurance services	MoSAH
Securing the fuel supply	MoEE
Safeguarding the electric power supply	MoEE
Safeguarding the electronic ICT systems	MoTC
Safeguarding the state administration's IT functions and information security and the service systems common to the state administration	MoF
Supporting the construction and maintenance of warning and alert systems	MoTC
Safeguarding the continuation of transports	MoTC
Safeguarding the primary production of food supply	MoAF

STRATEGIC TASK	RESPONSIBLE MINISTRY
Safeguarding the water supply	MoAF
Safeguarding food processing and distribution	MoEE
Safeguarding critical industries and services	MoEE
Guaranteeing housing	MoE
Securing a sufficient labour workforce	MoEE
Maintaining the education and research system	MoEC
Detecting, controlling and adapting to changes in the environment	MoE
Waste management	MoE
<i>The population's income security and capability to function</i>	
Income security	MoSAH
Securing the social and health care services and environmental health care services	MoSAH
Guaranteeing the availability of medical supplies and equipment	MoSAH
The detection, surveillance and management systems for health risks	MoSAH
<i>Psychological resilience to crisis</i>	
Education	MoEC
Strengthening cultural identity and protecting cultural heritage	MoEC
Securing religious services	MoEC

Source: "Security Strategy for Society", Government Resolution 16.12.2010, Finnish Ministry of Defense.

1.2.1 Strategy scope and focus

As described in section 1.1, Finland is a country with a very low risk profile in terms of natural and man-made-disasters with nearly no experience in major disasters. Considering the all-hazard approach of the Finish crisis management system which focuses on up-keeping the vital functions of society in all situations, one can say that the strategy focus is on preparedness and prevention rather than on response and recovery.

1.2.2 Monitoring and analytical support to policy making; R&D

Data on key hazards and vulnerabilities are monitored, archived and disseminated by various ministries and technical agencies in Finland depending on the hazard characteristics, to better assess the risks of disturbances and threats.

Regarding hazard monitoring, Finland is equipped with efficient modern and high-tech monitoring networks, operated by its technical agencies. The ***Finnish Meteorological Institute (FMI)*** is responsible for real-time 24/7 monitoring, achieving and disseminating data associated with weather and marine events. The ***Finnish Environment Institute (SYKE)*** monitors water levels and discharges in

rivers and lakes. There are also 288 stations continuously measuring radiation in the environment operated by the *Radiation and Nuclear Safety Authority (STUK)*. When needed, specific monitoring and surveillance processes can be activated by Ministries. For instance, the Ministry of the Interior organises air patrolling on behalf of the 22 rescue services (see chapter 3) to detect forest fires from the air during periods of dry conditions, while the Ministry of Agriculture has agreed on an action plan with the National Land Survey, FMI and SYKE for taking and processing rapid aerial photos in case of natural events and disasters, such as storms and floods. *Space technology* is also used in Finland for forest-fire detection as well as for situation assessment after disasters.

Loss-data collection is operated by the Ministry of the Interior via the national incident database. In addition, the Finnish Environment Institute collects flood loss-data from municipalities. *Insurance companies* have also developed their own database.

1.2.3 Policy for Prevention

Finland's policy approach of crisis management doesn't differ between prevention, preparedness, response and relief & recovery, though the focus is on preparedness, as mentioned before. As mentioned under 1.2 and 1.2.1, each "competent authority" at all levels is responsible for ensuring the maintenance of vital functions for society within their duties. This covers all aspects of prevention, preparedness, response, relief and recovery.

1.2.4 Policy for Preparedness

See 1.2.3

1.2.5 Policy for Response

See 1.2.3

1.2.6 Policy for Relief and Recovery

See 1.2.3

1.3 Financing

1.3.1 Investing in preparedness

Disaster risk reduction resources according to the 2014 Peer Review Report on the Implementation of the HFA:

Funding for risk management comes from different sources such as Government budget, municipalities' budget and specific financial mechanisms. As in most other European and OECD

countries, Finland has not made a comprehensive estimation of the resources spent on disaster risk reduction from the national to the local level.

At the national level, resources for risk management are in fact embedded in the general budget of each responsible ministerial department, as well as for technical agencies. The specific funding mechanism of the National Emergency Supply Agency (NESA), financed by consumption through VAT, secures its large budget. It is aimed at guaranteeing the availability of all forms of supplies to ensure business continuity in all sectors. Citizens also contribute through the fire tax, which adds to the fire prevention fund (€9 million per year).

(The Fire Protection Fund, managed and supervised by the Ministry of the Interior, is a fund outside the State Budget. Every year, the Fund grants nearly EUR 10 million for projects that are designed to improve fire prevention and rescue operations. This assistance has focused on training and education provided by rescue service organisations, research and development projects supporting the work in the field, procurement of equipment and building of fire stations.)⁹

Developers contribute by financing shelters in all new buildings (€39 million per year). Overall, resources from the national budget appear to have covered well the funding needs to ensure the proper implementation of national strategies in risk management, as in other areas of public policy.

As further fiscal consolidation may be needed in the medium term to tackle new economic challenges, Finland may face competing demands for public funding in the future, requiring risk management activities to demonstrate further their cost-effectiveness.

This contraction in resources is particularly important at the local level. Municipalities are the principal contributors to the budgets of regional rescue services, estimated at a total of €385 million. They have a strong independence from central government to decide their budget allocations, with 50 per cent of their budgets coming from local taxation. In the current context, where many municipalities are facing budgetary difficulties, ensuring that rescue services have the same level of preparedness at the local level could become more challenging, especially when it comes to persuading politicians to make it a priority given the country's low risk profile. The on-going reforms of local government, which propose incentives to merge municipalities, as well as those of the social and healthcare system and of the rescue services, are forward looking initiatives aimed at addressing this budgetary challenge for risk management. Plans to reduce the number of rescue regions were considered as part of this process, but were not agreed upon because of the political, social and economic costs involved in such reform.

1.3.2 Investing in consequence management

Several public financial instruments and contingency mechanisms are available in Finland in case of disasters. They are currently facing significant evolutions with the on-going structural reforms in the country.

⁹ Ministry of the Interior - Department for Rescue Services. *Rescue services in Finland*. 2013

The ***national Recovery Fund***, managed by the Ministry of Finance, can support municipalities in case damages to public infrastructure exceed their own budgets. The Ministry of the Environment also manages the ***Finnish Oil Pollution Compensation Fund***, which is available to compensate damages caused by oil spills and associated emergency and de-pollution costs when the cause of the incident is unknown or the culpable party is unable to pay the compensation in question. The compensation granted from the fund must be repaid by the party that caused the oil spill, or by another responsible party.

The State may also contribute to maintaining preparedness for emergency health care and major accidents by providing state funding towards contingency activities where special reasons make this expedient. The Red Cross also manages a ***Disaster Relief Fund*** with non-earmarked funding.

The major evolution in the public compensation approach relates to ***flood disasters***: due to budget restraints, the system for flood damages compensation through governmental funds was replaced in 2014 by a ***new private-insurance-based system***. Under the new scheme, private insurance companies will provide damage compensation for all types of floods, including urban pluvial floods.

However, this will apply only to floods above a pre-defined threshold, defined with the regulating authorities. Flood insurance is now included in a package with home insurance, with no increase to insurance premiums (at the start of policies, at least). After a few years, it is expected that premiums will be recalculated to eventually reflect the risk level. Ministry of Finance statistics show that domestic premiums amount so far to a total of €4.1 billion. However, according to SYKE's analysis the scale of the economic impact of flooding is rather limited, with maximum damages in even high-risk areas estimated at only around €10 million – compared with the €100 million damages caused by the 2011 winter storms. Insurance companies will use the flood-risk maps prepared during implementation of the EU Floods Directive. In the future, time and experience from incidents will provide the best indication of how this policy change will impact and be perceived by Finnish citizens and businesses.

Assistance from the ***EU Solidarity Fund*** may of course be requested in cases of major disasters, but since to be eligible for funding, the total direct damage caused by the disaster must exceed 3 billion euros or 0.6% of the country's gross national income, Finland hasn't make use of it so far.

1.4 Policy review, Evaluation & Organisational Learning

1.4.1 Post-Disaster Assessment

As mentioned before, Finland has not experienced major disasters in its recent history, and thus no concrete examples of, or dedicated policies for, recovery and reconstruction have been developed that specifically include risk reduction measures. Nevertheless, the drive to strengthen the resilience of critical infrastructure is constant, also stressed by the objectives of the Security Strategy for Society. As an example, measures are taken to secure the power networks and reduce the risk of power failures in the repair and rebuilding of local electricity networks that has been damaged due to wind or snow storms¹⁰.

¹⁰ Peer Review Report Finland – Building resilience to disasters: Assessing the implementation of the Hyogo Framework for Action (2010-2015), from 2014

1.4.2 Departmental Lessons Learned systems

Each “competent authority” at all levels is responsible for recording and analysing all management measures that have been taken when disturbances occur in Finland or abroad, as requested by the Security Strategy for Society. (see also 1.4.5)

Furthermore, as stated e.g. in Finland’s Cyber Security Strategy¹¹,

different sectors’ preparedness in securing the vital functions in disturbed conditions will be improved by organising regular exercises. Each actor will develop its national and international participation in exercises. The actors will improve the utilisation of best practices and lessons-learned accrued through international exercises by improving the exchange of information and mutual coordination. The goal of exercises is to enhance the participants’ chances of exposing the vulnerabilities of their own actions and systems, in developing their capabilities and training their personnel.

Since this is also in general requested by the Security Strategy for Society, it is applicable to all “competent authorities” at all levels.

1.4.3 Centralised (national) Lessons Learned system

In addition to organisations internal lessons learned processes, there is also a lot of exchange on inter-agency or inter-sectoral level at national as well as on international level. Moreover, at national level,

*the **Finnish accident data-base** provides a good basis for post-event reviews as it records all interventions and actions which are taken in responding to an emergency or disaster. The **Safety Investigation Authority** of Finland, previously known as the Accident Investigation Board, investigates all major accidents, regardless of their nature. Investigation reports are prepared for each case and include recommendations for improving systems and processes. ‘Lessons learnt’ exercises were conducted following the 2010 storms, which led to improving pre-warning processes – especially of citizens – and emergency preparedness.*

In the past, lessons have also been drawn from international disasters such as the 2004 tsunami. This has helped improve inter-agency coordination and joint operation capacity for response outside Finnish borders.¹²

1.4.4 International exchange for Lessons Learned

International exchange of information as well as common exercises with regard to disaster preparedness and response are fostered by the Security Strategy for Society, as stated under 1.4.2.

Finland actively participates, especially, in the work of the EU and NATO, which also leads, inter alia, to the improvement of the national evaluation processes.

¹¹ Finland’s Cyber Security Strategy. Government Resolution 24.1.2013. Helsinki: Secretariat of the Security and Defence Committee.

¹² Peer Review Report Finland – Building resilience to disasters: Assessing the implementation of the Hyogo Framework for Action (2010-2015), 2014.

In addition, there is a close cooperation with neighboring countries in terms of CM, correlated with several bi- and multilateral agreements, Finland as a nation is part of as well as single authorities. Even on municipality-level, cross-border agreements exist (for international cooperation, see 3.2).

1.4.5 Regular policy reviews

Requested by the Security Strategy for Society (2010), the national policy review is conducted by monitoring the implementation of its strategy, which is to be based on at least the following entities:

- ministry reports and assessments on how their strategic tasks have been taken into account in the administrative sector's preparedness and the capabilities to manage a disturbance
- compiling and analysing the lessons learned from having managed disturbances
- assessments on the functioning and development needs of the security of supply
- arrangements in their administrative sector, and
- experiences from the preparedness exercises of administrative sectors, the Government and the authorities nation-wide

According to the Security Strategy for Society,

the monitoring of the Strategy's implementation also produces grounds for security research in administrative sectors and also for national co-operation in the field of security research. National and international security research is conducted and forms of cooperation are developed through the strategy for national security research; the Advisory Board for Sectoral Research is in charge of the strategy's implementation. Furthermore, the Scientific Advisory Board for Defence (MATINE), the security programme of the Finnish Funding Agency for Technology and Innovation (TEKES), the EU's framework programme for security research and the technology programmes and excellence networks of the Defence Forces produce research to support the Security Strategy.

On the international level, Finland volunteered, as a second country, after United Kingdom, for the evaluation through a Peer Review Process with regard to the implementation of the Hyogo Framework for Action (HFA) and its related priorities into the national crisis management concept¹³. As a result, Finland benefits from the feedback of high-level experts from the EU Commission (DG Humanitarian Aid and Civil Protection (ECHO)), the UN office for disaster risk reduction (UNISDR) and the Organisation for Economic Co-operation and Development (OECD).

Objectives of the Peer Review Process are:

- enhance the effective implementation of and reporting on the HFA, contributing to improved policy-making on disaster risk reduction through external assessment and mutual learning;
- increase the consistency between the national disaster risk reduction policies and stimulate transferability of good and innovative practices;

¹³ Peer Review Report Finland – Building resilience to disasters: Assessing the implementation of the Hyogo Framework for Action (2010-2015), 2014.

- contribute to developing and implementing EU policy initiatives in disaster risk management in EU Member States as well as in neighbouring countries;
- encourage awareness-raising through broad involvement of stakeholders in the review process and wide dissemination of the results;
- foster policy dialogue in Europe and enhance regional cooperation between countries exposed to common hazards and risks

The development in the respective Progress Reports on the Implementation of the Hyogo Framework for Action¹⁴ shows that the quite young strategy is still in the implementation phase in all levels and thus provides several examples for the realization of recommendations/implementation of the results of policy and strategy reviews.

1.5 Resilience

Since Finland's policy and strategy approaches in terms of CM have all been renewed or reviewed in recent years, the concept of resilience as understood today by academics or within the European Union, is widely implemented. Increasing Europe's resilience to crises and disasters is one of the five strategic objectives in the 2010 Security Strategy for Society.

Even specific aspects of resilience are emphasised in the general policy: strengthening psychological resilience is listed as a separate strategic task in the Security Strategy for Society under the responsibility of the Ministry of Education (see table 3).

1.6 Information sharing and data protection

Data sharing and dissemination is very effective in Finland as it follows an open-data policy: all data paid for through public budget can be accessed by Finnish citizens.

This means that the Ministry of the Interior, the Emergency Response Centre Administration, the Finnish Meteorological Institute (FMI) and the Finnish Environment Institute (SYKE) – and also other actors – are relevant owners of data, and are open to data sharing.

The Emergency Response Centre Administration, for instance, shares its data on accidents with a number of other organisations, such as FMI or SYKE, and receives data from them free-of-charge. FMI and SYKE will further this policy of data exchange by establishing a joint flood centre. There seem to be no obstacles in the national data-sharing policy which could hamper disaster risk reduction. The energy sector also uses FMI databases on frequencies and impacts of storms. Similarly, cooperation with the insurance sector to share loss data has facilitated the development of flood risk assessment. At the regional level, weather radar data sharing among

¹⁴ Ministry of the Interior: National progress report(s) on the implementation of the Hyogo Framework for Action, 2012 (2009-2011), 2013 (2011-2013), 2014 (2013-2015, interim)

the Scandinavian countries brings benefits to each of them by improving monitoring at a lower cost¹⁵.

As a result of high-level contingency planning and the need to secure official data flows and data security, both during peacetime and crises, the *safety network project TUVE* has been set up with the aim to implement a Government Security Network in 2013¹⁶. Upon a government decision in 2011 TUVE's management, maintenance and development will gradually be transferred after the construction phase to State Security Networks Ltd., the same operator who runs the VIRVE radio network for the rescue authorities (see 4.4).

¹⁵ Peer Review Report Finland – Building resilience to disasters: Assessing the implementation of the Hyogo Framework for Action (2010-2015), 2014.

¹⁶ Ministry of the Interior: *National Platform for Disaster Risk Reduction*. Ministry of the Interior publication 14/2012

2 Legislation

2.1 Crisis (emergency, disaster) management concept

The VADEMECUM platform summarizes the concept as followed:

Each authority is responsible for its statutory functions not only during peacetime, but also during crises such as serious international disturbances, the threat of an armed attack, war, post-war situations, economic crises and disasters. To prepare for emergencies, authorities are obligated by law to take precautionary measures such as making contingency plans, acquiring special equipment and training personnel.

In principle, the same or similar emergency plans apply to the civil administration during both wartime and peacetime civil emergencies.

One guiding principle of the Civil Emergency Planning (CEP) is that each authority continues with its normal functions also during a state of crisis. However, in such a case, authorities can assume specific additional responsibilities related to their normal functions. Another principle is that as few new bodies as possible are introduced into civil administration in case of a crisis.

Organisational changes are kept to a minimum. In addition to authorities, governmental bodies, companies and institutions are to continue with their peacetime functions. Authorities are expected to allocate the necessary funds for emergency planning and other preparatory measures in their annual budgets.

See also chapter 1.2

2.2 General crisis (emergency, disaster) management law

Naturally, the underlying law in Finland is the Constitution of the country, which prescribes the grounds for expanding the authorities' powers in case of emergency conditions. Disaster preparedness in society is based on powers of authority in normal conditions, and special powers of authority to be issued in emergency conditions are based on these.

With regard to the so called crisis legislation, the **Emergency Powers/Readiness or Preparedness Act** has been updated 2011 and aims to guarantee the nation's livelihood and the national economy, maintain law and order, protect the basic rights of citizens and safeguard the territorial integrity and independence of the nation in extraordinary situations by regulating authority powers in emergency conditions. It could be applied before or beside the **State of Defence Act** of 1991, which gives additional powers for the government in the defence against an armed aggression.

The Finnish **Rescue Act**, which is the country's basic law for disaster management, requires not only the rescue services but also various other stakeholders, including other state agencies and the private sector, to undertake specific disaster risk management actions. The Act, also amended in 2011, covers prevention, preparedness and response and lays down, among other things, the tasks of rescue services and the administration and the powers of rescue authorities from national to local

levels. Thus, the Rescue act is the key general act regulating functions during disturbance in normal conditions, where the situation in question is not a crisis pertained to in the Emergency Powers Act (see also 2.3)¹⁷.

The rescue service authorities have broad jurisdiction, as stated in the Red Cross's report on legal preparedness for international disaster response (2014):

According to Section 36 of the Rescue Act, regional rescue authorities and the rescue authorities of the Ministry of the Interior have the right to "order people to protect themselves and evacuate people and property; take any such necessary action that may cause damage to immovable or movable property; order that buildings, communications links and equipment, as well as equipment, supplies, foodstuffs, fuel and lubricants and extinguishing agents required in rescue operations shall be made available; take any other action as required by rescue operations". In addition to rescue service authorities, the police have the right to order people to provide assistance in rescue operations.

2.3 Emergency rule

The Finnish Red Cross's report on legal preparedness for international disaster response 2014 summarizes the criteria for emergency conditions as followed:

*The application of the provisions of the **Emergency Powers Act** requires that the Government and the President confirm that the criteria for emergency conditions are met and a Government Decree on using the emergency powers is issued. The Decree must immediately be submitted to Parliament for approval. Emergency powers must be specified accurately and realistically.*

According to Section 3 of the Emergency Powers Act, emergency conditions include military conflicts, particularly serious incidents or threats to the livelihood of the population or the foundations of the national economy that put at risk the functions vital to society, particularly serious catastrophes and their aftermath, and dangerous communicable diseases that have spread extremely widely and are similar in their effects to particularly serious catastrophes. Emergency powers can only be used if the situation cannot be controlled through the normal powers of authority. If the situation in question is not a crisis pertained to in the Emergency Powers Act, but a disturbance in normal conditions, the authorities shall operate in accordance with the normal legislation, decrees and preparedness plans along with other official arrangements.

The scope of decision-making or emergency powers during emergency conditions is wide, encompassing large parts of the economy (including for example price controls and the distribution of goods), the organisation of public administration, the postponement of local elections and the transfer of municipal powers, compulsory labour, the confiscation of goods, a duty to submit

¹⁷ Finland's legal preparedness for international disaster response – Host Nation Support Guidelines. Finnish Red Cross 2014.

information to the government, etc. Nevertheless, government decisions on such issues must be put to parliament¹⁸.

According to the Emergency Powers act, exceptions to basic rights and personal liberties can only be made in terms of use of labour of Finnish residents. However, exceptions to international human rights obligations cannot be made under any circumstances.¹⁹

2.4 Specific, department/agency-level legal arrangements and regulations on emergency and disaster management

A real specificity of Finland is the *Security of Supply Act*, which aims to safeguard all economic activities that are necessary for maintaining the population's livelihood, the country's economy and national defence during a crisis, having resulted in the creation of a related public-private partnership and of the National Emergency Supply Agency (NESA) (see also 3.1).

Other important legislative acts referring to disaster risk reduction include the *Land Use and Building Act*, the *Environmental Protection Act*, which aim to reduce the underlying risk factors, or specific arrangements like the *Dam Safety Act 2009* or the *Government Decree on Emergency Response Arrangements at Nuclear Power Plants 2008*.

2.5 Specific to the regional and local authorities legal arrangements and regulations on emergency and disaster management

Because municipalities for the most part have the responsibility for organising basic services and other functions vital to society, their role in local administration is central. The Finnish Red Cross's report on legal preparedness for international disaster response 2014 summarizes the regulations on the local/regional levels as followed:

The local administration contains the municipalities, whose administration shall be based on the self-government of their residents, in accordance with Section 121 of the Constitution. Provisions on the general principles governing municipal administration and the duties of the municipalities are laid down in legislation. The municipalities have the right to levy municipal tax in order to cover costs incurred, and to manage their tasks. There are 320 municipalities in Finland. They hold a significant responsibility for providing basic services and organising other vital operations in society. The public administration also contains the church administration and indirect public administration. The region of Åland is autonomous in accordance with the provisions of the Act on the Autonomy of Åland.

¹⁸ Khakee, Anna. *Securing Democracy? A Comparative Analysis of Emergency Powers in Europe*. Geneva Centre for the Democratic Control of Armed Forces (DCAF). Policy Paper – №30

¹⁹ Finland's legal preparedness for international disaster response – Host Nation Support Guidelines. Finnish Red Cross 2014.

2.6 Legal regulations on the involvement of volunteers and specialised NGOs

According to the Finnish Red Cross's report on legal preparedness for international disaster response 2014,

a large number of companies, associations and voluntary organisations participate in public administration. Private service providers play an increasingly significant role in the maintenance of the basic services in society. As a member of the European Union, Finland is committed to the principles of free competition and the freedom to provide services, as well as the related EU legislation.

According to Section 51 of the Rescue Act, voluntary organisations and persons may be used to assist in the training, advisory and educational duties of rescue services and in rescue operations; they may not, however, be used in duties that involve a substantial use of public authority, such as the use of official powers or inspection. The authorities assigned by law are always ultimately responsible for statutory duties. The police can use members of voluntary organisations in carrying out search operations and other assistance tasks that do not involve the substantial exercise of official authority. The Finnish Red Cross is an organisation whose foundation and activities are governed by public law.

*The **Volunteer Rescue Service (Vapepa)** is an association of 50 organisations. Its purpose is to support the authorities, particularly in operations requiring a large number of rescue personnel. If requested, Vapepa works in collaboration with the authorities, supporting and complementing them. Its organisations have a number of agreements on both the local and the national levels with the police, rescue authorities and social welfare and health authorities. Voluntary rescue services in general are coordinated by the Finnish Red Cross. The Finnish Lifeboat Institution coordinates voluntary sea rescue services, and the Finnish Air Rescue Society coordinates voluntary air rescue services.*

2.7 Legal regulations for international engagements of first responders and crisis managers

International engagements of Finnish first responders abroad are regulated by the Act on the Participation of Civilian Personnel in Crisis Management (1287/2004).

According to this act,

A person participating in crisis management abroad has a fixed-term employment relationship, governed by public law, with the State, which is represented as an employer by the Ministry of the Interior. The State as an employer is, however, represented by the Ministry for Foreign Affairs, if foreign and security policy considerations warrant it.

With regard to rights and obligations of persons in employment relationships, the act further gives information on:

- Leave of absence and continuation of an employment or civil service relationship
- Holiday compensation

- Family leave and sick leave
- Group life insurance
- Pension rights
- General retirement age
- Basic salary
- Compensation for conditions
- Compensation for certain costs
- Termination of employment relationships

3 Organisation

3.1 Organisational chart

In Finland, disaster preparedness is implemented at all levels of society. All administrative sectors are obligated to draw up preparedness plans and maintain preparedness in case of emergency conditions or disturbances in normal conditions. The administrative system in Finland is based on the *principle of strong mutual trust*: the authorities trust and comply with decisions made by other authorities within their jurisdiction. The authorities support one another and collaborate. Responsibility lies with the authorities to which the duties are assigned by law (see also chapter 1 & 2).

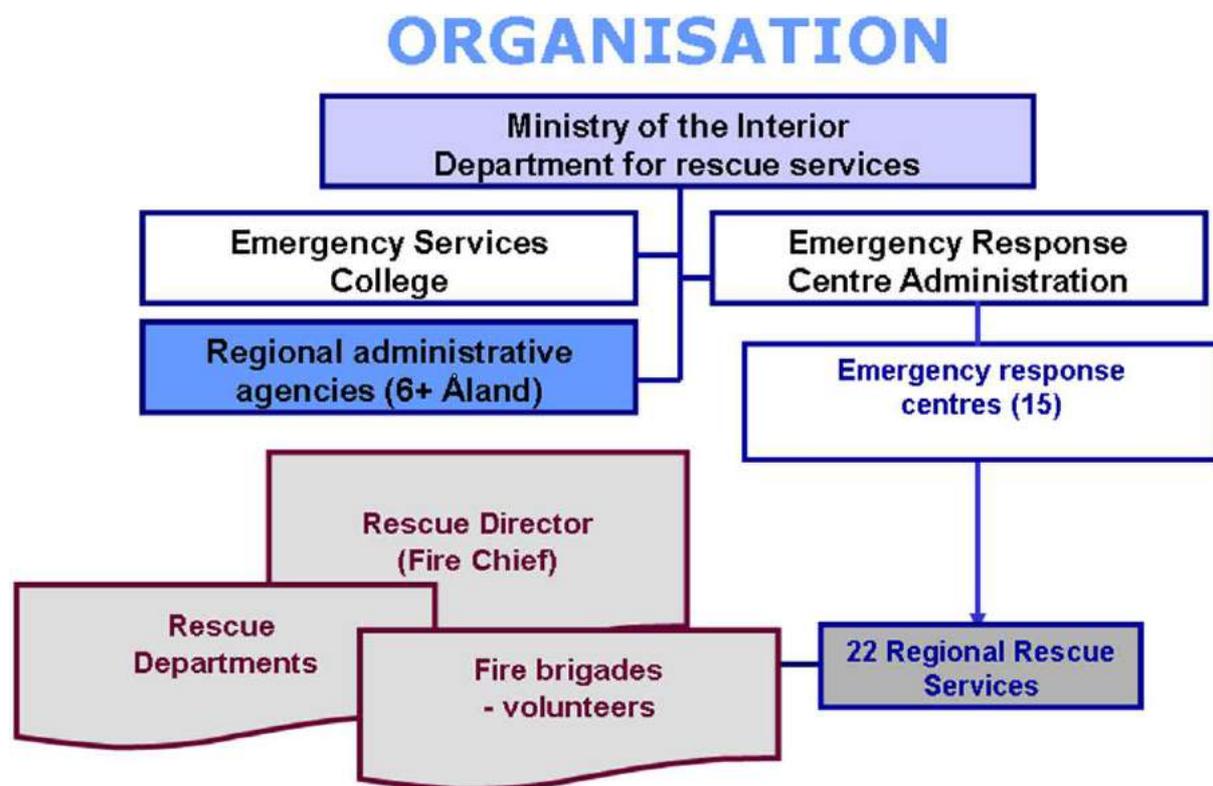


Figure 1: Organisational Chart of the Crisis Management Structure of Finland
Source: http://ec.europa.eu/echo/files/civil_protection/vademecum/fi/2-fi-1.html

Finland has established a strong and comprehensive disaster management system which at present remains highly decentralized.

At national level, the *Prime Minister's office* is responsible for the coordination of crisis management. The Permanent Secretaries of the ministries are responsible for securing the functions of their respective administrative branches in a state of emergency as provided for in the Security Strategy for Society. A committee of the *Heads of Preparedness* of all ministries can be convened in case of a crisis.

The *Ministry of the Interior's Department for Rescue Services* has been appointed the *National Coordinator* for the implementation of the Hyogo Framework for Action. The task of the National Coordinator is to report to the United Nations on the results of work to prevent disasters caused by natural hazards and mitigate their damage.

The *Finnish Cooperation Network* was appointed on 7 May 2010 to act as a cooperation body and to prepare a **National Platform for Disaster Risk Reduction**. The Cooperation Network consists of a *steering committee* and an *expert committee*, whose tasks are specified in the letter of appointment and does not have independent competences.

The aim of the Cooperation Network is to clarify the overall picture of preparedness for natural disasters and to identify areas that require further action or development. The National Platform aims also to monitor the progress in each issue. In addition, the Cooperation Network aims to find issues for which there is a clear need for development.²⁰

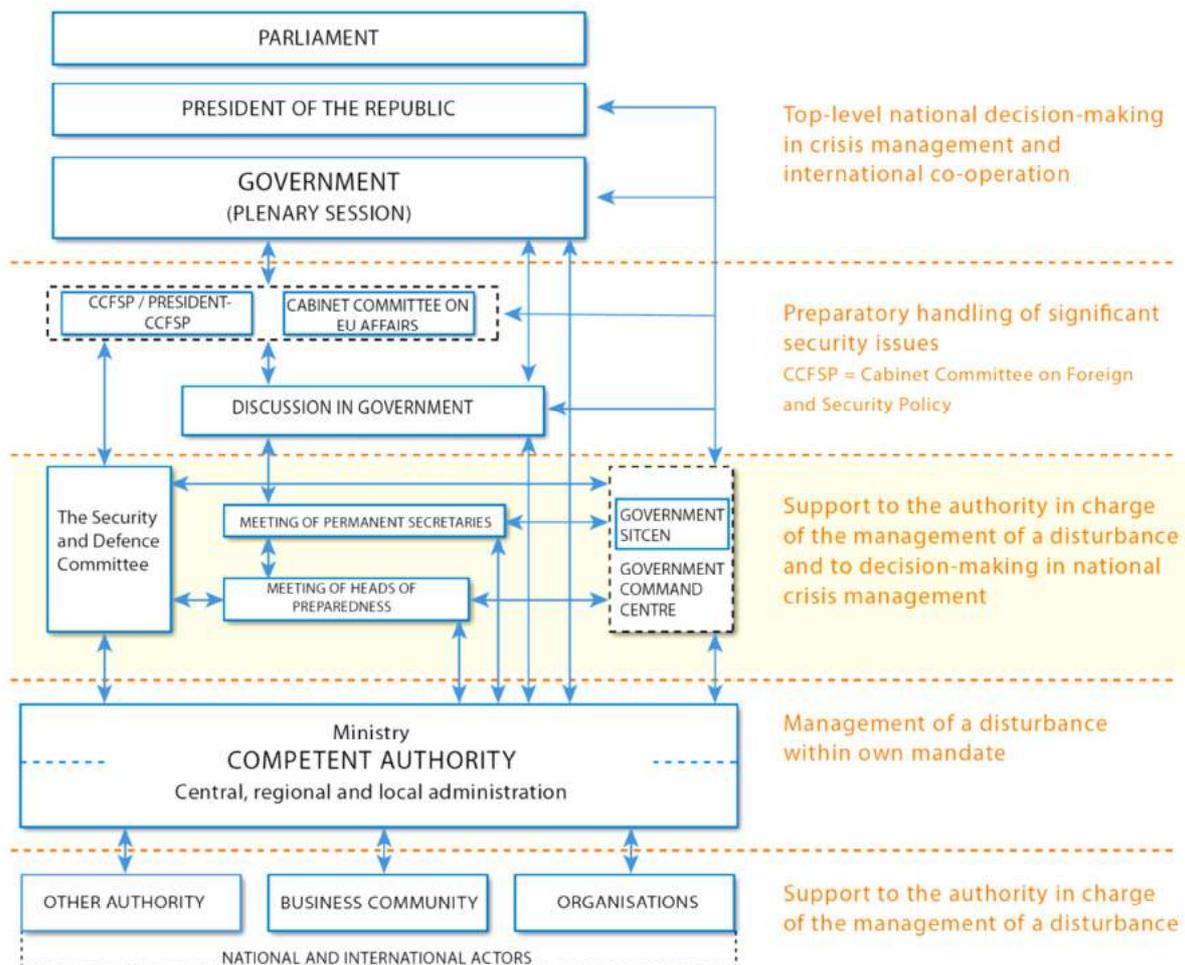


Figure 2: The principle of the management of disturbances
Source: "Security Strategy for Society", Ministry of Foreign Affairs 2010.

The Ministry of the Interior Department for Rescue Services directs and monitors rescue services. According to the Homepage of the Ministry of the Interior²¹, the Department for Rescue Services is responsible for the following matters:

- rescue services

²⁰ Ministry of the Interior: *National Platform for Disaster Risk Reduction*. Ministry of the Interior publication 14/2012

²¹ http://www.intermin.fi/en/ministry/organisation/department_for_rescue_services

- emergency response centre operations, the **Emergency Response Centre Administration** and performance guidance for it
- the **Emergency Services College** and performance guidance for the College
- the Fire Protection Fund, excluding its operational and financial control
- international rescue operations
- contingency planning
- joint preparedness of regional authorities for emergency and abnormal conditions and the related central government duties
- Finland's Public Authority Radio Network (VITRE)
- lifesaving medals
- the Finnish Red Cross

The Department deals with the following matters in cooperation with the Police Department: performance guidance, budget and setting up of working groups of the Emergency Response Centre Administration; any other matters important for the work of the Emergency Response Centre Administration.

At regional level, Finland is divided into **22 regional rescue services** which manage operations in their respective regions (see Figure 4). Municipalities (at present 320 in total) are jointly responsible for the **Rescue Services** within designated regions and must have an agreement regarding the organisation within the region. Tasks of the rescue services consist primarily of firefighting, combating industrial disasters, and providing relief in case of traffic accidents, land-based oil spills and releases of hazardous material.

To prevent fires and other incidents, rescue departments work together with other authorities and with local residents and communities (see also 3.2.1), and take part in local and regional safety planning (see also 4.1 and 4.2). Main authorities are:

- the **police**
- the **Frontier/Border Guard** - mainly when helicopters or other aircraft is needed, e.g. in cases of forest fires or other major accidents or for airborne ambulance services in isolated and/or remote areas (the Coast Guard is part of the Frontier Guard and takes the key role in open sea rescue interventions)
- the **Defence Forces** - providing equipment, manpower and special expert services necessary for rescue activities where this is deemed necessary with regard to the extent and special nature of the accident
- **social and health authorities**
- authorities and institutions in charge **of agriculture and forestry** – e.g. the Forest and Park Service is liable to provide expert assistance in the fighting of forest fires
- **environmental** authorities – e.g. provide rescue operators expertise concerning oil and other harmful material in case of spills or releases (*environmental authorities from Ministry over the Finnish Environment Institute SYKE down to local authorities*)

are heavily involved in disaster preparedness and prevention and thus play a **key role** next to the rescue authorities)

- authorities in charge of **passenger and goods transport and communications**
- agencies and institutions in charge of **radiation and nuclear safety** and **weather services**

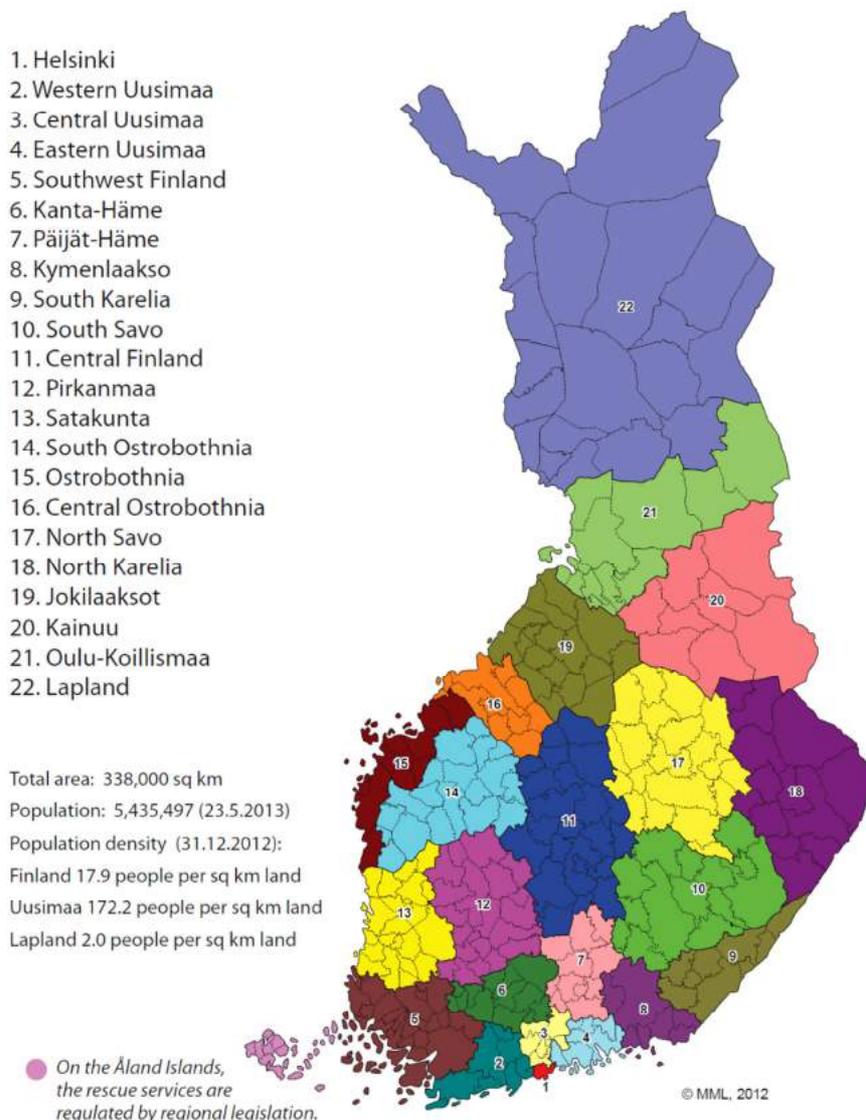


Figure 3: The 22 Rescue Services Regions of Finland

Source: Ministry of the Interior - Department for Rescue Services - "Rescue services in Finland" www.pelastustoimi.fi/

Voluntary, institutional, industrial and military **fire brigades** (contract fire brigades) also participate in performing rescue service duties as agreed between the brigades and the regional rescue services. **Voluntary fire brigades** (over 600 nationwide) play a significant role in the rescue services system. Organised in the form of private associations, they take part in operations according to an agreement with the permanent rescue service authority in the region. In some municipalities, the firefighting is entirely a voluntary fire brigade's task.

The *use of assistance provided by the Defence Forces*, as described above, is restricted by the Act on the Defence Forces 11.5.2007/551:

The Defence Forces may assist another Finnish authority in providing rescue or other assistance to another country in case of a terrorist attack, a natural disaster, a major accident or similar occurrence. The Defence Forces may assist by contributing equipment, material or expert assistance. Military force may not be used in providing such assistance.

The decision regarding the participation of the Defence Forces in an operation as described in subsection 1 above is taken by the Ministry of Defence at the request of the competent Ministry, after consulting the Ministry for Foreign Affairs.

If the project is extensive and an important principle is at stake, or if the significance of the matter otherwise requires, the decision regarding the participation of the Defence Forces in an operation as described in subsection 1 above is taken by the Government in general session. If the providing of such assistance is of major foreign policy importance, the decision is taken by the President of the Republic.

The Defence Forces may not be assigned to the duties referred to in subsection 1 without the decision-making procedure referred to in subsection 2 or 3, unless the authority of the Commander-in- Chief of the Defence Forces allows otherwise.

Finland is divided in 15 **Emergency Response Centre (ERC)** areas and all areas have their own ERC. The **ERC Administration** is directed and managed by the Ministry of Interior in cooperation with the Ministry of Social Affairs and Health. All emergency calls are made to one number, 112, and managed by ERC.

Rescue departments carry out the duties of rescue services in their respective rescue regions. They are supported by the Ministry of the Interior and represent the key actors to provide full coverage with rescue services at a defined level and to ensure that adequate tools and mechanisms for disaster risk management are in place. Regional rescue services are thus responsible for standards of service, appropriate organisation of the operations of the rescue departments as well as for other duties specified in the Rescue Act.

Six regional **State Administrative Agencies (AVI)** (+ Åland) supervise and assess the coverage and quality of rescue services and preparedness. They guide and direct rescue services' planning and coordinate plans in their respective regions.

The State Administrative Agencies together with the **Centres for Economic Development, Transport and the Environment Centres (ELY)** play a central role in the preparedness of regional administration.

As mentioned above, the environmental authorities are another key player in Finland's disaster preparedness and response. For instance, the **Finnish Environment Institute (SYKE)** operates subordinate to the Ministry of the Environment. The Institute has research facilities and in combating chemical releases at sea it takes the general command over rescue units. Vessels utilised in these situations are mainly operated by the Frontier Guard, the Defence Forces or municipalities.²²

Another example of a competent authority is the **Radiation and Nuclear Safety Authority (STUK)**, which operates 288 stations continuously measuring radiation in the environment (see also 4.2).

²² Emergency Prevention, Preparedness and Response Working Group (EPPR) of the ARTIC COUNCIL <http://www.arctic-council.org/eppr/about-eppr/>

The **Finnish Crisis Management Centre (CMC Finland)**, located in Kuopio, is a governmental institution and a centre of expertise in *civilian* crisis management. Thus, it is not within the focus of this study, but worth mentioning. The main tasks of CMC Finland are to train and recruit experts for international civilian crisis management and peacebuilding missions as well as conduct research focusing on civilian crisis management. CMC Finland acts as a national head office for all seconded Finnish civilian crisis management professionals.²³

3.2 Organisational cooperation

3.2.1 National Cooperation

All competent ministries have strong links and mechanisms for cooperation with local governments as well as key agencies and associations who support them in translating national policy into local and regional delivery. Resulting from the heavily decentralized system in correlation with the responsibility to cover all aspects relevant for disaster risk reduction in each competent authority, a lot of networks, specific agencies and sectoral cooperation exist at all levels including all sorts of stakeholders and actors as well as cross-border/bi- and multilateral international agreements (see 3.2), to fulfil the respective tasks within the authority's mandate.

For example, the **Red Cross**, as a major *non-governmental* response organization, has an auxiliary response capacity and is well integrated in public preparedness planning. It coordinates 50 voluntary response organizations within the framework of a Voluntary Rescue Service network (Vapepa, see also 2.6).

Environment accident response is another example of cooperation between a wide range of authorities and actors. They include the Finnish Environment Institute; Centres for Economic Development, Transport and the Environment; municipalities; the Finnish Transport Safety Agency; the Finnish Navy; the Rescue Departments and the Finnish Border Guard.

Businesses and organisations also participate, e.g. in *oil-spill response* at sea; the increase in marine traffic in the Baltic Sea is leading to an increased risk of oils spills. The Ministry of the Environment is responsible for general guidance and monitoring with regard to prevention of and response to oil spills and chemical spills at sea and land. SYKE, the Institute for Environment, is responsible for the prevention of and response to oil spills from ships whereas regional rescue services are responsible for the prevention of and response to land-based oil spills.²⁴

As mentioned under 2.4, the **National Emergency Supply Agency (NESAs)** has been created, with the task to promote and co-ordinate the preparedness of the authorities to steer the country's economy for crisis situations and serious disturbances, thus securing the critical infrastructure and production activities of society, as requested by the Security of Supply Act and the Security Strategy for Society.

This has resulted in a Public-Private Partnership in Security of Supply (see Figure 4).

²³ http://www.cmcfinland.fi/en/crisis_management_centre

²⁴ Emergency Prevention, Preparedness and Response Working Group (EPPR) of the ARCTIC COUNCIL
<http://www.arctic-council.org/eppr/about-eppr/>

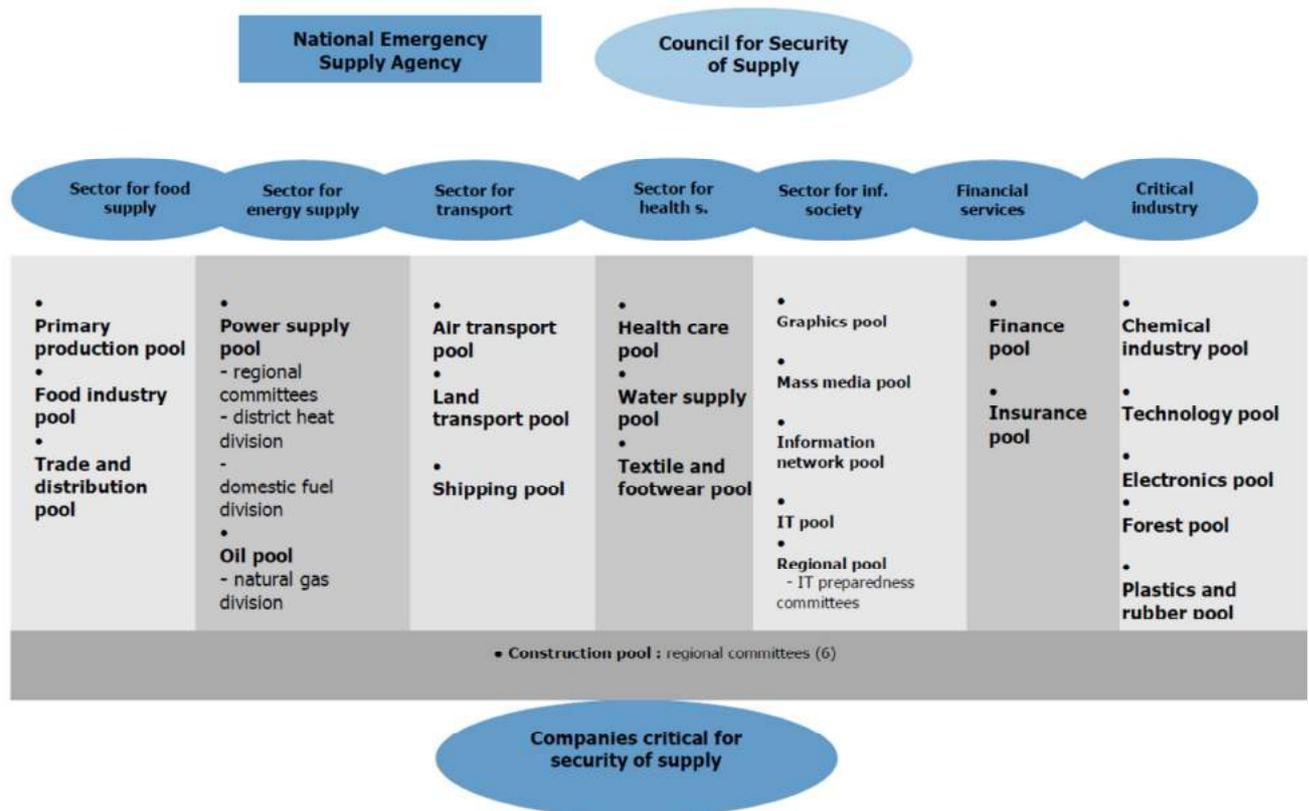


Figure 4: Public-Private Partnership in Security of Supply

Source: Ministry of the Interior: National Platform for Disaster Risk Reduction. Ministry of the Interior publication 14/2012.

Public opinion polls show that 99 per cent of all Finnish citizens trust the rescue services and evaluate their work positively. As mentioned earlier, the Government has furthermore set an ambition to make the Finnish rescue services the most effective in Europe and is currently planning a reform to improve their cost-effectiveness.

3.2.2 International Cooperation

The Country Study on Finland within the ANVIL project²⁵ summarizes international cooperation as followed:

Up to now, Finland has not officially requested disaster assistance through regional and international arrangements. Nonetheless, Finland has entered into multiple bilateral agreements on mutual crisis management assistance which cover all neighbouring countries. In addition, Finland has signed related regional and multilateral provisions of the Council of Europe, the EU, NATO, the OSCE and the UN. On the regional level, Finland has signed provisions of the Council of the Baltic Sea States (CBSS), the Nordic Council of Ministers (NCM), the Baltic Development Forum and the Baltic Sea States Subregional Cooperation (BSSSC).

²⁵ Hellenberg, Timo and Visuri, Pekka. *Country Study: Finland*. Analysis of Civil Security Systems in Europe (ANVIL) Project, June 2013

Finland takes part in international relief and rescue operations mainly under agreements signed with its neighbouring countries as well as through the European Union Civil Protection Mechanism (Monitoring and Information Centre, MIC) and on assignments from the United Nations Office for the Coordination of Humanitarian Affairs (OCHA). Finland takes part actively in developing crisis preparedness under NATO's Partnership for Peace programme. Finnish assistance has taken place through the UN's UNDAC team (United Nations Disaster Assessment and Coordination Stand-By Team), or in the EU/MIC team of experts. Since 1993, Finland has maintained the FRF (Finnish Rescue Force) which is a 200 person task force for search and rescue missions in international assignments. A typical FRF team comprises 40 people and their equipment with a capacity of two weeks' self-sustaining operation in a disaster area.

Finland has been relatively careful in offering assistance and aid in civil security crises; a recent example of the Russian forest fires in 2010 showed the traditional careful consideration and respect of formal state agreements and hierarchical proceedings in providing help. The decision to provide assistance overseas is made by the Ministry of Interior at the request of another state or an international organisation. Capacity building, training and other practical tasks for international missions are ensured by the Crisis Management Centre (CMC) in Kuopio. Once a decision is made to provide assistance, the members of the task-force will be recruited among regional rescue services staff trained for international missions.

Rescue operations may include firefighting, searches, rescue, first aid, clean-up of oil and chemical spills, damage assessment and water rescue missions. Assistance may also include helping the population on site or evacuating the population, in which case leadership, electricity and power generation, cleaning and supplying water and arranging temporary accommodation may be involved.²⁶ Thus, Finland contribute civilian resources—civil protection assets and UN Disaster Assessment and Coordination (UNDAC) personnel—or make cash contributions to humanitarian agencies. Finland does not contribute *military assets* to disaster responses²⁷, but has as strong focus on developing niche capabilities of Defence Forces with regard to international assistance in military and civilian crisis management.²⁸

Regarding regional cooperation and bilateral treaties, the Finnish Red Cross's report on legal preparedness for international disaster response 2014 states:

Finland participates in regional collaboration through various cooperation bodies and local and bilateral agreements. The regional divisions related to the agreements and cooperation bodies are not necessarily consistent, and the system of agreements is not hierarchical. The most relevant agreement is usually applied to rescue services and international aid.

International obligations are usually implemented by law and/or a Government Decree. If regulations contain provisions of a legislative nature they are implemented in accordance with Section 94 of the Constitution of Finland.

²⁶ http://ec.europa.eu/echo/files/civil_protection/vademecum/fi/2-fi-2.html#inter

²⁷ Stockholm International Peace Research Institute SIPRI. *The effectiveness of foreign military assets in natural disaster response*. Solna, 2008.

²⁸ Ministry of Foreign Affairs. *Finland's Comprehensive Crisis Management Strategy*. 2009

For regional agreements, the report lists²⁹:

1. Nordic agreements
 - a. Nordic agreement on rescue services (NORDRED)
 - b. Nordic Framework Convention on Health Care (NORDHELS)
2. Barents Treaty
3. Agreement on cooperation on aeronautical and maritime search and rescue in the Arctic
4. bilateral agreements between municipalities of Norway and Sweden based on the NORDRED agreement with regard to intermunicipal cooperation (agreements are based on the principle of reciprocal services and operations)
5. possible agreements of authorities on assistance, costs and cooperation with the Russian authorities, based on the Barents Treaty

For bi-lateral (national) agreements (additional to the above mentioned multilateral agreements):

1. Russia
 - a. Cooperation in sea and air rescue
 - b. Agreement on cooperation for the prevention of accidents and their consequences
2. Sweden
 - a. Agreement on cooperation in maritime and aeronautical rescue services
3. Norway
 - a. Agreement on cooperation regarding search and rescue services in border areas
4. Estonia
 - a. Agreement on cooperation and mutual assistance in cases of accidents
 - b. Agreement concerning cooperation on maritime and aeronautical search and rescue

3.2.3 Operational aspects regarding international assistance³⁰

Requesting assistance

In Finland, the duty and jurisdiction for requesting international assistance is determined by the nature of the incident and by the system of agreements within which the request is being made.

Requesting international assistance does not presuppose that a national emergency or a state of emergency has been declared. No special criteria have been set in legislation or preparation for requesting assistance. There is no obligation to request international assistance or accepts

²⁹ For more information on the respective agreements, see Finland's legal preparedness for international disaster response – Host Nation Support Guidelines (Finland Study) under <http://www.ifrc.org/en/what-we-do/disaster-law/news/europe/>

³⁰ Taken from the Red Cross's report on Finland's legal preparedness for international disaster response 2014

offers of assistance. Finland can reject all offers of assistance or specify the assistance it needs or is willing to accept, from individual employees to vehicles. Requests for assistance must be explicit and specified.

*In accordance with Section 35 of the Rescue Act, if authorities from more than one sector take part in rescue operations, the officer in charge of the rescue operations is in overall charge of the situation. In practice, the officer in charge of rescue operations in the area of the accident notifies the Department for Rescue Services of the Ministry of the Interior of the accident (or the officer on duty at the ministry outside office hours). They also assess the need for requesting international assistance. According to Section 38 of the Rescue Act, “the Ministry of the Interior may also request international assistance in the field of rescue services from the European Union, other states or international organisations”. The decision to request assistance is made by the **Director-General of the Department for Rescue Services** at the Ministry of the Interior of his or her deputy.*

*All administrative sectors have their own general leadership and, in cases such as cross-border threats to health, international assistance can be requested by the **Ministry of the Interior** or, in incidents relating to radiation safety, by **STUK**. Each authority decides on requesting assistance and the content of the assistance within its sector.*

*The **Finnish Red Cross** can request assistance independently from national Red Cross organisations in other countries, the International Federation of Red Cross and Red Crescent Societies (IFRC) and the International Committee of the Red Cross (ICRC). In the Cap of the North, the Finnish Red Cross can request assistance independently in Finland, Sweden, Norway and Russia. The Nordic countries have made agreements on mutual assistance between national Red Cross organisations (the cooperation is based on agreements made at regular meetings).*

Finland has no common arrangements in place for requesting international assistance nor a designated body to process the offers of assistance received when international assistance is requested. At the international level, in particular in the case of large-scale disasters, several operators from different sectors and systems may offer assistance. In order to guarantee and define the correct and rapid assistance it would be useful to create a national system for processing offers of assistance.

National Contact Points

*The national contact point in Finland is the **Government’s Situation Centre** which operates under the Prime Minister’s Office. The Government Situation Centre is an around-the-clock contact point for officers on duty at ministries and for situation centres in various administrative sectors.*

The Government Situation Centre is responsible for international communications related to the information it has received. Using the CECIS, the Government Situation Centre passes on

the requests for international assistance made by Finnish authorities to the ERCC and other possible providers of assistance.³¹

The principle rule is that the Ministry of the Interior is the competent authority and provides guidance in arrangements related to international assistance when many authorities are involved in a situation, but other agencies may have been designated as the national contact point in different agreement systems. Agreements relevant to this report include emergency notification and assistance systems of the IAEA, where the Radiation and Nuclear Safety Authority (STUK) under the Ministry of the Interior serves as the authority responsible for cooperation and situations of cross-border threats to health, where the jurisdiction lies with the Ministry of Social Affairs and Health. For sea rescue, the decision to request international assistance is made by the Maritime Rescue Coordination Centre. In air rescue, international assistance is requested by the aviation authority.

Rescue departments in Finnish border municipalities have special agreements on mutual assistance in rescue services with border municipalities in Sweden, for example. With Russia, Finland has adopted various common methods developed in practice over time. Local agreements may designate rescue departments or emergency response centres as contact points. According to the Barents Treaty, the primary national contact point in Finland is the emergency response centre in Oulu.

Finland has a long history of cooperation with Russia, and national contact points may be defined differently in various agreements. In addition, part of the information in the agreements is outdated.

Several reforms have taken place in the Finnish administration since Finland signed many international agreements; for example, the new Emergency Response Centre Agency was established in Finland, and in the agreements the definitions of contact points are not entirely up to date. The Ministry of the Interior has proposed that all contact point operations based on treaties be concentrated at the Government Situation Centre.

³¹ The Government Situation Centre has no jurisdiction to issue decrees or regulations and serves as a coordinating authority only. It receives event notifications and reports from international partners and follows the news cycle. (Red Cross report)

4 Procedures

4.1 Standing Operating Procedures (SOPs) and Guidelines

According to section 47 of the Rescue Act, authorities, agencies and state and municipal enterprises are all required to provide their executive and expert assistance as need be to prepare emergency plans under the direction of the rescue services.

There is also an obligation to ensure business continuity and cooperate during responses to disasters and emergencies. Furthermore, dedicated emergency plans have to be set up for public events as well as for specific risk-prone buildings or industrial sites, under the responsibility of the owner or the occupant. Plans, which should follow the minimum requirements defined in the Rescue Act and be submitted to the rescue services, are checked regularly by the regional state agencies. The Rescue Act also requires educational institutions and hospitals to prepare and update emergency plans anticipating dangerous situations and their impacts, with detailed instructions for evacuation. Under the Internal Security Programme, local security plans should also be prepared at the local level. Community participation in emergency planning is furthermore enabled by the Finnish National Rescue Association and also by programmes of the Red Cross.

For specific areas, like nuclear facilities (fostered by the government decree on Emergency Response Arrangements at Nuclear Power Plants 2008) or ports, cooperation within the development of emergency plans with relevant business and industrial operators is requested.

Though, emergency plans most likely exist for all possible situations at all levels, a dedicated written (English) example could not be found within this study.

An example for emergency plans resulting in guidelines is the Safety Manual of the Port of Kokkola³².

4.2 Operations planning

As mentioned before, each authority is responsible for its statutory functions not only during peacetime, but also during crises such as serious international disturbances, the threat of an armed attack, war, post-war situations, economic crises and disasters. Due to the all-hazard approach and the low risk profile of Finland, usually no specific operations planning are set out, but *contingency planning*.

The responsibility for self-preparedness also applies for owners or holders of a building, an industrial or commercial entrepreneur, an agency, institution or other organisation as well as for those, running operations which may particularly endanger people, property or the environment. The liability includes preparing rescue measures which they can take at their own initiative. The population exposed to the danger must be heard when drawing up the plan and informed thereof.

Rescue services must be planned and arranged so that the measures may be taken efficiently and without delay. The service level of the rescue services must correspond to the accident threats

³² <http://www.portofkokkola.fi/safety/guide/?lang=en>

present in the municipality. The municipality's duty is to assess the threats present in its area and determine the service level of its fire brigade according to the threats (see also 1.1.2).

The Ministry of the Interior, for example, states:

The Ministry of the Interior, along with other authorities, is obliged to ensure that it can perform its duties not only in normal conditions but also in abnormal and emergency conditions. The Emergency Powers Act obliges public authorities to ensure that they can also perform their duties with the least amount of disruption in emergency conditions. The authorities must do this by drawing up contingency plans, preparing for emergency operations and taking other measures. Preparedness for emergency conditions is managed, supervised and coordinated by the Government and by each Ministry in its field of operations.

Within the duties of each ministry lies the ensuring of the strategic tasks appointed to them by the Security Strategy for Society (see Table 3).

As a result, the Ministry of the Interior is responsible for the nation-wide rescue-service preparations and arrangements as well as for the co-ordination of the tasks of rescue services belonging to the spheres of operation of different ministries. The Ministry directs rescue services as well as supervises their availability and level.

Another example is STUK, the Radiation and Nuclear Safety Authority, which shall specify detailed safety requirements concerning the implementation of safety level in accordance with the Guide for Nuclear Power Plant Emergency Preparedness 2010, as originally requested by the Nuclear Energy Act (990/1987).

Respective contingency planning may include international actors or may also face emergency situation abroad. A few (very divers) examples for contingency planning:

- [Winter navigation risks and oil contingency plan \(WINOIL\)](#) of the Finnish Institute for Environment SYKE
- [Nordic Contingency Planning and Crisis Management](#) of The Nordic Forum for Emergency Matters regarding the Power Sector (between Finland, Denmark, Norway and Sweden)
- [Joint Contingency Plan for the Nordic Embassies in Kathmandu, Nepal](#)
- ARTIC COUNCIL: [Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic – Appendix IV Operational Guidelines](#)

4.3 Logistics support in crises

As mentioned throughout this study, each competent authority is responsible for ensuring the vital functions for society within its mandate in all aspects. As a result, no general authority for supporting logistical equipment during natural or man-made disasters could be found. Each authority is obliged to arrange related agreements if necessary.

Finnish Defence Forces may contribute equipment for logistical support, however the use of military assets is restricted (see 3.1)

4.4 Crisis communication to general public; Alert system; Public Information and Warnings

Following the principle of the “competent authorities” (see 1.2), responsibilities for warning the population in times of crisis and emergencies are shared by a number of stakeholders and carried out on different levels and through multiple channels. The main early warning system in Finland is **LUOVA**, which is a *multi-hazard early warning system* operated by the Finnish Meteorological Institute in cooperation with other actors through a multi-agency process (FMI, SYKE and the Institute of Seismology at the University of Helsinki).

The strength of this state-of-the-art warning system is that it provides the appropriate technical platform to integrate and disseminate warnings. The platform is composed of several tools to integrate risk information and disseminate easy-to-use warning messages and maps through multiple channels to the risk management stakeholders. Initially developed for natural hazard warnings, it is now used for weather, marine, flood, earthquake, tsunami and space weather warning in close cooperation with other technical agencies. It builds on the 24/7 forecasting operations of FMI, and its daily colour-coded weather warnings based on pre-defined thresholds. LUOVA can be used to deliver tailored warnings with different lead-times and risk information depending on the users’ needs.

Other technical systems are also available to provide dedicated warnings for forest fires through automatic satellite detection, or nuclear radiation detection. On the basis of the information received from the LUOVA system, the authorities plan on their own actions and warn the public.

Currently, FMI and SYKE are working jointly to establish the **Flood Warning Centre** which is expected to become operational as of 2014. The aim of the Flood Centre is to provide Finnish society with information related to floods from one point of contact available 24/7.

The Emergency Warnings Act 10.8.2012/466 legislates on emergency warnings issued by the authorities to be broadcast on the radio or on television. Emergency warnings are brief announcements to warn and instruct the public that can be issued by the competent authority if it is necessary to warn the public when a dangerous incident may threaten the lives or health of people or destroy or severely damage property. Regarding warning dissemination, specific partnerships with major broadcasting media have been set-up to allow programmes to be interrupted or to have a text message appearing on TV screens nationwide or at the regional level.

Public warning sirens are also used as they cover more than 80 per cent of the population.

Neighbouring countries are notified of nuclear accidents as well as oil and chemical accidents at sea or on boundary waters. The Ministry for Foreign Affairs plays a central role in foreign communications.

Finnish authorities currently use and continue to develop new methods for utilising the social media in context with emergency warnings, e.g. by participation of the Emergency Services College in the EU FP7 project ISAR+ (Online and Mobile Communications for Crisis Response and Search and Rescue).³³

At the national level, the authorities communicate using the **VIRVE network**, which is based on the TETRA standard and is operated by the State Security Networks Ltd. The network covers the entire area of Finland, and access is limited to specific user groups. The network is primarily used by rescue

³³ More information on EU FP7 project ISAR+ at <http://isar.i112.eu/index.html>

departments, the police, Finnish Customs, the Finnish Border Guard and the Finnish Defence Forces. The Ministry of Transport and Communications decides on the user groups entitled to use the VIRVE network.

Furthermore, Finland is, according to the 2014 Peer Review Process³⁴, currently developing two new operational systems making use of high technologies and introducing innovative working processes to improve cooperation and exchange of information during emergencies:

*The **ERICA** common operational platform will integrate information flows from all emergency response authorities nationwide (police, fire & rescue, medical, border guard), with GIS mapping, risk assessment information as well as operational models for emergency response for overall accident management in the Emergency Response Centres.*

*To complement this coordination platform of crisis centres, the operational **KEJO** system will support emergency operations of the Finnish authorities in the field. These systems aim to ensure that Finland has a coherent, reliable and networked nationwide emergency response administration by 2015. There is also a situation awareness system for environmental emergency response (Baltic Oil Response Information System, **BORIS 227**) for oil spills.*

³⁴ Peer Review Report Finland – Building resilience to disasters: Assessing the implementation of the Hyogo Framework for Action (2010-2015), 2014.

5 Capabilities

5.1 Human resources

The Comprehensive Report on the Rescue Services in Northern Finland from 2009 indicates resources related to the relevant tasks of rescue services as followed:

Within the 22 rescue service regions there are rescue departments with full-time (5000) and part-time personnel. On top there are 635 voluntary fire-brigades and 153 industrial brigades in Finland. The number of part-time and voluntary fire-fighter is 14300. Disaster planning, fire inspections and other duties of the authority are conducted by full-time rescue personnel. Law given duties of regional rescue services are: education and advising public and expert advisory to matters concerning rescue services, prevention of accidents and fires, civil defence, training for rescue personnel, planning and coordinating with different authorities, carry out rescue operations. Finnish rescue services have 4000 vehicles available and the annual expenditure is 340 million euro and they carry out 85000 missions annually. The missions are distributed between fires (18%), rescue missions (25%), checking and verification (35%), first response (medical) (15%) and assistance (7%).

Regional reforms and the joining of responsibilities are estimated here as reasons for the decreasing numbers of authorities but nearly constant numbers of personnel.

The Finnish rescue services currently lists its personal as follow³⁵:

- 570 volunteer fire brigades³⁶
- 105 institutional and industrial fire brigades Personnel
- 4,800 full-time employees
- 14,600 part-time and voluntary fire brigade members

To better estimate their capabilities; here are some average numbers of their operations:

- Emergency missions per year
The total number of call-outs for rescue departments is about 110,000 a year
- Fires
Every year, rescue departments are called out to about 15,000 fires.
Of these:
 - 6,300 are structural fires
 - 2,500 are vehicle fires

³⁵ Ministry of the Interior - Department for Rescue Services. *Rescue services in Finland*. 2013

³⁶ Number vary between 570 and 635 (RESCUE SERVICES IN NORTHERN FINLAND - COMPREHENSIVE REPORT 2009) from different resources, nevertheless the official statement by the rescue services from 2013 is listed

- 3,000 are wildfires (The number varies considerably from year to year, depending on the dryness of the summer.)
- 3,300 are other fires.
- Other call-outs

The average number of other callouts is 29,640 per year.

Of these

- 13,500 are traffic accidents
- 9,000 are loss prevention tasks
- 2,500 are tasks to combat oil spills
- 2,200 are tasks to rescue people
- 2,000 are tasks to rescue animals
- 320 are tasks relating to hazardous substances
- 120 are explosions and collapsed buildings, roads and other structures.

Both information on the rescue service's resources have to be topped with numbers of all divers other authorities involved in disaster preparedness and response, such as police, medical healthcare (pre-hospital and hospital healthcare), the Frontier Guard, the Emergency Response Centres, relevant agencies, equipment and personal of defence forces or the Network of voluntary organisations Vapepa (see 2.6), coordinated by the Red Cross etc. Volunteer rescue workers participate in search and maintenance, help and support for casualties and their families.

5.2 Materiel (non-financial) resources

See 5.1

5.3 Training

The competent authority for training of rescue services in Finland is the **Emergency Services College** in Kuopio under the supervision of the Ministry of the Interior (see 3.1).

As summarizes by the comprehensive report on the Rescue Services in Northern Finland (2009),

the Emergency Services College, in Kuopio, provides education and training in its field of specialisation under the supervision of the Ministry of the Interior. The College provides basic vocational training and further training in rescue services, preparedness training for emergency situations, and other training related to rescue services. The College provides training leading to a vocational degree in the following training programmes:

- Firefighter
- Emergency Response Centre Operator

- Sub-Officer
- Fire Officer, Bachelor of Engineering
- The Fire Officer's Training Programme is arranged in cooperation with Savonia University of Applied Sciences.

The College also provides in-service training for the personnel working for the rescue services and emergency response centres. The main goal is to ensure that these organisations have access to the best possible knowledge and skills to maintain the standard of the services they provide.

***All vocational qualifications in the field of rescue services are awarded by the Emergency Services College.** A matriculation examination or vocational qualification is a prerequisite for admission to an educational programme leading to a professional qualification in rescue services.*

Training is also provided in international civil protection and civilian crisis management.

As an example for decision-makers training, the report states that

the ERC operator gets an 18 months long training at the Emergency Services College where they trained to receive and handle different types of emergency calls. After the initial risk assessment suitable actions are taken by the operator: send suitable response to the site or refer the caller to other services available.

According to Finland's Peer Review Report (2014),

*Training is also provided by individual associations and organisations, offering courses on an array of issues, including empowering people to take responsibility for their own security. For example, the **Finnish National Rescue Association (SPEK)** groups 37 NGOs dedicated to the advancement of rescue and safety to build an understanding of self-preparedness within Finland's communities. It cooperates closely with the Ministry of the Interior to develop and conduct courses in accident prevention, volunteer activities and preparedness, and civil protection. It also supports specific activities aimed at women and youth.*

*The **Finnish Red Cross**, with its 500 branches and some 30,000 volunteers, also offers courses in first aid and organises campaigns aimed at resilience-building. Its work is particularly impressive in supporting local communities to build risk awareness in scenarios such as winter power cuts or storms, as well as in supporting women's roles in resilience-building.*

*The **Finnish Association of Fire Chiefs** also provides fire, rescue and safety training, produces and publishes educational and training materials and makes proposals to improve safety.*

Cross-border and multinational trainings takes place in exercises within the respective bi- and multilateral agreements of Finland and its rescue service authorities (see 1.4.4 and 3.2.2).

5.4 Procurement

Divers information about procurement aspects has been found within this study, though no specific answers to procurement regulations or procedures with regard to disaster risk reduction capabilities could be found within the given timeframe.

The **Public Procurement Act** (1505/1992; amendments up to 1530/2001 included), which is (probably) applicable for the procurement of most resources (the Act hasn't been mentioned by name in any related document)

The State authorities, local authorities and other contracting entities referred to in this Act shall, with a view to promoting competition and ensuring equal and non-discriminatory treatment of those who participate in a tendering procedure, observe this Act in their contracts.

*This Act shall **not** apply to:*

(1) contracts which are declared secret or contracts where the protection of the basic interests of the State's security requires a different procedure or where special safety regulations shall be observed in accordance with the laws, regulations or administrative provisions;

(2) supply contracts which are principally suited to military use;

(3) contracts awarded pursuant to the particular procedure of an international organisation;

(4) contracts awarded in pursuance of an international cooperation agreement entered into by Finland. (1247/1997)

The European Commission shall be notified of the international cooperation agreements referred to in section 1(2)(4) above. (1247/1997)

As a result, it could not be out ruled that specific regulations with regard to procurement of relevant capabilities exist.

The Finnish Red Cross for example, states³⁷ about its own rules:

The procurement rules of the Finnish Red Cross ensure that all purchases are made cost-effectively. The rules are based on Finnish legislation, EU regulations and the rules of the Humanitarian Aid department of the European Commission (ECHO).

5.4.1 Procurement regulation

See 5.4

5.4.2 Procurement procedures

See 5.4

³⁷ <https://www.redcross.fi/node/1556/what-finnish-red-cross/logistics-centre-finnish-red-cross>

5.5 Niche capabilities

Finland doesn't strive to develop specific niche capabilities relevant for the response of natural or man-made disasters. However, regarding niche capabilities in military and civilian crisis management, national strategies exist.

In context with civilian crisis management, Finland's National Strategy for Civilian Crisis Management (update 2014) states:

In addition to police, rule of law, border security, human rights and gender equality expertise, Finland is improving its capacity in offering civilian crisis management related niche capabilities to those situations that call for special expertise such as forensic pathology, victim identification and investigation of war crimes, rapid search and rescue support to supplement the local capacity, and different techniques for criminal sanctions, such as correctional services. One should also look into other fields within the judicial sector, from which Finland has a lot to offer, such as the development of legal services, legal assistance and areas involving access to justice. Attention will be paid to competence related to the operating environment as well as conflict and culture sensitivity. There is a global demand for Finnish civilian crisis management know-how. The aim is to increase the export of expertise in civilian crisis management, social and gender equality and international security.

The development of niche capability in military crisis management is requested by the Security Strategy for Society (2010).

Nevertheless, some of the above mentioned capabilities also apply to response capabilities related to natural or man-made disasters, as treated in this study. Considering the high level of education and the up-to-date technical standard, it is assumed that individual experts, such as **Finnish communication experts** are recognized, for example for technical assistance support teams for On-Site Operations Coordinations Centers, though it couldn't be found out within the timeframe of this study.

Resources

Legislative acts

The Finnish Red Cross's report on legal preparedness for international disaster response 2014 lists the following acts as sources with regard to legislation:

Act on Centres for Economic Development, Transport and the Environment 20.11.2009/897

Act on Cooperation between the Police, Customs and the Border Guard 11.9.2009/687

Act on Emergency Response Centre Operations 20.8.2010/692

Act on Health Care Professionals 28.6.1994/559

Act on Oil Pollution Response 1673/2009

Act on Regional State Administrative Agencies 896/2009

Act on Relief of Double Taxation 18.12.1995/1552.

Act on State Civil Servants 19.8.1994/750

Act on State Treasury 15.2.1991/305

Act on the Airport Network and Airport Charges 11.3.2011/210

Act on the Autonomy of Åland 16.8.1991/1144

Act on the Defence Forces 11.5.2007/551

Act on the Delimitation of the Territorial Waters of Finland 18.8.1956/463

Act on the Emergency Services College 21.7.2006/607

Act on the Finnish Meteorological Institute 19.12.2008/957

Act on the Finnish Red Cross 25.2.2000/238

Act on the Formation of Rescue Service Regions 1214/2001

Act on the Openness of Government Activities 21.5.1999/621

Act on the Participation of Civilian Personnel in Crisis Management 30.12.2004/1287

Act on the Provision of Assistance by the Defence Forces to the Police 5.12.1980/781

Act on the Recognition of Professional Qualifications 30.11.2007/1093

Act on the Use of Certain Internationally Protected Symbols 21.12.1979/947

Act on Voluntary National Defence 11.5.2007/556

Aliens Act 30.4.2004/301

Associations Act 26.5.1989/503

Border Guard Act 15.7.2005/578

Communicable Diseases Act 25.7.1986/583

Communications Market Act 23.5.2003/393

Customs Act 29.12.1994/1466

Emergency Powers Act 29.12.2011/1552

Emergency Warnings Act 10.8.2012/466

Employment Accidents Insurance Act 20.8.1948/608

Excise Taxation Act 182/2010

Government Decree on Civil Defence Shelters 5.5.2011/408

Government Decree on Money Collections 21.6.2006/503

Government Decree on Personal Import of Medicinal Products into Finland 1088/2002

Government Decree on Rescue Services 5.5.2011/407

Government Decree on the Equipment and Supplies in Civil Defence Shelters 5.5.2011/409

Government Decree on the Safety Committee (77/2013)

Government Resolution on Security of Supply 21.8.2008/539

Government Rules of Procedure 3.4.2003/262

Income Tax Act 30.12.1992/1535

Medicines Act 10.4.1987/395

Ministry for Foreign Affairs Rules of Procedure 28.8.2008/550

Money Collection Act 31.3.2006/255

Notification on the application of the Schengen acquis, Ministry for Foreign Affairs of Finland, 23/2001

Nuclear Energy Act 11.12.1987/990

Personal Data Act 22.4.1999/523

Police Act 7.4.1995/493 (annulled on 31 December 2013); Police Act 872/2011 took effect on 1 January 2014

Railway Act (304/2011)

Rescue Act 29.4.2011/379

Security of Supply Act 18.12.1992/1390

Social Welfare Act 17.9.1982/710

State of Defence Act 22.7.1991/1083

Territorial Surveillance Act 18.8.2000/755

The Constitution of Finland 11.6.1999/731

Tort Liability Act 31.5.1974/412

Value Added Tax Act 30.12.1993/1501

also found:

Dam Safety Act 494/2009

Government Decree on Emergency Response Arrangements at Nuclear Power Plants 735/2008

Draft 3, 2.11.2010 Nuclear Power Plant Emergency Preparedness

Other normative acts

Official documents (white papers, strategies, etc.)

Finland's Cyber Security Strategy. Government Resolution 24.1.2013. Helsinki: Secretariat of the Security and Defence Committee.

Government Communications in Crisis Situations and Emergencies. Prime Minister's Office Publications 20/2007

Ministry of Defence. *Security Strategy for Society*. Government Resolution 16.12.2010. Helsinki 2010

Ministry of Foreign Affairs. *Finland's Comprehensive Crisis Management Strategy*. 2009

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National Security Research Strategy. Advisory Board for Sectoral Research 18:2009.

Ministry of the Interior. *Rescue Services Strategy 2015*. Ministry of the Interior publications 14/2007

Parliament of Finland - Foreign Affairs Committee. *Report on the Government Report on Finnish Security and Defence Policy*. 2012

Prime Minister's Office. *Finnish Security and Defence Policy 2012*. Government Report. Helsinki: Prime Minister's Office Publications 1/2013.

Valtioneuvoston päätös huoltovarmuuden tavoitteista 5.12.2013. Helsinki: Huoltovarmuuskeskus, Työ- ja elinkeinoministeriö. (*Government Resolution on Safeguarding the Security of Supply*. Helsinki: National Emergency Supply Agency, Ministry of Employment and the Economy)

Online resources (e.g. websites of key CM organizations)

Crisis Management Centre Finland <http://www.cmcfinland.fi/>

Ministry of the Interior: <http://www.intermin.fi/>

Ministry for Foreign Affairs: <http://www.formin.fi>

Ministry of Defence: <http://www.defmin.fi>

Ministry of Defense - Secretariat for Defence Committee. *Security in Society*
<http://www.yhteiskunnanturvallisuus.fi/en>

Prime Minister's Office Finland: <http://vnk.fi/etusivu/en.jsp>

Rescue Services: http://www.112.fi/other_languages (main pages in finnish)

Emergency Services College: <http://www.pelastusopisto.fi/> (main pages in finish)

National Emergency Supply Agency (NESA) <http://www.nesa.fi/security-of-supply/>

Finnish Environmental Institute SYKE <http://www.syke.fi/en-US>

State Security Networks Ltd. http://www.erillisverkot.fi/en/erillisverkot/home_page/

Vademecum for civil protection: Country profile - Finland
http://ec.europa.eu/echo/files/civil_protection/vademecum/fi/2-fi.html

Publications

ARTIC COUNCIL: *Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic – Appendix IV Operational Guidelines*. May 15, 2013 Revision 1: January 28, 2014

Finnish Red Cross. *Finland's legal preparedness for international disaster response – Host Nation Support Guidelines*. 2014

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Khakee, Anna. *Securing Democracy? A Comparative Analysis of Emergency Powers in Europe*. Geneva Centre for the Democratic Control of Armed Forces (DCAF). Policy Paper – №30, 2009.

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Ministry of the Interior: *National Platform for Disaster Risk Reduction*. Ministry of the Interior publication 14/2012

Möttölä, Kari. *Finland's Comprehensive Security: Challenges and Responses*, A contribution to the project on "Threat Perceptions in the OSCE Area" of the OSCE Network of Think Tanks and Academic Institutions (February 6, 2014/March 19, 2014)

Outline for national reporting and information on disaster reduction for the World Conference on Disaster Reduction (Kobe-Hyogo, Japan, 18-22 January 2005), *Report Finland*. 2004,
<http://www.unisdr.org/2005/mdgs-drr/national-reports/Finland-report.pdf>

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UNISDR, EC, OECD. Building resilience to disasters: Assessing the implementation of the Hyogo Framework for Action (2005-2015): *Peer review report Finland (2014)*

The Finnish Institute of Occupational Health/ Northern Ostrobothnia Hospital District/ Regional Rescue Services of Oulu-Koillismaa/ Emergency Services College, Kuopio. *Rescue Services in Northern Finland – Comprehensive Report*. 03.2009

Bündnis Entwicklung Hilft - Alliance Development Works/ United Nations University – Institute for Environment and Human Security (UNU-EHS). *WorldRiskReport 2014*



Driving Innovation in Crisis Management for **European Resilience**

FRANCE

Capabilities, Organisations, Policies, and Legislation (COPL) in crisis management and disaster response

Responsible Partner: EPLFM (Frédérique Giroud)

Scope and limitations

This study serves as supporting information for further work within DRIVER.

Only limited time and budget has been available for this first general survey, which needs to be considered in terms of scope and completeness of the respective studies.

The author/s of this study is/are responsible for its content and quality.

Overview

The French crisis management & disaster response concept is driven by the ORSEC mechanism (Organisation of the Civil Defence Response) which organizes event management and crisis management. As it is modular and progressive, it can adapt to the type, scale and evolution of the event. In the occurrence of a major disaster, the Prime Minister is the head of upper level operations. Operations are coordinated with the other ministries. The operational organization managing crises at the Directorate-General for Civil Protection is the Interministerial Crisis Management Operating Center (COGIC). The COGIC can activate national means in response to crises. All French departments have an operational centre or crisis unit. At the departmental level, the department Prefect, invested with police powers, is the Director of Rescue Operations (DOS). He commands the ORSEC mechanism (Organisation of the Civil Protection Response). He activates the Departmental Operational Centre (COD) and deploys the Operational Commandment Post (POC). At the departmental level, the Prefect gathers around him a hard core of actors: SDIS (Departemental Fire and Rescue Service); sanitary and social services; police; gendarmerie (military police); regional council; equipment agency; civil protection associations. Each entity has its own organization and its own operational response. Of course, NGOs participate to crisis management but they must receive an agreement from the DGSCGC (General Directory of Civil Protection and Crisis management) in order to work and to be integrated into an emergency device. Moreover, private businesses can be requisitioned by the Prefect as needed. Each institution involved in crisis management participates with its own funds and according to their policy to the preparation of rescue operations and response. Financing can be from national or local (region, department, municipal...) sources.

Concerning international cooperation, the Ministry of the Interior, through a specific unit, is in charge of managing the engagement for disaster response and relief.

France owns several modules that can be sent in reinforcement for crisis in the EU or other MS.

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List of Abbreviations

ANEMF	Medical Students of France
ANR	National Agency for Research
AMUF	Association of Emergency Doctors of France
BMPM	Marine Fire Brigade of Marseille
BOAMP	Official Journal for Public Procurement Announcing
BPI France	Public Bank of Investment
BSPP	Paris Fire Brigade
CBRN-E	Chemical, Biological, Radiological, Nuclear and Explosives
CECIS	Common Emergency Communication and Information System
CIC	Interministerial Crisis Centre
CMP	Public Procurement Code
CNIL	National Commission for Computing and Freedom
COD	Departmental Operations Centre
CODIS	Operational centre or Crisis Unit
COGIC	Interministerial Crisis Management Operational Centre
COS	Incident Commander
COZ	Zone Operational Centre
CPCO	National Police and Planning and conduct Operation Centre
CRICR	Regional Information and Road Coordination Centre
DAJ	Direction of Legal Affairs
DDRM	Departmental File for Major Risks
DDSP	Departmental Director of Public Security
DICRIM	Municipal Information File for Major Risks
DIS	Airborne specialized intervention detachment
DGGN	General Directorate of National Gendarmerie
DGPN	General Directorate of the National Police
DGPR	Head Office for Risk Prevention
DGSCGC	General Directorate of Civil Protection and Crisis Management
DOS	Director of Rescue Operations
ECASC	School of Application of Civil Protection
EEN	European Enterprise Network
EMiZ	Interministerial Defence Zone
ENSOSP	National School for Civil Protection Officer
EPRUS	Establishment of Preparedness and Response to Health Emergencies
ERC	Emergency Response Centre
ESCRIM	Unit of Civil Protection for Quick Medicalised Response (French Hospital of Civil Protection)

ESOL	Logistics and Operational Support Unit
FEDER	(ERDF) European Regional Development Fund
FNRASEC	National Federation of Radio Transmitters at the service of Civil Security
FORMISC	Military Civil Protection Units
FUI	Interministerial Single Fund
HUSAR	Heavy USAR Team
JAL	Legal Announcing Journal
JORF	Official Journal of French Republic
INSARAG	International Search and Rescue Advisory Group
LUSAR	Light USAR Team
MUSAR	Medium USAR Team
OCHA	Office for the Coordination of Humanitarian Affairs
OJEU	Official Journal of European Union
ORSEC	Organisation of the Civil Protection Response
PCC	Local Command Post
PCS	Local Protection Plan
POC	Operational Commandment Post
PPI	Specific Intervention Plan
PPR	Plan for Risk Prevention
PRCI	International Collaborative Research Projects
RCSC	Local Civil Protection Reserve
SAMU	Emergency Medical Assistance Service
SDIS	Departmental Fire and Rescue Service
SFMC	French Society of Disaster Medicine
SFMU	French Society of Emergency Medicine
SIDPC	Interministerial Service of Defence and Civil Protection
SGAP	General Secretarial Office for Police Administration
SMEM	Social Media in Emergency Management
SNCF	National Society of French Railways
SZSIC	Zone Information and Communication Systems Service
TPE	Multidisciplinary sixth-form school project
USAR	Urban Search and Rescue
VLTT	Off-road liaison vehicle
VISOV	International Volunteers supporting Virtual Operations

1 Policy

1.1 Risk Assessment

Risk assessment in France is established based on the study of hazards and stake vulnerability, it is integrated in risk prevention plans, elaborated at the initiative of the State, and stipulated and approved by the Prefect after consulting local authorities and after a public inquiry.

This knowledge relies on three foundations:

- Knowledge of past events thanks to historical researches and to the creation of data bases (seismicity, climatology, snow layer study), atlases (flood risk area maps, avalanche hazard maps), etc.;
- Research conducted by different services of the State, such as Météo-France (French national meteorological center), and by French and European laboratories with the aim of penetrating phenomena mechanisms and anticipating their behaviors, either for earthquakes, ground movements, forest fires or hydraulic and technologic risks;
- Technical studies that enable to establish maps predicting the increase and intensity of the phenomena. Those studies sometimes allow to predict the appearance of some events a few hours or a few minutes before their appearance.

The regional Prefect, with the support of the regional directorates, operates the management and the coordination of government policies, especially the ones related to crisis management, implemented under the authority of the departmental Prefect.

The Prefect is required to inform the Mayor of the risks present on his municipality (*art. L.121-2 du Code de l'Urbanisme ; French town planning code*). Nevertheless, local elected representatives can take the initiative of additional studies if needed. The "porté à connaissance" (brought to notice) of the Prefect is the Mayor's main source of information for natural hazards. In addition to the DDRM (Dossier Départemental des Risques Majeurs: Departmental File for Major Risks), the Prefect has to forward to the Mayor all available documents concerning the natural and technological risks present on the district.

France is mainly subject to flood and ground movement hazards (especially clay shrinkage and swelling) but also to phenomena linked to atmosphere (storms, cyclones in the DOM TOM (Departments and Territoires d'Outre Mer: Overseas Departments and Territories), lightning, hail, snow and freezing rain), to periods of intense cold, heat waves or drought, to forest fires and to avalanches. The country is also subject to seismic risks and more locally to volcanic eruption. The tsunami risk should also be taken into account.

According to the Ministry, two out of three municipalities are more or less submitted to at least one natural risk. For a total of 36 000 municipalities, more than 18 000 are vulnerable to flooding (more

than one out of four French person and one out of three jobs would be situated in a potential flooding area).

Likewise, more than 11 000 municipalities are vulnerable to ground movements, not less than 21 000 municipalities are subject to seismic risk and more than 6 000 are threatened by forest fires.

The notion of technological risk, opposed to the one of natural risk, gathers the risks from anthropogenic origins: industrial, nuclear and biological risks. Four sources of major technological risk are presents in France: industrial facilities, nuclear facilities, large dams and hazardous material transports. Furthermore, mining sites can also be a source of accidents.

1.2 Policy and Governance

1.2.1 Strategy scope and focus

In the following table, are reported the actors in charge of each activity, showing that the strategic scope of crisis management is fully covered.

What	Who	How
Hazard knowledge	Ministry of Sustainable Development Ministry of Agriculture (forest)	Financing of scientific and technical studies
Monitoring	Ministry of Sustainable Development Ministry of Agriculture Ministry of the Interior (Home Office) Ministry of Research	Equipment of the areas with means to monitor floods, volcanism, large ground movements, earthquakes, tsunamis.
Information	Ministry of Sustainable Development Ministry of Interior (Home Office) Mayor	The Prefect creates, with the Ministry of Sustainable Development financing, the DDRM (Department File for Major Risk). The Mayor creates the DICRIM (Dossier d'information communal sur les risques majeurs: Municipal Information File for Major Risks) The Ministry of Sustainable Development operates a national dissemination of the information via internet.
Education	Ministry of National Education Ministry of Sustainable Development Ministry of Research	Transcription in Middle school and high school programs and in the multi disciplinary sixth-grade school project (TPE: travaux personnels encadrés) Network of Coordinators besides the

		local education officers National day for the risk
Risk Awareness and Land Planning	Ministry of Sustainable Development	Establishment of risk prevention plans (PPR: plans de prévention des risques). National regulatory compliance of seismic risk prevention (seismic zones, earthquake-resistant construction rules) Checking of regulatory compliance
Mitigation	Ministry of Sustainable Development	Training of professionals (architects, engineers, tradesmen)
The preparation of the crisis	Ministry of the Interior (Home Office) Mayor	Depending on the scale, civil protection services or the Mayor prepare the crisis.
Experience feed-back	The participants to the preparation of the emergency plans	Missions of disasters analysis : experience feed-back
Crisis management	Ministry of Interior (Prefect) Mayor Regional Council (fire fighters)	Mobilization of means (state employees, public services, possibly army)
Compensation	Committee for natural disasters (Ministry of economy, Ministry of Sustainable Development, Ministry of Interior, Central reinsurance Agency)	Once the Order of Natural Disaster is taken, the insurances set up a specific compensation procedure

Table 1 Responsibilities of crisis management players

1.2.2 Monitoring and analytical support to policy making; R&D

The French State works to improve a global environment favourable to companies and to innovation, and to sustain the research and development effort (R&D) led within competitiveness clusters. Therefore, at the national or regional levels, it supports their research and development projects:

- By granting, via the Interministerial single fund (FUI: Fond Unique Interministériel), financial aids to the best R&D projects having an economical objective, via calls for projects; besides the financial aid of the State, the projects will benefit from aids from local authorities and community funds (ERDF: European Regional Development Fund).
- By setting specific or generic supports through the program for investment with prospects;

- By involving various partners: National Agency for Research (ANR: Agence Nationale de la Recherche), Public Bank for Investment (BPI France: Banque Publique d'Investissement), Deposit Office (Caisse des Dépôts).
- By facilitating the access to information on European programs to support innovation, through the European Enterprise Network (EEN) in particular.

Every year, the National Research Agency (ANR) launches a generic call for projects, open to all scientific fields and to all kinds of researches, from the most academic projects to applied researches carried out in the frame of partnerships with companies, SMEs (small and medium-sized enterprises) and SOHOs (single office/home office) in particular.

The scientific and thematic fields targeted by this call for projects and the financial instruments available are numerous and include regularly the theme of crisis management. This integrated tool is included in the frame fixed at French level by the strategic Agenda "France Europe 2020".

Furthermore, to facilitate international collaborations, the ANR has concluded bilateral agreements with homologous agencies. The projects integrated in this frame (PRCI: Projets de Recherche Collaborative Internationale; International Collaborative Research Projects) are included in the generic call for projects but are submitted to a specific submission timetable.

Otherwise, all local authorities (city halls, prefectures, and region) can launch a request for proposals in research and development on the theme of crisis management depending on territorial needs.

1.2.3 Policy for Prevention

The French State guarantees the protection of the population and of the environment. Both at the departmental and regional level, State services work to prevent and manage natural and technological risks (natural risks, mining, technological, industrial and sanitary) and to guarantee population protection. The head office for risk prevention (DGPR: Direction Générale de la Prévention des Risques), is one of the seven specialized modules of the central office of the Ministry of Ecology, of Sustainable Development, of Transports and of Housing (5 head offices and 2 delegations of power) which includes various expertise in order to implement the policies stemming from the multiparty debate on the environment (Grenelle de l'Environnement).

The DGPR (head office for risk prevention) develops and implements the politics for the knowledge, assessment, prevention and reduction of technological, natural and hydraulic risks, risks linked to human activity, pollution and nuisances, as well as waste management. It also works on the nuclear safety and radioprotection policy, under the joint custody of the Minister of Sustainable Development, of the Minister of Industry and of the Minister of Health. Finally, its role of interministerial coordination is applied on matters of major risk prevention, on fight against noise and on waste management.

The prevention policy leans on the seven pillars of prevention, which complement each other, they are:

- knowledge of hazards and stakes;
- monitoring, forecast, awareness and warning;
- training and preventive information of citizens;
- monitoring of urban development and of building methods through regulations and plans for risk prevention;
- reduction of vulnerability;

- protection and planning of rescue teams;
- preparation to emergency situations by taking into account experience feedback.

This policy adapts and gets richer by fighting against oblivion and by analyzing past crises.

1.2.4 Policy for Preparedness

When a phenomena starts, the best operational response must be given as quickly as possible (alert and information, emergency response, support). Each organization, each participant to crisis management, previously and operationally prepares its response in terms of staff and means, with different tools and supports.

The policy of preparedness is based on plans at various levels:

- At the local level, from where the crisis starts, specific plans are set up by local authorities:
The local protection plan, (PCS: Plans Communaux de Sauvegarde) organizes the mobilization of the resources of the municipality in case of civil protection events. It is mandatory for some municipalities exposed to localized major risks. At this local level, the Mayor can constitute a municipal civil protection reserve, used to protect people.
- At the inter-municipalities level, the specific intervention plan (PPI: Plan Particulier d'Intervention) is a device defined in France to protect populations, goods and environment, to face specific risks linked to the existence of one or more industrial equipments. This PPI, designed and written by the public authorities, is part of the departmental ORSEC device.
- At the departmental level or zone level , the organization of the civil protection response (ORSEC: Organisation de Reponse de Sécurité Civile) worked out by the State, aim to prepare actors, in a preventive way, to the management of natural and technological risks

1.2.5 Policy for Response

« The political and strategic leadership for response to major crisis is given by the President of the Republic and by the Prime Minister. They provide the impulse and political decisions during a crisis. They must be able to rely on commandment means adapted to major crises, enabling them to be informed in real time on the crisis and to steer government communication. This organization must be known by the public, media and by the different interveners in France and abroad. It will be the natural entry point into the crisis management device for European and International high level interlocutors. »

Extract from the White Paper on Defense and National Security (p.192)

The political and strategic leadership of the crisis is based upon a crisis unit, permanently activated at the Hotel de Matignon in the occurrence of a crisis. This unit is under the authority of a member of the cabinet of the Prime Minister. The General Secretariat of defense and national security is in charge of office duties.

The crisis unit of the Prime Minister oversees strategic crisis steering and is in permanent liaison with the minister in charge of operational action enforcement.

The composition of the crisis unit is not rigid but adapted to the specifics of each crisis.

The Prime Minister is in charge of steering the operational aspects of a crisis on the national territory. In this respect, the Directorate of National Security Planning (DPSN: Direction de Planification de Sécurité Nationale) manages the Interministerial Crisis Center located Place Beauvau.

This center guarantees the transmission of information to the political and strategic leaders of the crisis (President of the Republic and Prime Minister) and to the Ministry of the Interior. It suggests strategic decisions to the political and strategic leaders of the crisis (DPSC), guarantees interministerial operational continuity through the operational centers of the ministries and elaborates in close collaboration with the DPSC the crisis communication strategy.

If the crisis is restricted to the departmental or zone level, the prefect will be the director of rescue operations and will determine the strategic axes for crisis management. His objective is: « return to the normal situation as fast as possible and in the best conditions ». He can mobilize the whole of public and private means.

If the crisis is restricted to the municipality level, the Mayor, with his police power, is the director of rescue operations.

1.2.6 Policy for Relief and Recovery

Emergency planning is defined by the General Directorate of Civil Protection and Crisis Management (DGSCGC) within the Ministry of Interior. Depending on the extent of the disaster, in addition to emergency professionals, different actors can be mobilized on different levels, in the public and private domains. Indeed, state services, rescue services, territorial authorities, network operators (telecommunications, electricity, transport, water), associations, and operators of classified sites can intervene.

The involvement of territorial authorities is very important because they have increasing human and material resources and they have good field knowledge. Regarding defence and national security, the cooperation between civilians and militaries remains a major asset. Finally, it seems essential to integrate the citizen into the crisis management system to favour risk awareness so he can he play an active role. This would strengthen the resilience capacity of a population.

During a disaster, France is divided into four territorial levels:

- The local level;
- The departmental level;
- The zone level;
- The national level.

In order to efficiently perform their functions and to be properly informed all the authorities concerned have, at these different levels, all the respective commandment structures.

In a crisis management situation, the roles are well defined.

The Director of rescue operations (DOS: Directeur des Opérations de Secours) determines the strategic axes for crisis management. His objective is: « return to the normal situation as fast as possible and in the best conditions ». He can mobilize the whole of public and private means.

During events on his municipality, the Mayor, with his police power, is the DOS. In larger crises, the Prefect is the DOS, and if he is absent, this function can be taken on an interim basis by the Prefect's Chief of staff.

The director of the Departmental Fire and Rescue Services (SDIS Director) is usually the Incident Commander (COS: Commandant des Opérations de Secours), but this role can be carried out by the Departmental Director of Public Security (DDSP: Directeur Départemental de la Sécurité Publique) for an internal security crisis. Under the authority of the DOS, he carries out, on the accident site, the coordination of all public, private or associative rescue means, to accomplish rescue operations.

This commanding unit (DOS/COS), articulated between a strategic and a more operational level, allows the coherence of operations and constitutes one of the first fundamental principles as well as a specificity of the French Civil Protection.

The recovery policy concerns two different topics :

- Once relief and rescue operations are completed, crisis management actors must evaluate, establish damage extent, observe what happened, understand the causes and the spatial and time evolution of the disaster, but also the strengths and weaknesses of the relief device that was applied. These findings allow to establish and to carry out management plans, repairs and improvements. For this, the office of planning, exercises and feedback is responsible, pursuant to Decree ORSEC of 13 September 2005, of ensuring the synthesis and dissemination of lessons learned made under the authority of the representative of the state after any resort to the ORSEC device. Since 2010, the ORSEC portal is the instrument of feedback transmission. It is interesting to note that this tool is every year more and better used.
- Repair and compensation which go through the following steps:
 - Compensate
 - Repair
 - Finance
 - Perform the work

1.3 Financing

1.3.1 Investing in preparedness

Each institution participates with its own funds and according to their policy to the preparation of rescue operations and response. Financing can be from national or local (region, department, municipal...) sources.

The SDIS, for example, are autonomous administrative public entities and have an annual budget voted by the board of directors. The income (investment and operating) mainly originates from the following contributions: municipalities, inter-municipal public entities (EPCI), General Council (Conseil Général) and State (mainly investment aid funds – FAI).

Companies invest in prevention, preparation and rescue actions according to their safety policy and regulatory or legislative constraints.

For natural disasters, the Barnier funds have been planned. Created in 1995, the aim of these funds for the Prevention of Major Natural Disasters (FPRNM) was to finance the expropriation of assets exposed to natural hazards and representing a serious risk for human life. It is financed in part by insurance premiums for natural disasters. In 2005, its purpose was extended to :

- amicable purchase by the State, municipalities or groups of municipalities of assets strongly damaged by a natural disaster,
- actions to reduce vulnerability listed in a risk prevention plan (PPRN) for assets positioned in risk areas,
- prevention studies and contractor works for local authorities having a PPRN plan.

1.3.2 Investing in consequence management

Each institution participates with its own funds to rescue operations. In France, free rescue is the principle and the cost must not be covered by the people who are rescued.

- The SDIS (Departmental Fire and Rescue Service) are in charge of the direct rescue and emergency operations expenses ;
- Municipalities finance expenses for immediate population needs (food, emergency accommodation, psycho-medical assistance, cleaning of streets...). The expenses for personnel and equipment of the SDIS are mandatory.
- The State pays for expenses linked to public and private means coming from outside the department (salaries, transport, personnel accommodation and subsistence, replacement of destroyed equipment...).

Insurances also finance part of the recovery with the Natural Disaster Fund. Indeed, in France there is a principle of solidarity and equality. This principle is applied to natural disasters.

Law n°82-600 of 13 July 1982 promulgates the texts for the compensation of victims of natural disasters.

Any person having an insurance contract for property damage pays an insurance premium according to the chosen guarantees and capital. An undifferentiated extra premium, regardless risk type and exposure to natural hazard, is determined by the State and represents a percentage of the insurance fee: extra premium of 12% for house insurance and 6% for a car insurance contract.

The natural disaster condition is declared through the publication of a ministerial decree decided by an Interministerial Commission. The expenses are divided between the insurance and the insurance reinsurance fund (CCR – Fond de reassurance des Assurances). If the expenses are very high and exceed the CCR capacity, the State is called as a guarantee.

Finally, law n°95-101 of 2 February 1995 concerning environment protection, states the polluter-pays principle. Expenses resulting from pollution prevention, reduction and fight must be paid by the polluter.

1.4 Policy review, Evaluation & Organisational Learning

1.4.1 Post-Disaster Assessment

In general, post-disaster assessment begins when the emergency services involved in crisis management leave from the disaster area. Of course, the transition from an emergency phase to the post-disaster phase is difficult to define. In any case, the emergency services will still have to participate in the early phase of post disaster.

We can therefore distinguish two steps in the post-disaster assessment: the short term one (post disaster) and the long term one (recovery & reconstruction). The post disaster may be a relatively short phase, covering the period between the withdrawal of services who managed the emergency phase and the beginning of the development of a device to handle reconstruction. This period can vary from several days to several months.

The reconstruction period that follows is much longer and can last several years. Themes of the post-disaster management can be grouped under the following framework:

- Supporting people
- Evaluation and reporting of damage
- The administration of reconstruction
- The reconstruction
- The feedback.

1.4.2 Departmental Lessons Learned systems

Law No. 2004-811 of 13 August 2004 on the modernization of the civil protection emphasizes the need to improve the ORSEC plan by conducting exercises and feedback (lessons learned). This allows actors of crisis management (firefighters, SAMU, police officers, etc.) to better know each other and develop good habits; the feedback allows to learn real or simulated accidents through those exercises.

The minister in charge of Civil Protection must disseminate the results as widely as possible. A methodological guide is available to apply the lesson learned systems.

At the local level, lessons learned process is conducted by the prefect. A meeting is organized with all the involved institutions. The mayor, having a major role in the post disaster phase can be supported by civil protection associations to support victims. As an example, the Specific Intervention Plans include general regulations to proceed to environment cleaning after a technological accident.

1.4.3 Centralised (national) Lessons Learned system

- Is there a centralised (national) Lessons Learned system (state/federal level)? If so, which is the responsible agency? How stakeholders exchange information about problems and success in previous events?

At the national level, this system is applied by interministerial or parliamentary committees. The Ministry has specific structures and personnel in charge of elaborating the feedback system. The framework is the following :

- Gathering and analysing the data related to the disaster
- Setting up expertise groups participating to the definition of policies for prevention purposes.
- Disseminating the lessons learned from previous disaster analyses (in France or abroad)

At the moment, the lessons learned system is more focused on prevention and on crisis management than on post disaster management. For this last problem, regulations mainly cover the compensation of victims through law n°82-600 of 13 July 1982, creating the CATNAT system (Natural disaster) and law n°2003-699 of 30 July 2003 and its application decree n°2005-1466 of 28 November 2005, creating the CAT-TECH device (Technological disaster).

- How is the system connected or planned to be connected to efforts at EU-level (i.e. DG ECHO lessons learned system)?

DGF ECHO organises *lessons learned* meetings for all the emergencies under the umbrella of the Civil Protection Mechanism. The French national civil protection focal point (an officer from the Ministry of the Interior) is invited by DG ECHO to participate at a lesson learned session that follows each activation of the EU Civil Protection Mechanism for a real crisis or for an exercise. For example, this was the case for the Croatia floods in 2014.

1.4.4 International exchange for Lessons Learned

After an international crisis, a lessons learnt session is organized by OCHA. If French rescue forces were involved in the crisis, the French representative (from the Ministry of the Interior or Ministry of Foreign Affairs) participates to this session, where the lessons learnt by the French forces are presented and discussed.

This was the case of the lessons learnt from UsAR procedures applied during the Haiti earthquake (Etude en temps réel de la gestion de la crise en Haïti après le séisme du 12 janvier 2010, groupe URD, Etude financée par la Délégation aux Affaires Stratégiques du Ministère de la Défense).

1.4.5 Regular policy reviews

The lessons learned process is primarily devoted to highlight the required areas of improvements. At the end of the lessons learned process, actions, associated to a schedule are

proposed. Until now, lessons learned from previous disasters allowed numerous prefectures to set up structures improving civil protection events:

- Public information unit
- COD operating regulations
- ...

Those areas for improvement can be concerned by the correction of deficiencies observed during the crisis, but also in the promotion of attitudes and behaviors of organizations that have proven to be effective by reducing the impact of the crisis.

1.5 Resilience

- Does the country/IO implement the concept of resilience? If yes, please describe how it fits into the crisis management ecosystem

The White Paper (2008 and 2013) on defense and national security defines resilience as "the willingness and the ability of a country, society and government to withstand the consequences of an attack or major disaster, and to quickly restore their ability to work normally or at least in a socially acceptable mode."

In France, due to the increase of disaster frequency such as floods, regulatory and legislative measures have been taken. Can be listed, for example:

- Law No. 87-565 of 22 July 1987 organizing civil protection and major risks prevention, creating the right to information.
- Law No. 95-101 of 2 February 1995 on strengthening environment protection, called "Loi Barnier."
- Law No. 2003-699 of 30 July 2003 on technological and natural risks prevention and on damage repair.
- Law No. 2004-811 of 13 August 2004 on the modernization of civil protection.

These laws were enacted by the state following the increase of major disasters and life loss occurrence. Following feedbacks from major crises, these laws mainly allow strengthening the evaluation and alert capacities of authorities. And emergency works can be carried out to ensure a faster return to normal.

There are two trends in the concept of resilience: reactive resilience to short-term and proactive resilience to long-term. The provisions to overcome a crisis are on the one hand the static vision of resilience (reactive resilience to short-term) with the ability to return to the original condition. It is an idea of a rapid return to the initial equilibrium (engineering resilience). And on the other hand, a dynamic vision of resilience (proactive resilience to long-term) which is the ability of a system to adapt, transform or to change direction to reach a new equilibrium (ecological resilience).

In France, the methods used in risk management and supported by competent authorities remain much focused on engineering resilience which is based on the return time of a system to equilibrium or to normal after trauma.

Source : http://geographie.ens.fr/IMG/file/resilience/Quenault_presentation.pdf

- Do CM organization, local community and private business apply related standards, e.g. ISO 22301 "Business Continuity Management - Requirements" or any other (formal or industrial) standards? Please specify.

In 2013, the Department of Defense and National Security established a guide to elaborate a plan for business continuity (PBC) for State organizations, local communities and private businesses. PBC is mandatory for State organizations, but not for local communities. In this guide, all notions of compliance refer to the ISO 22301 standard.

In France, various industrial groups and companies participated with AFNOR (French Association for Standardization) certification body, to the elaboration of the Annual Full NF X50-259 relative to crisis management and which partly meets the requirements of the ISO 22301 standard on the "management system of the business continuity".

(Guide pour réaliser un plan de continuité, Secrétariat Général de la Défense et de la Sécurité Nationale, 2013)

1.6 Information sharing and data protection

1.6.1 Data protection and Information sharing in Crisis Management

- The sharing of personal data during crises [in 'extreme cases'] or for crisis management purposes, e.g. data on people with particular disabilities .

Created in 1978 in France, the CNIL (Commission Nationale Informatique et liberté: national Commission for Computing and Freedom) is an independent administrative body that operates in accordance with the data protection legislation of 6 January 1978 as amended on the 6 August 2004. The independence of the CNIL is guaranteed by its composition and organization.

The CNIL has been entrusted with the general duty to inform people on the rights that the data protection legislation gives them. It tries to reach out to the general public, either through the press, its internet site, social network sites or by providing teaching tools.

Concerning personal data protection during crises, a specific deliberation was adopted to dispense the declaration of personnel data treatment of people involved in crisis management. It is proceeding n° 2012-389 of 8 November 2012.

- The sharing of classified information (internally and with third states/ organisations), e.g. data about specific vulnerabilities or about terrorist threats.

In October 2009, the CNIL established two decrees, establishing personal data processing for crimes against public security on date of 16 October 2009 and published in the Official Journal of 18 October 2009. They concern "people whose individual or collective activity indicates that they may affect

public safety". This includes "collecting, storing and analyzing information regarding the persons who may be involved in collective acts of violence, particularly in urban areas or during sporting events".

The Office of the Ombudsperson was created by Security Council resolution 1904, adopted on 17 December 2009, and its mandate was extended by resolution 1989, adopted on 17 June 2011, by resolution 2083, adopted on 17 December 2012, and by resolution 2161, adopted on 17 June 2014. It has formal agreements and arrangements in place to access Confidential/Classified/Sensitive Information. As well, some States have been willing to share such information on an ad hoc basis without either an arrangement or agreement. France signed an agreement on 15 May 2012.

1.6.2 Voluntary Organization Databases

There is a web site (www.secourisme.net) where all the voluntary organizations involved in crisis management are listed. Each association or organization employing volunteers is required to prepare an annual capacity list for the various jobs requiring a national training (instructor, rescuer,...). This list must be communicated to the local prefect.

1.6.3 Social media and crisis management

No official plan or procedure exists concerning data gathering from social media during crisis. Nevertheless, two actions have been undertaken by two defense zones (East and South), during the last two catastrophic flood episodes that occurred last month in the South of France (Lamalou and Ales, Gard Department). A lot of information was acquired from social networks during the floods and transmitted to the French General Directorate of Civil Protection and Crisis Management (DGSCGC).

International volunteers supporting virtual operations (VISOV) were grouped in a non-profit organization providing technical, methodological and operational support reinforcements during actions on Social Media in Emergency Management (SMEM).

One person involved belongs to the National Operational Crisis Management Center, and has created a specific monitoring and analysis unit. Some initiatives are taken by ENTENTE/ENSOSP on this topic and next 27 November 2014 will be organized a specific workshop in the South of France. The objective is to create a working group on this topic and to officially develop this activity in France.

2 Legislation

2.1 Crisis (emergency, disaster) management concept

The ORSEC mechanism (Organisation of the Civil Defence Response) organizes event management and crisis management. As it is modular and progressive, it can adapt to the type, scale and evolution of the event.

It includes the inventory and the analysis of the risks, an operational set-up answering this analysis and personnel preparation and training methods.

It organises the mobilisation, implementation and coordination of any public or private person participating to the general protection of populations.

According to the situation, the ORSEC mechanism can be used totally or only partially by the Department Prefect, the Zone Prefect or the Naval Prefect.

The circular n° NOR : INT/E/06/00120/C of 29 December 2006 defines the ORSEC mechanism.

2.2 General crisis (emergency, disaster) management law

- Law 2004-811 of 13 August 2004 modernizing Civil Protection.
- Decree n°2005-1157 of 13 September 2005 related to the ORSEC mechanism (department, zone and sea).
- Circular N°NOR :INT/E/06/00120/C of 29 December 2006 defining the departmental ORSEC mechanism
- Circular n°5567-SG of 2 January 2012 : governmental organisation in case of major crisis management
- Circulars 007/SGDN/PSE/PPS of 8 October 2009 and 747/SGDN/PSE/PPS of 30 October 2009 : intervention doctrines when facing a CBRN terrorist threat or attack, defines interveners and State doctrine.
- The CBRN governmental plan 10135/SGDN/PSE/PPS CD of 16 September 2010 : its aim is to provide a decision aid to the Prime Minister and to his ministers during CBRN threats and events.
- Circular 700/SGDN/PSE/PSS of 7 November 2008 : urban chemical attack against civilian population and Circular 800/SGDN/PSE/PSS of 18 February 2011 on radioactive attacks.
- Circular 2002-119 of 29/05/2002 : elaboration of a specific security plan against major risks for schools.
- Circular of 3 May 2002: set up of an emergency preparedness plan (white plan) for every public health facility in order to cope with numerous victims.

2.3 Emergency rule

No legislation comes in addition to what has been listed above.

2.4 Specific, department/agency-level legal arrangements and regulations on emergency and disaster management

- Circular n°5567-SG of 2 January 2012: governmental organisation, major crisis management with the creation of an Interministerial Crisis Unit (Cellule Interministérielle de Crise) under the authority of the Prime Minister.
- Decree 2011-988 of 23 August 2011: created the General Directorate of Civil Protection and Crisis Management (Direction Générale de la Sécurité Civile et de la Gestion de Crise) as well as its organisation and attributions.

2.5 Specific to the regional and local authorities legal arrangements and regulations on emergency and disaster management

2.5.1 Departmental level

- Law n°96 -369 of 3 May 1996 related to fire and rescue services, created in each department a public entity called SDIS (Departmental Fire and Rescue Service) which incorporates a departmental fire-fighter unit (professionals and volunteers) organized in brigades. The decree 97-1225 of 26 December 1997 details the organisation mode of the SDIS.
- Decree 2013-412 of 17 May 2013: concerns voluntary fire-fighters.
- Circular of 24 July 1991: specifies the creation, organisation and functioning of the CODIS – CTA (Departmental Fire and rescue Operational Centre – Alert Treatment Centre).

2.5.2 Local level

- Law 2004-811 of 13 August 2004 modernizing civil protection created the civil protection reserve with circular 2004-811 of 12 August 2005 which details the related arrangements. The aim of these reserves is to support civil protection services in case occur : events exceeding their usual capacities or specific types of events. The reserves participate to population assistance and are under the authority of the mayor.
- Article 13 of law n°2004-811 of 13 August 2004 establishes the local protection plan (PCS - Plan Communal de Sauvegarde). This local protection plan defines the basis of the local organization

(men, means, missions) that will enable to quickly react to an emergency. The decree of 13 September 2005 details the contents of this decision aid tool.

- Law 2007-294 of 5 March 2007 related to the health system preparation created a health reserve unit in order to complete those set up by the state and by local authorities. This unit is constituted by professionals and by retired health professionals.

2.6 Legal regulations on the involvement of volunteers and specialised NGOs

The French state has several relays to develop risk culture and NGOs are among them.

France has ratified (law 98-1166 of 18 December 1998) the European Convention on the recognition of the legal personality of International nongovernmental organisations.

A nongovernmental organisation (NGO) is a public interest organisation which is neither part of a State or of an International institution. NGOs do not have the status of an International law subject. An NGO is a non-profit organisation.

It is usual to keep the term for non-profit legal entities financed by private funds.

Article 1 of the law of 1901 defines the association as a « convention through which two or several people put in common, permanently, their knowledge or activity in a purpose different to sharing profits ».

In France, the association law is a branch of private law ruled by the Civil Code and by the law of 1 July 1901 which regulates the functioning of French associations. Law n°82-1169 of 31 December 1982 concerning the administrative organisation of the cities of Paris, Marseille and Lyon and of intermunicipal public entities plans that associations can participate in city activities if they make the request. When this is the case, town halls provide dedicated advertising boards.

The National Council of Association Life was created by the decree of 25 February 1983.

The circular of 22 December 1999 sets up departmental delegates for associative life (DDVA). Their task is to accompany the development of associations and their daily management.

In order to assist the prime Minister, decree n°2001-865⁵ of 21 September 2001, created a permanent group in charge of guaranteeing dialogue between public authorities and associations for all aspects of associative life.

Two types of personnel are present in associations:

- Employees : this status is characterized by two necessary and sufficient conditions :
 - Work paid through a salary, housing, car or flat-rate.
 - Existence of a subordination relationship. The Court of Cassation stipulates that it is the link characterized by work carried out under the authority of an employer who provides instructions, orders and controls work program with the ability to punish the failures of his subordinate.
- Volunteers: freely participate and receive no payment. The volunteer has no social protection in case of an accident but the civil responsibility of the association can be searched. The laws of 17 January 1986 and of 17 January 1986 give employees who

are voluntary members of an association time-off in order to represent their association in all state authorities listed by law.

Responsibility of the association and of its leaders :

An association is a legal entity governed by private law. Most legal disputes fall within the jurisdiction of judicial courts except for disputes related to trade. In this case they fall within the jurisdiction of the Commercial Court or administrative courts if the dispute occurs between an association and a public entity.

As a legal entity, the association can incur liability:

➤ Civil justice

An association, as a legal entity, is liable if the decisions are taken by the members of the governing body or by members of the board. This responsibility is extended to members and to third parties acting on their own, in case of serious personal misconduct or authority overstepping. For example, failure to respect a general obligation having caused damage not covered by insurance. However, unlike for penal responsibility, some damages can be covered by insurances.

➤ Criminal justice

The association can be liable on criminal aspects if it commits acts punished by criminal law such as involuntary or negligent manslaughter, embezzlement, forgery etc...

As a physical person, a manager can be held liable.

Administrators can be personally prosecuted:

- for civil matters : non-compliance to statutory obligations, authority overstepping, damage caused to third party, bankruptcy and liquidation of assets in case of mismanagement or negligence to respecting legal, social or fiscal obligations ...
- for criminal matters : can be criminally liable if he/she is responsible for the offence.

2.7 Legal regulations for international engagements of first responders and crisis managers

- Council Regulation (CE) no 1257/96 of 20 June 1996 on humanitarian aid.
- Council Decision 1999/847/CE 9 of December 1999 providing a community action program in the field of civil protection.
- Council Decision 2001/792/CE of 23 October 2001 establishing a Community mechanism to facilitate reinforced cooperation in civil protection assistance interventions.

- Commission decision of 29 December 2003 laying down rules for the implementation of Council decision 2001/792/EC, Euratom establishing a Community mechanism to facilitate reinforced cooperation in civil protection assistance interventions. (Modified by Commission Decision of 20 December 2007 n°2007/779/CE and Commission Decision of 29 July 2010 n°2010/481/UE).
- Council Decision 2007/779/EC, Euratom of 8 November 2007 establishing a Community Civil Protection Mechanism.
- Council Decision 2007/162/CE, Euratom of 5 march 2007 establishing a civil protection financial instrument.
- Decision No 1313/2013/EU of the European Parliament and of the council of 17 December 2013 on a Union Civil Protection Mechanism.

3 Organisation

3.1 Organisational chart

- National/ IO authority for emergency and disaster management; chain of command and high-level decision-making

In the event of a major disaster, the Prime Minister is the head of the upper conducting operations. Operations are coordinated with the other ministries.

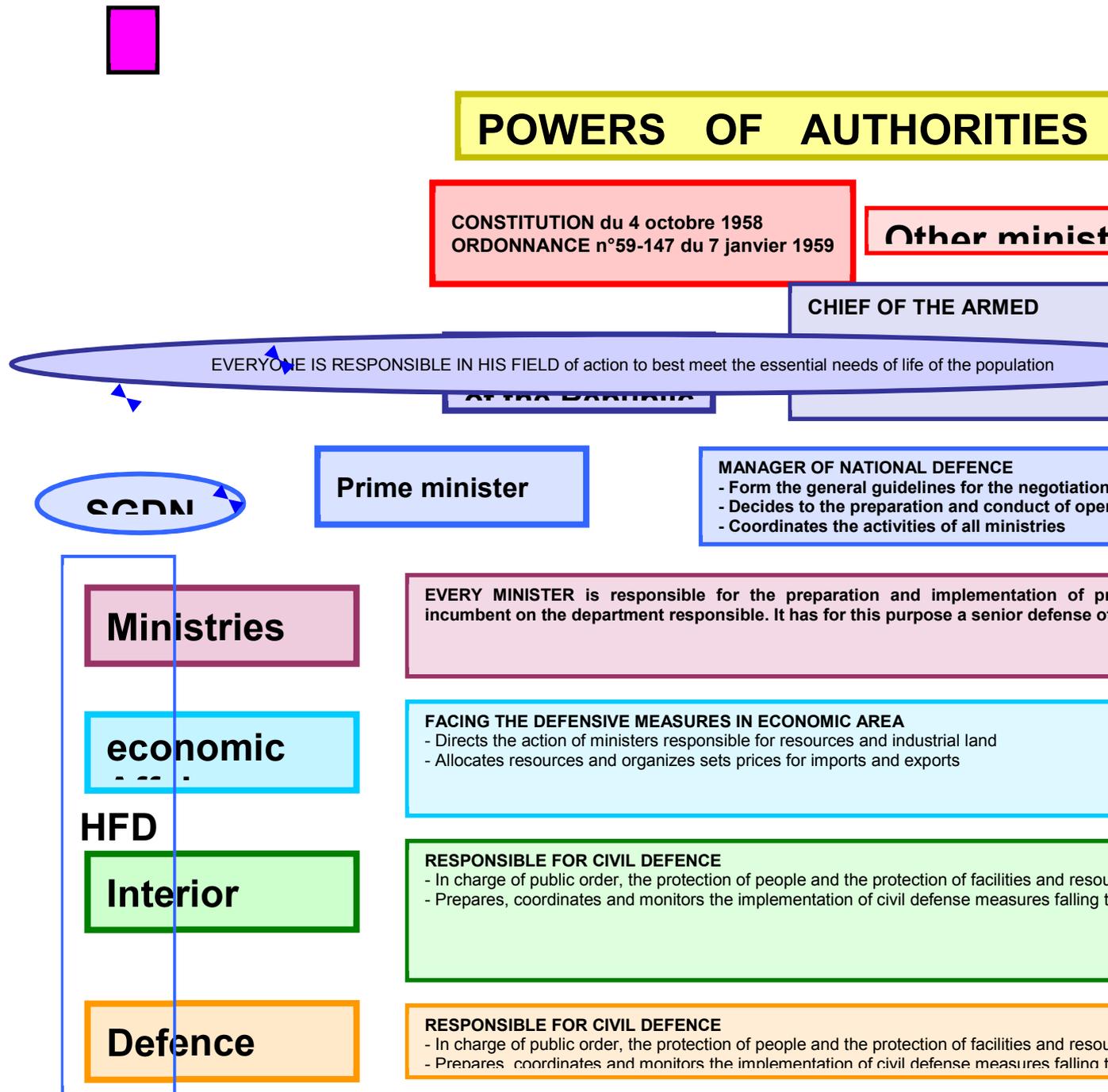


Figure 1: Authority Powers at the Central Level

There are four levels:

- ✓ national level;
- ✓ zone level;
- ✓ departmental level;
- ✓ local level

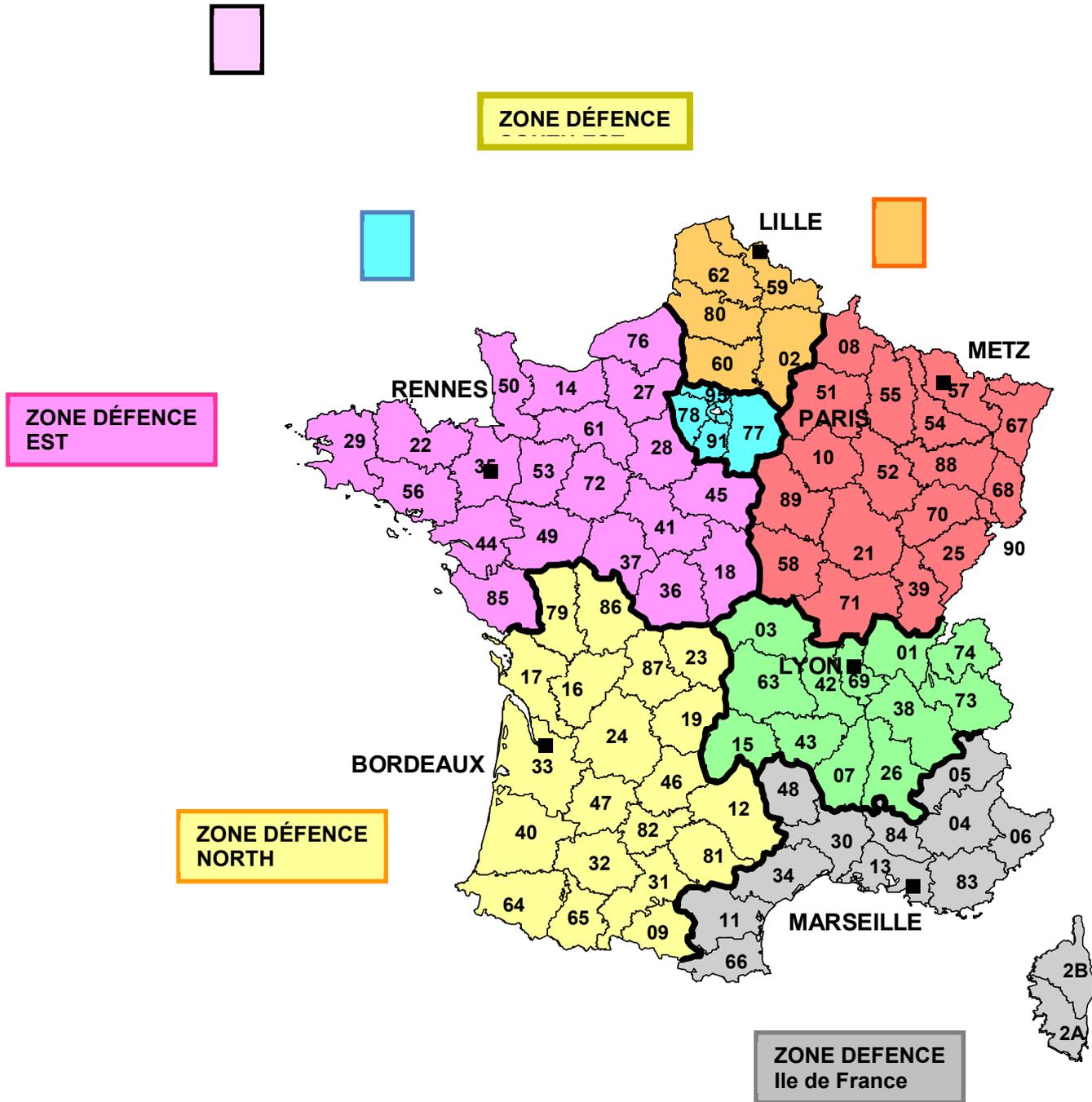


Figure 2: Territorial Organization for Defense

France has a comprehensive approach of crisis management, which is why all ministries are involved.

However, in most cases only the Ministry of the Interior, (possibly the Department of Defence) needs to be activated.

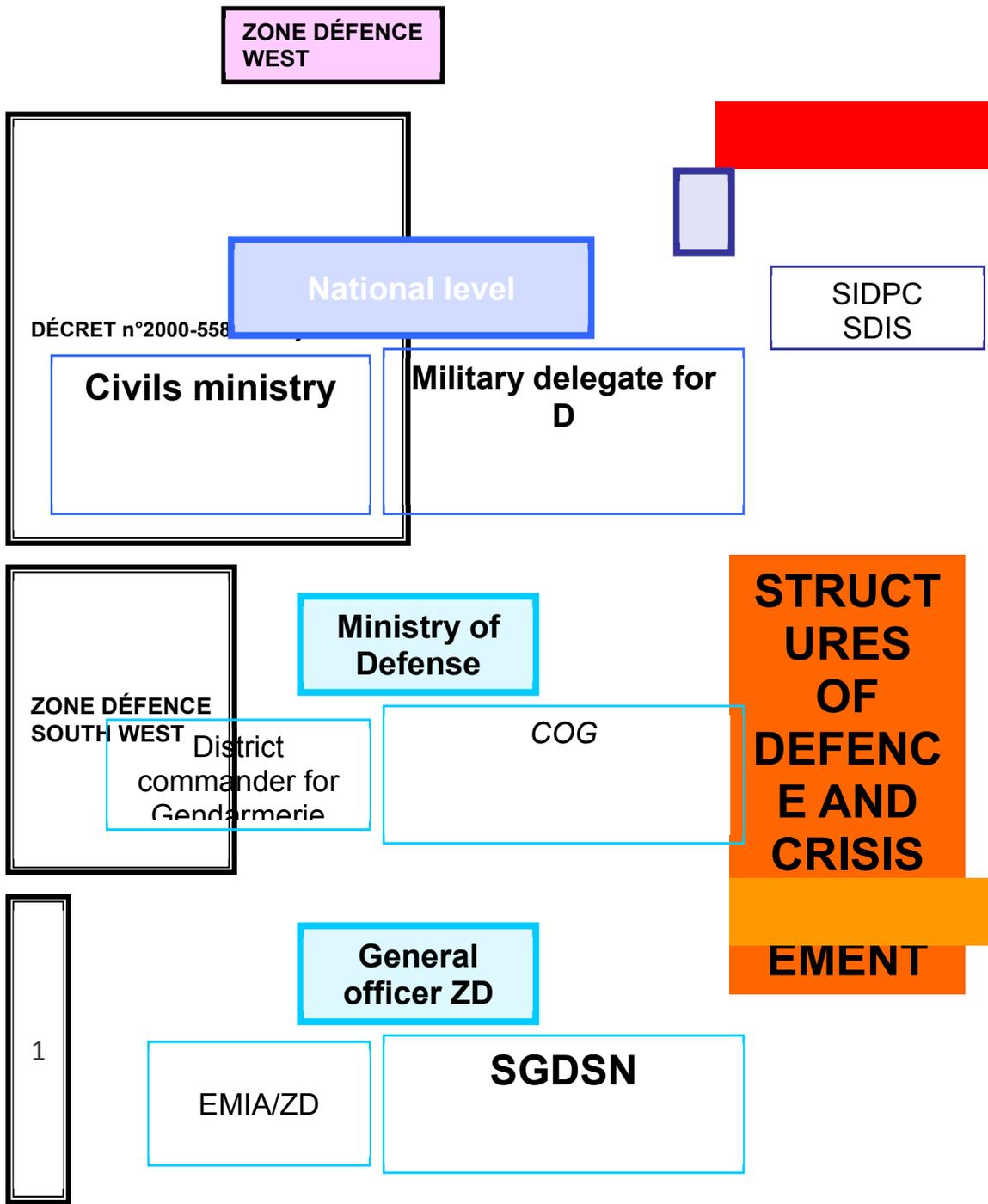


Figure 3: Structures for Defense and Crisis Management

- National permanent emergency and disaster management unit(s)/ formations; first responders

For crisis management and civil protection, the government and the Minister of the Interior have the Interministerial Crisis Management Operating Centre (COGIC) which is the operational organization managing crises at the Directorate-General for Civil Protection.

The COGIC can activate in response to crises the following national means:

- ✓ military civil protection units (FORMISC);
- ✓ water bomber aircrafts;

- ✓ helicopters;
- ✓ logistic Bases (ESOL);
- ✓ bomb-disposal expert.

In constant contact with the operational center of the National Police and the Planning and Conduct of Operations Center (CPCO) of the Department of Defense, the COGIC continuously informs the minister's office, offers intervention procedures, prepares and coordinates the action of government interventions.

The center occupies a total area of 500 m², divided into several structures:

- ✓ an operational center dedicated to continuous monitoring, (24/7), defense and civil protection;
- ✓ a crisis center, activated when needed;
- ✓ a communications center, plays a key role in informing the public through the pre-established national alert network links with key national media;
- ✓ a documentation center.

A total of 40 officers and non-commissioned members maintain the COGIC.

- Planned/ anticipated use of specialised military assets

During the summer season, there is an agreement between the Ministry of Defence and the Ministry of Interior for the provision of specialized assets and means (helicopters, engineer assets, etc).

On the other hand, Prefects may, at any time, requisition military means to deal with unusual disasters.

- Regional authorities and arrangements for emergency and disaster management (e.g. crisis HQ)

The intermediate level is the zone level. There are 7 areas of defense and therefore 7 inter-ministerial Defense Zones (EMIZ).

The EMIZ has an operational center.

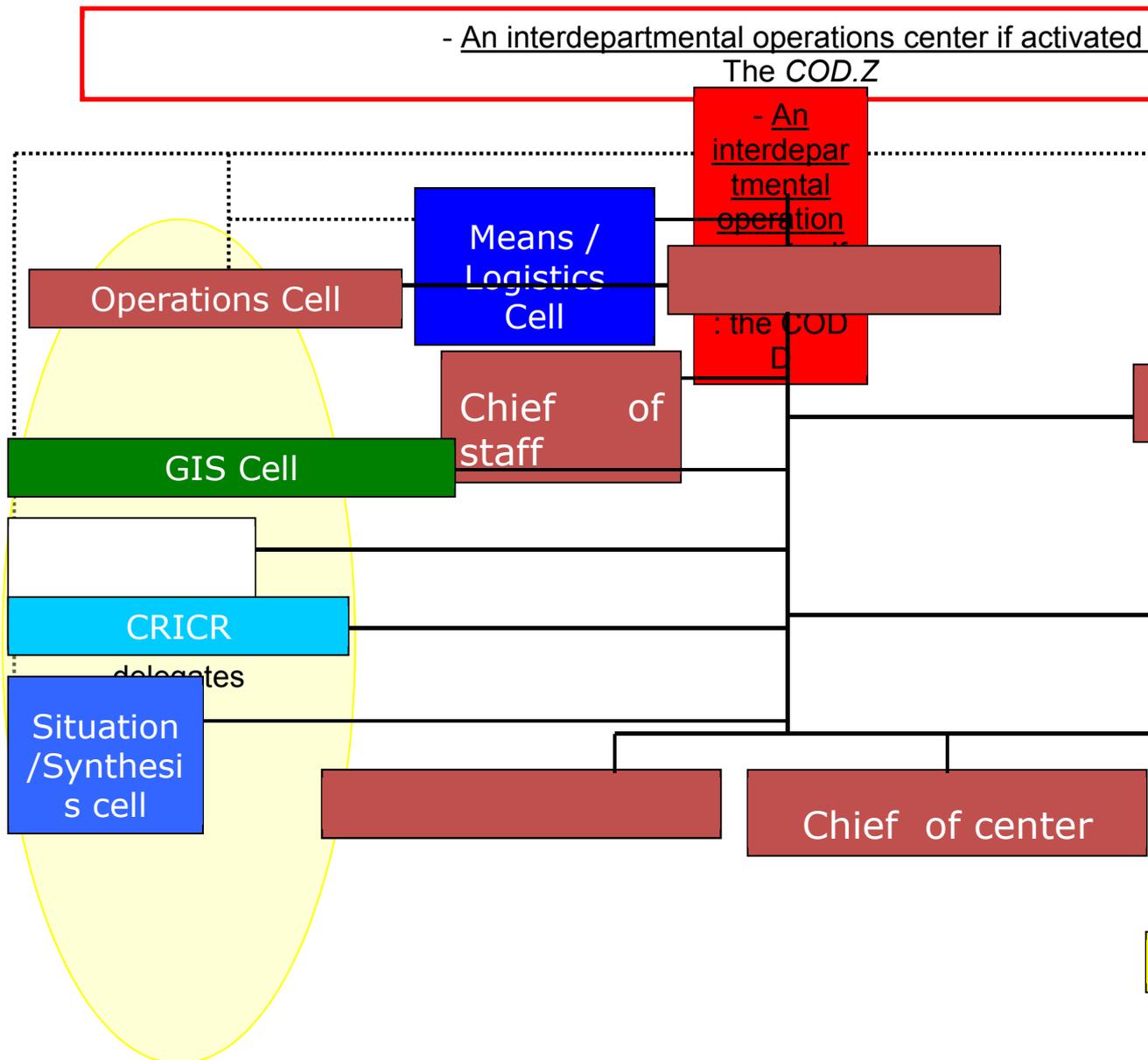


Figure 4: Organisation of the Zone Operational Centre

- Departmental emergency and disaster management arrangements

All French departments have an operational centre or crisis unit (CODIS). Some are not activated 24/7. When there is a disagreement between some departments, it is the Prime Minister who arbitrates.

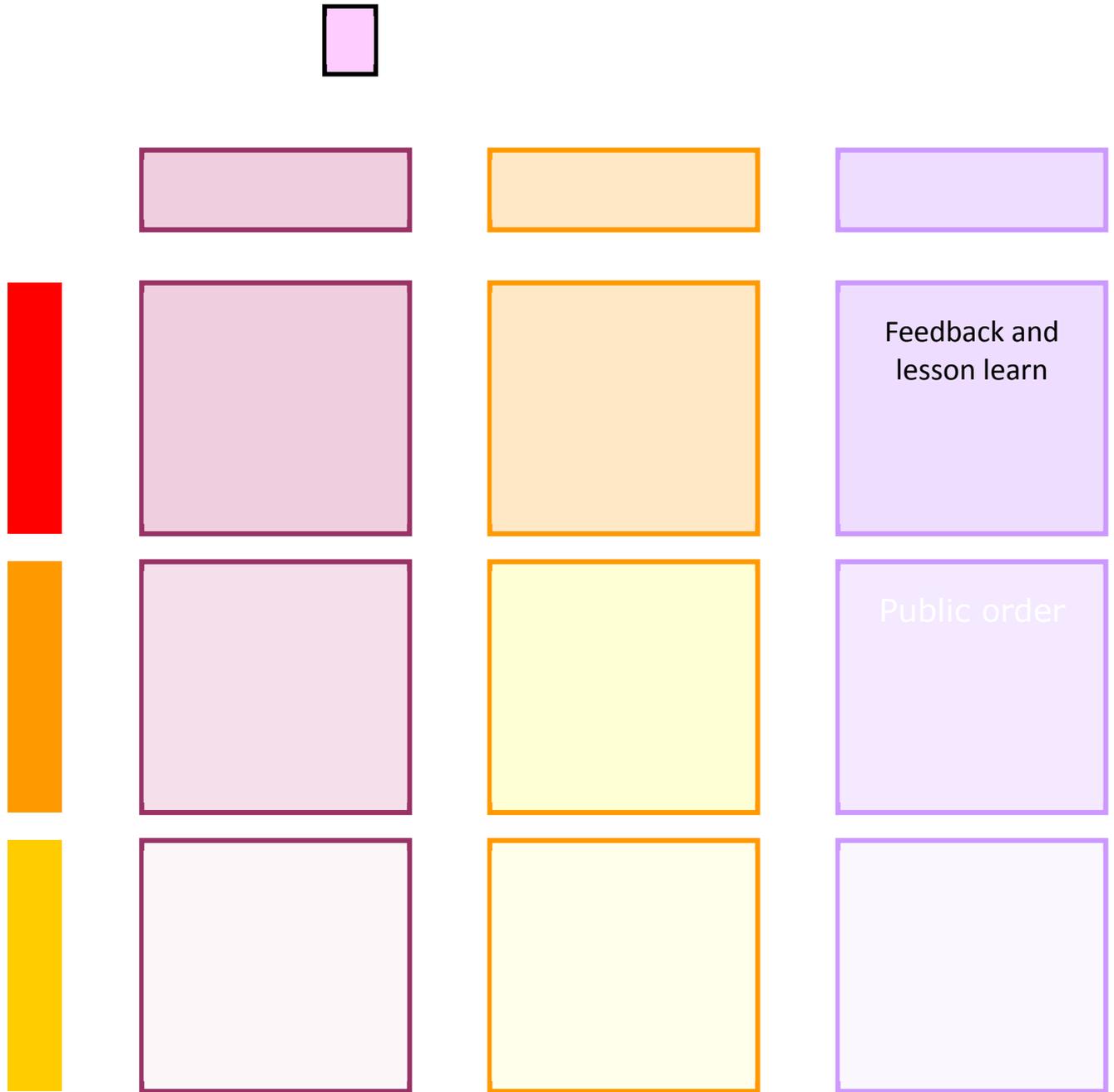


Figure 5: Structure Levels of Ministries (part 1)

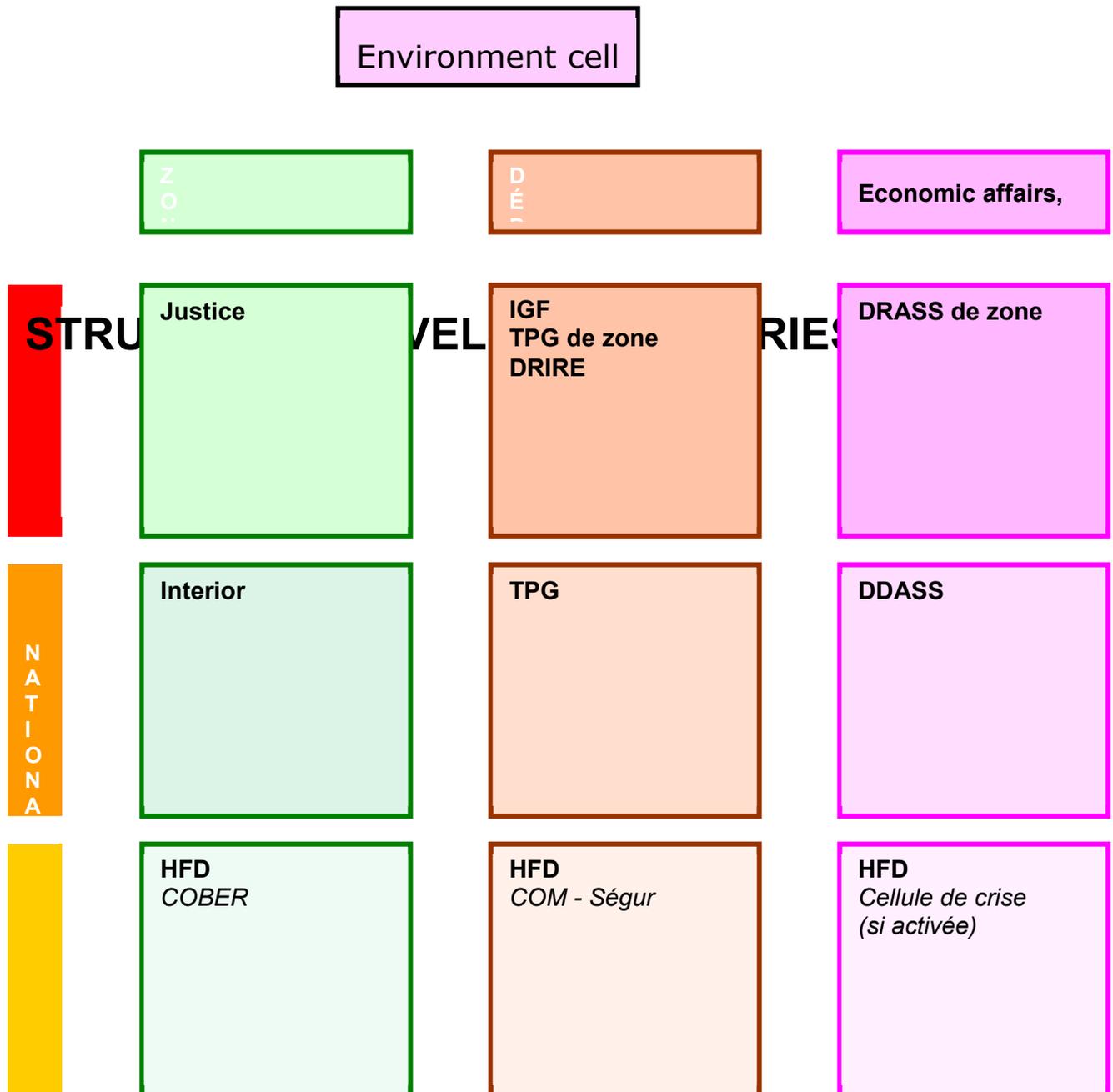


Figure 6: Structure Levels of Ministries (part 2)

- Local (municipal, town) authorities and arrangements for emergency and disaster management

At the level of the department, the Prefect manages the crisis in a specific operational centre: the Departmental Operational Centre, “COD”.

STRUCTURES LEVELS OF MINISTRIES

Département

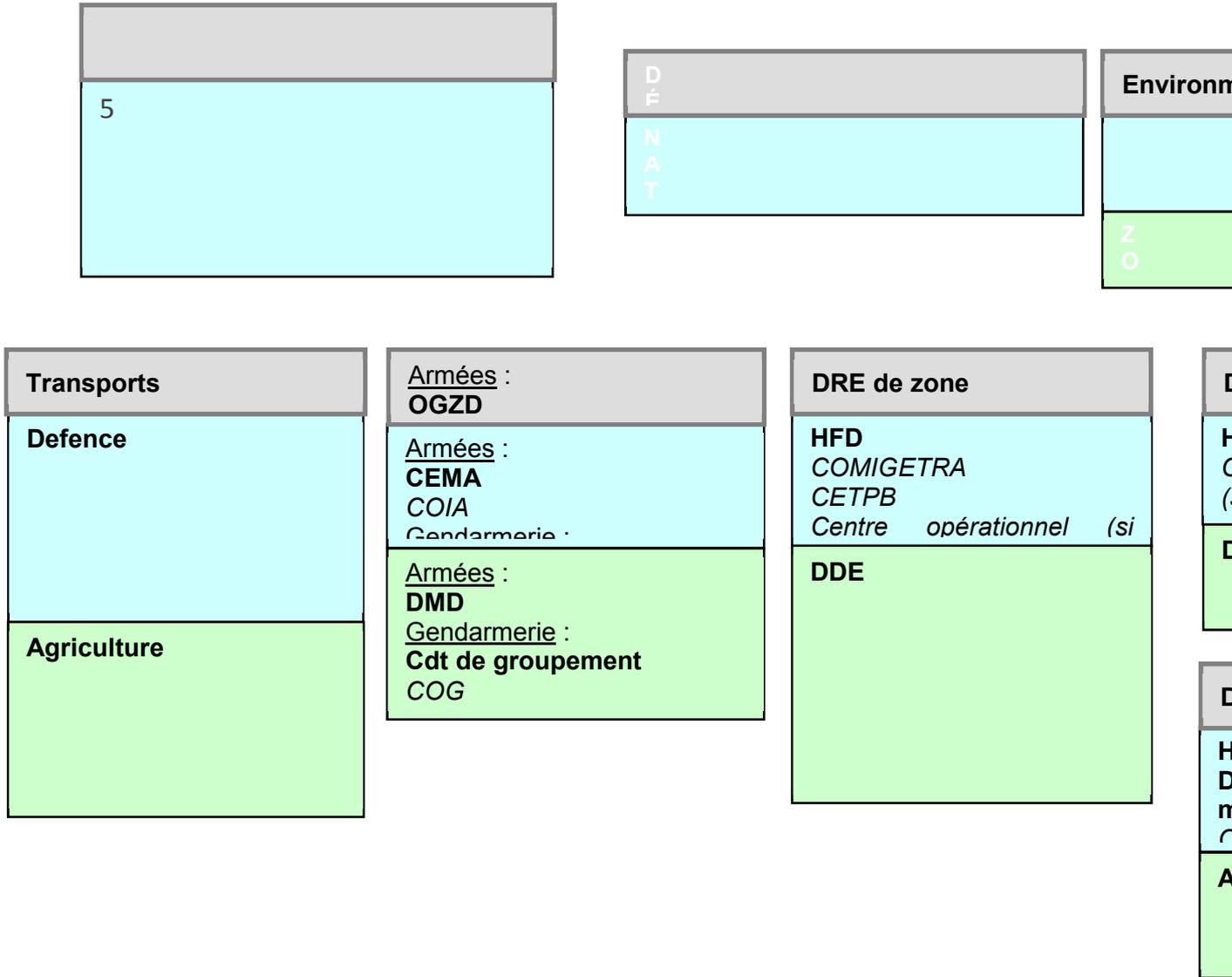


Figure 7: Organisation of the Departmental Command Post

- Volunteers and volunteer organisations; specialised NGOs

In order to work and to be integrated into an emergency device, NGOs must receive an agreement from the DGSCGC.

- Private businesses

They can be requisitioned by the Prefect as needed.

3.2 Organisational cooperation

- Operational cooperation (e.g., coordinated CM operations planning and response at national level, cross-border operational cooperation, operational cooperation within the EU)

- How priorities are assigned in the case of simultaneous occurrence of events?

In France, the priorities are guided and determined by the issues and they are:

- ✓ population;
 - ✓ property;
 - ✓ economic activities;
 - ✓ damage to the environment.
- How cross-border collaboration is organized? Please identify procedures used by stakeholders for cross-border cooperation (e.g., how is it initiated)

For small operations there are agreements of the Prefects.

For larger operations involving the work of other departments or national resources, the decision falls within the Ministries of the Interior and of Foreign Affairs.

4 Procedures

4.1 Standing Operating Procedures (SOPs) and Guidelines

- Is there a written/ published document(s)?

There are standard operating procedures and guidelines. These are published by the DGSCGC. The command organization is taught at all levels. The officer's School of Aix en Provence guarantees the use of this doctrine at the national level.

- What is the scope of the SOP document(s)

The National level.

- Are SOPs understood and accepted by all parties, and implemented in practice?

Operating procedures and national guidelines are obviously used in practice, not only nationally but internationally in many partner countries.

- Are the SOPs regularly tested both by activation and by exercise?

SOPs are unified in France. They are written in the national reference guides. SOPs are taught in the county and national schools from the lowest levels to the highest level of the hierarchy. SOPs are used in exercises and in real intervention.

4.2 Operations planning

- Is there a national crisis/ emergency, disaster/ plan?

There are emergency plans at the National level and in each department.

- Are there departmental crisis/ emergency, disaster/ plans? Please enumerate.

Regarding the Ministry of the Interior and Civil Protection, plans are available for each type of disaster (flood, earthquake, etc.)

- Are there local crisis/ emergency, disaster/ plans?

Plans are linked from the national to the municipal level.

4.3 Logistics support in crises

- Planned/ anticipated use of private logistics providers (e.g. DHL)

The French Civil Protection has 4 logistic bases located in the territory and that respond to many disasters. However, a prefect authority has the ability to command private companies for relief purposes.

- Planned/ anticipated use of military logistics support

The armed forces are involved in civil protection missions, either through an agreement signed for several years or after a requisition made by a Prefect.

4.4 Crisis communication to general public; Alert system; Public Information and Warnings

- Who is responsible for crisis communication? Who coordinates crisis communication within and among MSs? How is the inter-organisational coordination of information exchange about crisis communication to the general public organised and managed?

Each ministry provides its own communication. When a crisis requires an inter-departmental management (COGIC), the DGSCGC performs crisis communication with its own office.

- How long does it take for the general public to become informed about pending hazards?

Once the departments agree on the elements of language, the DGSCGC can make public information through radio channels and national television.

- Which technical infrastructure is used to achieve situational awareness at local/ national/ European/ international level?

Television, radio, newspaper, national, zone and departmental command posts, sirens, municipal and national police, ERCC, etc...

5 Capabilities

5.1 Human resources

- Permanent emergency and disaster management personnel

At the local or municipal level, the mayor is in charge with police powers and a local command post (PCC). The mayor manages local means (municipal police, urban planning, etc.) and has the capacity to requisition. He has a Local Protection Plan (PCS) and when crisis management is activated he becomes the Director of Rescue Operations (DOS).

The mayor has a Local Civil Protection Reserve (RCSC) consisting of voluntary citizens whose mission is to support town services in the occurrence of a crisis exceeding usual capacities and to contribute to population support and assistance.

When the mayor is exceeded by the events, when response capacities are not enough or when the disaster goes beyond municipal limits (boundaries), the department Prefect takes over.

At the departmental level, the department Prefect, invested with police powers, is the Director of Rescue Operations (DOS). He commands the ORSEC mechanism (Organisation of the Civil Protection Response). He activates the Departmental Operational Centre (COD) and deploys the Operational Commandment Post (POC).

The Departmental Operational Centre (COD) is divided into 8 units :

- public order unit ;
- population protection unit ;
- military unit;
- telecommunications unit
- economic unit;
- communications unit (media);
- support
- synthesis and communications unit.

As the DOS has the power to requisition, he can mobilize any public or private means. The Interministerial Service of Defence and Civil Protection (SIDPC) can provide support to study risk and develop a rescue plan, the Departmental Fire and Rescue Service (SDIS) is placed under its authority.

As previously, when the crisis exceeds departmental boundaries or response capacities and that crisis management reaches the zone level, it is the Zone Prefect, with the Zone Operational Centre (COZ), who takes over crisis management.

France is made up of 7 defence zones:

- North zone;
- Ile-de-France zone;
- West zone;
- Southwest zone;
- East zone;
- Southeast zone;

➤ South zone.

The zone Prefect has a General Secretarial Office for Police Administration (SGAP), a Zone Information and Communication Systems Service (SZSIC) and a Regional Information and Road Coordination Centre (CRICR).

Finally, at the national level, for large scale crisis, it is the Ministry of the Interior who supervises crisis management with the Interministerial Crisis Management Operational Centre (COGIC) and temporarily the Interministerial Crisis Centre (CIC).

A general secretary coordinates the actions of civil protection services (DGSCGC) and public safety (General Directorate of the National Police (DGPN)) which are reinforced by the General Directorate of National Gendarmerie (DGGN).

At the International level, the Ministry of Foreign Affairs works with the Health Ministry of the stricken country.

To summarize, the permanent staff of crisis management and emergency are people from municipal police, fire-fighting forces, Paris Fire Brigade (BSPP), Marine Fire Brigade of Marseille (BMPM), Military Civil Protection Units (UIISC), mine-clearing units, Logistics and Operational Support Unit (ESOL), Air Groups and civil protection associations.

- Capacity to mobilise personnel

"The law of 22 July 1987, in Article 10, states that the competent authorities of the State in charge of managing rescue operations or launching the ORSEC mechanism (Prime Minister, state representative in the department where the headquarters of the defence area is located, state representative in the department), can "each" requisition necessary private rescue means ."

"In practice, these requisitions respond to an emergency situation by quickly completing the available rescue means and specific equipment (specialized repair vehicles, staff of companies involved in handling hazardous chemicals, etc.) during rescue operations. They cannot be implemented "in ordinary circumstances." Concerned businesses and individuals are compensated at a later stage."

- Involvement of volunteers, volunteer organisations, and specialised NGO personnel

National human resources come from public services (and / or private) but also from many civil protection associations. These associations are made up of volunteers and employees. Authorities do not always have sufficient resources (human and material) to overcome the emergency. It is therefore essential in order to cope with a crisis, to have the support of civil protection associations. These associations intervene to complement public service missions when a request is made by the competent authorities. Article 35 of the law of 13 August 2004 created a 5 year agreement for associations that want to be integrated into the systems put in place by the government. These associations are authorized to respond to any or all of the following types of missions:

- rescue operations;
- support actions for disaster victims;
- supervising volunteers during actions to support affected population;

- provisional rescue devices.

Annual agreements are signed between public authorities and the SDIS to define the circumstances, intervention methods and their integration into the rescue plans.

Below are three major associations groups:

- The French Red Cross, the French Society of Disaster Medicine (SFMC), the French Society of Emergency Medicine (SFMU), the National Federation of Radio Transmitters at the service of Civil Security. (FNRASEC), ...
- Representations of health professionals, the SAMU of France, the association of emergency doctors of France (AMUF), the National Association of Medical Students of France (ANEMF) ...
- NGO: Doctors Without Borders, Doctors of the World, Bioforce,

Another association needs to be listed because its support from a health point is very important: it is the Establishment of Preparedness and Response to Health Emergencies (EPRUS). EPRUS has the capacity to respond to health threats, in France and abroad. Indeed, this association has facilities to organize and deploy health forces during severe health crises. This health reserve includes all types of health professionals. After being trained they participate in emergency missions in case of serious health crises, and their pharmaceutical establishment manages the national strategic health stock needed to protect the population in case of emergency.

The National Federation of Civil Protection should also be mentioned. It provides operational reinforcement for public rescue services (SAMU, fire brigade) during rescue plans, participates in supporting affected population in case of disasters and supervises volunteers.

- Involvement of private businesses

As we have said before, competent authorities have the power to requisition, as needed, private resources for rescue purposes and very often this is done in the frame of a partnership. Various operators such as SNCF, telephone operators, motorway companies, water and electricity distributors can be mobilized. In addition, upon request of the person requisitioned, the administrative court can grant an advance payment representing all or a part of the compensation.

- National educational programme(s)

Since the law of civil protection modernization of 13 August 2004, training has become a permanent obligation. In order to test rescue plans, verify procedures (and tools developed) and to evaluate the means and the teams, exercises are performed each year involving all stakeholders at all levels (representatives of the political and administrative authorities, media, elected officials, public and private operators).

The new program for modernization of civil security has for aim to involve population that lives nearby a major risk. Today populations are not implied in those exercises even if they receive documentation to inform them on action to be taken in case of crisis. Reference:

« Exercices de sécurité civile: mémento en 10 points. »

These exercises enable to identify shortcomings in the crisis management chain and to propose appropriate modifications. Communal exercises work on the evacuation and / or containment of a

neighbourhood. For departmental exercises, the themes are given by the DGSCGC. They can focus on a pandemic crisis, a CBRNE disaster, or a road crisis. Zone exercises are initiated by zone prefects in order to train departments at working at the zone level on pandemics, winter weather.... Interdepartmental government exercises sometimes involve the zone or the department.

5.2 Material (non-financial) resources

- What specific non-financial resources (dedicated equipment etc.) have been allocated to crisis management (central, regional, local preparedness and response)?

It is very difficult to know the specific resources that have been allocated to crisis management. However, the French Red Cross annually publishes a report on the actions conducted.

For 2011:

- 55 million meals distributed;
- 539 lockers and 278 clothing stores put in place;
- 98 institutions dedicated to early childhood and child protection;
- 118 accommodation facilities affected.

For 2012:

- 831 food aid structures installed;
- 318 clothing stores put in place;
- 2263 accommodation places affected;
- 113 reception facilities dedicated to infancy and early childhood.

For 2013:

- 1002 food aid units installed;
- 412 clothing stores put in place;
- 2630 accommodation places affected;
- 2970 places dedicated to early childhood and child protection.

- Permanent reserve stocks (fuel, food, medicines, tents, blankets, etc.)

The national reserve of the General Directorate of Civil Defence and Crisis Management (DGSCGC) is constituted of materials for the reinforcement of national rescue and protection of persons and property. All this equipment complements the material of local and regional authorities for large scale disasters.

There are three ESOLs (Establishments of Operational and Logistical Support of the DGSCGC): one in the North, one in the West, one in the South, plus an annex in the East. The stock of the national reserve is made up of seven families according to their action areas.

The first family contains equipment to produce and supply drinking water. The types of risks that match these materials are:

- Flood;
- Biological Pollution;
- Earthquake;
- Displacement of populations;
- Cyclone.

In this family, we find water treatment units (CELTE), automatic bagging machines for 2L bags, water distribution headers with 5 taps, 1000m flexible food grade pipes to supply water, water pressure regulators, a mobile overpressure unit and different types of tanks.

The second family contains cleanup and search and rescue equipment. The types of risks that match these materials are:

- Flood;
- Biological Pollution;
- Oil and Chemical Pollution;
- Cyclone.

There are autonomous hot and cold water pressure cleaners, sawing materials, storage tanks with a total capacity of 0.5 to 20 m³, various containers (garbage cans, buckets, wheelbarrows, ...), hand tools (shovels, forks ...), plastic covers, rolls of polyane, oil spill gloves and coveralls.

The third family contains energy materials and outdoor lighting. The types of risks that match these materials are:

- Flood;
- Earthquake;
- Displacement of populations;
- Cyclone.

In this family we find power generators ranging from 2.5 to 110 KVA having a total capacity of 2 000 KVA, outdoor lighting from 300 to 1000 Watts with a total capacity of 70 000 Watts and lighting balloons between 1 200 and 4000 Watts.

The fourth family contains equipment for accommodation and catering. The types of risks that match these materials are:

- Flood;
- Earthquake;
- Displacement of populations;
- Cyclone.

The equipment consists in modular tents with a total capacity of 2000 people, camp beds, sleeping bags, blankets, and a collective catering unit.

The fifth family consists in pumping and flood fighting equipment. The types of risks that match these materials are:

- Flood;

- Cyclone;
- Marine submersion.

Here we find mobile pumping units with 5400 m³/h capacity, mobile pumping with 850 m³/h capacity, heat engine pumps from 15 to 150 m³/h, electric submersible exhaustion pumps from 15 to 360 m³/h, a total pumping capacity of over 52 000 m³/h, more than 5 km of flood dam, over 900 m² of modular elements to build platforms and floating walkways.

The sixth class is composed of CBRN equipment and protective equipment. The types of risks that match these materials are:

- Chemical and Biological Pollution;
- Nuclear Pollution;
- Oil spill pollution.

There are CBRN decontamination light clothing kits, respiratory protection masks, personal protective kits, disposable suits and autonomous thermal sprayers.

And finally the seventh family contains specific forest fire intervention equipment (2 wildfire batches in the North and in the South).

- Planned /anticipated/ involvement of specific military assets (e.g. reconnaissance assets, search and rescue helicopters, fire-fighting planes/helicopters, CBRN, etc.)

The support for territorial civil protection services is provided by the operational services of the General Directorate of Civil Protection and Crisis Management of the Interior Department.

To cope with disasters, the sub-directorate of crisis planning and management must handle the three phases of the crisis: preparedness, response and feedback.

This sub-directorate analyzes the various risks such as natural hazards, technological risks, nuclear risks ...). It also ensures fire prevention and regulations.

The sub-directorate of risk management also defines the framework for rescue planning. It invests in information and public awareness concerning risks and threats, including warning systems. Active in the national policy for civil protection exercises, it organizes the feedback and contributes to ensure the training for risk and operations management.

Operational services operate throughout the French territory and contribute to International rescue actions. They include different structures including:

- Air assets pool (GMA);
- Mine-clearing centre;
- Military units.

Civil protection military units reinforce territorial fire-fighters when circumstances require support or special preparation facing risks. These units (UIISC: civil protection instruction and intervention units) are specialized in the areas of forest fires, technological risks and buried victims search.

Civil protection bomb-disposal experts mainly carry out safeguarding missions.

The civil protection air assets pool is divided into two groups:

- A helicopter group: :
 - A central department which includes a commandment safeguarding missions base, a centre for crew training and an aircraft maintenance centre;
 - 22 helicopter bases plus one in Guadeloupe.
- An airbase.

Helicopter missions are, in increasing order of priority, the following:

- conditioning of personnel and equipment;
- police and technical assistance;
- forest fire fighting and non-emergency rescue;
- urgent rescue.

Civil protection has a fleet of 25 water bombers (Canadair CL-415, S-Tracker 2FT and Bombardier Dash 8) and 3 liaison and investigation aircrafts.

The chemical, biological, radiological, nuclear and explosives (CBRN-E) service is placed under the authority of the General Director of Civil protection and Crisis Management. Its mission is to develop intervention procedures that are intended to strengthen response capacity and resilience in managing a major CBRNE crisis on the French territory.

- Is provision made for governments to mobilise or commandeer private assets during crises?

As for human resources, when the material resources of authorities are insufficient to face an emergency, both because of the amount of equipments needed and because of the specificity of certain needs, competent authorities have the power to requisition needed resources.

5.3 Training

- National, local and departmental exercises

DGSCGC recommends organizing regular exercises at district, zone and national levels. To this end, it publishes various methodology guides for exercise management or field exercises. It also publishes guides for feedback.

- Centralised specialist training

Specialty trainings are made only in a small number of centres approved by the DGSCGC. The wild fire training levels 3, 4 and 5 can be done only at the ECASC (Civil Protection Application School). It is the same for mountain rescue team training. The fire training for ships is only performed by BMPM, etc ...

- Training of volunteers and NGO personnel

Volunteer fire-fighters receive the same training as professional fire-fighters. Consequently, during field operations, it is not possible to differentiate between the two types of fire-fighters.

NGO training is the responsibility of their own structure in the framework of the DGSCGC agreement.

- Cross-border and multinational training activities

Cross-border training and exercises are under the responsibility of departmental prefects and departmental directors of fire and emergency services of border departments.

Some exercises are organized to the initiative of departments on the border. Those exercises are not mandatory and do not frequently occur but are more and more developed.

The last exercises operated on South of France are :

- NOVI (nombreuses victimes, several victims) with Italy
- RICHTER with Spain and Italy.

Reference: « Rapport sur les règles et principes applicables aux actions internationales en cas de catastrophe (IDRL) en France » croix Rouge Française. 2010

- Is there a certification system? What standards are used to define specialists' training requirements?

France has engaged into an INSARAG certification process for its HUSAR teams and into a EU certification process for other specialized modules. It can provide the ERCC all specialized modules provided by the decision of the European Commission of 10 June 2010.

French education is unified and is described in national reference guides. Training must be approved by the DGSCGC who verifies that everything is in reference guides and in French doctrine in the concerned specialty.

- Are there specialised training programmes for high-level decision makers?

The DGSCGC deals more specifically with training for crisis management prefects and office chiefs. There is a general training for natural and technological risks.

- Training centres

France has a national school to train firefighter officers (ENSOSP) and a specialty school (ECASC). In addition, all departments have departmental schools to achieve basic training for their firefighters.

5.4 Procurement

5.4.1 Procurement regulation

- What needs to be procured? E.g. goods or services, including trainings?

Public procurement concerns all goods and services bought by the French government or local authorities. All expense above 1€ must be subject to a contract. Only procedures change depending on the amount of the financial transaction. These contracts must meet public procurement directives. (Code des marchés publics (*Décret n° 2006-975 du 1er août 2006 modifié*)).

The following table resumes the links to the official laws for French public procurement.

Links to the laws for public procurement code (CMP):	
Public procurement code	http://www.economie.gouv.fr/files/directions_services/daj/marches_publics/t_extes/cmp/code2004/decret_2004-15_consolide.pdf
Circular letter for the application of the public procurement code	http://www.economie.gouv.fr/files/directions_services/daj/marches_publics/t_extes/cmp/code2004/mco-gras.pdf
Corresponding table for public procurement codes of 2004 and 2006.	http://www.economie.gouv.fr/files/directions_services/daj/marches_publics/t_extes/cmp/code2004/tab_correspondance_cmp2006-cmp2004.pdf
Decrees for modification of public procurement code	http://www.economie.gouv.fr/daj/Decrets-modificatifs-du-code
Circular letter for good practice of public procurement code.	http://www.legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT000025364925

- Which EU directive on procurement is applicable on procurement of CM tools and related?

The European directives applicable for the procurement of crisis management tools and related are the ones relevant for all public procurement in Europe: directives 2004/18/CE and 2004/17/CE currently applicable and two new directives 2014/24/EU and 2014/25/EU.

The directives 2004/17/CE and 2014/25/EU concern exclusively procurement by entities operating in the utilities sectors: water, energy, transports and postal services. It is called “sector directive”. Those directives are not applicable for crisis management tools and services.

The Directives 2004/18/CE and 2014/24/EU concern public procurement for all the others sectors, including crisis management tools and services. This directive (called “classical directive”) applies to public contracts concluded by a contracting authority in sectors other than the water, energy, transport and postal services sectors for supplies, services and works.

Public work contracts, public supply contracts and public service contracts	http://europa.eu/legislation_summaries/internal_market/business/public_procurement/l22009_en.htm
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Extract from the “Summary of EU legislation” above-mentioned:

“The “traditional directive” applies to public work contracts, public supply contracts and public service contracts which have a value excluding VAT estimated to be no less than the pre-established thresholds.

The value of the thresholds is the following (values updated every two years by the Commission):

- *EUR 130 000 for public supply and service contracts awarded by central government authorities (ministries, national public establishments);*
- *EUR 200 000 for public supply and service contracts: awarded by contracting authorities which are not central government authorities; covering certain products in the field of defence awarded by the central government authorities; concerning certain services in the fields of research and development (RTD), telecommunications, hotels and catering, transport by rail and waterway, provision of personnel, vocational training, investigation and security, certain legal, social and sanitary, recreational, cultural and sporting services;*
- *EUR 5 000 000 in the case of works contracts”.*

The new European directives (2014/24/EU) should be transposed into French law in order to be applicable no later than February 2016. They will be integrated into the French public market code (CDM).

A decree (n°2014-1097) dated on September 26th 2014 (JORF n°0225) transposes in an accelerated way the new European Directives 2014/24/EU in the French public market code (CDM). See next table for link to the text of the decree.

Decree n°2014-1097, September 26 th 2014: public procurement simplification, transposed from European Directive 2014/24/EU	http://www.legifrance.gouv.fr/affichTexte.do?cidTexte=JORFT-EXT000029504714&categorieLien=id
DAJ: decree for simplification measures on public procurement	http://www.economie.gouv.fr/files/files/directions_services/da/marches_publics/textes/autres-textes/fiche-decret-mesures-simplifications-mp.pdf

This decree concerns different points:

- The upper limit of the annual turnover due by the supplier: this request cannot be more than twice the value of the market. The aim of this decree is to open the procurement procedure to SMEs.
 - The simplification of the application files.
 - Creation of a new kind of procurement to facilitate public market in research and development.
- Are all articles of the directive applicable or are some articles not implemented?

According to article 288 of the Treaty on the functioning of European Union (see link below):

“A regulation shall have general application. It shall be binding in its entirety and directly applicable in all Member States.

A directive shall be binding, as to the result to be achieved, upon each Member State to which it is addressed, but shall leave to the national authorities the choice of form and methods.”

Consolidated versions of the Treaty on European Union and the Treaty on the functioning of the European Union. (2008/C 115/01)	http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:C2008/115/01&from=FR
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Directives are framework laws, mandatory because they link Member States to the result to be reached. Consequently, all the articles of the Directives must be transposed in French law, within the time limit allowed by the European Union.

Thus, Directive 2004/18/CE regarding Public procurement has been transposed in French law according to the transposition texts recorded on the link in the table below.

According to “New rules on public contracts and concessions” (see link in table below):

“National freedom of organisation is not affected: it is for the Member States alone to organise public services as they see fit. A public authority remains free to perform the public interest tasks for which it is responsible, either using its own staff or by delegating these tasks to external firms – it is only in the latter case that the rules on public contracts and concessions apply.”

Links to European Directives for public procurement	
Directive 2004/18/EC of the European Parliament and of the Council of 31 March 2004 on the coordination of procedures for the award of public works contracts, public supply contracts and public service contracts	http://europa.eu/legislation_summaries/internal_market/businesses/public_procurement/l22009_fr.htm
Texts of transposition of the Directive 2004/18/CE	http://www.legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT00000702882&dateTexte=&fastReqId=342410301&fastPos=1&oldAction=rechExpTransposition
Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC	http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32014L0024&from=FR
Consolidated versions of the treaty on European Union and the treaty on the functioning of the European Union (2008/C 115/01)	http://eur-lex.europa.eu/legal-content/FR/TXT/?uri=CELEX:C2008/115/01

SMEs' access to public procurement markets and aggregation of demand in the EU	http://ec.europa.eu/internal_market/publicprocurement/docs/modernising_rules/smes-access-and-aggregation-of-demand_en.pdf
New rules on public contracts and concessions : simpler and more flexible	http://ec.europa.eu/internal_market/publications/docs/public-procurement-and-concessions_en.pdf

- Are additional national regulations applicable and/or are there additional requirements?

Generally, French laws are more restrictive than European directives. The French public procurement code does not have specific requirements regarding the procurement of tools and services for crisis management. Common law applies for these procurements.

Thus, the French public procurement code (CMP) plans:

- For local public authorities and communities, the procedures planned by the European Directives enforce on public contracts with a value higher or equal to 211000€ HT. Under this value, National law applies (French public procurement code, CDM).
- Procurements for the State and its public entities are governed by the public procurement code. This law sets thresholds from which different purchasing procedures should be followed.

Three thresholds exist for public procurement concerning the purchase of supplies and services for the French State and its local authorities, depending on the amount of the transaction (see: publics.com, servive-public.fr). These different procedures are described in question 5.4.2.

- How often is there a need to jointly buy CM tools or services? And how often does cross-border procurement occur? Are there any considerations for future joint procurement? If yes, in what area and what are potential partner nations?

According to the DGSCGC (General Directorate of Civil Protection and Crisis Management) with the Office of the Operations and Crisis Management, the tools for crisis management are homemade. Most are developed by their own offices, with the support of departments from the Ministry of the Interior such as the Directorate of Information and Communications Systems (DSIC). Public procurements can occur to carry out some services.

There is no joint buying or cross-border procurement for crisis management tools or services in France.

- Is there a need for additional legislation with regard to cross-border procurement?

There is legislation for cross-border procurements for local authorities and their groups, excluding SDIS (Departmental Fire and Rescue Service) or interdepartmental groupings. It is the subject of the interministerial circular of 20 April 2001 for decentralized cooperation.

This circular applies only to local entities and their groupings, this circular specifies that SDIS are not group of local entities.

From the document mentioned below: “In this cooperation “French local and foreign local entities”, on one side the SDIS can only be an operator, and on the other side the sector of action has a limited extent, since it can’t concern directly the security and the protection of population, which are under the jurisdiction of the public authorities”.

Interministerial circular of 20 April 2001	http://www.senat.fr/ct/ct04-02/ct04-028.html
Cross-border competence and cooperation of the fire and rescue services in the European framework.	http://crd.ensosp.fr/doc_num.php?explnum_id=7884

Meanwhile there are numerous bilateral agreements within the European Union. The countries of the South of Europe cooperate especially for forest fire fighting. These cooperation do not concern any procurement procedures.

Currently, there are no needs for additional legislation for cross-border procurement since none is envisaged.

- How important is interoperability and do issues arise around the interoperability?

Interoperability is a major concern for crisis management because it allows the adaptability of decision support tools for all natural or manmade disasters, and for all existing investigation tools. Likewise, crisis management tools must adapt to the different crisis management actors, on all operational levels: from the local entity to the National and European entities.

Interoperability is a real problem for crisis management. There are currently a lot of initiatives of Europe to develop interoperability. The actual directives are to develop “open systems” so any software can enter in any program.

Major crisis management in France is governed by the ministerial circular letter of the January 2d, 2012.

Link to the Ministerial circular letter of January 2d, 2012	http://circulaires.legifrance.gouv.fr/pdf/2012/01/cir_34453.pdf
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5.4.2 Procurement procedures

- Which organisations are involved in the procurement of CM tools? And how do they organise their procurement process?

The organisations implied in the procurement of crisis management tools are the French State through the Ministry of Interior and the DGSCGC (General Directorate of Civil Protection and Crisis Management) as well as the SDIS (Departmental Fire and Rescue Service) of each French department.

Procurement procedures are governed according to the French public procurement code (CMP) and depend on the value of the contract. The next table sums up the thresholds and the associated procedures for the procurement of supplies and services (sector that concerns crisis management, another sector is for public works).

Public procurements of supplies and services

Thresholds		15000 € HT	90000 € HT	200000€ HT
Advertising	Supplies and services (art.29)	None	Adapted advertising	Compulsory advertising : compulsory national pattern: BOAMP or JAL + publication on the buyer profile Compulsory advertising: (compulsory European model) BOAMP and OJEU + publication on the buyer profile
	Services (art.30)	Adapted advertising		
Competition		None	None but under buyer responsibility	Introducing competition
Procedure	Supplies and services (art.29)	Adapted procedure		Relevant procedures: opened or restricted requests for proposal (art.33) ; negotiated procedures (art.35) ; competitive dialogues (art. 36) ; competition (art.38) ; dynamic acquisition system (art.78) ; (exclusively for common supplies)
	Supplies (art.30)	Adapted procedure		

Table 2 Public procurement Procedures for supplies and services

BOAMP: Official Bulletin for Public Procurement Announcing

JAL: Legal Announcing Journal

OJEU: Official Journal of European Union

Adapted procedure: freely decided by the buyer depending on the nature of the procurement, on the needs to be satisfied, on the number and localisation of suppliers and procurement circumstances.

- How is the procurement process in the non-EU countries organized? Are coordinating activities of any kind in place or are they planned?

Procurement procedures in non European countries are specific in each country and are unknown by the French State. Meanwhile we can find on the web some articles concerning procurement processes in some large countries. The next table summarizes the main links to information on the procurement procedures of some countries concerned.

Government procurement in the United states		http://en.wikipedia.org/wiki/Government_procurement_in_the_United_States
Government procurement in Russia		http://en.wikipedia.org/wiki/Government_procurement_in_Russia
Switzerland's Procurement system	Public	http://www.tendersinfo.com/blogs/switzerlands-public-procurement-system/
TURKISH PROCUREMENT AUTHORITY (PPA)	PUBLIC	http://www.sigmaweb.org/events/Multi_Country_KZ7104_Presentation_Turkey_Danilovgrad_21June2013.pdf

5.5 Niche capabilities

- Which niche capabilities of the country /IO are potentially of interest to the EU CM and disaster response?

The French State owns civil security means in various domains of natural or manmade disasters that have already proven their value in different European countries and in the world.

At the European level, there is a Common Emergency Communication and Information System (CECIS) which allows answering the demands from all countries (even outside of the European Union) when they are in a crisis situation (see following table for reference).

Common Emergency Communication and Information System ECHO	http://ec.europa.eu/echo/fr/funding-evaluations/public-procurement/call-for-tender/common-emergency-communication-and-information-system
--	---

reference ECHO/B.1/SER/2011/01	
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The concerned country makes a request for help which is relayed to all the European countries offering their help, which is accepted or not by the demanding country.

There is also an Emergency Response Centre (ERC) which works on the same principle with the financial participation of the European Commission for staff travelling expenses during operations (case of the intervention in Sweden in august 2014 for forest fires). See following table for reference.

Decision N° 1313/2013/EU of the European parliament and of the council of 17 December 2013 on a Union Civil Protection Mechanism	http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32013D1313&from=EN
The European Emergency Response Centre Opens. European Commission - MEMO/13/427 15/05/2013	http://europa.eu/rapid/press-release MEMO-13-427_en.htm

The Commission Decision of 29 July 2010 (amending Decision 2004/277/EC) as regards rules for the implementation of Council Decision (2007/779/EC) defining a Community civil protection mechanism, establishes the form that must take community assistance. This decision defines the general requirements that apply to European protection civil modules. See following table.

Commission Decision of 29 July 2010 amending Decision 2004/277/EC Euratom, as regards rules for the implementation of Council Decision 2007/779/EC Euratom, establishing a Community civil protection mechanism.	http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2010.236.01.0005.01.ENG
Council conclusions on Further Developing Risk Assessment for Disaster Management within the European Union.	http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/jha/121462.pdf

The niche capabilities for the French State are listed below:

1. **Forest fires :**

- Aerial forest firefighting module using airplanes: the fleet of air tankers includes 12 Canadairs, 9 Trackers, 2 Dash 8 and 3 Beech crafts.
 - French detachments for far-off countries are most often composed of 2 Canadairs and one beech craft. They also include two plane pilot crews (of two pilots) and four maintenance staff. A senior forest fire fighter manager is in charge of the coordination of the intervention. A total staff of 17 people.

- For bordering countries (Spain, Italy), the detachment is composed by only two Canadairs with their two pilot crews, they use the same work method as in France.
- Aerial forest firefighting module using helicopters :
 - Three helitankers with a capacity of 1000 liters.
- Ground forest firefighting : two kinds of modules
 - Ground forest firefighting using vehicles: 1 VLTT (off-road liaison vehicle) and 4 wildland fire tankers, a total staff of 30 people.
 - Ground forest firefighting without vehicles: airborne specialized intervention detachment (DIS). A staff of 30 people equipped with forest cutting tools, motor-pumps...

2. **Earthquake and explosion: urban search and rescue** : INSARAG classification

- Two HUSAR teams (heavy teams) have been classified in March 2014: UIISC1 and UIISC7 (military teams)
- One French NGO, Pompiers Urgence Internationale (PUI) is classified MUSAR (medium team).
- Two new HUSAR teams (Civil protections teams) should be classified in 2016 and 2017: south Zone team in 2016 and Ile de France team in 2017.
- (INSARAG, Preparedness-response) Each of these INSARAG classified teams owns the material needed for its actions. *“A heavy urban search and rescue team is required to have:*
 - *the equipment and manpower to work at a heavy technical capability at two separate work-sites simultaneously;*
 - *both a search dog and technical search capability;*
 - *the technical capability to cut structural steel typically used for construction and reinforcement in multi-storey structures;*
 - *the capability to conduct heavy rigging and lifting operations;*
 - *staff and logistic sufficient to allow for 24 hour operations at 2 independent sites for up to 10 days.”*

French HUSAR teams have 62 people.

3. **Chemical cleanup and clearing**

- High pressure cleaners: 5 with hot water ; 24 with cold water
- Chain saw modules : 245

4. **High capacity pumping : flooding, cyclone, marine flooding**

- Mobil pumping units : 5 UMP5400 at 1.5m³/s
- Pumping units : 8 UP850 at 850m³/h
- Thermal motor-pumps: 152 at 50m³/h and 73 at 150 m³/h.
- Flood containment, pumping and drying unit CELPA, Modular floating rig
- Flood rescue using boats : navigation unit CELNAV

5. **Field hospital**

European Commissions requirements (Commission Decision of 29 July 2010) for field hospital:

- Provide initial and/or follow-up trauma and medical care
- 10 beds for heavy trauma patients, possibility to expand the capacity

- medical team for: triage, intensive care, surgery, serious, but not life-threatening injuries, evacuation, specialised support personnel
- Appropriate tents for the medical activities, tents for personnel.
- Command post, logistic and medical supply deposit.

In France, we have a field hospital that can be operational in 24 hours. This unit called ESCRIM, includes a department for surgical support (Civil Protection Units) and a department for medicine and hospitalization (Civil Security Military Units). This hospital with 33 tents and a surface of 1500 m², includes 100 beds, 2 operating blocks, medical imaging units, sterilization modules, laboratory of biological analysis, health center, maternity.

Staff is composed of 75 people issued from civil safety and civil protection units who are periodically checked for capacity, availability and trained. Likewise materials are periodically checked.

This field hospital is available 24/7. It is totally autonomous and does not need any local help.

6. **Water purification: flooding, biological hazard, earthquake, population displacement, cyclone.**

- France owns 4 water treatment units: CELTE 5 m³/h of capacity each. No treatment of salted water.
- Semi automatic bag filler
- Mobile boosting station for drinkable water

7. **Chemical, biological, radiological and nuclear detection and sampling (CBRN)**

- Individual protection kits: kit CLD NRBC
- Respiratory protection masks

8. **Medical aerial evacuation of disaster victims**

- Transport disaster victims to health facilities for medical treatment.
- Capacity to transport 50 patients per 24 hour, ability to fly day and night.
- Helicopters/planes with stretchers

Resources

Legislative acts

- French town planning code: art. L.121-2 du Code de l'Urbanisme
- Law n°82-600 of 13 July 1982: promulgates the texts for the compensation of victims of natural disasters.
- Law No. 87-565 of 22 July 1987 organizing civil protection and major risks prevention, creating the right to information.
- Law No. 95-101 of 2 February 1995 on strengthening environment protection, called " Loi Barnier. "
- Law No. 2003-699 of 30 July 2003 on technological and natural risks prevention and on damage repair.
- Law No. 2004-811 of 13 August 2004 on the modernization of civil protection.
- Law n°2003-699 of 30 July 2003 and its application decree n°2005-1466 of 28 November 2005, creating the CAT-TECH device
- The circular n° NOR : INT/E/06/00120/C of 29 December 2006 defines the ORSEC mechanism
- Decree n°2005-1157 of 13 September 2005 related to the ORSEC mechanism (department, zone and sea).
- Circular N°NOR :INT/E/06/00120/C of 29 December 2006 defining the departmental ORSEC mechanism
- Circular n°5567-SG of 2 January 2012 : governmental organisation in case of major crisis management
- Circulars 007/SGDN/PSE/PPS of 8 October 2009 and 747/SGDN/PSE/PPS of 30 October 2009 : intervention doctrines when facing a CBRN terrorist threat or attack, defines interveners and State doctrine.
- Circular 700/SGDN/PSE/PSS of 7 November 2008 : urban chemical attack against civilian population and Circular 800/SGDN/PSE/PSS of 18 February 2011 on radioactive attacks.
- Circular 2002-119 of 29/05/2002 : elaboration of a specific security plan against major risks for schools.
- Circular of 3 May 2002 : set up of an emergency preparedness plan (white plan) for every public health facility in order to cope with numerous victims.

Official documents (white papers, strategies, etc.)

- Guide pour réaliser un plan de continuité, Secrétariat Général de la Défense et de la Sécurité Nationale, 2013
- Etude en temps réel de la gestion de la crise en Haïti après le séisme du 12 janvier 2010, groupe URD, étude financée par la Délégation aux Affaires Stratégiques du Ministère de la Défense
- Plan de prévention des risques naturels (Ministère de l'écologie et du développement durable)
- Le maire face aux risques naturels et technologiques (Ministère de l'écologie et du développement durable, Ministère de l'intérieur)
- Exercices de Sécurité Civile (Ministère de l'intérieur), 2013
- Synthèse RETEX 2013 (Ministère de l'intérieur), 2013
- Guide pour réaliser un PCA (Secrétariat général de la défense et de la sécurité nationale), 2014
- Catastrophes environnementales : préparer l'évaluation de leurs effets et le retour d'expérience, Ministère de l'Ecologie, 2008
- The CBRN governmental plan 10135/SGDN/PSE/PPS CD of 16 September 2010 : its aim is to provide a decision aid to the Prime Minister and to his ministers during CBRN threats and events.

Online resources (e.g. websites of key CM organizations)

- Ministry of the Interior: www.interieur.gouv.fr/
- Ministry of Sustainable development: www.developpement-durable.gouv.fr
- Research education : <http://www.enseignementsup-recherche.gouv.fr/>
- Ministry of education: <http://www.education.gouv.fr/>
- Ministry of Economy : <http://www.economie.gouv.fr/>
- Ministry of Agriculture : <http://agriculture.gouv.fr/>
- First Aid : www.secourisme.net
- Senate report : <http://www.senat.fr/rap/l03-339/l03-33923.html>
- EPRUS website : <http://www.eprus.fr/qui-sommes-nous.html>
- Red Cross 2011 annual report: <http://www.croix-rouge.fr/Mediatheque/Publications/Rapport-annuel-2011>

- Red Cross 2012 annual report: <http://www.croix-rouge.fr/Mediatheque/Publications/Rapport-annuel-2012>
- Red Cross 2013 annual report: <http://www.croix-rouge.fr/Mediatheque/Publications/Rapport-annuel-2013>
- Entente for the Mediterranean Forest website : <http://www.entente-valabre.com/>
- ECASC (firefighter specialty school) website : <http://www.valabre.com/joo2012/>
- ENSOSP website (firefighter officer school) : <http://www.ensosp.fr/SP/>
- VISOV website : <http://visov.org/cms/>
- Public work, supplies and service contracts :
http://europa.eu/legislation_summaries/internal_market/businesses/public_procurement/22009_en.htm
- USA public procurement :
http://en.wikipedia.org/wiki/Government_procurement_in_the_United_States
- Russian public procurement :
http://en.wikipedia.org/wiki/Government_procurement_in_Russia
- Swiss Public Procurement system : <http://www.tendersinfo.com/blogs/switzerlands-public-procurement-system/>
- Turkish public procurement : <http://www.tendersinfo.com/blogs/switzerlands-public-procurement-system/>
- Common Emergency Communication and Information System ECHO reference :
<http://ec.europa.eu/echo/fr/funding-evaluations/public-procurement/call-for-tender/common-emergency-communication-and-information-system>



Driving Innovation in Crisis Management for **European Resilience**

GERMANY

Capabilities, Organisations, Policies, and
Legislation (COPL) in crisis management
and disaster response

Responsible Partner: FhG-INT (Maik Vollmer, Isabelle Frech)

Scope and limitations

This study serves as supporting information for further work within DRIVER.

Only limited time and budget has been available for this first general survey, which needs to be considered in terms of scope and completeness of the respective studies.

The author/s of this study is/are responsible for its content and quality.

Overview

Germany is a federal republic consisting of 16 constituent states (*Bundesländer* or *Länder*). States have their own government and parliament and possess a high degree of autonomy. Subsequent governmental levels are the administrative counties (*Landkreise*) or county boroughs (*kreisfreie Städte*) – combined in administrative districts –, and the municipalities (*Kommunen*). The principle of subsidiarity has to be applied wherever possible. As given in the German Basic Law (*Grundgesetz*, comparable to a constitution) and in the Treaty of Lisbon, the states play an active role in the decision making process regarding the German EU policy.

Main risks in the DRIVER context are seen in floods, heat waves, and storms.

Following the terrorist attacks on 11 September 2001, and the severe flood in Germany in 2002, a “New Strategy on Civil Protection” has been enacted in 2002, updated in 2010, providing the new political-strategical framework programme in civil protection. Main goal is an optimized collaboration of the federal level and the states in preparation to and coping with disasters relevant on national level.

The first authority in the event of a peacetime disaster is the cognisant rural district, county or municipality. In case a disaster exceeds capacities of the local government or affects several districts, the next highest hierarchical authority ensures coordination.

If needed, a state can call for the assistance of police forces of other states or of personnel and facilities of other administrative authorities, of the Federal Police or the Armed Forces. Also, the Federal Agency for Technical Relief (THW) may be called.

At the national level first of all the Federal Ministry of the Interior (BMI), assisted by the Federal Office of Civil Protection and Disaster Assistance (BBK) and the German Federal Agency for Technical Relief (THW) are the core institutions responsible for crisis management.

The Federal Foreign Office (AA) plays a role in case of crises abroad, which affect German nationals or German interests. The AA is also the national contact point for requests on assistance from third countries. Contact point for requests from the EU Civil Protection Mechanism is the BMI.

In general, Civil Protection and disaster management in Germany is to a high degree based on the availability of people with an honorary post.

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List of Abbreviations

AA	Federal Foreign Office
AKNZ	Academy for Crisis Management, Emergency Planning and Civil Protection
BBK	Federal Office of Civil Protection and Disaster Assistance
BMF	Federal Ministry of Finance
BMI	Federal Ministry of the Interior
CIMIC	Civil-Military Cooperation
CIP	Critical Infrastructure Protection
CM	Crisis Management
MS	Member State
THW	Federal Agency for Technical Relief

1 Policy

1.1 Risk Assessment

While there is no overall record on disasters on federal level in Germany, it can be noted that most recent major disasters have been caused by extreme weather conditions – storms (e.g. storm Kyrill in 2007, 11 dead; storm Felix in 2006, 10 dead), floods (e.g. in 2013 affecting several rivers, 8 dead; in 2002 affecting especially the Elbe, 27 dead), and heat waves (e.g. in 2003, 9.355 dead) (EM-DAT 2014; EC 2014; Badische Zeitung 2014). Further prominent examples are the interruption of the energy supply in the region of Münsterland (North-Rhine-Westphalia) for several days in 2005, or the ICE train accident in Eschede in 1998, 101 dead (EC 2014).

All these crises, however, did not pose a direct threat to the functioning of the state as a whole (Hegemann & Bossong 2013).

Following the terrorist attacks on 11 September 2001, and the severe flood in Germany in 2002, the “New Strategy on Civil Protection” has been enacted in 2002, providing the new political-strategical framework programme in civil protection. Amongst others, this strategy underlines the need for a coherent method for risk analyses between the federal and the state level (BBK 2010a).

Following the Civil Defence and Disaster Assistance Act (ZSKG), the federal level, supported by the states, conducts country wide risk analyses for civil protection, across different sectors. Reports from 2010, 2011, 2012, and 2013 describe the respective status of these risk analyses (Deutscher Bundestag 2013). The Federal Office of Civil Protection and Disaster Assistance (BBK) issued detailed methodological guidance (BBK 2010b). However, the implementation of this risk assessment methodology on state or communal level depends on the initiative of the respective governments, which diverge strongly with regard to their commitment and organisational capacities (Hegemann & Bossong 2013).

1.2 Policy and Governance

Germany is a federal republic consisting of 16 constituent states (*Bundesländer* or *Länder*), in the following referred to as states. States have their own government and parliament and possess a high degree of autonomy, especially in the areas of education, police, local administration, transport, and some medical measures. They receive income gained through taxation (revenues). Through the constitutional organ “Bundesrat” the states participate in legislation, administration and matters concerning the European Union. Subsequent governmental levels are the administrative counties (*Landkreise*) or county boroughs (*kreisfreie Städte*) – combined in administrative districts –, and the municipalities (*Kommunen*) (MSB 2009). The municipalities administrate inter alia local transport and road construction, electricity, water and gas supply, sewerage and daily life protection (EC 2014). The principle of subsidiarity has to be applied wherever possible. As given in the German Basic Law (*Grundgesetz*, comparable to a constitution) and in the Treaty of Lisbon, the states play an active role in the decision making process regarding the German EU policy.

1.2.1 Strategy scope and focus

The “New Strategy on Civil Protection” (see above) provides the new political-strategical framework programme in civil protection. It has been updated in 2010 (BBK 2010a). Main goal of the strategy, which still provides the foundation for the new understanding in civil protection, is an optimized collaboration of the federal level and the states in preparation to and coping with disasters relevant on national level (ibid).

However, crisis management approaches in Germany do not follow the clustering by the terms Prevention, Preparedness, Response and Recovery, while with regard to contents, all of these topics are covered. No special focus on one or a few of them can be identified (expert interview).

1.2.2 Monitoring and analytical support to policy making; R&D

There are several R&D programmes that contribute to risk assessment supporting policy making. On national level, there is e.g. the “Research Programme for Civil Security” from the Federal Ministry of Education and Research (BMBF). Its purpose is “to develop innovative solutions that increase civil security while maintaining a good balance between security and freedom. What makes the programme special is that, rather than just being concerned with technology, it includes innovative organisational approaches and strategies for action. The success of the security research programme depends on interdisciplinary projects, knowledge transfer to the general public, social science research on data protection and ethics and transparency. The programme is also integrated in a European framework” (BMBF 2014).

Further, research benefiting civil protection is entrenched in section 4 subsection 1 No. 5 of the Civil Defence Act (“Zivilschutzgesetz”) as a task for the Federation:

“The following shall be in particular incumbent on the Federal Office of Civil Protection and Disaster Assistance...

5...the tasks for technical and scientific research in agreement with the Länder, the evaluation of research results, as well as collection and evaluation of publications in the field of civil defence.”

“Research at the Federal Office of Civil Protection and Disaster Assistance offers scientifically-sound problem solutions for civil protection, as well as new concepts, procedures and technology, and hence makes a major contribution towards upgrading civil protection mechanisms” (BBK 2014).

1.2.3 Policy for Prevention

As mentioned under 1.2.1, crisis management approaches in Germany are usually not clustered by the terms Prevention, Preparedness, Response and Recovery, while with regard to contents, all of these topics are covered (expert interview).

Prevention is part of the civil protection in Germany. Organisations responsible for prevention work closely together with those responsible for preparedness and/or response (European Commission 2014), see also chapter 3.1.

1.2.4 Policy for Preparedness

As mentioned under 1.2.1, crisis management approaches in Germany are usually not clustered by the terms Prevention, Preparedness, Response and Recovery, while with regard to contents, all of these topics are covered (expert interview).

See chapter 3.1 for organisations and responsibilities in crisis management.

1.2.5 Policy for Response

As mentioned under 1.2.1, crisis management approaches in Germany are usually not clustered by the terms Prevention, Preparedness, Response and Recovery, while with regard to contents, all of these topics are covered (expert interview).

See chapter 3.1 for organisations and responsibilities in crisis management.

1.2.6 Policy for Relief and Recovery

For organisations and responsibilities in crisis management see chapter 3.1.

There is no specific regulation on relief and recovery in Germany. Responsibility is with the states, who would request support from the federal level, if needed. Financial support from federal level would be released by the Federal Ministry of Finance (BMF). For international requested financial support, the Federal Ministry for Economic Cooperation and Development (BMZ), and the Federal Foreign Office are in charge. From EU level, the Solidarity fund can provide financial support, while there is no such fund on national level in Germany (expert interview).

1.3 Financing

1.3.1 Investing in preparedness

No specific number for investments in preparedness and consequence management (chapter 1.3.2) could be identified. The total number would include budgets from different departments of several organisations, e.g. from the Federal Agency for Technical Relief (THW), the Federal Ministry of the Interior (BMI), the Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB), or the Federal Ministry of Health (BMG). Further, investments in vaccines, and also donations would need to be considered (expert interviews). These specific numbers are not available.

1.3.2 Investing in consequence management

See chapter 1.3.1., specific numbers could not be identified.

In the first place, individuals are expected to cover their costs on their own. Then, money from insurance and reinsurances contribute to cover costs of recovery, and specific funds from EU (Solidarity fund) and national level (from BMF) help to cover costs of consequence management (expert interviews).

1.4 Policy review, Evaluation & Organisational Learning

1.4.1 Post-Disaster Assessment

See chapter 1.4.3.

1.4.2 Departmental Lessons Learned systems

There are Lessons Learned systems on departmental level, while overarching information is not available. For example, federal state governments can request evaluation of missions after a crisis, while there is no general regulation. Organisations are handling their Lessons Learned differently, and also differently for different types of crisis. There is no general or common methodology. The THW for example distinguishes between national and international missions. International missions are less complex or more comparable to each other. For the lessons learned in these international 'standard' missions, the THW uses prepared sheets to be filled in during the mission. Also for national missions, data is usually collected already during missions, but adapted to the current operation (expert interviews).

See also chapter 1.4.3.

1.4.3 Centralised (national) Lessons Learned system

There is no centralised Lessons Learned system. The LÜKEX exercises (see chapter 5.3) are main sources for identification of improvement needs, they are partly conducted together with neighbouring countries, e.g. The Netherlands, and are also observed by EU delegates. Connections to international Lessons Learned are not institutionalised, but respective reports from other countries are considered and evaluated (expert interview).

The following two paragraphs are mainly taken from the country study Germany, which has been prepared in the context of the ANVIL Project¹ (Hegemann and Bossong 2013):

One major investigation, the "Kirchbach Report" (Kirchbach et al. 2002) was conducted after the signature crisis Elbe Flood in 2002. It was commissioned by the State of Saxony, focused on regional flood defence mechanisms, but also discussed the general effectiveness of the German civil security system. The report attested a high level of technical competence to first responders and specialised civil protection forces, while the support of military units in upgrading and

¹ Analysis of Civil Security Systems in Europe, <http://anvil-project.net/>

defending dams was also praised. Thus, the basic principles of the German disaster and crisis response system's effectiveness, namely a decentralised approach that builds on local capacities², were defended. Yet the report also highlighted severe coordination failures across district-level and state-level structures.

At the level of state governments, one could point to ministerial reports on the handling of regional crises, such as storm damages and power failures in 2005-7 (Landesregierung NRW 2010). However, these internal reports did not generate wider attention within Germany's civil security system. The German response to the H1N1 and EHEC epidemics, which generated widespread media attention as well as political debates, could be seen as the main exception (Deutscher Bundestag 2011). In the aftermath, professional actors in the health sector and the RKI meticulously documented their actions and worked towards improved coordination, risk assessment and public communication processes (Krause et al. 2010, RKI 2011). This fed into ongoing discussions among German emergency professionals on how to revise risk communication strategies to be able to tackle complex emergencies and changing public attitudes (Weinheimer 2011).

1.4.4 International exchange for Lessons Learned

See under 1.4.3: Reports from other countries are considered and evaluated. LÜKEX exercises, being main source for identifying improvement needs, are partly conducted together with neighbouring countries, e.g. The Netherlands (expert interview).

1.4.5 Regular policy reviews

There are no regular policy reviews, but they are conducted following specific occasions. One prominent example is the policy change regarding nuclear power energy after the nuclear disaster in Fukushima 2011 (expert interview).

1.5 Resilience

The concept of resilience has recently been discussed intensively in the academic field. Operationally, the concept is not directly applied, but there are approaches to consider this trend, e.g. as described in a "strategy on future topics in technology" (acatech 2014) (expert interview).

- *Do CM organization, local community and private business apply related standards, e.g. ISO 22301 "Business Continuity Management - Requirements" or any other (formal or industrial) standards? Please specify.*

² Even though civilian actors needed to temporarily reinforced by military units. It may be noted that the president of the investigative committee, Kirchbach, was the chief military commander that supported the response to the Elbe flood.

ISO 22301 "Business Continuity Management - Requirements" is applied by internationally operating organisations (expert interview).

1.6 Information sharing and data protection

1.6.1 Please describe whether the country/ IO has adopted specific policies, measures or derogations from EU law with regard to data protection

Standards on data exchange are currently being developed, e.g. the BBK identified a gap regarding XML interfaces for data sharing in bi- or multinational cooperation and is currently working on a related project. By now, there is no legal basis for collecting data on e.g. spots at risk, critical infrastructures, human or material resources. Data exchange happens, but there is no formal regulation for this (expert interviews).

1.6.2 Does the country/IO have registers/databases of volunteers? If yes, under what circumstances can data be used/ shared? e.g. particular capabilities, level of readiness/ availability, contact information

Volunteers are registered with different organisations (see chapter 3.1), where respective information is stored. There is no overall database.

1.6.3 Does the country have or plan to use data gathered from social media during crises? If so how? (e.g. "crowd sourcing" and "crowd tasking", "citizen as a sensor")

The guideline on crisis communication (only available in German) from the Federal Ministry of the Interior also includes some guidance on the use of social media during crisis (BMI 2014), but in general, the use of social media (Twitter, Facebook) for both information provision and data collection (e.g. track the outbreak of epidemics) remains very limited (Hegemann & Bossong 2013).

It has been an important topic in research, while the actual use is still under development. There is more and more education of personnel, e.g. for spokespersons, who are increasingly under pressure due to quick information that is spread through twitter or other social media (expert interview).

2 Legislation

2.1 Crisis (emergency, disaster) management concept

The states are responsible for “peacetime” disasters (see chapter 2.2), and have their own laws on disaster protection. These laws are listed and provided on the BBK website (BBK 2014b).

2.2 General crisis (emergency, disaster) management law

The following paragraph is mainly taken from the deliverable D2.1 “Report on current CM framework” of the ACRIMAS project³ (Vollmer et al. 2012):

The division of power and assignment of responsibilities is defined in the **German Basic Law** (*Grundgesetz*, 1949). Relevant articles are:

- Article 30, 70 ff, 73 (1) no. 1: Division of legislative powers, the states are responsible for governmental tasks as e.g. threat prevention measures, taken by the police and other government agencies.
Threat prevention measures and related legislation (fire prevention, fire services, police) are competence of the states, as long as these do not involve defence/ protecting civilian population against war-related hazards (→ “peacetime” disasters, e.g. natural disasters, terrorist attacks). The Federal Government may supplement with wartime equipment that can be used during peacetime (e.g. NBC-Vehicles). Emergency planning in the event of war incl. war-related hazards or threat thereof is competence of the federal state. Wartime measures for Civil Protection are, however, carried out by the states on behalf of the federal government (Article 73 (1)).
- Article 35 (2): States can call assistance of police forces of other states and of personnel and facilities of other administrative authorities, such as the Federal Police, the Armed Forces (Bundeswehr), or the Federal Agency for Technical Relief (THW).
- Article 35 (3): In cases of major natural catastrophes or accidents, the Federal Government may instruct state governments to provide other states with assistance. It also may employ the Federal Police and the Armed Forces to support the states.
- Article 80a (1), Art. 115 a: Emergency laws can be applied in the case of severe tensions, the event of an armed conflict or the threat thereof.

As threat prevention measures (in peace time) are competence of the states, relevant regulations are **laws on state level**. They are listed and provided on the BBK website (BBK 2014b). Some states have separate laws on fire prevention and fire-fighting, rescue and disaster management (e.g. Bavaria),

³ Aftermath Crisis Management System-of-systems Demonstration Phase I, <http://www.acrimas.eu/>

others have a single law that covers all (e.g. Hessen). In addition, the states have legislations on the police.

The **Federal Law on Civil Protection and Disaster Relief (2009)** was enacted to optimize the collaboration between federal and state level in disaster management.

It provides regulations regarding the provision of the states with Civil Protection resources of the federal government and the opportunity of a coordinated disaster management through the federal government.

2.3 Emergency rule

The following paragraph is mainly taken from the country study Germany, which has been prepared in the context of the ANVIL Project⁴ (Hegemann and Bossong 2013):

Under the German Basic Law, the declaration of a formal state of emergency at the federal level is reserved to internal and external armed conflicts, or serious (and intentional) threats to the "free democratic order", and requires a two-third majority in national parliament. In this situation, it is possible to curtail numerous civil rights and expand the role of the federal government, including the deployment of the federal police and the armed forces (Art. 91 and 87a GG). Legal scholars have rejected the view that a natural disaster or a serious accident could qualify as a formal internal state of emergency, except for the unlikely case that an accident or a natural disaster causes situations that are comparable to civil war (Sattler 2008). Due to the absence of such large-scale violent unrest, Germany has hitherto not declared such a state of emergency.

In contrast, a state of disaster can be declared at the level of counties, cities or intermediary administrative districts by the respective chief administrative officers, which does not authorise wide-spread derogation to civil rights or to act outside regular legislative and judicial control (Kloepfer 2007). At the operational level, emergency responders nevertheless enjoy a considerable sphere of discretion. Based on a "blanket clause" (*Generalklausel*) that is typically included in state laws responsible agencies can take all measures they deem necessary for the fulfilment of their crisis management duties, as long as they remain within the confines to normal legal constraints such as the proportionality principle (Musil and Kirchner 2006).

2.4 Specific, department/agency-level legal arrangements and regulations on emergency and disaster management

There are specific working rules (Dienstvorschriften), often not publically available, which define the procedures within the respective organization in case of a crisis (expert interview).

⁴ Analysis of Civil Security Systems in Europe, <http://anvil-project.net/>

2.5 Specific to the regional and local authorities legal arrangements and regulations on emergency and disaster management

For regulations on state level, see chapter 2.2. Lower levels have not been investigated.

2.6 Legal regulations on the involvement of volunteers and specialised NGOs

Following the Civil Defence and Disaster Assistance Act (ZSKG), rights and duties of helpers in civil protection are generally regulated in the laws on disaster protection on state level (listed and provided on the BBK website, BBK 2014a).

2.7 Legal regulations for international engagements of first responders and crisis managers

On UN level, UN OCHA regulations apply; for EU operations, respective EU regulations apply. Decisions on international engagements are taken by the AA, who requests capacities from different organisations (e.g. THW, German Armed Forces). These organisations provide the respective information, afterwards, the decision is taken, which is often also influenced by political reasons. Insurance is usually organised by the respective organisation (expert interviews).

3 Organisation

3.1 Organisational chart

The following descriptions are mainly taken from the deliverable D2.1 “Report on current CM framework” of the ACRIMAS project⁵ (Vollmer et al. 2012):

Crisis management at national level

At the national level first of all the Federal Ministry of the Interior (BMI), assisted by the Federal Office of Civil Protection and Disaster Assistance (BBK) and the German Federal Agency for Technical Relief (THW) are the core institutions responsible for CM.

The Federal Foreign Office (AA) plays a role in case of crises abroad, which affect German nationals or German interests. The AA is also the national contact point for requests on assistance from third countries. Contact point for requests from the EU Civil Protection Mechanism is the BMI.

During a peacetime disaster affecting several states or a long term crisis the BMI may set up an inter-ministerial coordination group consisting of representatives of the BMI and other Federal Ministries, depending on the type of disaster (typically the contact persons for CM and counter-terrorism). The Federal Ministries are prepared to call up specific task forces at short notice, especially the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU), in case of serious threats involving the illegal use of radioactive materials, and the Federal Ministry of Health (BMG), in case of pandemics and bioterrorism (EC 2014; BMI 2012).

The BBK conducts conceptual work on fundamentals in CM, including the evaluation of missions, exercises and findings in research. In addition, the BBK provides operational instruments:

- A Joint Information and Situation Centre (GMLZ) for efficient coordination of large area disasters,
- A web-based Emergency Preparedness Information System deNIS I + IIplus⁶,
- A warning centre with a satellite based warning system (SatWaS),
- A Centre for the coordination of aftercare and for support of victims and their relatives (NOAH) (BBK 2014b).

During a military crisis the states are responsible for coordination within their respective areas, although the BMI gives respective orders. The federal planning in this case consists of measures to ensure continuity and social functions (continuity of government, Civil Protection, supply of goods and services, support of the Armed Forces).

The capability for Civil-Military Cooperation (CIMIC) has to be ensured at all ministerial levels, incl. planning, training, exercises. The BBK’s Academy for Crisis Management, Emergency Planning and Civil Protection (AKNZ) provides obligatory education for CIMIC personnel of the Armed Forces.

⁵ Aftermath Crisis Management System-of-systems Demonstration Phase I, <http://www.acrimas.eu/>

⁶ <https://www.denis.bund.de/>

Regular discussions of preparations for peace- and war-times disasters between civilian and military authorities are conducted (MSB 2009).

Crisis management at sub-national level

In Germany, the first authority in the event of a peacetime disaster is the cognisant rural district, county or municipality. Respective authorities manage local response assisted by (if necessary) representatives of other authorities, services, organizations. For the technical and tactical execution a director of operation, assisted by a staff composed of the involved organizations and units (e.g. police, fire department, non-governmental organisations, private enterprises) is appointed. In case a disaster exceeds capacities of the local government or affects several districts, the next highest hierarchical authority ensures coordination (MSB 2009).

If needed, a state can call for the assistance of police forces of other states or of personnel and facilities of other administrative authorities, of the Federal Police or the Armed Forces. Also, the Federal Agency for Technical Relief (THW) may be called.

In the “New Strategy on Civil Protection” (enacted in 2002, see above), the states agreed amongst others on standardizing recommendations for command and control structures (e.g. through a common “Fire Services Regulation 100”; guidelines for setting up administrative-organizational task forces) (BMI 2012).

Figure 1 illustrates the role of the different levels of government in Germany in Civil Protection and disaster response:

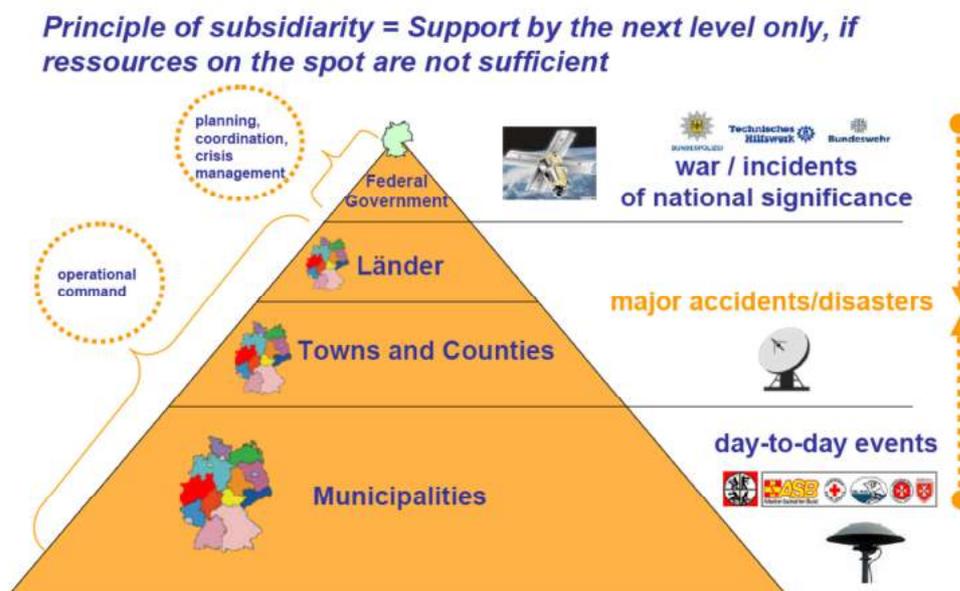


Figure 1: Organisation of Civil Protection in Germany⁷

In general, Civil Protection and disaster management in Germany is to a high degree based on the availability of people with an honorary post. This leads to a comparatively high degree of tolerance

⁷The public alert system in Germany, Dr. Miriam Haritz, Head of the president’s Office BBK: 8th GESA Conference in cooperation with EURALARM, Brussels, 16 June 2011. (taken from the ACRIMAS deliverable 2.1 Report on CM framework)

and independence, but also to the fact that the availability of personnel is dependent on preferred recreational activities of the population, which might change over time. Also, the demographic change in Germany will have an impact on the availability of volunteers in the future.

Main parts of the following are taken from the country study Germany, which has been prepared in the context of the ANVIL project⁸ (Hegemann & Bossong 2013), and from the “Vademecum for Civil Protection”, provided by DG ECHO (EC 2014):

Strict limitations on the military in domestic crises

Due to Germany’s historical experience under Nazi rule, the distinction between internal and external security and between civilian and military forces is deeply encoded. The domestic deployment of the armed forces is confined to especially severe disasters or the hitherto hypothetical scenario of a state of emergency that would be constituted by intentional threats and wide-spread violence. In practice, military assistance has to date been limited to, and not required beyond, short-term technical and logistical support for civilian authorities in response to exceptional natural disasters. The military would not be used for the maintenance of public order or beyond what could potentially be done by civilian responders who maintain overall command.

The role of the military in Germany also exemplifies how legal accountability may be maintained in the face of extreme threat scenarios. The attacks of 11 September 2001 led to calls for the employment of the *Bundeswehr* to protect potential targets, such as government buildings, and assist civil security agencies in the response to attacks, for instance through its CBRN units. The most controversial debates pertained to a law that would have allowed for the shooting down of hijacked airplanes. The Aviation Security Act, which was passed in 2005, was declared unconstitutional by the Constitutional Court only a few months later because it violated the right to life and especially the right to human dignity, which is enshrined in Article 1 of the Basic Law. According to the court, authorities could not pit the dignity of people in a potential target of the plane against the dignity of the people on the plane.

Volunteers; Role of societal/non-profit organisations/NGOs

The German civil security system officially and strongly relies on non-profit relief organisations and their volunteer staff. Their main task is emergency and crisis response through medical, rescue and ambulance services on behalf of public agencies. Most management tasks and everyday emergency services are carried out by professional staff, but volunteers remain essential for membership fees, training, public outreach, and more exceptional crisis management situations. Thus, non-profit organisations are included in all public crisis management structures and exercises, but retain their independent character and have to bear the costs of crisis operations. However, depending on their size and scope of activities, they receive official financial compensation.⁹ Despite the continually high number of volunteers, voluntary organisations face increasing challenges from various societal trends, as mentioned above.

⁸ Analysis of Civil Security Systems in Europe, <http://anvil-project.net/>

⁹ That is, in addition to organizational membership fees. Regular emergency services are also paid for, such as by health insurances.

The most important non-profit actors are the German Lifeguard Association (DLRG), the German Red Cross (DRK), the Order of Malta Ambulance Corps (*Malteser*), the St. John Accident Assistance (JUH), the Worker's Samaritan Federation (ASB), and the German Maritime Search and Rescue Service (DGzRS). The role of the DRK is illustrative in comparison with other countries. It constitutes a legally privileged actor in some respects, but otherwise closely corresponds to other non-profit actors in Germany. In 2011 the DRK had 3.38 million members with about 400,000 active volunteers (including youth groups) and a professional staff of 140,342 (DRK 2012). It is divided into 19 state associations.¹⁰ There are 513 county branches and 4,609 local branches. Moreover, the DRK distinguishes five special sub-chapters dealing with emergency preparedness, mountain rescue, lifeguard service, youth work and social welfare. The local branches carry the primary responsibility for all operational tasks, including especially ambulance and rescue services. The federal office aims to ensure coordination and coherence (DRK 2012). These chapters are part of a "complex assistance and rescue system" (DRK 2011). The DRK's emphasis is on crisis response through its emergency and rescue services, but they also contribute to preparedness through research and first aid training (Lange et al. 2012).

In addition, volunteers work in voluntary fire brigades. The German Firefighter Association (DFV) represents the interests of the German fire brigades national-wide and abroad.

Further, important NGO's are the "Deutsches Komitee Katastrophen Vorsorge" (DKKV), the „Ständige Konferenz für Katastrophenvorsorge und Bevölkerungsschutz" (SKK), and the „Bergwacht" (Mountain Rescue Experts).

Role of private/profit-oriented organisations

In the field of the protection of Critical Infrastructures (CIP) as a part of civil protection, Germany closely cooperates with critical infrastructure providers on sectorial as well as on cross-sectorial issues, usually in a less formalized way. These providers represent different CI-sectors (e.g. provision of electricity/ energy transmission, rail traffic, financial services, water supply (further information in available in the National Strategy on CIP (2009)¹¹).

Close cooperation exists in the field of the protection of IT-infrastructure (CIIP, see also the "National Plan for Information Infrastructure Protection"¹²).

Germany has highly developed regime of health and safety regulation as well as more general liability rules to protect employees, citizens, buildings, infrastructures and other privately-owned assets from harm and accidents. In line with EU law, privately-owned sites that can pose wider risks maintain special emergency plans and first response mechanism, such as plant fire brigades. Further market mechanisms for emergency and disaster management (e.g. mandatory insurance against flood) have been suggested, but are not yet part of the German civil security system (Schwarze and Wagner 2008).

¹⁰ There are two organisations for Baden-Württemberg, North-Rhine Westphalia, and Lower Saxony respectively due to historic reasons.

¹¹ http://www.bmi.bund.de/cae/servlet/contentblob/598732/publicationFile/34413/kritis_englisch.pdf

¹²

https://www.bsi.bund.de/SharedDocs/Downloads/EN/BSI/Kritis/National_Plan_for_Information_Infrastructure_Protection.pdf?__blob=publicationFile

In non-regular emergency situations, state actors and security authorities bear responsibility for response operations, but can require private actors to provide additional assistance. This mainly pertains to the granting of priority access to, and maintenance of, essential services or goods. Beyond utility companies (power, water, fuels, telecommunications), this can apply to transport companies, apothecaries and pharmaceutical corporations.¹³ The maintenance of stockpiles and the distribution of emergency foodstuff remain an exclusive competence of state actors.¹⁴

While the restoration of power, transport and infrastructures has been a core mission of the THW since its establishment in the 1950s, state representatives have recognized the need for deeper engagement with private industry in the area of critical infrastructure and cyber-security. Since 2005, related strategy documents call for private inputs to detect new vulnerabilities and ensure the required technological expertise (BMI 2005, 2009b, 2011). Aside from numerous consultation rounds and preventive efforts, a notable result has been the private involvement in a 2011 national civil emergency exercises on cyber-attacks and food crises (Borchers 2011).

However, for the most part public actors maintain a distant approach, whereby private companies are expected to implement additional security measures (BMI 2011b), whereas they receive no direct compensation or influence on security planning. Private companies are also not widely mentioned as security partners for emergency preparedness.

3.2 Organisational cooperation

Main parts of the following descriptions are taken from the deliverable D2.1 “Report on current CM framework” of the ACRIMAS project¹⁵ (Vollmer et al. 2012):

Collaboration between national and sub-national levels of administration

In Germany, in case they ask for support, local and regional authorities as well as the states are supported by the federal government with (a) its own operational forces (Federal Agency for Technical Relief (THW), the Federal Police, and the Armed Forces (with limitations as regards the use of weapons)) and (b) services provided by the Federal Office of Civil Protection and Disaster Assistance (BBK) (MSB 2009).

All Civil Protection authorities contribute to the planning, administration, material & resources to the prevention of, disaster management during, and recovery from all kind of disasters as well as during armed conflicts.

Efficient interaction between federal and state CM is practiced in interministerial, interstate exercises (LÜKEX) on a biennial basis (BMI 2012), see also chapter 5.3.

CIMIC (see also paragraph on *Crisis Management at national level* in chapter 3.1) at regional level is ensured by joint planning for regional crisis, local training and exercises (MSB 2009).

¹³ For legal bases, see Kloepfer (2009).

¹⁴ This traditional aspect of civil defence planning is regularly criticised, but has not been replaced by public-private partnerships. It is also worth mentioning that oil companies are to maintain a strategic stockpile of gasoline, whereas strategic gas reserves (for heating and power generation) are based on a voluntary agreement among corporations.

¹⁵ Aftermath Crisis Management System-of-systems Demonstration Phase I, <http://www.acrimas.eu/>

An Interministerial Coordination Group provides an important supplement to the setup that coordinates between the state and federal levels in case of threats that affect more than one state over a long period of time (e.g. accidents at nuclear power plants, pandemics and major natural disasters) (BMI 2012).

Collaboration with critical infrastructure providers

See last paragraph in chapter 3.1. Further, the Federal Ministry of the Interior (BMI) provides recommendations (in German) on how to ensure collaboration between crisis management on governmental level and critical infrastructure operators. It presents requirements for governmental institutions as well as the critical infrastructure operators when reacting to and coping with a crisis in order to assure an effective collaboration (BMI 2010).

Bilateral agreements, international assistance and collaboration with the EU

Germany is part of twelve bilateral support agreements (with its nine neighbouring countries plus Latvia, the Russian Federation and Hungary) that in some cases also include joint training and exercises and supports the development of new CM structures in Europe and third states (e.g. China). The agreements are available for download on the homepage of BBK.¹⁶

The information management for international assistance works as follows:

- In case of requests from the EU Emergency Response Coordination Centre (EERC), the Joint Information Centre (GMLZ) is the national contact point.
- In case of requests from third countries, the Federal Foreign Office is the first contact point.
- The BBK with its Joint Information Centre (GMLZ) provides information about the availability of appropriate resources to the BMI, the Foreign Office and the requesting state (EC 2014).

It is planned, however, to enable requests in the future directly via the BBK without engaging the Foreign Office or the BMI.

In general, Germany opts for the principle of subsidiarity for CM, also on European level. Based on the national approach, Germany advocates similar procedures on EU level: In order to limit coordinative and cooperative hurdles, the management of a crisis should be executed by the authority whose territory is affected. The local management might, however, be supported through provision of personnel and equipment by higher government levels or other EU MSs (BMI 2009).

The Academy for Crisis Management and Civil Protection (AKNZ) of the BBK offers training and education on the basis of the EU training & education system. The GMLZ (see above) operationally coordinates with the EERC (BMI 2009).

In events that require a coordinated response by EU MSs, the Secretariat General of the EU Council calls together the members of the EU Crisis Steering Group. The MSs concerned send their permanent representative or other specially designated representative to this group. Agreements have been made to ensure the flow of information between the Federal Foreign Office, the Federal Ministry of the Interior and other affected ministries as needed (BMI 2012).

¹⁶http://www.bbk.bund.de/SharedDocs/Downloads/BBK/DE/FIS/DownloadsRechtundVorschriften/Katastrophe_nhilfeabkommen/Gesamtliste%20der%20Abkommen.pdf?__blob=publicationFile

Concerning events outside the EU, the THW was, amongst others, engaged in international disaster relief operations in China, Myanmar, Ecuador, Moldavia, Haiti and Japan. The THW provides rapid reaction forces for Search & Rescue operations as well as for water supply. Additionally, further critical resources and experts may be provided. In general, the THW may act upon request of the Ministry of Foreign Affairs, the EU and UN in areas as ad-hoc humanitarian aid, relief and reconstruction (BMI 2009).

The THW is the main public organisation in Germany, which contributes to international emergency operations. In the context of the EERC, it lists 14 specialised units for the EU's civil protection mechanisms. The THW also regularly contributes to EU exercises and research project. Since December 2006, it has been appointed by the European Commission as coordinator for the EU Exchange of Experts in civil protection (Hegemann and Bossong 2013).

4 Procedures

4.1 Standing Operating Procedures (SOPs) and Guidelines

There are SOPs in terms of disaster protection plans (“Katastrophenschutzpläne”) for specific areas, e.g. pandemics, nuclear power (emergency plans), or mass casualty incidents (expert interview).

These specific plans for special disaster situations like storm surges supplement the normal disaster contingency plans (see 4.2). Baden-Wuerttemberg, for example, demands from the local authorities plans for supporting the state disaster management¹⁷.

4.2 Operations planning

The report on Germany¹⁸ conducted in context with the “Outline for national reporting and information on disaster reduction for the World Conference on Disaster Reduction” (Kobe-Hyogo, Japan, 18-22 January 2005) states that there are disaster contingency plans in place at Länder (states) level. Each Land has its own law and its own plan. The plan of Lower Saxony, for example, contains disaster relevant contact persons, materials, capacity in hospitals and assignment of relief units.

4.3 Logistics support in crises

Main parts of the following descriptions are taken from the country study Germany, which has been prepared in the context of the ANVIL project¹⁹ (Hegemann and Bossong 2013):

With regard to emergency *logistics*, German authorities can utilise, but also have to protect a very dense network of road, rail, water and air transportation. Respective federal regulatory authorities (e.g. the German Authority for Freight Transport) maintain links with the BBK through the web-based Emergency Preparedness Information System deNIS (see chapter 3.1). The decentralised organisation of the civil security system adds a layer of resilience, as emergency response capacities do not regularly have to be brought in over long distances. The THW adds substantial logistical capacities for disaster management, including sixty-six specialised logistic units at the regional level (THW n.d.). In especially severe crises, the German army may provide additional logistical help through its so-called territorial network (Baumgard 2012), as has been the case during the 2002 Elbe flood. Additional legal provisions allow for the requisition of private actors for logistical purposes, for example up to

¹⁷ Outline for national reporting and information on disaster reduction for the World Conference on Disaster Reduction (Kobe-Hyogo, Japan, 18-22 January 2005), Report Germany 2004, <http://www.unisdr.org/2005/mdgs-drr/national-reports/Germany-report.pdf>

¹⁸ see ¹⁷

¹⁹ Analysis of Civil Security Systems in Europe, <http://anvil-project.net/>

12,000 trucks from freight companies (Bundesamt für Güterverkehr 2009), but have not been used at the federal level to date.

4.4 Crisis communication to general public; Alert system; Public Information and Warnings

The Federal Ministry of the Interior (BMI) provides a guideline on crisis communication (only available in German, BMI 2014). Main goal of this guideline is to mentally instruct responsible personnel in agencies and companies for planning crisis communication. The guideline encompasses instructions on how to develop a crisis communication plan (BMI 2014).

In general, the responsible institution (depending on the type of crisis, see under 3.1) is also coordinating crisis communication to the public, while actually a “one-voice policy” applies. This policy is not always followed (expert interview).

Main parts of the following are taken from the country study Germany, which has been prepared in the context of the ANVIL project²⁰ (Hegemann and Bossong 2013):

German security organisations are in the process of transforming their emergency *communication* system, which can be summarised under three components. First, the German emergency law on telecommunication and postal services foresees prioritised access and special capacities for emergency responders. Since the end of the Cold War, the activation threshold has been lowered from a formal state of emergency to natural or technological disasters and terrorist attacks. Second, German security actors aim to integrate their different analogue radio networks, which experienced severe capacity limits during the major 2002 Elbe flood, into an integrated digital communication system. The introduction of the system is overseen by the newly created Federal Agency for the Digital Radio of Agencies and Organisations with Security Tasks (BDBOS).²¹ Third, the BBK created the central web platform deNIS²² (see chapter 3.1) that is directed to emergency professionals as well as the general public. The network provides a wealth of general information on crisis management, but also up-to-date situation assessments and sector-specific warning and communication platforms.

Communication to the general public

According to a Eurobarometer poll for September-October 2009, 27 percent of the respondents felt informed about disaster preparedness and 34 percent about disaster response (European Commission 2009). This reflects a lack of interest among the public as well as of pro-active strategies of civil security agencies. Administrative and political actors at each level of government are responsible for the information of citizens regarding threat levels and impending crises, supported by different emergency services and specialised bureaucracies, such as the BBK. The nation-wide system

²⁰ Analysis of Civil Security Systems in Europe, <http://anvil-project.net/>

²¹ Further information (in German), e.g. on legal basics and state of play regarding the successive introduction of the system, is available at the BDBOS website http://www.bdbos.bund.de/DE/Digitalfunk_BOS/digitalfunk_bos_node.html.

²² <https://www.denis.bund.de/>

of alarm sirens, whose main purpose was to warn citizens in the case of war, has been gradually deconstructed since the end of the Cold War. In 2001, Germany instead created the satellite-based system SatWaS to send priority alarm messages to participating news agencies, TV and radio stations as well as to the specialised electronic networks for security authorities (BBK n.d.). The increasingly coordinated, targeted and effective activation of different communication systems should transform SatWaS into MoWaS²³, the modular warning system, which should improve coordination across Germany and use a targeted mix of communication channels to maximise effectiveness (Tiesler 2010).

While large-scale TV and media campaigns are not undertaken, actors in the German civil security system seek to improve their information provision on both preparedness and response management via the internet. The publicly accessible online platform deNIS (see above/ chapter 3.1), offers information on current crises, crisis preparedness and response capacities and behavioural guidelines for concrete emergency situations. In addition, several web-based platforms offer news on water levels and the threat of floods²⁴ or the risk of forest fires²⁵. The use of social media (Twitter, Facebook) for both information provision and data collection (e.g. track the outbreak of epidemics) remains very limited.

²³

http://www.bbk.bund.de/DE/AufgabenundAusstattung/Krisenmanagement/WarnungderBevoelkerung/Warnmittel/MoWaS/MoWaS_einstieg.html

²⁴ <http://www.hochwasserzentralen.de/>

²⁵ <http://www.dwd.de/waldbrand>

5 Capabilities

5.1 Human resources

The number of relief personnel in Germany is approx. 3 million in total. The voluntary fire brigades account for approx. 1.2 million, medical personnel for 1.2 million, the THW for 80.000, and the Police for 600.000 (expert interview).

Concerning volunteers, non-profit organisations can draw on about 520,000 active volunteers, many of which contribute a substantial number of service hours per week. Volunteer figures or estimates provided by individual organisations are as follows: the German Lifeguard Association (DLRG) has 40,000 active members (DLRG 2011), the German Red Cross (DRK) 401,113 (DRK 2012), the Order of Malta Ambulance Corps (Malteser) 35,000 (Malteser 2012), the St. John Accident Assistance (JUH) 29,738 (Die Johanniter 2012), the Worker's Samaritan Federation (ASB) 12,559 (ASB 2011) and the German Maritime Search and Rescue Service (DGzRS) 800 (DGzRS n.d.)²⁶ (Hegemann and Bossong 2013).

For education and training of human resources, see chapter 5.3.

5.2 Materiel (non-financial) resources

No specific numbers on material resources are publicly available. The number would be a sum of declarations from several institutions, while official governmental numbers would probably not reflect real numbers, as the latter should be much higher than the expected official numbers resulting from the expenses of the country/states. Since there is a long history of high volunteer involvement in Germany, many local groups of such volunteers often have way more materiel resources at their disposal than financed by the states or country resulting from donations (expert interview).

5.3 Training

Training

The Federal Office of Civil Protection and Disaster Assistance's (BBK) Academy for Crisis Management, Emergency Planning and Civil Protection (AKNZ) in Bad Neuenahr-Ahrweiler is responsible for the training of senior civil protection experts in Germany. It is the only training institution in Germany, which brings together experts up to the political level from all actors involved in national emergency management, i.e. armed forces, intelligence services, the police and civil protection and critical infrastructures. In addition, the AKNZ is involved in the training activities at EU

²⁶ It needs to be underlined that the accuracy of these estimates is also affected by the fact that many organisational members may be passive or fulfil other social services beyond civil security and emergency management (e.g. regular care and social support for disadvantaged people).

level, inter alia running the "High level Coordination Course" under the EU Civil Protection Mechanism (EC 2014).

The Federal School of the Federal Agency for Technical Relief with its two headquarters situated in Hoya and Neuhausen provides practical and theoretical training for its specialists and executive staff. The school in Neuhausen provides also training at EU as well as at UN level (example: the "Operational Management Course" within the framework of the EU Civil Protection Mechanism.

All states provide training for fire-fighters in their respective schools for fire brigades (in total 19 schools).

Specialists and executive staff of the relief organisations are trained in the respective schools of each relief organisation (ibid.).

Further, AKNZ provides obligatory education for CIMIC personnel of the Armed Forces (MSB 2009), see chapter 3.1.

Exercises

The AKNZ is also in charge of civil protection exercises at national level. A biannual series of National Crisis Management Exercises (LÜKEX) is organised following the "Zivilschutz- und Katastrophenhilfegesetz" law. LÜKEX stands for 'Länder Übergreifende Krisenmanagement-Übung/Exercise' (National Crisis Management Exercise). LÜKEX is structured as a strategic staff framework exercise, i.e. it is not a complete exercise. During the execution phase, up to 3,000 persons from the crisis staff of the core states and other participants (the so-called framework management) are involved in the exercise. Periodical exercises are organised at regional and local levels (EC 2014).

Further information on LÜKEX is available (also in English) in a respective flyer²⁷ provided on the BBK website (BBK 2013).

Also some of the bilateral agreements as described in chapter 3.1 include joint training and exercises.

5.4 Procurement

5.4.1 Procurement regulation

Basically, the public procurement law („Vergaberecht“) applies. It comprises all regulations and directions that public agencies have to follow when procuring material resources and services needed to fulfill its function. It also includes regulations that define rights of bidders, when procedural rules have been broken in the procurement process.

²⁷

http://www.bbk.bund.de/SharedDocs/Downloads/BBK/DE/Publikationen/Broschueren/Flyer/Fremsprach_Publikationen/Luekex_englisch-flyer.pdf?__blob=publicationFile

There is not a lot of joint (cross-border) procurement, which is usually also not wanted in Germany. Reason is the principle of subsidiarity that Germany ops for (see also chapter 3.1). Thus, also additional legislation with regard to cross-border procurement is not wanted, as this would increase EU power and decrease MS's power (expert interview).

5.4.2 Procurement procedures

Responsible agency is the Federal Interior Ministry Procurement Office (Beschaffungsamt des Bundesministeriums des Innern), with its different departments. Depending on what is procured, for IT issues the Federal Office for Information Security (BSI) can be involved as well (expert interview).

5.5 Niche capabilities

Niche capabilities of interest to the EU could be available helicopters for disaster response in case of forest fires, C3 (Command, Control & Communication) forces including respective experts, drinking water provision, and the Centre for the coordination of aftercare and for support of victims and their relatives (NOAH) from the BBK (expert interview).

Resources

Legislative acts

Grundgesetz für die Bundesrepublik Deutschland (German Basic Law, 23.05.1949)

Zivilschutzgesetz – ZSG (Civil Defense Act),
http://www.bbk.bund.de/SharedDocs/Downloads/BBK/DE/Gesetzestexte/Zivilschutzgesetz.pdf?__blob=publicationFile (Accessed November 13, 2014).

Gesetz über den Zivilschutz und die Katastrophenhilfe des Bundes (Zivilschutz- und Katastrophenhilfegesetz – ZSKG)
http://www.bbk.bund.de/SharedDocs/Downloads/BBK/DE/FIS/Zivilschutz-Katastrophenhilfegesetz.pdf?__blob=publicationFile (Accessed November 14, 2014).

Other normative acts

Treaty of Lisbon amending the Treaty on European Union and the Treaty establishing the European Community, Official Journal of the European Union C 306 (2007): <http://eur-lex.europa.eu/JOHtml.do?uri=OJ:C:2007:306:SOM:EN:HTML>

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Expert interviews

Federal Office of Civil Protection and Disaster Assistance (BBK), October 2014

Federal Agency for Technical Relief (THW), November 2014



Driving Innovation in Crisis Management for **European Resilience**

GREECE

Capabilities, Organisations, Policies, and Legislation (COPL) in crisis management and disaster response

Responsible Partner: ATOS (Adem Yaşar Mülayim)

Scope and limitations

This study serves as supporting information for further work within DRIVER.

Only limited time and budget has been available for this first general survey, which needs to be considered in terms of scope and completeness of the respective studies.

The author/s of this study is/are responsible for its content and quality.

Overview¹

In 2011 Greece's administrative system was drastically overhauled introducing 7 decentralised administrations, which group from one to three regions under a government-appointed general secretary;

- Attica
- Macedonia - Thrace
- Epirus – Western Macedonia
- Thessaly – Central Greece
- Peloponnese, West Greece and Ionian Islands
- Aegean Islands
- Crete

Greece is also divided into 13 regions and 325 municipalities.

Civil protection in Greece aims to protect individuals, groups or communities from natural or manmade fast or slow evolution disasters. Disasters can be technological, biological, chemical or nuclear as well as of other type which may occur during peacetime, causing emergency situations. The national civil protection authorities are responsible for the overall coordination of emergencies.

Civil protection in Greece is organised as a co-ordinated resource system whereby national, regional, provincial and local authorities work together with local and public institutions and services. Each of these authorities and institutions has developed its own part of the national civil protection plan (Xenokrates) and makes its own contribution towards achieving the aims of civil protection.

The Greek bodies responsible for the implementation of civil protection measures are:

- The General Secretariat for Civil Protection (GSCP)
- The Inter-Ministerial Committee for National Planning (ICNP)
- The Central Coordination Body for Civil Protection (CCB)
- Several authorities, organisations and institutions working together as an integral part in planning and rescue operations (e.g. the ministries, the fire brigade, the police, the defence forces, health and welfare institutions and aviation and radiation authorities)
- The General Secretariat of the region
- The prefectures
- The municipalities

A number of services are involved in providing disaster relief in Greece:

- The fire corps
- The coast guard
- The police
- The health services
- The armed forces
- The Earthquake Planning and Protection Organisation (EPPO)
- The competent agencies at regional and local levels

¹ Based on information available in http://ec.europa.eu/echo/files/civil_protection/vademecum/el/2-el-1.html

- Voluntary organisations with civil protection expertise

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List of Abbreviations

GSCP	General Secretariat for Civil Protection
ICNP	Inter-Ministerial Committee for National Planning
CCB	Central Coordination Body for Civil Protection
HRC	Hellenic Red Cross
EPPO	Earthquake Planning and Protection Organization
OCCP	Operational Centre for Civil Protection

1 Policy

1.1 National Strategy

The Master Plan with the code name "Xenocrates" has been designed in order to develop an effective system for the protection of life, health and property of citizens and the natural environment against the different disaster phenomena. The "Xenocrates" was compiled by the GSCP with Act 1299/2003 (Government Gazette 423 B / 10.04.2003) and revised by additional Act 3384/2006 (Government Gazette 776 / 28.6.06) approving the Special Plan "Managing human losses."

The "Xenocrates" plan:

- Defines the types of disasters and corresponding protection policy terms.
- Defines roles and provides design guidelines to Ministries, Regions, Prefectures and municipalities.
- Clarifies that all plans should be approved by the General Secretariat for Civil Protection (GSCP)

The plan also specifies all stakeholders involved and the responsible bodies for the direction and coordination the operational forces at all levels.

Essential elements are provided for risk assessment, labelling vulnerable areas and development of specific plans for each risk. Guidelines are provided for the development of strategies and tactics, good organization and equipment of services and organizational culture configuration. Also guidelines for early mobilization, motivation, direction and coordination of manpower and resources as well as creating logistical capabilities for troubleshooting both operational forces, and the affected citizens.

The plan foresees:

- The creation of communication and flow of information between all the services involved and factors in crisis management.
- This plan is a basic design framework, under which the training of specialists at risk projects entrusted to substantive ministries. Already ongoing process of setting up working groups in ministries, on the initiative of the General Secretariat for Civil Protection in order to upgrade their special projects at risk.
- Through specific projects will be developed by the working groups can be given specific instructions or design requirements with the Regions and Prefectures on behalf of pension plans.
- Until the completion of the elaboration and approval of specific projects, apply as provided by the already approved plans.

The responsible bodies for the implementation of the Master Plan "Xenocrates" for Civil Protection are:

- The Inter-Ministerial Committee for National Civil Protection Planning, composed by the Minister of Interior, Public Administration and Decentralization as President and also the ministers of Finance, Defence, Development, Environment, Physical Planning and Public

Works, Health and Welfare, Agriculture, Culture, Transport and Communications, Public Order, Mercantile Marine and the Press and Mass Media.

- The Central Coordinating Body for Civil Protection that is composed by the General Secretary for Civil Protection as President and the General Secretaries of the Ministries of Interior, Public Administration and Decentralization, Economy and Finance, Development, Environment, Planning and Public Works, Health and welfare, Agriculture, Transport and Communication, Public Order, Mercantile Marine, Press and Media, the competent Deputy Hellenic National Defence General Staff and the Presidents of the Hellenic Shipyards and of the Central Unit of Municipalities and Communities of Greece.
- The County Coordinating Body for Civil Protection that is composed by the Prefect as President, and also the President of the Local Union of Municipalities-Communities, the Head of Management of Policy Planning of the Region and the Prefecture, the Military Commander, the Police director, the Director of the Fire Service, the Harbour Master, the Head of Management of Forests, the Head of Management of Health, the Regional Health System representative, representatives of Voluntary Organizations for Civil protection and where appropriate representatives of the affected regions.
- The Local Coordinating Body for Civil Protection, which is composed by the Mayor as Chairman, two Councillors, Civil Protection Executives of Regions and Prefectures, a Representative of the Military Commander, the Commander of the Police Department, the Head of the Municipal Police, the Commander of the Fire Department, the Head of Technical Services of the Municipalities and local communities of Greece, the Head of Forestry, representatives of Voluntary Organisations for Civil protection and Social Organizations representatives.
- The General Secretariat for Civil Protection which is responsible for the preparation and approval of plans drawn up by the relevant central and regional bodies and utilities, planning, organization and coordination of action on the prevention, preparedness, information and response to natural, technological, and other disasters or emergencies, preparation of resources and instruments for Civil Protection of the country to address the destructive phenomena in the context of the projects per category, the utilization of research plans and information, the coordinating all phases of the project and disaster restoration and editing, designing and monitoring the implementation of civil protection within the government's guidelines.

Within the above mentioned responsible bodies for the implementation of the national plan for Civil Protection are also included all state agencies, departments of local governments and utilities, which are responsible at the operational level for the individual civil protection actions, in particular for preparedness and response to disasters (such as Fire, Coast Guard, Greek Police, National Centre for Emergency Assistance, Armed Forces, Earthquake Planning & Protection services of the Regions, the Prefecture and primary Municipalities and Local Communities of Greece, the Public Power Corporation, the Hellenic Telecommunications Organisation, the Athens Water Supply and Sewerage Company, the Public Natural Gas Supply Corporation and the Hellenic National Meteorological Service).

1.2 Risk Assessment

In Greece key risks areas of concern are; Earthquakes, landslides/mudslides, forest fires, severe weather phenomena, floods, volcanic eruptions, technological hazards, C.B.R.N. accidents and anthrax incidents.

The General Secretariat for Civil Protection (GSCP) is responsible for directing and coordinating all actions related to prevention, control and management of crises. Decision-making responsibilities lie with the General Secretariats of the competent ministries.

Table 1 includes major disasters occurred in Greece.

Table 1. Major disasters in Greece.

Year	Disasters
2014	Earthquakes, Limnos, Aegean Sea, 1 dead
2008	Earthquakes, Dodecanese, 1 dead
2008	Earthquakes, Peloponnese, 2 dead
1999	Earthquakes, Athens, 143 dead
1981	Earthquakes, Gulf of Corinth, 22 dead
1978	Earthquakes, Thessaloniki, 47 dead
2007	Forest fires, mainly affected western and southern Peloponnese as well as southern Euboea, 84 dead
2006	Flooding, Evros
2009	Forest fires, Attica
2012	Forest fires, Chios
1989	Fire in oil refinery, Aspropyrgos
1992	Explosion in oil refining unit, Petrola, 14 dead
1986	Fire in oil tanks, Kalochori, Thessaloniki
1999	Oil tanker explosion, Kammaena Vourla, 5 dead
2002	Floodings, Athens
2002	Heavy snow and very low temperatures
2000	Extreme temperature, 2 dead
2002	Tornado in Athens airport
2003	Floodings, Cyclades
2003	Crack in Nysiros

1.3 Policy and Governance

Within the responsible bodies for Civil Protection in Greece are included:

- Specialized civil protection officials at central, regional and local level, entrusted with the preparation and supervision of implementation of projects, programs and civil protection measures, as well as the coordination of the necessary actions.
- All state agencies, departments of local governments and utilities, which are responsible at the operational level for the individual civil protection actions, in particular for preparedness and response to disasters (such as Fire, Coast Guard, Greek police, National Centre for Emergency Assistance, Armed Forces, Earthquake Planning & Protection services of the Regions, the Prefectures and the primary Municipalities and Local Communities of Greece, the Public Power Corporation, the Hellenic Telecommunications Organisation, the Athens Water Supply and Sewerage Company, the Public Natural Gas Supply Corporation and the Hellenic National Meteorological Service).
- Voluntary civil protection organizations and specialized civil protection volunteers, at central, regional and local level, which are involved in the design of the General Secretariat for Civil Protection and take responsibility in the support of the plans and preventive and remedial actions as well as preparedness actions for disaster relief.

1.3.1 Strategy scope and focus ²

At national central level, the General Secretariat for Civil Protection (GSCP) is, inter alia, responsible to issue emergency and contingency plans for all kinds of natural and manmade disasters and hazards aiming to build resilience to hazards and to undertake prevention, preparedness, response and recovery actions. These plans and programs are elaborated with all the competent authorities in national, regional and local level.

Several public authorities or committees exist that are tasked with DRR aspects and risk management in their respective field of competence, for example, forest fires, floods, earthquakes, tsunamis etc.

All administrative levels in Greece are tasked under the supervision of the GSCP to draw their own regional and local plans to ensure resistance against hazards.

The GSCP is tasked with the maintaining of the Civil Protection Volunteerism System, which includes all registered voluntary organizations and expert volunteers and contributes greatly to building resilience to hazards.

The Hellenic Red Cross (HRC) contributes to disaster resilience at the community level by focusing on building a culture of safety and resilience and strengthening preparedness for response. In terms of strengthening disaster preparedness, the HRC establishes volunteer-based disaster National Progress Report 2011-2013 3/43 response teams in first aid and emergency care.

At an international level, Greece supports the establishment of a European Voluntary Humanitarian Aid Corps.

² From http://www.preventionweb.net/files/29038_grc_NationalHFAProgress_2011-13.pdf

1.3.2 Monitoring and analytical support to policy making; R&D

The HRC provides training programmes to the public, including but not limited to first aid, psychosocial support, and citizen disaster awareness and self-protection.

1.3.3 Policy for Prevention³

The Hellenic National Platform for Disaster Risk Reduction (HNP-DRR) is set up as an open network and a forum of governmental agencies and other stakeholders, with a focus on reducing the risk of natural and/or manmade hazards occurring with a major frequency and having a big social and economic impact on the country.

The official institutionalization of activities and the introduction of informal settings in the field of Disaster Risk Reduction among the relevant national stakeholders have been necessary already from the early national attempts to act in line with the strategic approach and the goals set by the Hyogo Framework of Action 2005-2015.

According to the principal national legislation for civil protection (Law 3013/2002, Ministerial Decree 1299/2003) the basic goals of the civil protection system (protection of life, health and property of citizens from natural and manmade disasters) are met through working out prevention plans and programmes for all kinds of risks (natural and manmade), taking appropriate measures of preparedness and undertaking prevention, preparedness, response and recovery actions. These plans and programmes are elaborated with all the component authorities in national, regional and local level. In a wider perspective, Greece, as a member state of the European Union, takes actively part on a wider policy and strategy planning within the EU for disaster risk reduction.

Concerning multi-sectoral co-ordination and collaboration in disaster risk reduction, the General Secretariat for Civil Protection is responsible for elaborating, planning and monitoring national civil protection policies under the governmental guidelines. For this purpose, it collaborates with the competent Ministries and relevant institutions for drafting regulations and specifications, to prevent natural, manmade and other disasters, while being responsible for approving all regional and local plans of civil protection, per category of risk. General information and public awareness regarding prevention issues and specific directives provided by the General Secretariat for Civil Protection in case of imminent or present disasters are issues of great importance. Identifying risks and developing early warning systems consist also a basic field of its expertise. In this context, the General Secretariat for Civil Protection has been issuing, for example, during the fire season, a Daily Fire Risk Map for the country that specifies the probability of a fire occurring over time and space.

1.3.4 Policy for Preparedness, Response, Relief and Recovery⁴

Risk reduction concepts are incorporated into the designing of emergency preparedness, response and recovery programs according to the "Guidelines for the composition and harmonization of

³ From <http://www.preventionweb.net/english/hyogo/national/list/v.php?id=68>

⁴ From http://www.preventionweb.net/files/29038_grc_NationalHFAprograss_2011-13.pdf

special plans for each disaster at ministerial or central level” as well as according to the “Guidelines for the composition and harmonization of emergency plans by the Regions and Prefectures for each disaster”, both issued by the General Secretariat for Civil Protection.

In the case of earthquakes, the Earthquake Rehabilitation Service is tasked with the recovery of the affected population with all necessary means, logistical and financial. Also, in the cases of reconstruction of communities after an earthquake, building codes and standards are in place that take into account the seismic risk and include modifications and completions that arise in practice in a country which experiences continual seismic activity.

Disaster response is carried out by the competent authorities (Fire Brigades, Regions, Municipalities etc.) supported by volunteers and private institutions. All functions of these Authorities are set up in the National Civil Protection Plan “Xenokrates” (Ministerial Decision no. 1299/2003) and further specialized in the National Plans drawn up for every hazard by the GCSP. These National Plans ensure among other that the actions of the involved authorities are well defined in order to reduce the risk at all stages of the disaster management cycle. During the reconstruction progress risk reduction and vulnerability aspects are taken into account.

In the disaster recovery phase, the Hellenic Red Cross works with various institutions and donors to implement recovery projects to support the population of the affected areas by providing psycho-social support and health assistance.

2 Legislation

2.1 Crisis (emergency, disaster) management concept⁵

National Plans for every disaster and hazard are issued by the General Secretariat for Civil Protection. These National Plans are adopted after extensive and sophisticated cooperation of all competent authorities involved in disaster reduction and disaster management and upon adoption become binding for all stakeholders involved. Law 3013/2002 and the National Civil Protection Plan “Xenocrates” followed by the National Plans for every hazard and disaster form a substantial legal framework of operation in disaster management including disaster reduction aspects.

2.2 General crisis (emergency, disaster) management law

The following laws apply in Greece for crisis management:

1. Ministerial Decision 770/1999, Regulation of Organisation Operations Centre for Civil Protection⁶
2. Law 3013/2002 , Upgrade of Civil Protection⁷
3. Presidential Decree 338/2003, Establishment of Scientific and Research Centre for Civil Protection⁸
4. Ministerial Decision 1299/2003, General Plan on Civil Protection “Xenocrates”⁹
5. Presidential Decree 151/2004, Organisation General Secretariat for Civil Protection¹⁰
6. Ministerial Decision 3384/2006, Completion of “Xenocrates”¹¹
7. Ministerial Decision 7270/2006 on Establishment of Supportive Team for CBRN Management¹²
8. Law 3448/2006, establishment of Teams for the Identification of Victims of Disasters¹³
9. Law 3491/2006, Supportive Team for CBRN Management¹⁴
10. Law 3516/2007, Issue settings for Civil Protection¹⁵

⁵ From http://www.preventionweb.net/files/29038_grc_NationalHFAprogrss_2011-13.pdf

⁶ http://civilprotection.gr/sites/default/gscp_uploads/YA770_1999OrganosiKEPP_el_GR.pdf

⁷ http://civilprotection.gr/sites/default/gscp_uploads/nomos30132002anavathmisi_el_GR.pdf

⁸ http://civilprotection.gr/sites/default/gscp_uploads/pd3382003sistasiepistikentrou_el_GR.pdf

⁹ http://civilprotection.gr/sites/default/gscp_uploads/ypapofasi12992003xenokrati_el_GR.pdf

¹⁰ http://civilprotection.gr/sites/default/gscp_uploads/pd1512004organismosgpp_el_GR.pdf

¹¹ http://civilprotection.gr/sites/default/gscp_uploads/ypapofasi33842006simplxenokrati_el_GR.pdf

¹² http://civilprotection.gr/sites/default/gscp_uploads/ipapofasi72702006sistasiyodxbrp_el_GR.pdf

¹³

http://civilprotection.gr/sites/default/gscp_uploads/nomos34482006sistasiomadonanagnorisisthimaton_el_GR.pdf

¹⁴ http://civilprotection.gr/sites/default/gscp_uploads/nomos34912006yodxbrp_el_GR.pdf

11. Law 3613/2007, Issue settings for GSCP¹⁶
12. Decision 2007 from the EU Council for the Mechanism of Civil Protection (recast)¹⁷
13. Decision 2007, from the EU Council, Financial Instrument

2.3 Specific to the regional and local authorities legal arrangements and regulations on emergency and disaster management

In the Greek Civil Protection system, every administrative level (decentralised administrations, regions and municipalities) needs to have in place their own regional and local plans for preparedness against hazards. These plans are prepared under the supervision of GSCP.

This fact is a clear evidence that even though local and regional level have some sort of autonomy, the main responsibility lies with the GSCP.

2.4 Legal regulations on the involvement of volunteers and specialised NGOs

Please refer to Section 2.2

2.5 Legal regulations for international engagements of first responders and crisis managers

Please refer to Section 2.2

¹⁵ http://civilprotection.gr/sites/default/gscp_uploads/nomos35362007rithmisis_el_GR.pdf

¹⁶

http://civilprotection.gr/sites/default/gscp_uploads/nomos36132007rithmisis%28ekenoseis112%29_el_GR.pdf

¹⁷ http://civilprotection.gr/sites/default/gscp_uploads/apofasi2007symb-mihanismosppanadiatiposi_el_GR.pdf

3 Organisation

3.1 Organisational chart¹⁸

The mission of General Secretariat for Civil Protection (GSCP) is to protect the citizen's life, health and property from natural, technological and other major hazards. In addition, it comprises the protection of cultural heritage, historic buildings and monuments, resources and infrastructure. The GSCP studies, plans, organises and coordinates the country's policy concerning issues of public awareness, prevention and confrontation of natural or man-made disasters. It coordinates the actions of the public services and the civil volunteers while ensuring the country's alertness to confront these disasters.

All ministries, regions and prefectures should draw up special plans for the confrontation of disasters based on the national civil protection plan "Xenokrates". The General Secretariat of Civil Protection is the general coordinator of the planning. The Inter-Ministerial Committee for National Planning (ICNP), composed of the heads of the competent ministries, approves the annual national plan for civil protection, including each ministry's civil protection budget. It also reports on the implementation of governmental measures for rehabilitation after major catastrophes.

The Central Coordination Body for Civil Protection (CCB), comprised by the secretaries general of the competent ministries and chaired by the General Secretary for Civil Protection, presents the civil protection annual national plan and budget for approval by the ICNP. The CCB is responsible for following up and evaluating the annual national planning and for coordinating the response to and recovery and rehabilitation of major catastrophes.

The General Secretary for Civil Protection and the general secretaries of the regions and the prefects are in charge of coordinating all operational forces depending on whether the disaster is general, regional or local. The National Operational Centre for Civil Protection provides all kinds of assistance to the civil protection forces.

¹⁸ Source: <http://extranet.cor.europa.eu/divisionpowers/countries/MembersNLP/Greece/Policy-Areas-Non-Obligatory/Pages/Civil-Protection.aspx>

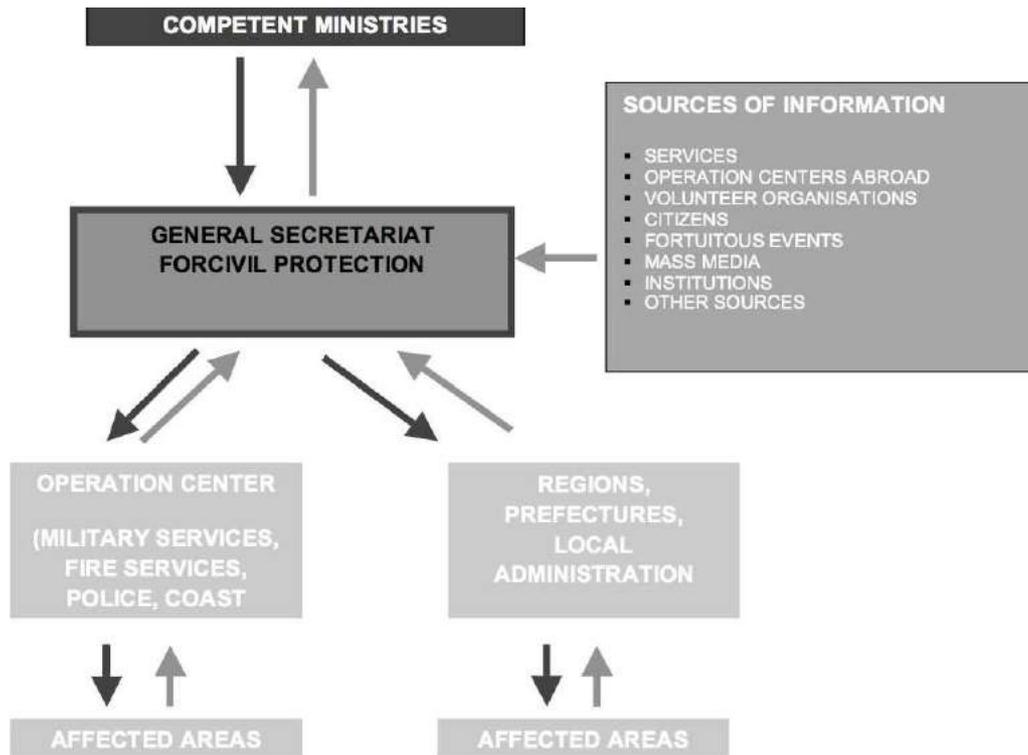


Figure 1: Civil Protection Structure in Greece

3.2 Supportive Group for the Management of Chemical, Biological, Radiological and Nuclear Threats and Incidents¹⁹

According to law 3491/2006, Article 15, there was established an inter-ministerial group within the General Secretariat for Civil Protection, which reports directly to the Civil Protection Secretary and is the Executive Advisory Board, which supports at tactical, operational, and political level the competent forces and organs for civil protection, by providing scientific information and specialized expertise for the management of chemical, biological, radiological and nuclear threats and incidents.

The support team is staffed by higher education officials of appropriate industries, for the confrontation of chemical, biological, radiological and nuclear threats and incidents from the General Secretariat for Civil Protection, the Ministry of Health and Social Solidarity, the Ministry for the Environment Physical Planning and Public Works, the Ministry of Rural Development and Food, the General Chemical State Laboratory of Greece, the Greek Atomic Energy Commission, the National Meteorological Service and from scientific or suitable trained personnel of the Coast Guard, the Greek Police, the Fire Brigade and the National Defence General Staff. From each operator there are defined four representatives. (Ministerial Decision 7270/2006).

The support group is convened by the Secretary-General for Civil Protection in ordinary and extraordinary meetings. Regular meetings take place within working hours and are for better organization and preparation of the team. The extraordinary meetings relate to the convening of the

¹⁹ From

<http://civilprotection.gr/el/%CE%B1%CF%81%CE%BC%CE%BF%CE%B4%CE%B9%CF%8C%CF%84%CE%B7%CF%84%CE%B5%CF%82>

group for the management of incidents or threatened incidents in which are involved chemical, biological and / or radiological agents. Extraordinary meetings may take place outside working hours and days that are exempt and can be continuous meetings depending on the intensity and extent of the incident that is asked to manage. In case of continuity of the meeting, representatives of organizations involved in the group can be rotated in shifts. The closing of the group is made by the Secretary-General of Civil Protection.

The support group may meet in quorum with the participation of representatives of all agencies or partially depending on the type of threat or incident.

3.3 Teams for the Identification of Victims of Disasters

According to article 23 of law 3448/2006, there were created within the General Secretariat for Civil Protection Teams for the Identification of Victims of Disasters which have the task of recognition and identification of victims of accidents, disasters and criminal and terrorist activities. These teams consist of qualified medical staff, experts and officers of the Greek Police and can be sent to other countries on request and by decision of the Minister of Interior.

4 Procedures

4.1 Standing Operating Procedures (SOPs) and Guidelines

The GSCP issues each year circulars about the most common disasters in Greece to all stakeholders indicating the appropriate action that has to be taken and coordinates all involved authorities in order to ensure that all resources are in place in case of a major disaster.

The GSCP organizes training drills and exercises at national/ subnational level where the procedures described in the National Plans are tested in order to assess, analyse and improve them and has issued national guidelines concerning the preparation, organization and evaluation of these exercises. For example, the EU POSEIDON 2012 Simulation Exercise project was held in Crete in 2009-2011 and was the first exercise of the EU Civil Protection Mechanism with a tsunami scenario. Tsunami early warning procedures were tested and lessons learned were identified.

There are search and rescue teams, well trained, for some categories of disasters that can be employed by the competent authorities. The Greek State has also stocks of relief supplies stored in depositories in several areas of the country.

Voluntary organizations, registered in the GSCP, are included in planning guidelines and integrated into action plans at local and regional levels.

From a regional perspective, the efforts for the operational setup of a Joint Hellenic-Turkish Standby Disaster Response Unit, consisting of Greek and Turkish experts, should be mentioned. In this context, some disaster preparedness training exercises have already taken place.

4.2 Operations planning

The General Civil Protection Plan “Xenokrates” calls for the development of hazard-specific plans at the local, regional and national levels nationwide. GSCP issues National Plans for every disaster and guidelines to other competent authorities on the methodology of making emergency and contingency plans. Decentralized Administrations, Regions and Municipalities prepare their own emergency and contingency plans and send them to the GSCP for approval.

According to the general guidelines provided by GSCP, each responsible body involved in the design of plans, designs the plans solely based on the mission and the ones defined in the institutional framework governing each body’s operation. All generated plans should involve the four phases for mobilising the civil protection system:

- **Phase 1 - Alertness:** are included all preparatory actions and activities that ensure the conditions for implementation of the approved plans and the operational readiness of the response mechanism, such as maintenance, sourcing (materials, personnel, etc.)
- **Phase 2 - Increased alertness:** all necessary bodies are placed on and alert for the execution of their duties and take, where appropriate any additional precautions. These precautions are associated with the appearance and treatment of the phenomenon and are aimed at

reducing the probability of the occurrence of the phenomenon that will cause destruction and / or reduce its consequences (e.g. increased surveillance in forests to ensure timely notification and timely interference.

- **Phase 3 - Addressing (mobilisation – intervention):** during this phase is the actual development of all the necessary resources of the civil protection system for the control and repression (if possible) of the catastrophic phenomenon and particularly the tackling and moderation of the immediate consequences. Where appropriate, citizens are informed about measures for self-protection and also the assistance and facilitation of the work of the forced of the corresponding bodies.
- **Phase 4 – Recovery:** the first damage assessment is made as well as the assessment of the situation and any immediate assistance is provided to those affected (food, shelter, etc.). All actions are implemented for the restoration of the daily operations in the affected area (e.g. traffic restoration, ensuring electricity and water supply, etc.)

And the three levels of government, control and coordination:

- political – strategic
- operational
- tactical

Except from all the above, plans also include the necessary actions for the safeguard of the operation of the corresponding body in emergency situations as well as the actions for the support of the plan (training, exercises, review)

More importantly, every plan:

- has institutional base;
- is based on sound scientific information and knowledge;
- clearly defines the hierarchical levels of government, control and coordination and the corresponding responsibilities;
- has a system for the collection, evaluation and transfer of information and evaluation of the staff;
- has, if possible, recorded the critical parameters for the implementation of actions and their scalability levels;
- anticipates and clearly describes the actions and the estimated resources necessary in all phases of the mobilization system for the civil protection;
- provides opportunities for making decisions and implementing actions that will be decided during the course of the emergency;
- has a modular structure and gives, if possible, clear guidelines on existing hierarchical levels and regional and local services;
- has been prepared based on interdepartmental cooperation and interoperability

4.3 Logistics support in crises

GSCP issues every year, and according to the period, summer or winter, detailed plans and circulars per subject. With these circulars, all related bodies responsible for each disaster are informed for all actions that should be taken in order to avoid and tackle any types of disasters.

At this moment, GSCP has published detailed circulars for the following subjects among others:

- Civil Protection design and actions to address risks from snow and frost for the period 2014-2015²⁰
- Civil Protection design and actions to address risks from the event of floods for the period 2014-2015²¹
- Publication of daily risk forecasting map for the fire season of 2014²²
- Circular to address risks from major accidents SEVESO facilities²³
- Civil Protection design and actions to address risks from forest fires for 2014²⁴
- Civil Protection design and actions to address risks from seismic phenomena for 2012²⁵
- Waste Management (Non-Dangerous, Hazardous and Hazardous Waste Health Units): Institutional framework roles and responsibilities of stakeholders²⁶
- Institutional Framework for Air Pollution²⁷
- General plan for addressing technological accidents of big volume (SATAME) in 2009²⁸
- Drafting of emergency plans per catastrophe of regions and prefectures²⁹³⁰
- Institutional framework for the quarrying and mining activities, roles and responsibilities³¹
- Institutional framework for air and marine pollution, roles and responsibilities³²
- Institutional framework for electricity activities, roles and responsibilities³³
- Institutional Framework for the Activities of Natural Gas, roles and responsibilities
- Institutional framework for monitoring water quality and drinking water, roles and responsibilities³⁴
- Map of Forests and woodland areas susceptible to fires³⁵

²⁰ http://civilprotection.gr/sites/default/gscp_uploads/xionoptoseis-pagetos_2014-2015_4.pdf

²¹ http://civilprotection.gr/sites/default/gscp_uploads/egiklios_plimiron_2014.pdf

²² http://civilprotection.gr/sites/default/gscp_uploads/EkdosiHmerisiouXarti2014.pdf

²³ http://civilprotection.gr/sites/default/gscp_uploads/Egiklios%20SEVESO_2014_0.pdf

²⁴

http://civilprotection.gr/sites/default/gscp_uploads/egyklios%20dasikon%20pirkagion%202014%20%20BIKAI-SK1.pdf

²⁵ http://civilprotection.gr/sites/default/gscp_uploads/EgikliosSismon2012_el_GR.pdf

²⁶ http://civilprotection.gr/sites/default/gscp_uploads/DiaxirisiApovlition_el_GR.pdf

²⁷ http://civilprotection.gr/sites/default/gscp_uploads/PlaisioAtmRipansi_el_GR.pdf

²⁸ http://civilprotection.gr/sites/default/gscp_uploads/Satame_June2009_el_GR.pdf

²⁹ http://civilprotection.gr/sites/default/gscp_uploads/SyntaxiSxedioEA_PerifNA2009_el_GR.pdf

³⁰ http://civilprotection.gr/sites/default/gscp_uploads/EgxiridioSxedionEA_PerifNA2009_el_GR_1.pdf

³¹ http://civilprotection.gr/sites/default/gscp_uploads/EgikliosLatomiou_el_GR.pdf

³² http://civilprotection.gr/sites/default/gscp_uploads/EgikliosRipansis_el_GR_0.pdf

³³ http://civilprotection.gr/sites/default/gscp_uploads/EgikliosHlektEnergh_el_GR.pdf

³⁴

http://civilprotection.gr/sites/default/gscp_uploads/Thesmiko%20plaisio%20gia%20tin%20parakolouthisi%20p-oiotitas%20idaton%20%26%20posimou%20nerou.pdf

³⁵ http://civilprotection.gr/sites/default/gscp_uploads/MapPD_575_80_Internet_el_GR.pdf

4.4 Crisis communication to general public; Alert system; Public Information and Warnings

According to the nature of each crisis and phenomenon, different approach is taken. GSCP is the central responsible for the communication to the general public and for the publication of alerts and warning, but according to the nature of the phenomenon, there are more bodies involved.

4.5 Systematic Reporting, Monitoring and Analysis of Disaster Losses and Hazards³⁶

After each disaster all involved Authorities are responsible to forward all necessary data and reports to the GSCP which then gathers all the information, evaluates it, analyses it and conducts a thorough report of the disaster.

The Earthquake Planning and Protection Organization provides valid and timely notification to the State Authorities regarding seismic risk.

The Institute of Geodynamics issues everyday an earthquake (seismicity) catalogue. Greece's seismicity is systematically reported the last 70 years via monthly bulletins. It runs a GPS Network for monitoring the crustal deformation in real time. Data are available to the public and to the scientific community online. IG has developed an almost real time seismicity monitoring tool, available to the communities.

The Institute of Environmental Research and Sustainable Development has recently completed a systematic database of weather-related hazards over Greece from 2000. In 2006 it started to operate a weather stations network across the country (205 stations in 2012). It operates devices for continuous monitoring of lightning activity over Europe and the Mediterranean.

The Institute for Astronomy, Astrophysics, Space Applications and Remote Sensing operationally maps the annual burnt area over Greece since 2007 using state-of-the-art technologies and satellite imagery. It's the only reliable technique ensuring assessment of fires damages to forest ecosystems with a high spatial precision at mapping scales from 1:10.000 to 1:50.000 and at short delays (2 months after end of fire season). It operates the Atmospheric Remote Sensing Station, in order to monitor atmospheric conditions over Athens and recognize atmospheric episodes over Greece like Saharan dust intrusions, forest fire smoke dispersion and volcanic ash advection.

At international level, the competent Greek agencies monitor the flow of information of two international co-ordination centres, NATO's EADRCC and the European Commission's MIC.

³⁶ From http://www.preventionweb.net/files/29038_grc_NationalHFAProgress_2011-13.pdf

5 Capabilities

5.1 Human resources

According to the Master Plan “Xenocrates”, and to the nature of each disaster, there are different responsible bodies. The following table shows the responsibilities of each body according to the nature of the disaster.

Each detailed plan contains a specific section with a detailed description of the human resources (teams and working positions) within all levels where the detailed plan is involved. A complete description on the mission, composition, function and all responsibilities each of the involved persons and groups is provided as well as the sectors, specializations and other special qualifications wherever necessary.

Body	Natural Disasters						Technological Disasters									
	Forest Fires	Earthquake	Flood	Extreme weather			Landslides	Volcanic action	CBRN Incidents	Production/distribution units of electricity and gas	Installations with dangerous substances	Major fires in industrial plants	Hazardous pollution	Dam demolition	Accident in mining facilities	Demolition in communication networks
				Tornados / Gale	Heavy snow / snowstorm / frost	Heatwave										
1 Finance																
2 Interior																
3 National Defense	x	x	x		x				x							
4 Interior, Public Administration and Decentralisation																
5 Development		x		x			x		x	x	x		x	x		
6 Environment Physical Planning and Public Works		x	x	x	x		x	x			x	x	x	x		
7 Education and Religious Affairs																
8 Labour and Social Affairs																
9 Health and Welfare		x				x			x				x			
10 Agriculture	x		x		x	x			x				x			
11 Justice																
12 Culture and Science																
13 Transportation and Communications				x					x							x
14 Public Order	x	x	x	x	x		x	x	x	x	x	x	x	x	x	
15 Mercantile Marine		x	x	x					x				x			
16 Press and Media																
17 Macedonia and Thrace																
18 Aegean																
19 Regions and Prefectures	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	

Table 2: Responsibility Matrix per disaster in Greece according to "Xenocrates"³⁷

³⁷Emergency Plans – Planning Philosophy and Objectives, Direction of Civil Protection, Decentralised Administration of Macedonia – Thrace, Athanasia Douma

5.2 Materiel (non-financial) resources

Each responsible body for the design of a plan for a specific disaster according to “Xenocrates”, provides within these plans a detailed list of categories of material resources, such as facilities, machinery, vehicles, equipment and other materials that are used for the execution of the plan.

5.3 Training³⁸

The GSCP has launched a number of campaigns on disaster prevention and preparedness at the citizen and household level. It is also the coordinator for the EU Civil Protection Training Mechanism. The National Centre for Public Administration and Local Government has been conducting two courses on Civil Protection for local government employees. In addition, two courses in disaster and emergency management are offered by the Inter-Balkan Institute for Public Administration; Hellenic Red Cross Instructors are often called to teach classes within these courses.

The Ministry of Education in collaboration with Municipalities runs the course project “Protecting Myself and Others (P.R.O.T.E.K.T.A.)” aiming at providing disaster prevention and preparedness public education and training community emergency response teams. The training includes a cycle of separate but coordinated seminars by different authorities/organizations, such as the GSCP, the Hellenic Red Cross, the Earthquake Planning and Protection Organization and others. At the end of the project the volunteers receive a certificate of attendance.

The Earthquake Planning and Protection Organization (EPPO), in cooperation with the Ministry of Education, provides information systematically to the educational community on management of earthquake risk.

EPPO has made a great effort towards education of different groups on seismic protection issues, such as the public, officials, the school community, volunteers, people with disabilities and tourists. The education procedure includes, depending on the target group, lectures, development of emergency plans and implementation of earthquake drills at schools, seminars, publication of books, handbooks, brochures, leaflets and CD-ROMs.

EPPO is carrying out a national project covering all Regions of Greece concerning workshops with staff members of the Local Civil Protection Authorities. The topic is related to the design and prevention - preparedness for emergency management in case of an earthquake.

5.4 Niche capabilities³⁹

During a disaster in Greece, there is a central body responsible for all coordination at national level of the civil protection actions and forces in cases the Civil Protection Mechanism is activated in order to respond to an emergency. This body is the Operational Centre for Civil Protection (OCCP) and functions under the GSCP.

³⁸ From http://www.preventionweb.net/files/29038_grc_NationalHFAProgress_2011-13.pdf

³⁹ From http://www.preventionweb.net/files/29038_grc_NationalHFAProgress_2011-13.pdf

Furthermore, the OCCP is the national contact point for the European Civil Protection Mechanism and is responsible to post demands for aid on the MIC/CECIS.

In case of a major national disaster the OCCP is gathered under the presidency of the General Secretary for Civil Protection with presence of all involved General Secretaries to exchange information and decide on further proceedings in order to respond to emergency and manage the disaster consequences.

At regional level, in case of a disaster, the competent authorities participate at the Coordinative Body of Civil Protection with similar tasks and at local level the competent authorities participate at the Coordinative Local Body. Each level is activated, according to Law 3013/2002, on the basis of the magnitude of each disaster. Each competent authority has its own specialized personnel that can be deployed according to the type of disaster risk, which falls into its scope.

Resources

- The National Plan for Civil Protection “Xenocratres”. Presidency of the Government, Athens, Greece, April 2013
- National progress report on the implementation of the Hyogo Framework for Action (2011-2013), General Secretariat for Civil Protection, January 2013
- Manual for drafting and harmonisation of special plans per disaster at ministry or other central agency level, Hellenic Ministry of Interior, Public Administration and Decentralisation, General Secretariat for Civil Protection, March 2009

Online resources (e.g. websites of key CM organizations)

- <http://civilprotection.gr/>
- <http://www.hnms.gr/>
- <http://www.ekab.gr/>
- <http://www.hellenicpolice.gr/>
- <http://www.fireservice.gr/>
- <http://www.hcg.gr/>
- <http://www.gein.noa.gr/>
- <http://www.redcross.gr/>
- <http://www.samarites.gr/>
- <https://et.diavgeia.gov.gr/>



Driving Innovation in Crisis Management for **European Resilience**

HUNGARY

Capabilities, Organisations, Policies, and Legislation (COPL) in crisis management and disaster response



Responsible Partner: CSDM (Vesselin Petkov, Todor Tagarev)

Scope and limitations

This study serves as supporting information for further work within DRIVER.

Only limited time and budget has been available for this first general survey, which needs to be considered in terms of scope and completeness of the respective studies.

The author/s of this study is/are responsible for its content and quality.

Overview

- Hungary is a landlocked country in Central Europe with a territory of slightly over 93 thousand square kilometres. It has boundaries, shared with Austria to the west, Serbia, Croatia and Slovenia to the south and southwest, Romania to the southeast, Ukraine to the northeast, and Slovakia to the north. The country is crossed by rivers Danube and Tisza, which are navigable 418 and 444 kilometres, respectively.
- The crisis management system in Hungary has been under significant pressure in the last years, which revealed weakness and vulnerabilities to be addressed through policies and actions. Numerous disasters – from the notorious red sludge spill, via floods, to storms and droughts – made it evident that a profound reform of the Hungarian crisis management and disaster response architecture was needed.
- A new disaster management law was adopted in 2011 (in force since 1 January 2012), laying the foundations of a system in which professional disaster management service cooperates closely with obliged and volunteer civil protection structures. As put by the law, disaster management has been named a national cause.



Figure 1: Symbol of the NDGDM

- The National Directorate General for Disaster Management (NDGDM) within the Ministry of Interior is the national authority for disaster management. As of 1 January 2012 a new organisational structure of the NDGDM was introduced, which has been built on three pillars: civil protection, fire protection and industrial safety, with the National Inspectorate General of Fire Services, the National Inspectorate General of Civil Protection and the National Inspectorate General of Industrial Safety constructing the backbone of the NDGDM.
- The Disaster Management Governmental Coordination Committee (DMGCC) is an inter-agency coordination body ensuring consistency between sectors. At county and local level, protection committees are in place to concert disaster management.
- From an operational perspective, the central structures for disaster management at the county and local level include 20 county directorates for disaster management, their

subordinated offices for disaster management, the professional fire departments and the municipal fire departments.

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List of Abbreviations

CEPC	Civil Emergency Planning Committee
CMDR	Hungarian crisis management and disaster response
CPG	Civil Protection Group
CTIF	International Association of Fire and Rescue Service
DMGCC	Disaster Management Governmental Coordination Committee
DPPI SEE	Disaster Preparedness and Prevention Initiative for South-Eastern Europe
DREF	Disaster Relief Emergency Fund
EADRCC	Euro-Atlantic Disaster Response Coordination Centre
EU ERCC	Emergency Response Coordination Centre
EU MIC	EU Monitoring and Information Centre
FEU	Federation of the European Union Fire Officer Associations
GCCR	Governmental Coordination Centre for Reconstruction (GCCR)
HFA	Hyogo Framework for Action
HUNOR	Hungarian National Organisation for Rescue Services
IDC	International Development Cooperation

INCA	Integrated Nowcasting System for the Central European Area
INSARAG	International Search and Rescue Advisory Group
JHA	Justice and Home Affairs
JRC	[EU] Joint Research Centre
MoLaRi	Monitoring and Public Alarm System
NDGDM	National Directorate General for Disaster Management
OCHA	UN Office for Coordination of Humanitarian Affairs
OMSZ	Hungarian Meteorological Service
PECO	Pays d'Europe Centrale et Orientale
PPA	Public Procurement Act
RSOE	National Association of Radio Distress-Signalling and Infocommunications
TIC	Territorial information Centre
UNECE	United Nations Economic Commission for Europe

1 Policy

The crisis management system in Hungary has been under significant pressure in the last years, which revealed weakness and vulnerabilities to be addressed through policies and actions. Numerous disasters – from the notorious red sludge spill, via floods, to storms and droughts – made it evident that a profound reform of the Hungarian crisis management and disaster response (CMDR) architecture was needed.

A new disaster management law was adopted in 2011 (in force since 1 January 2012), which put greater emphasis on “prevention and preparation, and on a more intensive cooperation with the population, on self-reliance, and on taking responsibility”¹, laying the foundations of a system in which professional disaster management service cooperates closely with obliged and volunteer civil protection structures. As put by the law, disaster management has been named a national cause.

In the period January-June 2011, when Hungary presided over the Council of the European Union, disaster management was specifically included in the Justice and Home Affairs part of its programme, stressing the need of enhanced cooperation between Member States in the field, and drawing attention to flood management and risk assessment activities, in order to improve the protection of European citizens.² The Hungarian programme (quoting the example of the Gulf of Mexico spill in 2010) also stressed the need for action in relation to the safety aspects of offshore oil and gas exploration licensing, operation, inspection and the revision of overall responsibility. The document recalled that the European Commission had presented a Communication on “Facing the challenge of the safety of offshore oil and gas operations.” In this respect, the Hungarian Presidency aimed to have the first exchange of views on the European Commission’s legislative proposal on the safety of offshore oil and gas activities.

As part of the EU Hungary is also supporting the implementation of the Hyogo Framework for Action and relevant disaster risk reduction initiatives including through the development of a national disaster risk reduction platform, involving actors from the development, humanitarian, planning, environment, agriculture and civil protection side.

1.1 Risk Assessment

In February 2009 the European Commission adopted the Communication on a Community approach to reducing the impact of natural and man-made disasters within the EU. Further, in November 2009 Council Conclusions on a Community Framework on Disaster Prevention within the EU, adopted

1 Ministry of Interior of Hungary, National Directorate General for Disaster Management, 2012, available at: http://www.katasztrofavedelem.hu/letoltes/eng/szervezet/NDGDM_intro.pdf

2 Strong Europe with a Human Touch, The Programme of the Hungarian Presidency of the Council of the European Union, http://www.eu2011.hu/files/bveu/documents/HU_PRES_STRONG_EUROPE_EN_3.pdf

during the Swedish Presidency, underlined the importance of the national and international elements of disaster prevention policies, such as hazard and risk identification and assessment, impact analysis, risk mapping and regular review.

In April 2011, during the Hungarian EU presidency, the Justice and Home Affairs configuration of the Council adopted Conclusions, issued under number 8068/11, on “Further Developing Risk Assessment for Disaster Management within the European Union.” The Conclusions invite the member states to initiate national risk assessments by the end of 2011, by structuring the process and setting the methodological framework, organising coordination between stakeholders, identifying and analysing single-risk scenarios, consider multi-risk scenarios, etc.³

In Hungary, as a first step in the process of implementing the requirements of the Council, the main risks have been identified, namely “floods and inland waters, earthquakes, forest fires, industrial accidents, extreme weather phenomena and man-made disasters.”⁴ Second, to carry risk assessment relevant actors and were involved in a national conference (divided into working groups), organised in June 2011. The final document from the conference concluded that “the availability of or the differences in the data did not allow a detailed analysis in each case” and called to “the European Commission to support a more accurate risk assessment, preferably by inviting international calls for proposals.”⁵

Although the above-mentioned document does not qualify as a comprehensive national risk assessment, there exists partial risk assessment for Hungary, as part of national or international projects.

In 2007 the Joint Research Centre's Institute for the Protection and Security of the Citizen published a report on “Risk Mapping in the New Member States,” a result of research carried within the 5th and 6th Framework Programmes, aimed, among others, at examining the existing situation in the 10 PECO (standing for Pays d'Europe Centrale et Orientale; French for Countries of Central and Eastern Europe) countries for mapping of eight priority natural (floods, forest fires, storms, earthquakes, landslides) and technological hazards (industrial installations, transport of dangerous goods and contaminated lands).⁶

3 Council conclusions on Further Developing Risk Assessment for Disaster Management within the European Union, <http://register.consilium.europa.eu/doc/srv?l=EN&f=ST%208068%202011%20INIT>

4 National Risk Assessment, Synopsis, available at: [http://www.preventionweb.net/files/29824_priorityno.2.coreind.no.1.\[1\].doc](http://www.preventionweb.net/files/29824_priorityno.2.coreind.no.1.[1].doc)

5 National Risk Assessment, Synopsis

6 Risk Mapping in the New Member States, JRC Scientific and Technical Reports, available at: http://www.preventionweb.net/files/5455_JRC38184.pdf

Countries	Floods	Indust. Install.	Transport of Dang. Goods	Forest Fires	Contaminated Lands	Storms	Earthquakes	Landslides
Romania	High	Medium	Medium	Medium	Medium	High	High	High
Bulgaria	Medium	High	High	High	Low	Medium	High	Medium
Czech Republic	High	Medium	High	Medium	High	Medium	Low	Medium
Poland	High	Medium	High	High	Medium	Medium	Low	Low
Hungary	High	Medium	High	Medium	Medium	Low	Low	Low
Slovenia	High	Medium	Low	Medium	Low	Low	High	Medium
Slovakia	High	High	Low	Low	High	Low	Low	Medium
Latvia	Medium	High	High	Medium	Low	Low	n/a	n/a
Estonia	Low	Medium	High	Medium	Low	Medium	Low	Low
Lithuania	Medium	Medium	Medium	Medium	Low	Medium	Low	Low
Cyprus	Low	Medium	Low	Medium	Low	Low	Medium	Low

Legend

	HIGH
	MEDIUM
	LOW
n/a	NOT APPLICABLE

Figure 2: Risk Mapping of Hungary.

From a methodological point of view, the JRC project relates “high risk” with a hazard that is present within the vast majority of the country (more than 2/3 of it) or, alternatively, when the hazard is confined only to particular areas but in case of an accident, the effect could be significant for at least one major population centre or an important economic resource.

Table 1: Classification of Risks

Type of risk	Territory	Population/resource affected
High risk	HR>2/3	Major population centre
Medium risk	1/3<MR<2/3	Minor population centre
Low risk	LR<1/3	No population centre affected

For Hungary, qualitative analysis by national experts classified the eight hazards as follows:

- Carrying low risk relevance – storm, earthquakes, landslides
- Medium risk relevance – industrial installations, forest fires, contaminated lands

- High risk relevance – floods, transport of dangerous goods

It is also worth noting that in a related report ⁷ on flood risk mapping, no less than six examples involving Hungary were quoted to show how increased number of floods in eastern and central Europe, had been affecting life of citizens on a large scale , namely:

- July 1997 in Poland, the Czech Republic, Slovakia and Hungary;
- November 1998 in Hungary and Slovenia;
- March-April, July 1999 in Hungary and Romania;
- April-May 2000 in Hungary and Romania;
- March 2001 in Hungary and Romania, June-July 2001 in Poland;
- April and August 2002 in Romania, Hungary, the Czech Republic and Slovakia

Floods

As evident from statistical data tabled below, floods have affected the largest number of people in Hungary and together with droughts have been most damaging to the country's economy.

Table 2: The most affecting (in terms of financial damage) disasters in Hungary for the period 1900 – 2014.

Disaster	Date	Damage (000 US\$)
Drought	Jun-86	500000
Flood	15/05/2010	440000
Drought	May-92	384000
Flood	21/02/1999	165000
Flood	9/7/1999	128400
Drought	Jul-03	100000
Flood	1/5/1970	85000
Flood	6/4/2000	55000
Flood	14/08/2005	48000
Flood	7/8/2002	30000

Source: "EM-DAT: The OFDA/CRED International Disaster Database www.em-dat.net - Université Catholique de Louvain - Brussels – Belgium

Table 3: The most affecting (in terms of people killed) disasters in Hungary for the period 1900 – 2014.

Disaster	Date	No Killed
Extreme temperature	Jul-07	500

⁷ "Risk Mapping of Flood Hazards in the New Member States," JRC Scientific and Technical Reports, available at: http://eusoiils.jrc.ec.europa.eu/Esdb_Archive/eusoiils_docs/other/EUR22902EN.pdf

Flood	1/5/1970	300
Extreme temperature	Dec-01	81
Extreme temperature	27/12/2005	48
Storm	Feb-99	40
Extreme temperature	Jan-08	17
Extreme temperature	Feb-12	16
Flood	9/7/1999	8
Storm	1/2/2003	7
Storm	20/08/2006	5

Table 4: Summarised table of natural disasters in Hungary between 1900 and 2014.

		# of Events	Killed	Total Affected	Damage (000 US\$)
Drought	Drought	3	-	-	984000
	ave. per event		-	-	328000
Earthquake (seismic activity)	Earthquake (ground shaking)	1	-	1800	-
	ave. per event		-	1800	-
Extreme temperature	Cold wave	3	114	500	-
	ave. per event		38	166.7	-
	Extreme winter conditions	1	48	-	-
	ave. per event		48	-	-
	Heat wave	1	500	-	-
	ave. per event		500	-	-
Flood	Unspecified	3	300	200	85000
	ave. per event		100	66.7	28333.3
	General flood	12	10	229883	881400
	ave. per event		0.8	19156.9	73450
Storm	Unspecified	2	9	300	10000
	ave. per event		4.5	150	5000
	Local storm	4	51	14000	-
	ave. per event		12.8	3500	-

In Hungary, there are two any legal instruments that mandate or guide official mapping of flood hazards, namely Act LXXIV of 1999 and Act LVII of 1995. Hungarian authorities produce national

maps for floodplain inundation areas of 1/100 and 1/1000-year frequency. Most of the maps are in paper, and some are digital. National, regional and provincial maps were created in 1977 and have not yet been updated, while the municipal were produced in 1984 and were updated in 2002. Notably, Hungary is among the PECO countries that indicated that flood hazard maps tended to contain detailed information related to flooding potential, particularly on high scale maps.

Flood hazard data collected by Hungary includes:

- Surface water hydrometry – water level, discharge, water quality;
- Ground water hydrometry – depth, discharge, quality;
- Climatology & Meteorology – precipitation, temperature, pressure, solar radiation, evapotranspiration;
- Soil – soil moisture deficit, permeability.

Earthquakes

Statistical studies show that four to five 2.5–3.5 magnitude earthquakes can be expected every year in Hungary, which can be felt near the epicentre, but cause no damage. Earthquakes causing light damages occur every 15–20 years, while stronger, more damaging 5.5–6 magnitude quakes happen about every 40–50 years.⁸ Only one earthquake in 2014 was with a magnitude of >4, thus coded orange.

The Seismological Observatory of the Hungarian Academy of Sciences produces earthquake hazard maps, as well as regular earthquake bulletins.

Risk Maps

For risk mapping purposes, Hungary maintains DTA 50 and DDM 200 maps – with topic layers with information on vulnerabilities, hazard sources, etc. The maps allow searches, operations with coordinates, graphic-based selections.

1.1.1 Policy and Governance

Before the year 2000, the two pillars of the Hungarian disaster management were the firefighting and the civil protection organisations, carrying out disaster response and crisis management tasks. The merger into a National Directorate General for Disaster Management was regulated by the provisions of Act LXXIV of 1999 on the management and organisation of disaster protection and the prevention of major accidents involving hazardous substances. The law was aimed at providing a comprehensive framework for the activities of the central and local authorities, operating at different levels, with tasks and responsibilities in the prevention and control of disasters and in eliminating the consequences thereof.

8 Seismological Observatory of the Hungarian Academy of Sciences, <http://www.seismology.hu/index.php/en/>

However, disasters of the past decade exposed some deficiencies of the crisis management system. Taking these into account, a new Disaster Management Law was adopted, which came into force on 1 January 2012. The Law and related amendments; the Defence Law of 2011; and the government decree on the establishment, organisation and operation of the coordination committee for disaster management currently form the legal basis of Hungary's crisis management.

The acts listed define responsibilities “relatively well.”⁹ The changes of 2011-2012 concern the subordination of municipal firefighting to disaster management authorities, the improvement of the connection between local government and disaster management professionals, stricter control over volunteer firefighter organisations. In addition to that, an enlarged group of industrial plants and dangerous material transport belong under the supervision of disaster management authorities.¹⁰

1.1.2 Strategy scope and focus

1.1.3 Monitoring and analytical support to policy making; R&D

R&D support to policy making is provided within the framework of several EU-funded projects.

SEERISK

The National Directorate General for Disaster Management (NDGDM) of Hungary is the lead partner in a project, called SEERISK, together with 19 project partners (local and regional municipalities, meteorological institutions, disaster management organisations, universities) from Hungary, Austria, Bosnia and Herzegovina, Bulgaria, Croatia, Romania, Serbia, Slovakia and Slovenia. SEERISK is aimed at improving the consistency of risk assessment legislation and practices used by the project partner countries at national and local level, especially in case of disasters intensified and/or triggered by climate change in the Danube macro-region.

The project started in July 2012 and first collected and processed risk-related information from the partner countries. Then, project partners produced a Common Risk Assessment Methodology to help create risk maps taking into account various risk factors. A GIS Best Practices Questionnaire was also developed which aims to look at the geographic information systems software, hardware and human resource penetration in the countries.

DRAVIS

9 Viktoria Takacs and Piotr Matczak, “Country Study: Hungary,” Analysis of Civil Security Systems in Europe, http://anvil-project.net/wp-content/uploads/2013/12/Hungary_v1.0.pdf

10 Ministry of Interior of Hungary, National Directorate General for Disaster Management, 2012, available at: http://www.katasztrofavedelem.hu/letoltes/eng/szervezet/NDGDM_intro.pdf

The National Association of Radio Distress-Signalling and Infocommunications (RSOE) as lead partner, the Somogy County Disaster Management Directorate, the Baranya County Disaster Management Directorate, the Zala County Disaster Management Directorate, Koprivničko-križevačka County and Osječko-Barajska County are involved in a project for enhancement and geographical extension of cross-border joint planning in Hungarian-Croatian disaster management cooperation.

DRAVIS project is implemented in the frame of the „Hungarian-Croatian IPA Cross Border Cooperation Programme 2007-2013,” to improve disaster management in River Drava region. The project provides help for developing GIS and for the implementation of joint exercises for the involved Hungarian and Croatian disaster management organisations. Furthermore a web-interface information exchange system was developed, which can be used to request assistance from neighboring disaster management organisations in case of emergency.

INCA

In the period 2011-2013 Hungary's meteorological service OMS and the Somogy County Disaster Management Directorate were part of the INCA-CE (INCA Central Europe - Integrated nowcasting system for the Central European area, <http://www.inca-ce.eu/index.php>) project, aimed at creating a common tool that allows more precise weather warnings; a transnational web-based dissemination system conveying the weather information and warnings to authorities and the public; a more efficient interface between warning data providers (weather services) and their applications and users. The project also evaluated strengths and weaknesses of current methods in natural disaster warning and risk prevention by making it easier for both public and private users to incorporate meteorological risk assessments into their planning. Project partners were from Austria, Czech Republic, Germany, Hungary, Slovakia, Poland, Italy and Slovenia.

1.1.4 Policy for Prevention

The NDGDM operates an Industrial Safety Information System which collects and stores detailed data on more than 730 dangerous plants. The system includes “data about license requests, safety analysis and safety reports, external emergency plans and other public information submitted by operators of dangerous plants.” The system contains all the information required for carrying out regular inspections and prevention tasks.

According to their activity, the plants subject to the Disaster Management Law are divided into the following categories: gas industry (87); storage of fertilizers (56); oil industry (44); power- and heating plants (31); deposits and logistics centres (63); general chemical industry (51); manufacture of medicines (13); manufacture and storage of plant-health products (48); explosives and ammunition; pyrotechnics (15); plastics industry (35); dangerous waste (23); produce and consumption of biofuel (9), food industry (95), building industry (19), agriculture (90), heavy industry (35), waterworks, bath, swimming pool (28) and other dangerous plants (27).

The NDGDM of Hungary registers and analyses the emergency incidents involving dangerous substances and major accidents occurring in Hungary, and in accordance with the provisions of the

Seveso II Directive forwards report to the MARS (Major Accident Reporting System), renamed eMARS (<https://emars.jrc.ec.europa.eu/?id=4>).

1.1.5 Policy for Preparedness

Preparedness in Hungary's crisis management system relies on early warning systems with outreach to communities, namely:

Territorial information Centre (TIC)

TIC operates a database and a GIS system in order to manage emergencies, supporting the interventions of the municipal fire brigades. In addition to that, in the Baranya County, an sms notification system was established to alert all mayors in the county at the same time, in case of emergency. Public media have also been included in order to immediately inform the population by issuing public notices in case of emergency.

Monitoring and Public Alarm System (MoLaRi)

In order to reduce risks related to disasters, in 2006 Hungarian authorities launched the MoLaRi project as a human-centred early warning system for prevention and rapid emergency response. The project focuses on major industrial accidents in the surroundings of hazardous industrial plants, where operational accidents would endanger the inhabitants.¹¹ In the period 2006-2013, 80 chemical and meteorological, 280 chemical monitoring stations and 565 alarms have been set up around 20 hazardous industrial plants in 9 counties in order to ensure public awareness. The system carries out continuous monitoring and measuring in the surroundings of hazardous industrial plants perceiving the concentration of poisonous and explodable gases. The data is forwarded automatically via a national centre to the 24 / 7 duty services of the disaster management directorates and relevant local fire-brigades. In case a critical level is reached, the system launches electronic alarming and information mechanisms to inform the population immediately. MoLaRi was set to TETRA standard in 2010.

Early warning system for the prevention of nuclear accidents

The system is operational since 2009 and its main activities include early warning of the whole country in case of nuclear accidents, international radiological monitoring and data exchange. There is continuous contact with national and neighboring countries' radiological data exchange centres. The system includes Radiological Telemetry Stations and their IT background.

Storm-signal systems at the lakes Balaton and Velencei (BVR) and Information and Emergency Response Systems at Lake Balaton, Tizsa River (TISR) and Danube River (DISR) are also in operation.¹²

¹¹ Hungary: National Progress Report on the Implementation of the Hyogo Framework for Action (2009-2011) – Interim, available at http://www.preventionweb.net/files/31275_hun_NationalHFAProgress_2011-13.pdf

¹² Hungary: National Report 2009-2011 of Hungary on the Progress on the Implementation of the Hyogo Framework for Action, available at http://www.preventionweb.net/files/27580_hyogo20082011tiszta.pdf

1.1.6 Policy for Response

The national emergency number for fire-fighting (105) has been linked to the regional Operations Management Duty Services, where experienced fire fighters receive the calls and alert manpower and assets, according to the type of the incident. They direct them to the site in the shortest possible time, taking into consideration technical and economical requirements.

1.1.7 Policy for Relief and Recovery

1.2 Financing

1.2.1 Investing in preparedness

1.2.2 Investing in consequence management

The Hungarian government operates a vis major fund (i.e. money allocated from the central budget) that is activated upon a government decision. After the red sludge spill in 2010, the Government covered the affected municipalities' extra expenditures and the cost of the reconstruction of municipal properties with money from the fund. Thus Devecser received a grant of over HUF 1,6 bln., Kolontar – of almost HUF 50 mln., Somlovasarhely – of over HUF 270 mln. and Tuskevar – of HUF 242 000. The three former municipalities also received subsidies amounting to a total of HUF 503.707 mln.¹³

In addition to that, a government decision of 04 November 2010 on the mitigation of damages of the spill, on financing the reconstruction and rehabilitation and on the mitigation of further damages to non-residential buildings was adopted, classifying the area designated for construction as an investment area with the intention to build new houses to replace the destroyed ones.

A total of 120 new houses were built in Devecser and Kolontar. Besides that, 127 used properties were purchased for over HUF 1.2 bln., while 117 victims of the disaster received cash compensations. The government also covered so-called “green damage” (livestock, gardens, unharvested crops, etc.), damage caused to clothing and food deposits, motor vehicles, furniture amounting to over HUF 320 mln.

According to experts, the private insurance option is unpopular among many people who prefer the solidarity of national compensation.

¹³ National Directorate General for Disaster Management, Red Sludge – Hungary 2010

International aid

Created as a reaction to the heavy floods in Central Europe in the summer of 2002, European Union's Solidarity Fund is aimed at responding to major natural disasters and express Europe's solidarity to region suffering the consequences of disasters. Since then, it has been activated on 60 occasions, including floods, forest fires, earthquakes, storms and drought in 23 European countries. As of September 2014, the Fund has provided funding of over Euro 3.6 bln. Hungary has received a total of EUR 37.6 mln of aid for the floods in April 2006 and in May 2010.

Figure 3 . EU Solidarity Fund Activations.

	April 2006	Floods	major	519	15.1	37.6
	May 2010	Floods	major	719	22.5	

Another source of funding, supporting Hungary's efforts for disaster recovery is the Disaster Relief Emergency Fund (DREF) of the International Federation of Red Cross and Red Crescent (IFRC).

Recently, in March 2013 CHF 178,068 was allocated from DREF to support the Hungarian Red Cross Society with the replenishment of their own emergency stocks, already distributed to some 15,000 beneficiaries after unexpected and belated severe winter weather in March paralysed almost half of Hungary for several days.¹⁴

Back in the 2001-2002 Hungary received CHF 50 000 from the DREF after an appeal related to heavy floods resulting in a record-rise of the levels of river Tisza and its tributaries rose. In addition to that, Hungary received CHF 165,752.47 (in cash) and CHF 215.859 (in kind).¹⁵

Over the last years several governments (Austria, Czech Republic, Germany, Slovakia, Switzerland) have also provided support (cash or in-kind), based on bilateral agreements with Hungary for managing the consequences of various disasters.¹⁶

1.3 Policy review, Evaluation & Organisational Learning

1.3.1 Post-Disaster Assessment

In the last years, post-disaster assessment has been high on the agenda of Hungary's Commissioner for Fundamental Rights (i.e. the Hungarian Ombudsman). After the red sludge spill in October 2010,

14 DREF Operation Update, Hungary: Extreme winter conditions (2013), <http://reliefweb.int/sites/reliefweb.int/files/resources/Extreme%20winter%20conditions%20-%20DREF%20operation%20no%20MDRHU001%20Update%20no%201.pdf>

15 DREF Operation Update, Hungary, Romania, Ukraine: Floods (2003), <http://reliefweb.int/sites/reliefweb.int/files/resources/1054ED87F4BA87BD85256CAA0066E519-ifrc-hun-08jan.pdf>

16 Author's processing of information by UNOCHA (<http://fts.unocha.org/>).

the Commissioner launched a complex assessment of the state's tasks related to disaster management and an examination from a fundamental rights protection perspective the cooperation of state organs in the event of disasters.

The findings of the examination were included in the Annual Report of the institution of 2011. In the Report, the Commissioner recommended that the relevant legal base needed revision, pointing out that "legislation relating to the prevention and management of disasters should, as far as possible, be unified, simplified and their number should be reduced."¹⁷

Further, the report noted in disaster management regulations "one should as far as possible avoid a parallel regulation of identical subjects or regulations relating to the same subject which are different or contrary to each other." The report indicated that a very complex management mechanism was in place, regulated by a multitude of acts. Further, the report called for "regular and real training" for the mayors and their specialised staff in order to be able to perform their tasks in full.

The report also went back to the deaths resulting from the severe storms (case discussed in detail below, in section 4.1) in August 2006 and stressed that in case of a disaster "informing the public was and is a legal obligation of the disaster management organs, therefore such information must be given in a professional way and using such terminology which is in line with the terminology used in weather reports. Citizens can only adequately cooperate in the prevention and management of situations of danger or of disasters if they are aware of the given threat. For this purpose we need appropriate information material which gives comprehensible information to the public."¹⁸

1.3.2 Departmental Lessons Learned systems

1.3.3 Centralised (national) Lessons Learned system

1.3.4 International exchange for Lessons Learned

¹⁷ Report on the Activities of the Parliamentary Commissioner for Civil Rights in the Year 2011, available at http://www.ajbh.hu/en/web/ajbh-en/annual-reports-archiv#_48_INSTANCE_zBJ6X6dsEcyu_=http%3A%2F%2Fwww.ajbh.hu%2Fstatic%2Fbeszamolok_en%2F%3F

¹⁸ Report on the Activities of the Parliamentary Commissioner for Civil Rights in the Year 2011, available at http://www.ajbh.hu/en/web/ajbh-en/annual-reports-archiv#_48_INSTANCE_zBJ6X6dsEcyu_=http%3A%2F%2Fwww.ajbh.hu%2Fstatic%2Fbeszamolok_en%2F%3F

1.3.5 Regular policy reviews

Within the framework of or with the support of international organisations (UN, EU) studies and reports have been produced on aspects of the Hungarian disaster management policy, organisation and practice. Two examples are listed below:

The ANVIL project, funded by FP7, provided an assessment of the Hungarian crisis management capacity from the point of view of 'civil security', focusing on three criteria: legitimacy, effectiveness, and efficiency. The project has produced 'key findings' but did not draw policy recommendations.

For their part, the national progress reports on the implementation of the Hyogo Framework for Action (HFA) contain self-declared strategic goals, to be achieved over a two-year period, and a self-assessment on the progress made over the two years, preceding the moment of reporting.

1.4 Resilience

Hungary has set three strategic goals in the context of the implementation of the Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters:

- The more effective integration of disaster risk considerations into sustainable development policies, planning and programming at all levels, with a special emphasis on disaster prevention, mitigation, preparedness and vulnerability reduction.
- The development and strengthening of institutions, mechanisms and capacities at all levels, in particular at the community level, that can systematically contribute to building resilience to hazards.
- The systematic incorporation of risk reduction approaches into the design and implementation of emergency preparedness, response and recovery programmes in the reconstruction of affected communities.

1.5 Information sharing and data protection

2 Legislation

2.1 Crisis (emergency, disaster) management concept

The “Security threats and challenges for Hungary and their management” part of the Hungarian National Security Strategy says in art. 33 that “due to its geographical characteristics, Hungary is particularly exposed to the effects of environmental and civilisation hazards emanating from the countries bordering the Carpathian Basin, to floods and water and air pollution. The environmental sources of danger also have an indirect effect on the health of the population.”¹⁹ Art. 34 notes that “Uncontrollable processes in certain industrial, biological, chemical and especially nuclear facilities may jeopardise or cause damage to the health of masses of people, as well as to the environment, the security of life or property. Further risks are posed by the transportation of hazardous goods by land and rail, on waterways, in the air or through pipelines.”

As regards the ways and means to implement the strategy in its part concerning crisis management, art. 50 says: “Hungary must increase capabilities at its disposal with a view to allowing the operation of a complex prevention system ensuring a quick, effective and well-organised response to natural or industrial disasters in order to protect the life and essential property of the population, and to minimise consequences. Special attention must be paid so that such a response interferes as little as possible in the life of the population and the activities of the productive units in the course of reacting to events. To this end, organisations concerned need to be in possession of tools required for command, control and implementation, both domestically and internationally. In line with international processes and requirements, special attention must be paid also to the usability of internal crisis management capabilities abroad, and to the optimisation of capability development on site.”

2.2 General crisis (emergency, disaster) management law

The general act regulating the field of disaster management was adopted by the Hungarian Parliament in September 2011, entering into force on January 1st, 2012. The disaster management law stipulates the tasks of various ministries and the composition of the Disaster Management Governmental Coordination Committee (DMGCC), i.e. the state level of Hungary's disaster management system. The Act further defines the role of the county and local protection committees, operating at the regional and local level, respectively. The professional disaster management authorities operate under the supervision of the Minister of Interior. These include the National Directorate General for Disaster Management, county directorates for disaster management, local branches and disaster management posts.

In practice, the Act and Hungary's Fundamental Law (relevant provisions are discussed below) updated the rules pertaining to prevention and preparedness, enabling “effective extraordinary

¹⁹ Hungary's National Security Strategy, available at <http://2010-2014.kormany.hu/download/4/32/b0000/National%20Security%20Strategy.pdf>

measures in case of disasters and emergencies and establishing a uniform disaster management system.”

2.3 Emergency rule

In terms of emergency rule, the Hungarian Fundamental Law²⁰ of 2011 distinguishes between four extraordinary states of legal order – of national crisis, of emergency, of preventive defence, and of danger.

According to the Fundamental Law, the Parliament declares a state of national crisis and establishes the National Defence Council in the event of a state of war or an imminent danger of armed attack by a foreign power. The state of emergency is declared “in the event of armed acts aimed at the overturning of the constitutional order or at the exclusive acquisition of power, and of serious mass acts of violence threatening life and property, committed with arms or in an armed manner.” State of preventive defence is activated “in the event of a danger of external armed attack or in order to meet an obligation arising from an alliance.” The state of danger is declared by the Government in the event of “any natural disaster or industrial accident endangering life or property, or to mitigate the consequences.”

2.4 Specific, department/agency-level legal arrangements and regulations on emergency and disaster management

A list of legal acts that pertain to the roles of agencies and departments in disaster management:

- Act XXXI of 1996 on the protection against fire and technical rescue work and the fire service
- Act CXVI. of 1996 on the peaceful use of nuclear energy
- Act CV of 2004 on the Hungarian Defence Forces and National Defence²¹

2.5 Specific to the regional and local authorities legal arrangements and regulations on emergency and disaster management

²⁰ The Fundamental Law of Hungary, available at <http://www.kormany.hu/download/e/02/00000/The%20New%20Fundamental%20Law%20of%20Hungary.pdf>

²¹ A comprehensive list in Hungarian is available at: http://www.katasztrofavedelem.hu/index2.php?pageid=hatosagi_kozerdeku

2.6 Legal regulations on the involvement of volunteers and specialised NGOs

2.7 Legal regulations for international engagements of first responders and crisis managers

Hungary (through NDGDM) maintains bilateral relations with 17 countries (Austria, Azerbaijan, the Czech Republic, Greece, Croatia, Poland, Latvia, Lithuania, Macedonia, Germany, Russia, Romania, Serbia, Slovakia, Slovenia, Turkey, Ukraine and Mongolia) based on government agreements for disaster management.

The organisation puts special emphasis on enhancing cooperation with neighbouring countries and on the development of operational work. A framework agreement with each of Hungary's seven neighbouring countries for cooperation in disaster management is in place. Close cooperation is based on the fact that there are cross-border disasters, eradication of these joint efforts of the countries concerned in that we need. This is true for prevention activities, as well as disaster relief.

Within the framework of the Central European Initiative, in 1996 Hungary was among the parties signed Cooperation Agreement²² on the Forecast, Prevention and Mitigation of Natural and Technological Disasters, together with five more countries, aimed at:

- exchange of scientific and technical information and relevant data on a regular basis;
- implementation of common research programmes;
- training of experts in the field of forecast, prevention and relief, in order to set up common programmes on Civil Protection and Disaster Management

Several EU documents and pieces of legislation apply to crisis management at EU and member state level.

- Treaty establishing a Constitution for Europe;
- COM (2010) 673: Objective 5: Increase Europe's resilience to crises and disasters - Action 2: An allhazards approach to threat and risk assessment
- Directive 2007/60/WE of the European Parliament and of the Council of 23 October 2007 on the assessment and management of flood risk;
- Council Directive 2008/114/EC of 8 December 2008 on the identification and designation of European critical infrastructures and the assessment of the need to improve their protection;
- Council Directive 82/501/EEC of 24 June 1982 on the major-accident hazards of certain industrial activities (Seveso);
- Council Directive 96/82/EC of 9 December 1996 on the control of major accident hazards (Seveso II);

²² Available at http://www.biicl.org/files/4299_cei_cooperation_agreement.pdf

- Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy

It is also a signatory of the Convention on the Transboundary Effects of Industrial Accidents.

3 Organisation

3.1 Organisational chart

The National Directorate General for Disaster Management (NDGDM) within the Ministry of Interior is the national authority for disaster management.

As of 1 January 2012 a new organisational structure of the NDGDM was introduced,²³ which has been built on three pillars: civil protection, fire protection and industrial safety, with the National Inspectorate General of Fire Services, the National Inspectorate General of Civil Protection and the National Inspectorate General of Industrial Safety constructing the backbone of the NDGDM.

The main tasks of the National Inspectorate General of Fire Services include prevention activities, firefighting, coordination of tasks related to firefighting and technical rescue activities during emergencies and disasters; providing guidance for unified implementation of activities related to fire protection; etc.

The National Inspectorate General of Fire Services carries out the tasks pertaining to the field of fire protection in cooperation with the citizens, partner organizations, business and voluntary organisations and, last but not least, with industrial and local governmental fire brigades and fire associations.

The activities of the National Inspectorate General for Industrial Safety, which is responsible for tasks related to industrial safety, include four main functions: the supervision of hazardous plants, the control of the transportation of dangerous goods, the protection of critical infrastructures, and averting nuclear accidents.

The NDGDM has 20 county directorates (for the 19 counties and for the capital, Budapest), namely:

1. Baranya County Directorate for Disaster Management
2. Bács Kiskun County Directorate for Disaster Management
3. Békés County Directorate for Disaster Management
4. Borsod Abaúj Zemplén County Directorate for Disaster Management
5. Csongrád County Directorate for Disaster Management
6. Fejér County Directorate for Disaster Management
7. Győr Moson Sopron County Directorate for Disaster Management
8. Hajdú Bihar County Directorate for Disaster Management
9. Heves County Directorate for Disaster Management

23 Ministry of Interior of Hungary, National Directorate General for Disaster Management, 2012, available at: http://www.katasztrofavedelem.hu/letoltes/eng/szervezet/NDGDM_intro.pdf

10. Jász-Nagykun-Szolnok County Directorate for Disaster Management
11. Directorate for Disaster Management of the Capital
12. Komárom–Esztergom County Directorate for Disaster Management
13. Nógrád County Directorate for Disaster Management
14. Pest County Directorate for Disaster Management
15. Somogy County Directorate for Disaster Management
16. Szabolcs-Szatmár-Bereg County Directorate for Disaster Management
17. Tolna County Directorate for Disaster Management
18. Vas County Directorate for Disaster Management
19. Veszprém County Directorate for Disaster Management
20. Zala County Directorate for Disaster Management

The operational disaster management structures at the county level include²⁴:

- 65 Branch Offices for Disaster Management;
 - 46 Disaster Management Offices;
 - 65 Disaster Management Guards;
- 105 Professional Fire Departments;
 - 60 Local Government Fire Brigades;
 - 72 Industrial Fire Brigades;
 - 564 Volunteer Fire Associations.

As regards civil protection units, there are 47 central civil protection organisations with 452 of personnel subordinated to the NDGDM. According to information as of 2012, the non-professional, volunteer and obliged civil protection organisations include civil protection organisations of settlements (20609) and civil protection organisations at the workplace (1011).²⁵

An important part of the Hungarian crisis management system is the professional rescue team with specialised equipment that has been established under the auspices of the NDGDM, called HUNOR (Hungarian National Organisation for Rescue Services), which can also operate abroad, when needed. HUNOR is tasked with the search for and rescue of victims trapped under ruins, and with the provision of first aid, if necessary. In areas affected by earthquakes its tasks include technical rescue, removing victims and ensuring their chances for survival. All of the professional firefighters who have applied for the rescue service have several years' experience in technical rescue and four or five special qualifications.

²⁴ Website of the National Directorate General for Disaster Management, in Hungarian, http://www.katasztrofavedelem.hu/index2.php?pageid=szervezet_szervezeti_abra

²⁵ Ministry of Interior of Hungary, National Directorate General for Disaster Management, http://www.katasztrofavedelem.hu/letoltes/eng/szervezet/NDGDM_intro.pdf

In addition, the HUSZOR medium urban search and rescue team has been created with the involvement of voluntary rescue services with national qualifications and of the local organisations of civil protection.

The two teams were certified as meeting the respective UN INSARAG Guidelines in 2012 on the basis of a 36-hrs field exercise.

Disaster Management Governmental Coordination Committee

The Disaster Management Governmental Coordination Committee (DMGCC) is an inter-agency coordination body ensuring consistency between sectors. Its chair is the Prime Minister of Hungary, while its members are the relevant ministers. The meetings are attended by the directors of the law enforcement agencies, the Chief of the Defence Staff and the heads of relevant national authorities. DMGCC is the Government's decision support organisation. The DMGCC operates the National Emergency Management Centre, which coordinates operational tasks, collects the necessary information, evaluates and analyses them together with leadership of the professional disaster management body, involving experts from the ministries.

Protection committees

At county and local level, protection committees are in charge of decision making for crisis preparedness and response. Protection committees are under central coordination; the members are stakeholders (local authorities, representatives of disaster management bodies, etc). As of 1 January 2012, the county protection committees are chaired by the county government commissioner, while one of their vice-chairs is the county disaster management director, while the other is a representative of the Ministry of Defence. The chairs of the local (municipal) protection committees are the heads of the government's district offices.

Table 5: Levels of Hungarian Crisis Management System

	State Level	County Level	Local Level
Coordination	Disaster Management Governmental Coordination Committee	County Protection Committee	Municipal Protection Committee
Management	DGDM	County Directorate of NDGDM	
Operational element		Professional Fire Departments	Municipal Fire Departments

Disaster Response Platform

Another consequence of the reorganisation of the Hungarian crisis management system was the establishment of Hungarian National Platform for Disaster Reduction in 2001. The Hungarian platform is now working under the NDGDM and is presided by the Director General of NDGDM. The members of the platform include:

1. Government organisations: ministries
2. Non-governmental organizations
2. Scientific institutions
3. Media
4. Private sector organisations
5. Private companies

The aim of the platform, comprising over 30 members who meet once a year, is to discuss their contribution and efforts taken in the field and to come up with new ideas to reduce disaster risks. NDGDM updates the platform members' on the current international DRR themes and upcoming events. Additionally, certain members of the platform also belong to the governmental coordination committee described above and the Humanitarian Assistance Coordination working group of the Ministry of Foreign Affairs.

3.2 Organisational cooperation

NDGDM is actively engaged in international activities within EU, NATO and UN.

NDGDM represents Hungary in the Civil Protection Workgroup of the Council (PROCIV) and other relevant task forces, and acts as the official national contact point for the Emergency Response Coordination Centre (previously EU Monitoring and Information Centre (MIC) – the body responsible for tasks related to providing and requesting international assistance.

In Hungary NDGDM also coordinates civil emergency planning (CEP) activities, and participates in the meetings of the NATO Civil Emergency Planning Committee (CEPC) and in the work of the Civil Protection Group (CPG). Furthermore, the NDGDM is the national contact point for NATO's Euro-Atlantic Disaster Response Coordination Centre (EADRCC).

NDGDM serves as the national contact point for the UN OCHA.

Last but not least, the NDGDM is involved in formats such as the Disaster Preparedness and Prevention Initiative for South-Eastern Europe (DPPI SEE); the disaster management cooperation in V4; the International Association of Fire and Rescue Services (CTIF); and the Federation of the European Union Fire Officer Associations (FEU).

4 Procedures

4.1 Standing Operating Procedures (SOPs) and Guidelines

The Red Sludge Accident

Hungary's most severe test to disaster response procedures was an industrial accident that occurred on 4 October 2010, when a corner of the dam of one of the reservoirs collapsed on site at the Ajka Alumina plant (operated by Hungary's MAL). As a result, almost one million cubic meters of red sludge and alkaline water were freed and flooded the lower parts of the settlements of Kolontar, Devecser and Somlovasarhely. Ten people were killed during and after the sludge flow, almost 300 persons were hospitalised. The total number of people affected by the accident was over 700. More than a thousand hectares of arable land were contaminated.

A waste product of alumina (form of aluminium oxide) production, the red sludge was measured to have a very high pH (11-14), which was responsible for severe chemical burns to humans and animals and killing specimens in the rivers and in the contaminated soils.

After several alerts by the local population the police alarmed the Ajka Professional Fire Brigade. Two trucks and nine fire fighters were sent on site. After due reconnaissance was carried, the chief fire officer alerted the rest of the personnel. In the first phase of the reconnaissance, the fire-fighters had no information on the composition of the red material, which resulted in 17 rescuers, fire-fighters, policemen, soldiers receiving burns and respiratory damages. As the regular fire-fighting equipment was not suitable to cope with such an incident, the rescuers had to use civilian earthmoving machines, bulldozers. At a later stage, all fire and rescue forces available in the county, including volunteer fire brigades, fire-fighting associations, special rescuers, joined their efforts to rescue the population in Kolontar (60 persons) and Devecser (over 700 persons).

Acting on basis of the Constitution and the Act on Civil Protection of 1996, the Hungarian Government declared emergency for three counties – Veszprem, Gyor-Moson-Sopron and Vas, effective as of 1500 hrs, 06 October 2010. An Onsite Operational Staff was established to manage the process of mitigating the consequences of the accident, involving civil protection, fire fighting, police, and military units, and volunteers.

Onsite tasks focused on the cleanup of built-in areas, decontamination of outer areas, and on the elimination of damage to living waters.

The Police organised checkpoints to regulate the traffic. On 9 October partial evacuation was ordered for the Kolontar (40 people) and Devecser (500 people). Lodging was provided to affected people, staying at the settlements, by the municipalities and charity organizations provided lodging.

On 6 October the following services and equipment were on site at Kolontar and Devecser.

Service	Staff	Equipment
Fire Service	84	12 vehicles
4 Emergency Detection Teams (EDT)	12 persons	
Police	103	22 vehicles
Military	174	39 vehicles
Civil Protection	29	20 vehicles
Civilians	149	43 machines
National Medical Service	5	2 vehicles
MAL	50	
Total	606 persons	142 units of equipment.

By 20 October the number of people and equipment involved in mitigation activities reached 1,125 and 292, respectively. In November, a total of 8,535 persons and 4,881 units of equipment took part in the relief and recovery efforts, with an average of 400 to 500 persons and 70 units of equipment involved on a daily basis.

In the meantime, NDGDM issued daily reports to EU Member States through the EU Monitoring and Information Centre. Additionally, the NDGDM requested, through EU MIC, experts with relevant experience to consult the process of mitigating the environmental damage. On 9 October the EU MIC sent a liaison officer to Hungary and on 11 October, a five-member team consisting of Belgian, German, Swedish, French and Austrian expert arrived onsite. A Swiss environmental expert from the UN Environment Program, exchanging information with the team, and experts from UN World Health Organisation, making assessments in Devecser, concerning the health status of the population, were also involved in the recovery phase.

After the end of its mission, the EU team issued both short- and long-term recommendations. On 18 October European Commissioner for International Cooperation, Humanitarian Aid and Crisis Response, Kristalina Georgieva also visited the site.

On 4 November a Governmental Coordination Centre for Reconstruction (GCCR) was established from the professional disaster management personnel. The GCCR managed the decontamination, rehabilitation and reconstruction tasks. The state of emergency was lifted and the GCCR disbanded on 1 July 2011.

Storms in Budapest

A severe hit Budapest on 20 August 2006, causing havoc during the celebrations of the National Holiday. Around 1.2 million citizens attending fireworks display were hit by storm and hail shortly after the display started at 21:00 local time. Torrential rain and winds of over 120 km/h tore down

trees, smashed cars and windows and ripped tiles off rooftops. Five people died and hundreds were injured as a result of the storm.

The Hungarian Meteorological Service (OMSZ) had issued the forecast about the storm on its publicly available web-based warning system, with a red code. Additionally, on the day of the tragical event the service had sent several warnings to the disaster management authorities²⁶. The main reasons for the tragic event to happen, as concluded by an inquiry of the Commissioner for Fundamental Rights, were serious legal deficiencies pertaining to the communication among the responsible parties and the responsibility for taking preventive measures.²⁷

In its report, the Commissioner asked “asked the Minister heading the Office of the Prime Minister, the Minister of Local Government and Regional Development and the Minister of Justice and Law Enforcement to make the necessary arrangements to redress the disclosed improprieties” and issued several recommendations:

- for a legal regulation of the OMSZ,
- for reconsideration by the Assembly of Budapest Capital of the rules defining the tasks and operation of the Budapest protection committee
- for issuing by the Minister of Local Government and Regional Development of a ministerial decree on detailed rules of the national disaster management regulations.²⁸

In practical terms, the following changes have been made in the Hungarian crisis management system:

- As of October 2006, the OMSZ has been a member of the operational staff, responsible for organising national celebrations, so the staff receive first-hand meteorological information. Since 20 August 2006 the meteorological support is a compulsory part of the management plan for every state-organised event;
- For its part, the OMSZ refined the criteria for issuing warnings, in order to avoid confusion. Code “red” is now only issued in the case of the most dangerous, rarely occurring weather events. The web-based system of the service was updated, and an alarm page has been established, accessible to everyone from the front page of met.hu (<http://www.met.hu/idojaras/veszelyjelzes/riasztas/index.php>).²⁹

²⁶ Marta Sallai, “The Tragical Story of the August 20,2006,” Website of the World Meteorological Organization, <https://www.wmo.int/pages/prog/drr/events/Pula/Presentations/MHEWSHungary.pdf>

²⁷ Annual Report on the Activities of the Parliamentary Commissioner and the Deputy Commissioner for Civil Rights in 2006, http://www.ajbh.hu/en/web/ajbh-en/annual-reports-archiv#_48_INSTANCE_zBJ6X6dsEcyu_=http%3A%2F%2Fwww.ajbh.hu%2Fstatic%2Fbeszamolok_en%2F%3F

²⁸ Annual Report on the Activities of the Parliamentary Commissioner and the Deputy Commissioner for Civil Rights in 2006, http://www.ajbh.hu/en/web/ajbh-en/annual-reports-archiv#_48_INSTANCE_zBJ6X6dsEcyu_=http%3A%2F%2Fwww.ajbh.hu%2Fstatic%2Fbeszamolok_en%2F%3F

²⁹ Marta Sallai, “The Tragical Story of the August 20,2006,” Website of the World Meteorological Organization”

As a result from the improvements, on 20 August 2007, albeit in different weather conditions, a storm of similar intensity hit Budapest during the National Day celebrations. OMSZ had already forecasted the storm in the morning hours. The hundreds of thousands of people who took part in the events (air parade, cultural programs, religious procession etc.) were informed of the weather conditions through screens and loud speakers. As a result of the concerted efforts of the authorities, nobody was hurt during the 2007 storm.

4.2 Operations planning

4.3 Logistics support in crises

4.4 Crisis communication to general public; Alert system; Public Information and Warnings

The “Red Sludge” accident represents an example of how crisis communication is carried out in Hungary.

Before and during the evacuation, the communication with the people from affected settlements was carried through public information materials, including rules of conduct, the contents of the emergency package, notification of disabled persons, rules of self-evacuation, route of evacuation and reception points. A total of five evacuation zones were designated, comprising about 200 residential buildings and one or two streets per zone, between 25 and 65 residential buildings per zone.

In the meantime, due to movement restrictions in the affected areas and the state of emergency, communication was centralised. Furthermore, spokespersons were appointed to help the work of media and guide media representatives to the reservoir, the evacuation sites, etc. in a controlled manner. The Hungarian authorities were extremely cautious when providing information about the disaster for fear of loss of credibility, economic paralysis and potential diplomacy issues with neighbouring countries.

5 Capabilities

5.1 Human resources

Volunteer associations

The Hungarian volunteer law, Act LXXXVIII of 2005³⁰ on voluntary activities in the public interest, defines "volunteer activities with a public aim" as work carried out within a host organisation without compensation. In article 4, the law also specifies that any person with legal capacity above the age of ten can become a volunteer.

According to data by the Hungarian Statistical Office, in 2010 there were nearly 65,000 registered non-profit organisations. Among those, 1.4% declared to have civil protection and fire protection related activity, 3.75% - public safety related activity, while 5,749 were charity organisations.

Since 2012 the involvement of volunteer rescue services in crisis management operations is only possible if the organisations meet certain requirements, which is verified by means of certification exercises. If the volunteer services passed the "exam," they could take part in different type of rescue activities in cooperation with the NDGDM for 5 years.

Private business

Private business is involved in crisis management activities in a number of ways. For example, the training for the fire protection exam is done by private companies. The registration of training organisers and examinations is coordinated by the disaster management directorates at the county level. Also, under the SEVESO directive the industrial plants have an obligation to prepare internal security plans, risk assessments and special reports in case of accidents. Similarly, critical infrastructure security analysis is required. Those activities could be performed by registered experts / companies. Among the members of accredited rescue teams can be private companies with specific expertise.

5.2 Materiel (non-financial) resources

An example for outsourcing some of the logistic activities is the agreement with the association of transportation companies. The Association of Hungarian Forwarding and Logistic Services signed an agreement with NDGDM on outsourcing some logistic tasks for private logistic companies. The agreement contains certain tasks like transportation preparedness, storage of sand bags, and provision of rescue staff for flood protection. As a result, the overall costs of preparedness will be smaller, and the capacity of NDGDM can be used more efficiently.

³⁰ Act LXXXVIII of 2005 on voluntary activities in the public interest
http://www.civil.info.hu/uploaded/documents/onkentes/1212746798vol_act_pub_int_2005_hu.pdf

5.3 Training

Disaster Management Education Centre

Since year 2000, a Disaster Management Education Centre has been operational in Hungary, which focuses on professional training for disaster management, fire and civil protection, and industrial safety outside the school system as defined in the laws on vocational and adult education. This institution is also a national examination centre. The training is supported by taking advantages of opportunities provided by tenders, international relations, professional events and exercises. The staff and the students may be involved in operations in case of major disasters as it happened in case of floods and the red sludge disaster 2010. The Centre provides methodological support for on-site training and for the operation of the newly formed district educational centres.

In addition to that, the Hungarian authorities organise trainings for (high-level) officials, such as: protection committee chairmen, mayors, regional administrative staff, notaries, etc. According to the NDGDM, as of 2012 a total of 3,629 people had undergone training. The regular disaster management trainings for mayors are often linked with civil protection exercises. The trainings for notaries are organised in the framework of the county notary meetings.

Teachers in Hungary are also involved in relevant trainings, aimed at enhancing their awareness of disaster management and at equipping them with adequate information for preparing effectively their students. The programme has two levels – awareness training courses, organised twice a year, where teachers may receive disaster management knowledge, teaching methodology guidelines, and knowledge in related areas such as environment protection, consumer protection, energy security, first aid and panic treatment.; and one-day long trainings in local schools. They latter are carried out by the heads of the local civil protection branches once a year. Between 2003 and 2010, 559 teachers took part in disaster management trainings (305 persons from the capital and 254 persons from the counties). Several educational materials for teachers are available on the homepage of NDGDM.

In addition to that, each year the NDGDM announces the national disaster management youth team-competition for the 10-18- year old members of associations, organizations, clubs. The competitions are organised on local, on regional and national level with the aim to reach out to children and young people.

Institute of Disaster Management of the National University of Public Service

The Institute of Disaster Management of the National University of Public Service, which comprises the Department of Disaster Management Operations, the Department of Fire Protection and Rescue Control, and the Department of Industrial Safety, was established on 1 January 2012. In 2013 the Institute planned to launch an independent BSc programme in disaster management with three specialties - in disaster management operations, fire protection and rescue control, and industrial safety.

EU-funded trainings

Crisis management structures are also involved in EU-funded trainings, such as EU-HUROMEX 2008. The project (from 1 January 2008 to 30 June 2009) included the preparation, implementation and evaluation of a full-scale simulation exercise of civil protection interventions in case of serious flooding and the recovery of damages to the critical infrastructure.

5.4 Procurement

5.4.1 Procurement regulation

In Hungary, new provisions are applicable regarding public procurement as of 1 January 2012, i.e. the Public Procurement Act (PPA).

The law is criticised for reasons related to transparency as art. 9 lists no less than 13 cases in which the procedures laid down in the Act shall not apply, including when the fundamental security and national security interests of the country are concerned, and in the field of defence public supplies, services and works specifically designed for military and public order purposes.

According to art. 4, p. 4 of the Act, “procurement related to fundamental security interests of the country” is any procurement the subject-matter of which is directly linked to public works, public supply and services, which may exercise an influence on the physical, environmental, health, economic, national defence security of the population, including procurement in the benefit of preventing immediate flood damage in times of flooding emergency.

The PPA distinguishes among public procurement reaching EU thresholds (Part II of the Act) and national procedures (Part III of the Act). The latter are applied when public procurement contracts do not exceed EU thresholds and at the same time are equal or above national thresholds.

The “national thresholds” are determined annually by the Budget Act of Hungary and for the current year they are, exclusive of value added tax, as follows:

For the purposes of Part III – except for Chapter XIV (defining special rules for the contract award procedures in the public utility sector) – of the PPA:

- for public supplies and services: HUF 8 million
- for public works: HUF 15 million
- for public works concessions: HUF 100 million
- for service concessions: HUF 25 million

For the purposes of Part III, when applied together with Chapter XIV of the PPA:

- for public supplies: HUF 50 million
- for public works: HUF 100 million
- for public services: HUF 50 million

Also importantly, art. 122, p. 7 of the Act stipulates that the “contracting authority may launch a negotiated procedure without prior publication of a contract notice in the following cases as well: (a) If the estimated value of public supply or services does not reach HUF 25 million (app. EUR 81000, current currency rates on 21 October 2014) or the estimated value of public works does not reach HUF 150 million (app. EUR 488 000).”

Part III, art. 120(h) (h) stipulates an exception of the provisions of Act when the procurement is below EU threshold – “to Article 3(e)(f)(i)(k) of the Act LXXIV of 1999 on the management and organisation for the prevention of disasters and prevention of major accidents involving dangerous substances; as well as, in case of a crisis, emergency or serious situation, to public procurements carried out with the aim of preventing epidemic diseases in animals, directly preventing or avoiding damage caused by serious industrial or traffic accidents or by water, preventing adverse impacts on water quality, as well as for the purposes of protective preparedness or the subsequent reconstruction.”

5.4.2 Procurement procedures

The National Directorate General for Disaster Management is responsible for organising procurement in the field. For example, since 2012 the NDGDM has published at TED contract notices for services, work or supply, including but not limited to:

- digital cadastral maps
- disinfecting and exterminating services in urban or rural areas
- fire engines
- firefighting vehicles
- natural gas
- security services
- security, fire-fighting, police and defence equipment
- site-safety equipment
- software package utilities

5.5 Niche capabilities

Resources

Legislative acts

Act CLXXXIX of 2011 on self-government

Act CXCV of 2013 on amending certain laws to increase the effectiveness of disaster management

Act CXI of 2011 on the Commissioner for Fundamental Rights

Act CXIII of 2011 – the National Defence Act

Act CXXVIII of 2011 on disaster management

Act XXXI of 1996 on fire control and technical rescue and fire

Other normative acts

Government Regulation 290/2011 on the implementation of certain provisions of Act CXIII

Government decree on the establishment, organisation and operation of the Disaster Management Governmental Coordination Committee (1150/2012)

NDGDM Regulation 49/2011 on professional disaster management bodies

NDGDM Regulation 61/2012 on the classification of local disaster management bodies

NDGDM Regulation 62/2011 on the rules for protection against disasters

The Fundamental Law of Hungary

Official documents (white papers, strategies, etc.)

Hungarian National Security Strategy

Online resources (e.g. websites of key CM organizations)

National Directorate General for Disaster Management, Ministry of Interior of Hungary, www.katasztrofavedelem.hu

Ministry of Interior, <http://www.kormany.hu/en/ministry-of-interior/contacts>

Hungarian Civil Protection Association, <http://www.mpvsz.hu/impressum>

Hungarian Red Cross, <http://www.voroskereszt.hu/>

Hungarian Atomic Energy Authority, <http://www.oah.hu>

Hungarian Scout Association, <http://cserkesz.hu/en/contact>

Hungarian Central Statistical Office, <https://www.ksh.hu/>

Seismological Observatory of the Hungarian Academy of Sciences,
<http://www.seismology.hu/index.php/en/>

Commissioner for Fundamental Rights, www.ajbh.hu

Publications

“Strong Europe with a Human Touch.” The Programme of the Hungarian Presidency of the Council of the European Union. Accessed September 23. Available at http://www.eu2011.hu/files/bveu/documents/HU_PRES_STRONG_EUROPE_EN_3.pdf

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Takacs, Viktoria, and Piotr Matczak, “Country study: Hungary.” *Analysis of Civil Security Systems in Europe*. Accessed September 8, 2014.

Expert interviews

Freelance journalist, 03 November 2014





Driving Innovation in Crisis Management for **European Resilience**

IRELAND

Capabilities, Organisations, Policies, and Legislation (COPL) in crisis management and disaster response

Responsible Partner: Q4PR (Michelle Comer, Peter MacDonagh, Martin Mackin)



Scope and limitations

This study serves as supporting information for further work within DRIVER.

Only limited time and budget has been available for this first general survey, which needs to be considered in terms of scope and completeness of the respective studies.

The author/s of this study is/are responsible for its content and quality.

Background & Overview

Background

While Ireland has experienced a number of significant emergencies it has not suffered disasters of the severity and scale witnessed by other EU member states. Its geographic position means it has limited vulnerability to most high-impact natural disasters. Flooding and sustained winter storms are the principal events for which coordinated crisis management procedures have been deployed.

In the national risk assessment procedure the Irish authorities have identified the country's exposure in relation to energy supplies and ICT infrastructure as having particular potential to have severe impact. In the same context, a major disruption of maritime trade has been identified as representing a potential severe crisis.

Ireland organises its crisis management and resilience capabilities through the principles of a national framework, identified principal responders, comprehensive risk assessment and 'all hazards' preparation. It does not have significant specialist crisis management agencies or legislation.

Overview:

- Due to Ireland's relatively small experience of widespread crises the overall policy focus is on developing strong basic emergency services and then ensuring that they are capable of coordinating and upscaling in order to deal with exceptional situations. The priority is to embed key assessment and preparation steps within organisations rather than to develop separate stand-alone organisations or capabilities.
- Ireland has a well-developed system of strategies and coordination for crisis management and disaster response.
- Policy is consolidated in an overall National Framework and supplemented by Standard Operating Procedures for use within agencies and to enable a coordinated response.
- An active approach is taken to risk assessment at both national and local levels.
- The core response strategy is 'all hazards' with principal responders identified for each potential crisis and a coordination system for wider national crises.
- Principal response agencies cooperate and jointly plan at the national, local authority and regional (these being non-statutory) levels.
- Key stakeholders are: the Office of Emergency Planning (based in the Department of Defence), Department of the Environment, Community & Local Government (especially through its National Directorate for Fire and Emergency Management), the Health Service Executive, local authorities (including the fire service), an Garda Síochána (police service), Office of Public Works (flood control), utility companies (all are public sector), military, transport companies and critical infrastructure operators.
- Ireland has a relatively flat government structure, with just 31 local authorities and no statutory regions under the central government. As such, it is in a position to ensure the relatively consistent implementation of agreed strategies at national, regional and local levels.
- Mitigation and preparedness activity is limited. A national climate change policy is in place. Flood mapping is being expanded and made publicly available. This is accompanied by investment in flood prevention measures. Public health authorities run ongoing public awareness campaigns promoting responses which are relevant to major public health hazards.
- The bulk of financing is incorporated within the budgets of principal response agencies and is not separated from funding for ongoing work. As such it is not possible to estimate national financing for the area.
- Ireland has a number of prominent NGOs with extensive experience of humanitarian aid projects.
- The Irish Army and Garda Síochána have 60 years of experience in peace-keeping and related work through the United Nations and OSCE. The Department of Foreign Affairs & Trade and humanitarian aid NGOs are highly active in relief projects.
- There is no specialist crisis management agency and no state of emergency legislation for natural disasters.

1. Ireland has a number of national voluntary emergency service organisations including Civil Defence, the Red Cross, the Order of Malta Ambulance Corps, St. John's Ambulance Service, Mountain Rescue Teams, Cave Rescue Teams, Search and Rescue Dog Associations, River Rescue Units, Community Inshore Rescue Units, Royal National Lifeboat Institution, Sub-Aqua units.

- A range of NGOs supplement state activity particularly in the response and recovery phases.
- The impact of policies is difficult to assess. However, the after-event report on the severe winter storms in the period 2013-14 showed the impact of these storms, particularly in terms of loss of life, being significantly below the levels of two decades previously. The detail of warning and response activity would suggest that much of this improvement is attributable to recent planning and coordination work.

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List of Abbreviations

AAIU	Air Accident Investigation Unit
CCBRN	Conventional Explosive, Chemical, Biological, Radiological or Nuclear
CMT	Crisis Management Team
DEC&LG	Department of the Environment, Community & Local Government
DFA	Department of Foreign Affairs & Trade
DoD	Department of Defence
DoT	Department of the Taoiseach (Prime Minister's Office)
EM	Emergency Management
Framework	A Framework for Major Emergency Management
Gardai	An Gardai Siochana
HSE	Health Service Executive
ICG	Irish Coast Guard
MEDP	Major Emergency Development Programme
NEPNA	National Emergency Plan for Nuclear Accidents
NSG	National Steering Group
NWG	National Working Group
OEP	Office of Emergency Planning, Department of Defence
PDF	Permanent Defence Forces
PES	Principal Emergency Services
PRA	Principal Response Agency
RSG	Regional Steering Group
RWG	Regional Working Group
SAR	Search and Rescue
SOP	Standard Operating Procedure

List of Definitions

All Hazards approach: An approach to major emergencies that recognises the common features of coordinated response and the management of common consequences regardless of the origin of the emergency.

Command: the process of directing the operations of all or part of a particular service or group of services, by giving direct orders

Control: the process of influencing the activity of a service or a group of services, by setting tasks, objectives or targets, but without the authority to give direct orders

Coordinate: to bring the different elements of a complex activity or organisation into an efficient relationship through a negotiated process. In an emergency context this may include a mandate/ authority to make certain decisions in pre-defined areas, where a normal consensual approach does not appear to meet the needs of an emergency situation

Cooperate: to work together towards the same end

Collaborate: to work jointly on an activity

Hazard: Any Phenomenon with the potential to cause harm to members of the community, the environment or to the physical infrastructure, or being potentially damaging to the economic and social infrastructure.

Impact: The consequences of a hazardous event being realised, expressed in terms of a negative impact on human welfare, damage to the environment or the physical infrastructure or other subsequent consequences.

Lead Department: The government ministry or agency identified as leading on a particular hazard.

Major Emergency: is any event which, usually with little or no warning, causes or threatens death or injury, serious disruption of essential services or damage to property, the environment or infrastructure beyond the normal capabilities of the principal emergency services in the area in which the event occurs, and requires the activation of specific additional procedures and the mobilisation of additional resources to ensure the effective, co-ordinated response.

Risk: The combination of the likelihood of a hazardous event and its potential impact.

Risk Assessment: The process by which the hazards facing a particular community are identified and analysed in terms of the threat or risk that they pose.

Risk Management: Mitigation includes all actions taken to eliminate or reduce the risk to people, property and the environment from the hazards which threaten them.

Systems Approach: The systems approach to Major Emergency Management involves a continuous cycle of activity. The principal elements of the five-stage management cycle are; hazard analysis/ risk assessment, mitigation risk management, planning and preparedness, coordinated response, and recovery.

1 Policy

Due to Ireland's relatively small experience of widespread crises the overall policy focus is on developing strong basic emergency services and then ensuring that they are capable of coordinating and upscaling in order to deal with exceptional situations. The priority is to embed key assessment and preparation steps within organisations rather than to develop separate stand-alone organisations or capabilities.

The objectives of emergency management in Ireland are to;

“implement, within a defined framework, measures to identify and mitigate natural and technological hazards; to plan for, to respond to, and to coordinate recovery from major emergencies which threaten persons, infrastructure, the environment and property.”²

Ireland's policy emphasises emergency management rather than developing situation specific emergency plans at National Level. It focuses on supporting regional and local authorities, principal response agencies and local communities to plan, respond and recover to emergencies through a defined framework.

The document entitled "A Framework for Major Emergency Management"³ is in place since 2006 and has been supplemented since, most notably with "A Framework for Major Emergency Management - Appendices"(2008)⁴. The Framework is intended to enable An Garda Síochána, the Health Service Executive and local authorities (the Principal Response Agencies) to prepare for and make a coordinated response to major emergencies resulting from a broad range of events. The Framework mandates each Principal Response Agency to undertake a very specific series of emergency preparedness steps, both internally and in an inter-agency context. It is the foundation block for the development of major emergency plans by the Principal Response Agencies. Structures have been set up at national, regional and local levels to support implementation of the Major Emergency Development Programme (MEDP).



Figure 1: Map of 8 EM Regions

(Source: Framework on Major Emergency Management Appendices, 2008)

² Department of the Environment, Community and Local Government; Available from www.environ.ie

³ National Steering Group on Major Emergency Management; "A Framework for Major Emergency Management", 2006, Available from: www.mem.ie

⁴ National Steering Group on Major Emergency Management; "A Framework for Major Emergency Management, Appendices", 2008, Available from: www.mem.ie

- National: At national level, by Government decision, a National Steering Group (NSG), operates. Under the NSG a National Working Group (NWG) operates to undertake tasks associated with the Programme.
- The NSG is chaired and supported by the Department of Environment, Community and Local Government and consists of representatives of; The Department of the Environment, Heritage and Local Government; The Department of Health and Children; The Department of Justice, Equality and Law Reform; The Department of Defence; The Local Authorities; The Health Service Executive; An Garda Síochána; The Defence Forces.
- Regional: in each of the eight Major Emergency Management regions there is a Regional Steering Group (RSG) on Major Emergency Management. Comprising senior personnel from the Principal Response Agencies within that region. The Framework provides that Regional Working Groups (RWGs) are to support the Regional Steering Groups and to undertake the functions assigned at regional level. As Ireland does not have regional-level government, these regions are administrative and specific to emergency management
- Local/Agency: At Local/Agency level each principal response agency is responsible for undertaking the requirements set out in the Framework. Most agencies are organised at local authority level.

1.1 Risk Assessment

Ireland has a limited experience with dealing with crises on a national scale. The November 2009 floods remain the only example of a crisis reaching a scale where Ireland applied for support from the EU's Solidarity Fund.

Ireland undertakes an ongoing approach to risk assessment at both national and local levels. Ireland also ensures compliance with EU requirements⁶ that Member States develop a national risk management strategy which will support an EU approach to the prevention and management of natural and man-made disasters.

The Framework for Major Emergency Management (2006) details a systematic approach to preparing for and responding to major emergencies including risk assessment. Risk assessment starts with an examination of the potential impact (severity of consequences to life and health, property and infrastructure, and the environment) of the hazards identified. A five-point scale is then used for categorising both impact and likelihood, ranging as shown in Tables 1 & 2. In considering the potential impact of a hazard two factors are taken into account - the type or nature of the impact, and the scale.

⁶ Council Conclusions on a Community framework on disaster prevention within the EU, 2979th JUSTICE and HOME AFFAIRS Council meeting Brussels, 30 November 2009

These are plotted onto a risk matrix and the frequency of each of the hazards is factored into the risk assessment. The intention is to ensure that the focus of major emergency management is on the hazards most likely to occur in an area, that the scale of preparation is in proportion to the risks and that the response to major emergencies builds out of normal response issues, such as resource mobilisation, co-ordination, decision making, etc.

The National Framework sets out a risk assessment procedure aimed at principal response agencies as a basis of major emergency management planning and preparedness strategies;

“Each principal response agency should, in association with its partner response agencies, carry out a risk assessment in accordance with the procedures set down in this section. The initial risk assessment should be reviewed and updated annually, or as circumstances require.”⁷

The risk assessment procedure underpins work in the later stages of the emergency management cycle. The risk assessment process is carried out initially within each principal response agency that focuses on their own procedures and perspectives and feeds this information into an inter-agency team, working under the aegis of the Regional Steering Group on Major Emergency Management.

The outcomes from the Regional process are then incorporated into each principal response agency’s Major Emergency Plan.

The risk assessment comprises four stages as illustrated in Figure 2 which are;

1. Establishing the context
2. Hazard Identification
3. Risk Assessment
4. Recording potential hazards on a risk matrix

The current National risk assessment for Ireland has identified the following as the most likely and the most impactful risks for Ireland:

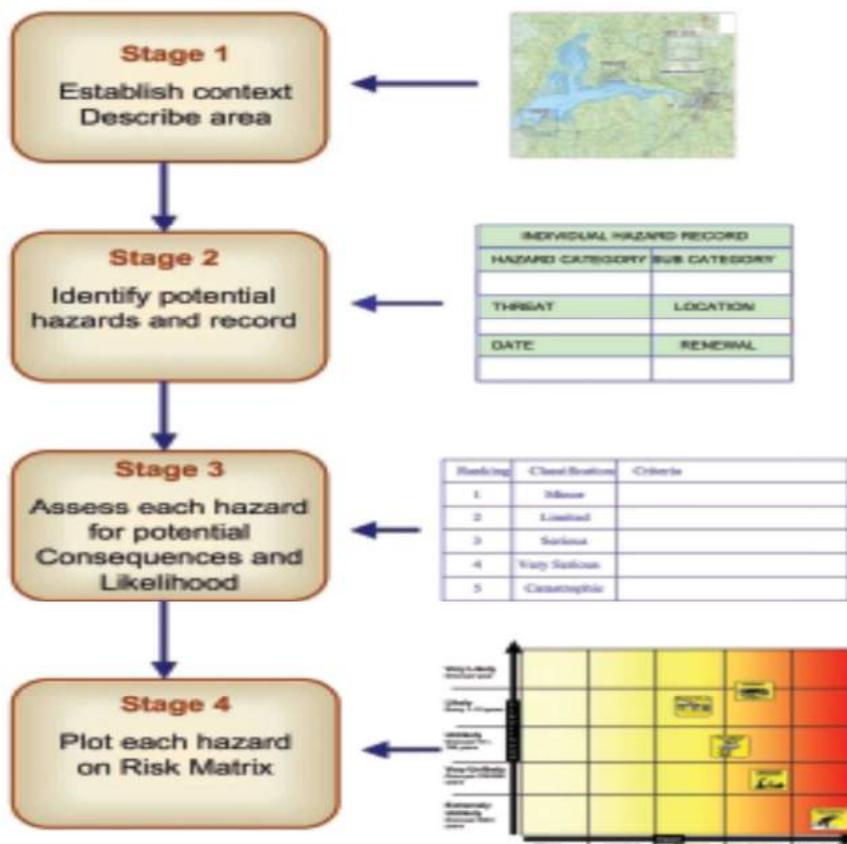
Table 1: Most likely and most impactful hazards

Most Likely	Most Impactful
Low Temperatures	Loss of critical infrastructure
Flooding	Infectious diseases
Radiation (domestic)	Disruption to energy supply

(Source: OEP; *A National Risk Assessment for Ireland*, 2012)

⁷ National Steering Group on Major Emergency Management; “A Framework for Major Emergency Management”, 2006, Available from: www.mem.ie

Figure 2: Schematic Risk assessment Process



(Source: OEP; *A Framework for Major Emergency Management*, 2006)

Table 2: Classification of Likelihood

Ranking	Classification	Likelihood
1	Extremely Unlikely	May occur only in exceptional circumstances; Once every 500 or more years
2	Very Unlikely	Is not expected to occur; and/or no recorded incidents or anecdotal evidence; and/or very few incidents in associated organisations, facilities or communicates; and / or little opportunity, reason or means to occur; May occur once every 100-500 years.
3	Unlikely	May occur at some time; and /or few, infrequent, random recorded incidents or little anecdotal evidence; some incidents in associated or comparable organisations worldwide; some opportunity, reason or means to occur; may occur once per 10-100 years.
4	Likely	Likely to or may occur; regular recorded incidents and strong anecdotal evidence and will probably occur once per 1-10 years
5	Very Likely	Very likely to occur; high level of recorded incidents and/or strong anecdotal evidence. Will probably occur more than once a year.

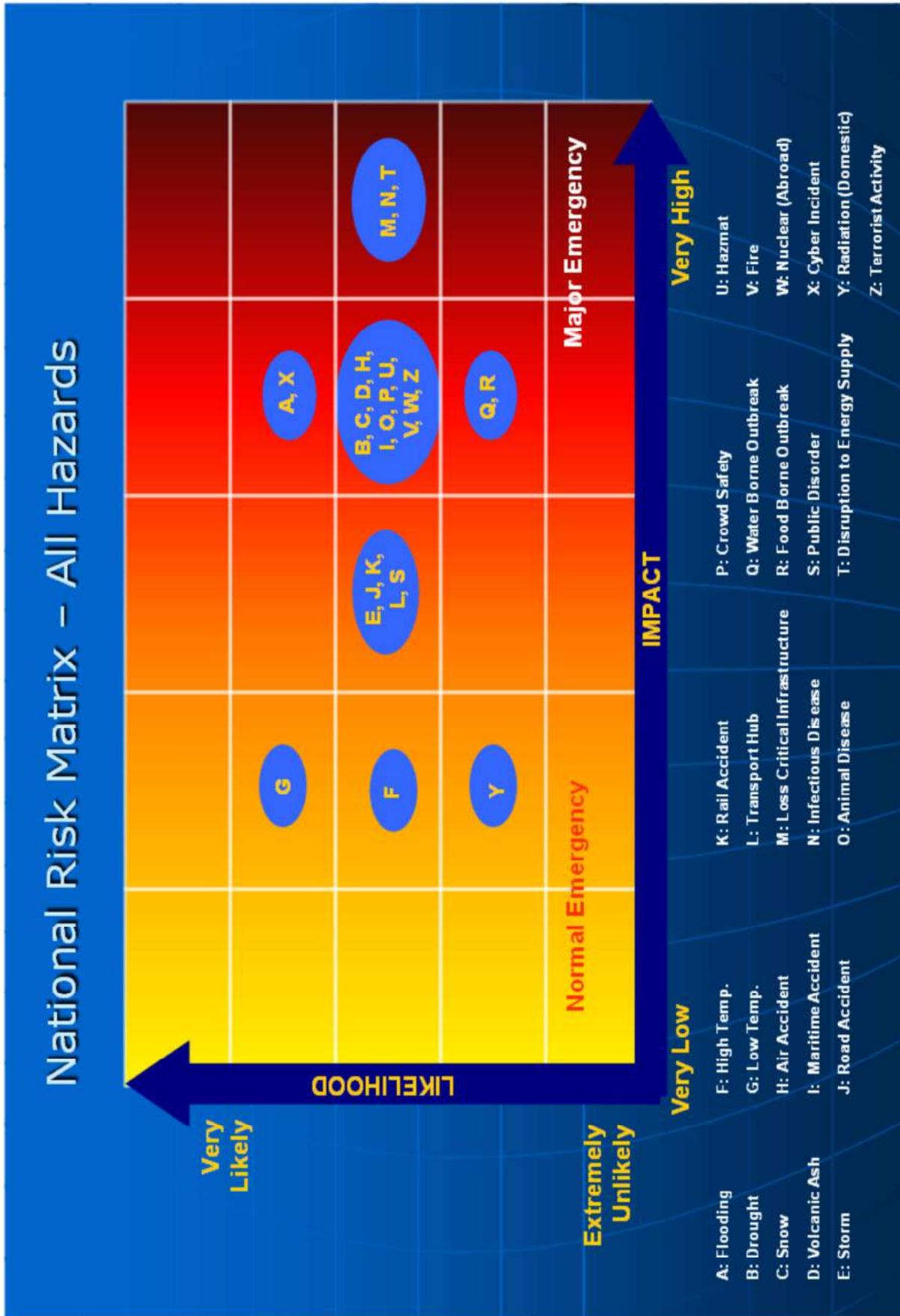
(Source: OEP; *A National Risk Assessment for Ireland*, 2012)

Table 3: Classification of Impact

Ranking	Classification	Impact	Description
1	Minor	Life, Health, Welfare Environment Infrastructure Social	Small number of people affected; no fatalities and small number of minor injuries with first-aid treatment. No contamination, localised effects <0.5M Euros Minor localised disruption to community services or infrastructure (<6 hours).
2	Limited	Life, Health, Welfare Environment Infrastructure Social	Single fatality; limited number of people affected; a few serious injuries with hospitalisation and medical treatment required. Localised displacement of a small number of people for 6-24 hours. Personal support satisfied through local arrangements. Simple contamination, localised effects of short duration 0.5-3M Euros Normal community functioning with some inconvenience.
3	Serious	Life, Health, Welfare Environment Infrastructure Social	Significant number of people in affected area impacted with multiple fatalities (<5), multiple serious or extensive injuries (20), significant hospitalisation. Large number of people displaced for 6-24 hours or possibly beyond; up to 500 evacuated. External resources required for personal support. Simple contamination, widespread effects or extended duration 3-10M Euros Community only partially functioning, some services available.
4	Very Serious	Life, Health, Welfare Environment Infrastructure Social	5 to 50 fatalities, up to 100 serious injuries, up to 2000 evacuated Heavy contamination, localised effects or extended duration 10-25M Euros Community functioning poorly, minimal services available
5	Catastrophic	Life, Health, Welfare Environment Infrastructure Social	Large numbers of people impacted with significant numbers of fatalities (>50), injuries in the hundreds, more than 2000 evacuated. Very heavy contamination, widespread effects of extended duration. >25M Euros Serious damage to infrastructure causing significant disruption to, or loss of, key services for prolonged period. Community unable to function without significant support.

(Source: OEP; *A National Risk Assessment for Ireland*, 2012)

Figure 3: National Risk Matrix



(Source: OEP; A National Risk Assessment for Ireland, 2012)

The risk assessment provides a basis for determining a range of steps at later stages of the emergency management cycle - especially in the Mitigation and the Planning and Preparedness stages. Each principal response agency uses the chosen scenarios as a basis for determining a range of essential response requirements for major emergencies. Response dimensions are qualitative or quantitative statement of the performance required of a system or resource to deliver an appropriate responses to mitigate the impact of the emergency.

These responses cover topics such as:

- Provision of resources or specialist equipment
- Number and quality of local responders
- Situations where plans or 'Standard Operating Procedures' are required for specific risks
- Areas where training and exercising should be focussed
- Situations/sites/events where specific protocols need to be established with third parties such as utility companies or with the private sector

In relation to *public perception of risk* there is limited research. Eurobarometer 383 (2012) places Ireland significantly below average in terms of levels of concern with the likely impact of natural and man-made disasters. The same research shows Ireland as having the second highest self-perceived level of awareness of EU-level civil protection activities.

1.2 Policy and Governance

There is no single agency responsible for major emergency management in Ireland and there is no dedicated legislative structure governing the area. Each Government ministry and public authority is responsible for maintaining emergency management functionality according to their statutory remits. The Government Task Force on Emergency Planning is the top-level body which coordinates and oversees the emergency management activities of all Government Departments and Public Authorities. This Taskforce, comprising those Ministers and/or Senior Officials of Government Departments and Public Authorities making a key contribution to the emergency management process, is chaired by the Minister for Defence.

The Office of Emergency Planning (OEP), within the Department of Defence, supports the work of the Government Task Force. The OEP operates a central coordination facility located in Dublin which is activated as appropriate and is highly flexible. The facility has the ability to ensure effective communication between government departments and agencies.

In terms of managing emergency response, Ireland has adopted the "Lead Department" principle which means that the Government Department having responsibility for a particular area of public life (transport, energy, health etc) takes the lead when an emergency occurs in that area.

In 2008, the Government agreed and published the "Strategic Emergency Planning Guidance"⁸ document which defines the Lead Department with respect to a range of major emergencies.

The ministerial and top-official-level *Government Task Force on Emergency Planning* ultimately oversees the emergency management activities of all Government ministries and public authorities. However, this meets infrequently and primarily in the context of emergency response.

On an ongoing basis coordination is handled by the OEP. The OEP coordinates the input from all government ministries and key specialists from the private or semi-state sector. The OEP chairs the *Inter-Departmental Working Group on Emergency Planning* (IDWG) which is comprised of officials representing Government ministries and public authorities with lead or principal support roles in emergency management. The Government Task Force charges the IDWG with carrying out specific studies and developing particular aspects of emergency management. The IDWG meets in the OEP every six weeks and key stakeholders or specialists are often invited to attend.

The basis for Emergency planning and response is set out in 'A Framework for Major Emergency Management' (the Framework). The Framework is distributed to all local authorities by the OEP and responsibility for identifying risk and preparing plans are delegated at local level. The Framework provides for an "*all-hazards*" approach⁹. The Framework is constructed around a five-stage systematic frame for emergency management¹⁰. Major Emergency Management arrangements fit in with existing organisational and Government structures and coordination mechanisms are added as required. Principal response agencies are identified for each type of emergency and response is designed to build up from the lowest appropriate units of An Garda Síochána, The Health Service Executive and the Local Authorities.

Local authorities coordinate planning and response between first responder agencies, volunteer agencies and the media within their area. Local preparedness and response varies across the 26 county councils and the 5 city councils however *all plans are required to share the common feature of scalability up to and including a national emergency response*. A National Emergency response would be facilitated by the OEP and the lead agencies will depend on the type and nature of the crisis.



Figure 4: Five-Stage Emergency Management Paradigm. (Source: A Framework for Major Emergency Management 2006).

⁸ Department of Defence, 2004, "Strategic Emergency Planning Guidance Document", Available from: www.emergencyplanning.ie

⁷ "All-Hazards" is a term used in recognition of the common elements in the response to emergencies, regardless of the particular hazard that has given rise to the emergency.

⁸ The Five-stage systematic frame for emergency management is referred to as the "Safety Chain" in the Netherlands, "Integrated Emergency Management" in the UK.

⁹ National Steering Group on Major Emergency Management; "A Framework for Major Emergency Management", 2006, Available from: www.mem.ie

The Framework sets out arrangements which facilitate the principal emergency services in scaling-up the response as required, so as to utilise the full resources of the principal response agencies, and to work together in the management of large-scale incidents. The Framework provides the mechanisms for linking the work of the principal response agencies with those at other levels of Government.

1.2.1 Strategy scope and focus

At national level, the objectives of civil protection or emergency planning are to implement measures to identify and mitigate natural and technological hazards. The planning, response and recovery for major emergencies which threaten persons, infrastructure, the environment or property is the focus at national, regional and local level and strategy is based on the Framework at all levels. The Framework is designed primarily to provide for the protection, support and welfare of the public in times of emergency. The Framework identifies uniform procedures in relation to those matters that can be standardised nationally such as the allocations of functions and responsibilities between agencies, command and control of operations and inter-agency co-ordination arrangements. The scope of the Framework also includes;

- Mobilising, controlling and making the best use of available resources for response at local, regional, national and international level, as appropriate.
- Setting out and allocating responsibility for ensuring that inter-agency coordination arrangements are developed and in place at local and regional level for effective coordination of individual response efforts to major emergencies, so that the combined result is greater than the sum of their individual efforts.
- Providing common terminology to facilitate coordinated and safe working
- Identifying and prioritising risks so as to ensure that existing services are prepared and equipped to deal with a range of realistic potential emergencies.
- Underpinning collective preparedness by the principal response agencies so as to ensure a prompt and effective coordinated response by them to a major emergency
- Ensuring that downstream crises arising from an emergency are managed effectively

The Framework provides for an overall, combined response as soon as a major emergency is declared however it does not seek to address the detailed response procedures of the relevant response agencies in relation to specific incidents or hazards. In addition to the Framework, there are specific National Emergency Plans dealing with areas such as pandemic and nuclear accident which can be activated by the lead Government Department or the appropriate national body.

In April, 2011 the Government Task Force on Emergency Planning approved the “Guidelines for Coordinating a National-Level Emergency/Crisis Response”¹². This guidance document sets out the various steps involved in coordinating a national-level response for emergencies/crises. It sets out the triggers and activation procedures for convening a meeting of a National Coordination Group and the role of this Group. It clarifies the responsibilities of the lead government department and the roles and working relationships of all other departments/ agencies, which are required to contribute and undertake their roles in the context of the national emergency/ crisis management effort.

¹² Department of Defence, 2011, “Guidelines for Coordinating a National-Level Emergency/Crisis Response”, Available from: www.emergencyplanning.ie

1.2.2 Monitoring and analytical support to policy making; R&D

Ireland does not have a specific separate budget for resilience-related research and development. However it has in place an active system of review which is central to policy development.

Support for risk assessment is provided by various Government Departments depending on the risk identified or the impact predicted. This support is usually provided through the temporary provision of personnel, the provision of critical information or resources or through project specific funding. The OEP convenes a meeting every six weeks and all ministries are invited to attend. It is at these meetings that monitoring and analytical support is managed. Academic support is provided by Dublin City University (DCU) Business School which employs experts in the field of Emergency Management. DCU provides support through reviewing and assessment of response mechanisms as well as assisting in drafting the Framework documents.

After-event reviews are prepared as are annual reviews of plans. Ireland has a policy of open access to plans in this area, so reviews, strategies and standard operating procedures are publicly available. There is a high acceptance within the system of the right of the media and general public to be informed and have access to most information.

DCU and Maynooth University offer postgraduate-level courses dealing with emergency and humanitarian management. As these courses progress they are increasing the level of policy expertise in Ireland.

The Irish weather service *Met Éireann* is involved in significant academic research projects concerning the prediction and understanding of adverse weather events. *Met Éireann* is a participant in *Meteoalarm*¹³.

1.2.3 Policy for Prevention

Ireland does not have a separate prevention strategy. In general, responsibility for the mitigation of specific hazards lies with the organisations and companies which own and operate the facilities and services where the relevant hazards are found, such as airlines, railway companies, chemical manufacturers, etc. Such organisations are referred to as “risk holders”. There are also statutory provisions, which provide for regulation/risk management, and bodies which hold responsibility in this regard are called “risk regulators”.

It is accepted that the principal response agencies may not be in a position to implement significant mitigation as part of the major emergency management process. However, An Garda Síochána, the Health Service Executive and the Local Authorities can be involved directly in extensive mitigation of potential generic emergencies through their work as “risk regulators” in other areas.

¹³ For more information on *Meteoalarm* see; www.meteoalarm.eu

Typical examples include:

- the enforcement of legislation related to road safety and safety in places of assembly (An Garda Síochána);
- monitoring of food and water safety (the Health Service Executive);
- control of development through the planning and building control process and the enforcement of fire safety and dangerous substance legislation (the Local Authorities).
- Flood mapping and mitigation efforts (Office of Public Works)
- The National Climate Change Plan (Department of the Environment, Heritage and Local Government and the Environmental Protection Agency)

The 'risk regulators' can often require specific plans based on a site or hazard and they often practice scenario based exercises on a regular basis with the 'risk holders'. Reviews of plans and exercises inform updates and can often increase mitigation measures.

Mitigation by the principal response agencies is generally limited by resources. It is accepted that educating the public on possible emergencies is a vital element of building resilience in communities and the development of key messages for targeted audiences is an essential first step. However for most of the period of the Framework's operation there has been a fiscal emergency in Ireland and the resources allocated to preparedness are low.

The Office of Public Works is currently rolling-out flood mapping to the public. A total of €225 million has been set aside for capital flood risk management and mitigation expenditure in the 'Infrastructure and Capital Investment Medium Term Exchequer Framework for the period 2012-2016'. This annual allocation of €45m has enabled the OPW, in conjunction with its local authority partners, to address both existing and future flood risk pro-actively and systematically through a number of complementary programmes. This is the most significant ongoing risk communication measure undertaken by an Irish government department. It is intended that this work will have a long-term impact on local risk mitigation and is being accompanied by local communications work in priority localities.

Appropriate messages and effective mediums to disseminate the message are generally known from national to local level however resources are limited and a very limited approach to raising awareness. This has an impact on mitigation and building resilience in communities across the country.

1.2.4 Policy for Preparedness

The relevant Chief Superintendent of each Division of An Garda Síochána, the designated Senior Manager in each Health Service Executive Area and the City or County Manager of each Local Authority is responsible for the principal response agency's major emergency management

arrangements and preparedness. While these districts do not involve aligned boundaries and populations sizes, in practice this is not felt to be a problem.

The Framework makes explicit the expectations in regard to preparedness;

- Emergency plans must be prepared by each agency and be consistent with the Framework
- Inter-operability must be factored into emergency plans and reviewed for consistency with partner agencies
- Principal response agencies must actively participate in the appropriate regional steering group
- Principal response agencies should participate in the preparation of a Plan for Regional Level Coordination through the regional steering group and participate in its annual review..
- Each principal response agency should provide for working with appropriate national bodies and responding to and activating appropriate aspects of their Major Emergency Plan following requests arising from national emergency situations.
- Principal response agencies should have sub-plans for responding to notification from the Local Authorities of severe weather warnings, whether a major emergency is declared or not.
- Each principal response agency should review its preparedness on an annual basis by “walking through” a selection of scenarios identified in the risk matrix.
- Each principal response agency should put support teams in place for key roles and should prepare Operational Protocols
- Each principal response agency should prepare and implement a staff development and training programme designed to build the knowledge, skills and experience of staff that will fill key roles in response to a major emergency.
- Internal exercise programmes on a three-year cycle with clearly defined and progressive objectives are required to validate its preparedness for responding to major emergencies. Joint or inter-agency training and exercise programmes should be included.
- Each principal response agency should ensure that arrangements are in place to authorise procurement and use of resources to assist in response to major emergencies

The fulfilment of the Framework’s preparedness strategies varies especially as soon after the Framework was published a dramatic fiscal consolidation was implemented which impacted on all levels of the Irish public sector. However, there does appear to be a significant commitment to the effective implementation of commitments under the Framework.

Major Emergency Plans, based on the Framework, are in place in all local authority areas and may be activated by any one of the Principal Response Agencies: the Local Authorities, An Garda Síochána and the Health Service Executive. The Major Emergency Plan of each agency sets out that agency's generic response arrangements, incident specific sub-plans as well as its contribution to the combined response of all agencies. The detail and rigour of some plans is greater than others and regional plans usually focus on risks that have occurred in the past or on those with a catastrophic impact. Coordination features heavily in the Framework and this is communicated in regional Emergency Plans which are tested periodically for their command and control functions using table top exercises which reduces the cost of exercising considerably.

The overwhelming focus of preparedness work is on ensuring that agencies are ready to respond well to emergencies. Extremely limited, and undefined, resources have been available to invest in more general resilience promotion.

Agencies at local level undertake basic educational roles in relation to schools and organisations. At a national level a limited 'Winter Ready' publicity campaign is run each year focused on actions which would be of assistance in severe weather as well as most crises situations.

1.2.5 Policy for Response

As outlined earlier, Ireland operates on the dual principles of identified principal responders and control at the lowest appropriate level. In the implementation of the Framework significant emphasis is placed on identifying key roles and responsibilities as well as operating procedures.

The Framework identifies the following information as key messages for the public concerning crisis preparation and response;

- The types of emergencies which are most likely
- What is being done to protect the community
- Early warning systems (where applicable)
- What you can do to protect yourself and your family
- Looking out for vulnerable neighbours
- Shelter/ evacuate ("Go in, Stay in, Tune in")
- Making a call for assistance using 999/ 112
- What to do if you happen upon an emergency
- How critical incident stress can affect you
- Where to get more information

The relevant Chief Superintendent of each Division of An Garda Síochána, the designated Senior Manager in each Health Service Executive Area and the City or County Manager of each Local Authority is responsible for the effectiveness of the agency's response to any major emergency which occurs in its functional area.

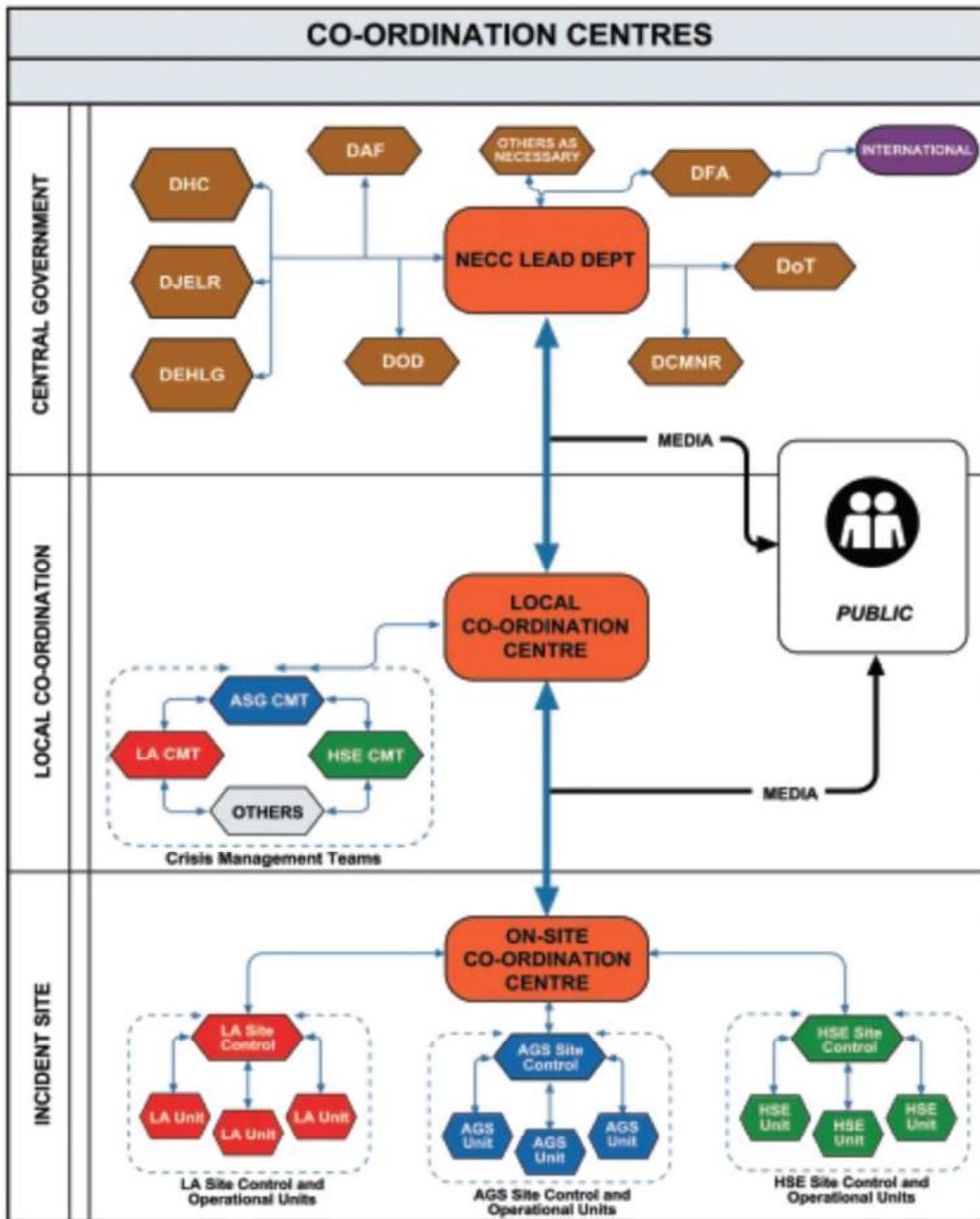
A Major Emergency Mobilisation Procedure is usually appended in each Emergency Plan and once an emergency is declared the command, control or communication centre will notify all principal response agencies that will in turn activate their internal mobilisation procedure. The response can be scaled up from a local response to a regional or national response.

The Government Information Service (GIS) plays a key role in preparing and projecting the Government's message on emergency management and response issues. An Emergency Planning Media Unit, chaired by the GIS, promotes and coordinates this work. This group, comprising Press and Information Officers of Government Departments and other key public authorities, continues to update and coordinate arrangements for handling enquiries from the media, as well as providing information and advice to the public.

The use of social media to share information in any stage of an emergency varies between Government Departments, PRAs and Local Authorities. There is a strong awareness of the power of social media to engage with the public however with limited resources, it is not always possible especially in smaller Local Authorities. There is no programme available or policy on social media that covers all of these levels in an emergency. Action 10 of “Supporting Public Service Reform eGovernment 2012-15” states that; “All public bodies will develop a social media usage policy and will prepare a short plan regarding how they will maximise the potential of social media to improve access to services”¹⁴.

¹⁴ Department of Public Expenditure and Reform; “Supporting Public Service Reform eGovernment 2012-2015”, Available from www.e.gov.ie

Figure 5: Coordination Centres



(Source: A Framework for Major Emergency Management Appendices, 2008)

1.2.6 Policy for Relief and Recovery

Relief and recovery is recognized as an important phase in the Framework and it should happen after the individual services have been stood down and an operational debrief has been carried out by each agency. Each principal response agency has a mandate in the recovery phase;

An Gardaí Síochána

- Identification of fatalities
- Preservation and gathering of evidence
- Investigation and criminal issues
- Dealing with survivors

- Dealing with relatives of the deceased and survivors
- Provision of an appropriate response to the immediate public need

Health Service Executive

- Provision of health care and support for casualties and survivors
- Support for relatives of casualties and survivors
- Restoration of health services
- Responding to community welfare needs

Local Authority

- Clean-up
- Rebuilding the community and infrastructure
- Responding to community welfare needs
- Restoration of services

A policy of preparing after-event reports for all significant emergencies is implemented. These identify short, medium and long-term impacts as well as lessons learned and are publicly available. All agencies accept their responsibility to keep the public informed of relief and recovery activity.

1.3 Financing

1.3.1 Investing in preparedness

There is no consolidated figure for investment in preparedness. The bulk of investment is within the core ongoing funding of responder agencies.

A figure of roughly €45 million per annum is available for flood risk management and mitigation, plus another roughly €10 million (2015 estimate) for the repair of flood-damages to flood protection infrastructure in past storms.¹⁵ A Preliminary Flood Risk Assessment for the country (as required by the EU Floods Directive) is being published to inform the prioritising of areas for more detailed analysis in the individual catchment areas under the Catchment Flood Risk Assessment and Management (CFRAM) programme.

There is no evolved engagement by the insurance industry or other private sector actors, though the Department of Finance has begun discussions with Insurance Ireland, the umbrella organisation for the insurance industry. There is no expectation of EU funding for preparedness work other than in the context of general infrastructure development funded through regional development policies.

There is no distinct disaster mitigation fund. Identification and mitigation of hazards forms part of the normal operations of public and private organisations. The Framework defines mitigation as “any actions which are taken in advance of the occurrence of an emergency to reduce the probability of that event happening or that reduce the loss/damage that might otherwise have been caused if the event does happen”¹⁶.

¹⁵ Department of Public Expenditure & Reform; “Infrastructure and Capital Investment 2012-14: Medium term exchequer framework”. Available from: www.per.gov.ie.

¹⁶ National Steering Group on Major Emergency Management; “A Framework for Major Emergency Management”, 2006, Available from: www.mem.ie

1.3.2 Investing in consequence management

All expenditures incurred during a particular emergency or crisis must be properly authorised, executed and accounted for under the appropriate public expenditures mechanisms. There is no developed research on expectations or practice in the funding of recovery activities. In practice there has been a mix of agencies funding recovery from within their budgets, central government providing some extra funding and, above a certain level, the state assisting in cases where there is no insurance. The most recent review of damage from the acute winter storms in 2013/14 focused only on the cost to public infrastructure and facilities.

Public/private activity in relation to flood insurance is at a low level, however it is likely to be a significant issue in the coming years as the flood-mapping exercise is completed and begins to be reflected in home insurance costs and availability.

1.4 Policy review, Evaluation & Organisational Learning

1.4.1 Post-Disaster Assessment

Ireland has an evolved system of post-disaster assessment. The Framework document requires that there be a review of the response to all major emergencies declared through the Steering Group for Major Emergency Management. The review panel draws information from the response agencies and the panel is made up of representatives of government ministries as well as academics and senior officers from the principal response agencies. Each agency is expected to complete a self-assessment on the preparedness and response phases.

The assessment of economic impact is generally limited to the impact on public infrastructure. This is a significant gap.

All such reviews are published. Post-disaster assessments are viewed as accessible and constructive. In addition, within agencies and in the Steering Group for Major Emergency Management an ongoing programme of reflection is evident. Candid discussions are encouraged.

The review panel for after-event reports includes an external expert element. As such, the reports are seen as challenging and constructive rather than defensive of the interests of agencies.

1.4.2 Departmental Lessons Learned systems

Departmental lessons learned are established through the Steering Group for Major Emergency Management where each department is represented. Internal agency communications stem from this.

1.4.3 Centralised (national) Lessons Learned system

The National Steering Group for Major Emergency Management has systems in place to derive lessons learned from experiences which includes external input from academic institutions and

experts. This is coordinated by the OEP which facilitates the sharing of information between stakeholders. The OEP also provides a forum to learn lessons from disasters that occur in other countries. An example of this is Hurricane Sandy in the US which provided an opportunity to examine and review Ireland's ability to deal with a severe wind storm. This review was carried out under the guidance of the OEP three weeks before the high wind storms occurred in 2013-2014 and is believed to have contributed to the effectiveness of the national response.

1.4.4 International exchange for Lessons Learned

Ireland exchanges information through Government Departments with Great Britain and the devolved administration in Northern Ireland on issues of mutual interest. Cross border policing has a formalised process due to the ongoing peace process, however other agencies and Governmental Departments lack this structure and policies.

Government Departments are aware of the international dimension of emergency planning. Contacts have been established and strengthened where necessary with the mechanisms provided by the United Nations, the European Union, the World Health Organisation and other international bodies for dealing with emergency planning and response. This has allowed Ireland to tap into reservoirs of knowledge and learn lessons from this community.

1.4.5 Regular policy reviews

Ireland has an active policy review procedure. National policy is reviewed annually and policy documents are reviewed periodically. The National Framework Document was last formally reviewed in 2006 but is in practice effectively updated on an ongoing basis. A formal review is underway. Regional policy stems from the Framework and Emergency Plans are reviewed on various hazards in a three year review cycle. The same process happens in principal response agencies. The review is documented and forwarded to the National Steering Group in the OEP for consideration.

1.5 Resilience

Ireland's concept of resilience is stated in the Framework and its supporting guidance and protocol documents;

*"Resilience is the term used to describe the inherent capacity of communities, services and infrastructure to withstand the consequences of an incident, and to recover/restore normality."*¹⁷

As such, it is firmly a 'bounce back' concept rather than drawing on more complex ideas.

Local authorities are substantially responsible for building resilience in local communities however the budget for this varies in each area and it is generally larger in areas that have experienced some form of significant emergency. The document "*Preparing for Major Emergencies*"¹⁸, issued to each

¹⁷ National Steering Group on Major Emergency Management; "A Framework for Major Emergency Management", 2006, Available from: www.mem.ie

household in the country during 2008 by the Office of Emergency Planning, provides important information for individuals on how to prepare for a major emergency and what to do in the event of a major emergency. This and the annual 'Winter Ready' campaign represent the only distinct national resilience promotion efforts.

Planning regulations seek to mitigate the potential impact of disasters on infrastructure and the general built environment.

1.6 Information sharing and data protection

Ireland has a relatively open approach to information sharing in this area. Data protection standards are overseen by a national Data Protection Commissioner and are in line with EU regulations.

Information sharing occurs between PRAs as part of crisis management procedures in the event of a National Emergency. For example, the HSE will provide information on vulnerable people to the Gardai who will check on them to ensure that they are safe prior, during or after an event. Information on individual casualties will be provided only by An Garda Siochana, who will establish a Casualty Bureau to collect and collate the details of all casualties and survivors. Once it is operational, the telephone numbers for the public to contact the Casualty Bureau will be issued to the media by the Garda Press Office.

Figure 6: Generic Coordination centre information sharing



(Source: A Framework for Major Emergency Management Appendices, 2008)

Government Departments may share information on specific threats such as infectious animal diseases or terrorist threats.

Local Authorities may use volunteer organisations to help cope in the event of an emergency. In the pre-planning phase, the Local Authority identifies the competencies required for any personnel and while the volunteer organisation will exercise with the PRAs, the responsibility for personnel rests with the volunteer organisation that provides them and therefore information is not shared in a formal way and *a database of volunteers is not maintained at local, regional or national level.*

¹⁸ Office of Emergency Planning; "Preparing for Major Emergencies", 2008, Available from: www.mem.ie

2 Legislation

2.1 Crisis (emergency, disaster) management concept

Ireland does not have specific emergency management legislation beyond standard legislation for police, fire, environment and health authorities. Emergency planning is part of general planning carried out by each Government department/ agency under its appropriate legislation. Emergency Planning arrangements and actions are governed by a policy framework adopted by government in 2006.

The obligation to exercise an oversight in relation to peacetime emergency planning is placed, by Government decision (Ref. S180/46/01/0002), in the Minister for Defence through the Office of Emergency Planning. This is an administrative rather than statutory arrangement.

Ireland is a strongly centralised government with only 31 local authorities which hold powers which are both limited in scope and subject to central oversight. There are no local powers relating to police or health agencies. As such, it can be argued that a separate statutory basis for crisis coordination is not as important in Ireland as it is in federalized and regionalised countries. In after-event assessments the lack of clarity on powers has not been identified as an issue.

Each government department is responsible for ensuring that emergency plans exist in respect of its own area of responsibility. Operational responsibility for incidents however, rests with the emergency services under the aegis of the department concerned. Individual departments are also responsible for any necessary coordination between departments and/or services. Lists of contact officers and experts in the public services are kept up to date on a central level. Depending on the magnitude of the disaster, the Government can set up a national committee to monitor and advise on the crisis at central level.

In the event of being called on for assistance in a major emergency, the Defence Forces will operate under the provisions of the Defence Acts, 1954 to 1998, as amended, and in accordance with agreed Memoranda of Understanding (MOUs) and Service Level Agreements (SLAs). The principal response agencies can request assistance from the Defence Forces either in Aid to the Civil Power (An Garda Síochána) or in Aid to the Civil Authority (Local Authority or Health Service Executive). The major distinguishing feature between the two types of Aid is that the Defence Forces response to requests for Aid to the Civil Power is primarily an armed response while Defence Forces response to requests for Aid to the Civil Authority will be unarmed. In addition, the Defence Forces have a key role to play in responding to emergencies involving improvised explosive devices, when they are called upon to assist An Garda Síochána by the provision of Explosive Ordnance Disposal (EOD) teams in an Aid to the Civil Power role.

2.2 General crisis (emergency, disaster) management law

As stated in 3.1, crisis management arrangements are not set out in separate legislation.

Airports are required by International Civil Aviation Organisation (ICAO) rules to prepare emergency plans and to maintain emergency services commensurate with the categories of aircraft using the airport.

For all ports, the *Harbours Act, 1996*, places responsibility on the harbour master for the safety of shipping and all activities within the defined port limits. The legislation also requires that emergency plans be prepared in respect of the major ports. These emergency plans are designed generally to deal with incidents, in the first place using the port's own resources. The Irish Coast Guard is responsible for co-ordinating the response to marine incidents outside port limits, except in case of search and rescue, when all marine areas, including ports, are within its remit.

There are both legislative and procedural arrangements, which require that emergency plans be prepared for specific sites or events (e.g. SEVESO sites¹⁹, airports, ports, major sports events, etc.).

Publicly licensed broadcasters are obliged as part of their licence to carry warnings. This power has not been invoked as, in practice, authorities find broadcasters to be willing to carry timely and accurate information when needed.

2.3 Emergency rule

The Irish constitution allows for emergency legislation to be passed by parliament but only insofar as it is necessitated by armed rebellion or war.²⁰ There is no legislation for emergency rule during disasters.

2.4 Specific, department/agency-level legal arrangements and regulations on emergency and disaster management

The obligation to exercise an oversight in relation to peacetime emergency planning is placed, by Government decision (Ref. S180/46/01/0002), in the Minister for Defence through the Office of Emergency Planning however the responsibility to ensure that emergency plans are adequately assessed, reviewed, exercised and validated remains with the lead Minister and Government Department responsible for a particular area.

¹⁹ Upper Tier and Lower Tier SEVESO sites are defined in: Article 3 of Directive 2012/18/EU of the European Parliament and of the Council of 4 July 2012

²⁰ *Bunreacht na hÉireann, Article 28.3.3*

2.5 Specific to the regional and local authorities legal arrangements and regulations on emergency and disaster management

Local authorities have significant responsibilities under the national policy framework however they do not have distinct powers to act autonomously. There are no regional authorities but key agencies have regional coordination structures which are established on an administrative basis

2.6 Legal regulations on the involvement of volunteers and specialised NGOs

The Civil Defence service²¹ is a statutory organisation of volunteers, which can provide a very important resource for use during major emergencies, in support of the principal response agencies. The Civil Defence Act 2002 aims to oversee the development of Civil Defence on a national basis into a first-class second-line emergency service working in support of and in cooperation with all of the mainstream emergency services. Civil Defence services, which include over 3,000 active volunteers, are structured on a county basis and are run by the Local Authorities. A Civil Defence Board, with a national Civil Defence Headquarters, oversees and assists the development of the Local Authority based Civil Defence organisation.

The Irish Red Cross is established and regulated under the Red Cross Acts, 1938-54. These statutes define a role for the Irish Red Cross as an auxiliary to the state authorities in time of emergency and also provide a specific mandate to assist the medical services of the Irish Defence Forces in time of armed conflict. The Chairman of the Red Cross is appointed by the President, on the advice of the Government. The Department of Defence is the Government Department associated with the organisation – a senior official of that department sits on the Board of the Irish Red Cross.²²

Irish Red Cross's membership comprises 2,500 volunteers, supported by staff in Head Office in Dublin and three regional offices. Volunteers are organised in local units, with overarching county and regional structures. The membership is country wide, with 111 units in twenty-five of the twenty-six counties in the state. The main relationship with the principal response agencies in major emergency response is as an auxiliary resource to the ambulance services. Subsidiary search and rescue and in-shore rescue units of the Irish Red Cross support An Garda Síochána and the Irish Coast Guard.

The normal range of voluntary emergency services includes the Order of Malta Ambulance Corps, St John's Ambulance Service, Mountain Rescue Teams, Cave Rescue Teams, Search and Rescue Dog Associations, River Rescue Units, Community Inshore Rescue Units, the Royal National Lifeboat Institution and Sub-Aqua Units. Their ongoing service to the public includes attendance at public events, as well as searches for missing persons and the rescue of persons in distress.

²¹ Information on the Civil Defence service can be obtained on www.civildefence.ie

²² Information on the Irish Red Cross can be obtained on www.irishredcross.ie

2.7 Legal regulations for international engagements of first responders and crisis managers

The decision to seek assistance from outside the region can be made by the lead agency, in association with the other principal response agencies, at the Regional Coordination Centre. These requests are made directly on a mutual-aid basis. The European Community has established a Community Mechanism to facilitate the provision of assistance between the member states in the event of major emergencies and Ireland would request that assistance through the National Liaison Officer at the Department of the Environment, Heritage and Local Government (National Directorate for Fire and Emergency Management).

There is a long-standing tradition of mutual assistance between the emergency services in Northern Ireland and the border counties. An April 2002 agreement between the British and Irish Governments provides for a range of co-operative measures between An Garda Síochána and the Police Service of Northern Ireland.

Existing arrangements between individual emergency services in both jurisdictions are in place and operational. During an emergency, agencies inform the Local/Regional Co-ordination Centre of any unilateral activation of arrangements with services in Northern Ireland. Requests from a local or regional coordination group for additional assistance, outside of/above that arranged by the individual services, are transmitted by An Garda Síochána to the Police Service of Northern Ireland, in accordance with internal code procedures of An Garda Síochána.

3 Organisation

3.1 Organisational chart

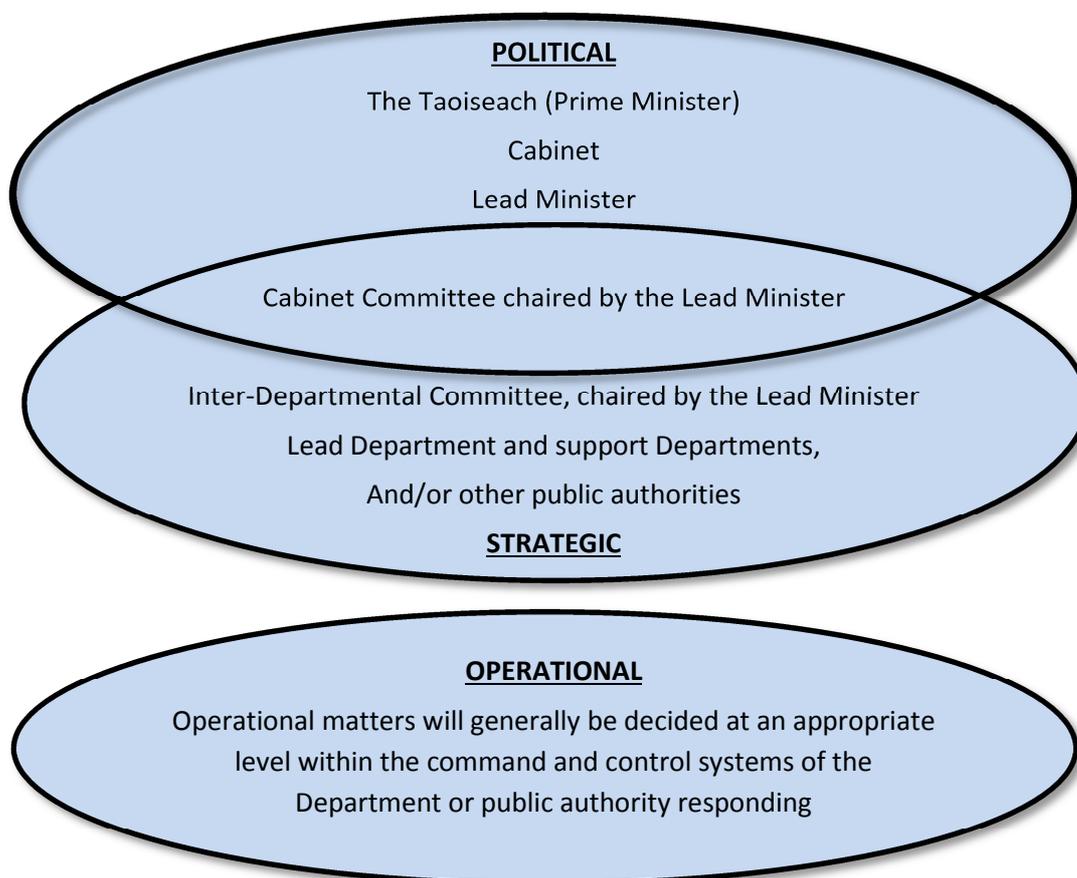


Figure 7: Political, Strategic & Operational structure

- The Government Task Force on Emergency Planning is the top-level body which coordinates and oversees the emergency management activities of all Government Departments and Public Authorities. This taskforce is comprised of Ministers and/or senior officials of Government Departments and Public Authorities making a key contribution to the emergency management process.
- The Office of Emergency Planning which exists within the Department of Defence supports the work of the Government Task Force.
- The National Steering Group is chaired by the National Directorate for Fire and Emergency Management, in the Department of the Environment Community and Local Government and it oversees the implementation of the Framework and its associated guidance documents which together, will facilitate a coordinated response to major emergencies by the Principal Response Agencies.
- Ireland has adopted the 'Lead Department' principle which means that the Government Department having responsibility for a particular area takes the lead when an emergency

occurs in that area. This process is supported by the “Strategic Emergency Planning Guidance” which is a document published by the Government in 2008 and defines the lead department with respect to a range of emergencies.

- The Framework sets out the arrangements by which other services, such as the Defence Forces, voluntary emergency services, utilities, transport companies, industrial and communities can support the PRA in response to major emergencies.
- There are eight regions for civil protection purposes and arising from the framework, each of these regions has an inter-agency Regional Steering Group (RSG) on Major Emergency Management. The RSG is comprised of senior personnel from the PRAs within that region and each region also has Regional Working Groups (RWGs) to support the RSG and to undertake the functions assigned at regional level.
- These eight designated Major Emergency Management (MEM) regions within the country consist of multi-agency teams. Each PRA initially prepares a structured hazard analysis and risk assessment using the Framework as guidance and then coordinates a multi-agency plan for the region. The plans are scalable and are linked with National Plans as per the guidance of the Framework.
- The Local Authorities coordinate the EM plans through a structured hazard analysis and risk assessment carried out by the PRAs. The focus is primarily on a comprehensive emergency management process through an all hazards approach as directed by the Framework.
- Volunteers and volunteer organisations are coordinated through the PRAs who lead the response and collaborate with volunteer organisations in training and planning. For example; St. Johns ambulance and the Order of Malta work under the HSE.
- Some private businesses are required, as part of licencing agreements, to have comprehensive emergency plans due to the nature of their industry (i.e. pharmaceutical, chemical, aviation). The local authorities ensure that the PRAs and these private businesses plan, practice and review these plans every three years or less depending on their agreements.

3.2 Organisational cooperation

- The lead role for planning the State’s response to an emergency rests with the functional Minister and his or her Government Department, with support from other key departments and public authorities. The functional Department has the lead role in the areas of risk assessment, prevention, mitigation, response, maintenance of public confidence and recovery, working in association with other Government Departments and public authorities.
- It is the responsibility of the lead Department to work with other Government Departments and PRAs to ensure that their plans are sufficiently detailed and properly coordinated.
- Command and control issues are addressed through consultation and engagement with all parties involved in response, through a structured exercise programme.

Table 4: Organisational Structure & Function

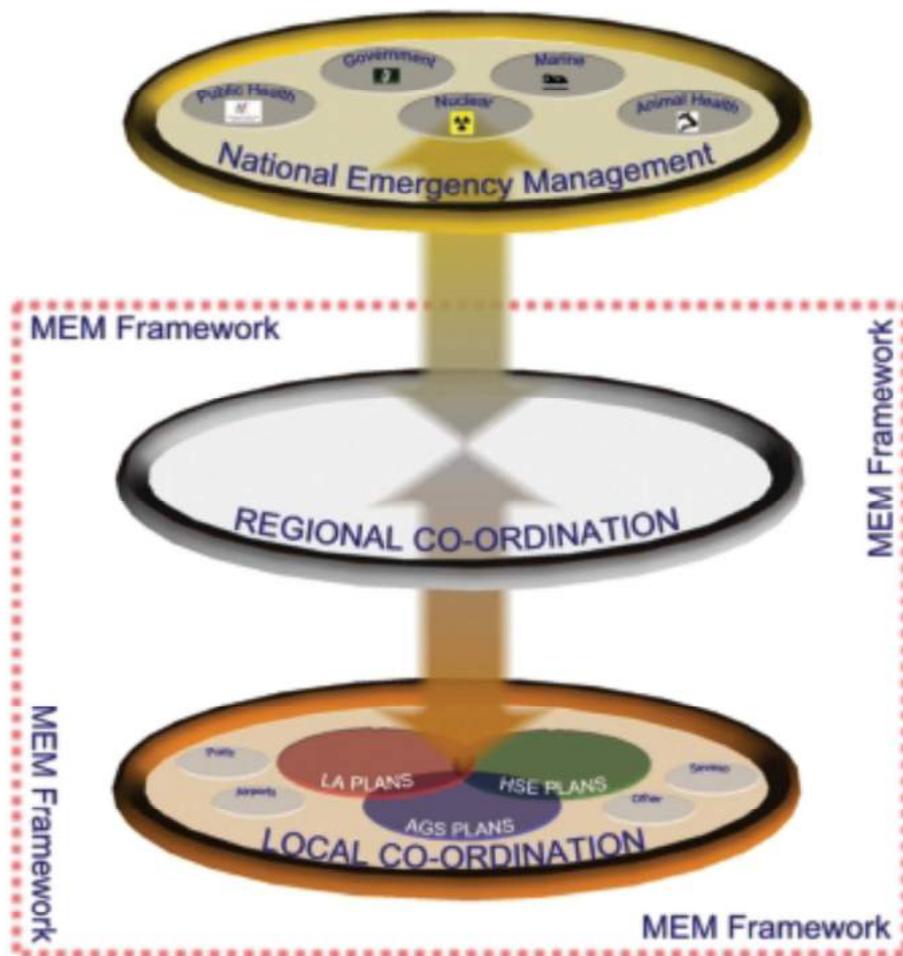
Structure	Function
Government Task Force on Emergency Planning (Chaired by the Minister for Defence)	<ul style="list-style-type: none"> • To provide active political leadership of the emergency planning process • To facilitate contact and coordination between Government Departments and other public authorities • To oversee all emergency planning
National Steering Group (NSG) is chaired and supported by the Department of Environment, Community and Local Government and consists of representatives of; The Department of the Environment, Heritage and Local Government; The Department of Health and Children; The Department of Justice, Equality and Law Reform; The Department of Defence; The Local Authorities; The Health Service Executive; An Garda Síochána; The Defence Forces.	<ul style="list-style-type: none"> • Perform the national level functions as set out in the Framework • Oversee the development programme for implementation of Framework • Continue to develop and update the Framework based on this experience • Report all findings/ issues to the Government task Force on Emergency Planning
Inter-Departmental Working Group on Emergency Planning (Chaired by the Office of Emergency Planning in the Department of Defence)	<ul style="list-style-type: none"> • To provide support for the policy initiatives of the Minister of Defence as chair of the Government Task Force
Regional Steering Groups	<ul style="list-style-type: none"> • To provide a working forum for the Principal Response Agencies to draft coordinated plans, exercise, train and review as a team • co-ordinate the inter-agency aspects of major emergency preparedness and management.
Local/ Agency level	<ul style="list-style-type: none"> • To provide a working forum for the Principal Response Agencies to draft coordinated plans, exercise, train and review as a team • co-ordinate the inter-agency aspects of major emergency preparedness and management. • Identify and collaborate with volunteer groups in the area

(Information sourced through Office of Emergency Planning 2014)

There are a number of organisations and agencies, which may be called on to assist the principal response agencies in responding to major emergencies. The arrangements for this assistance should be agreed with each agency (or confirmed in the case of pre-agreement) and set out in each principal response agency's Major Emergency Plan. The organisations may be grouped as follows:

- Defence Forces;
- Civil Defence;
- Irish Red Cross;
- Voluntary Emergency Services;
- Utilities; and
- Private Sector

Figure 8: Links between Major Emergency Plans and National and Other Plans



(Source: OEP; *A Framework for Major Emergency Management*, 2006)

4 Procedures

4.1 Standing Operating Procedures (SOPs) and Guidelines

It is the stated policy to develop Standard Operating Procedures (SOPs) for all identified risks and fields of cooperation. These are reviewed on an ongoing basis and available to the public.

SOPs are localised and agency specific however in the event of a major emergency the Framework document provides guidance. The SOPs for the local coordination centre that must be established in the event of a major emergency are standardised regardless of the type of emergency or location. The local coordination centre is established by the Principal Response Agency (PRA) in a designated building that it has already prepared SOPs for that centre with their inter-agency colleagues. Action cards are to be prepared and used to support the SOP, comprising pocket-sized single or multi-page laminated cards for all roles/posts/tasks in the set-up and operation of the centre. This includes principal Local Co-ordination Group members, Information Officers, Action Managers, Media Liaison Managers/staff, Log Keepers, Facilities Managers, security staff, IT support staff, and any others with functions assigned in local circumstances.

Additionally each principal response agency has SOPs which cover ordinary and extraordinary procedures as well as the inter-operability aspect of major emergency response. An Emergency Operations Plan (EOP) is a detailed document that outlines the personnel, roles, responsibilities, actions and processes to be followed in the event of an emergency. It may detail the resources available and when and where personnel will be called on to perform a strategy of mitigating actions to avert further deterioration of the situation and protect and stabilise the organisation and people affected by the emergency and it is the responsibility of each region to ensure that they have a working emergency plan.

4.2 Operations planning

- The national plan for emergencies is 'A Framework for Major Emergency Management'.
- Each department prepares its own emergency plans pertaining to their departmental remit using the Framework as a guidance document.
- There are eight regions for civil protection purposes and each has a major emergency plan. There are 26 county councils and 5 city councils that make up the local authorities who all have local plans for a major emergency. PRA also have emergency plans that cover their specific remit.
- The operational planning process at national, regional and local level is based on the Framework.

4.3 Logistics support in crises

- The core logistical support for crises is provided from within the resources of the principal response agencies. However these may be supplemented:
- Private logistics providers may be contracted as and when required.
- Military logistical support is available as the Department of Defence oversees the OEP which is tasked with the coordination of major emergency management.
- Refrigerated trucks from the UK in the event of a major emergency where morgue facilities become overwhelmed.
- There is no separate crisis logistics organisation in Ireland.

4.4 Crisis communication to general public; Alert system; Public Information and Warnings

Ireland does not have a distinct national alerting system. It has never had a widespread siren system. It has developed warning procedures which are led by the relevant principal responder and distributed through all available channels, principally the broadcast media.

- Each principal response agency leads communications in their identified crises. This is supplemented by cross-government coordination. At times of significant national crises the central government communications operation is expected to play a major role.
- There have been no identified problems with getting the broadcast media to quickly carry warnings.
- Met Eireann (the Irish Met Office) is responsible for colour-coded weather warnings which conform to IMO standards.
- Technical infrastructure used to communicate with the public during a crisis or emergency include motorway alert messaging system and limited localised flood warning measures (voice messages and text alerts).

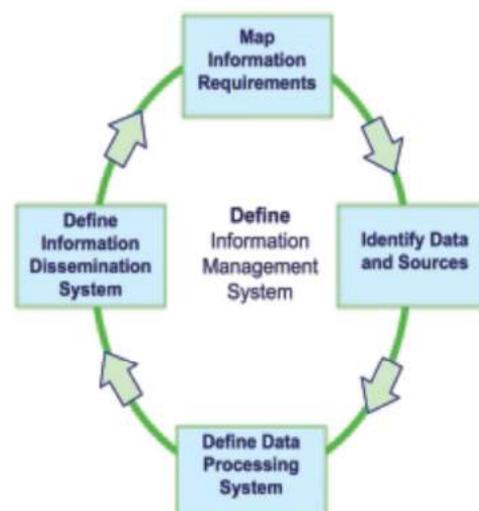


Figure 9: Info Management System (Source: A Framework for Major Emergency Management, 2006).

5 Capabilities

5.1 Human resources

- Permanent disaster planning and management personnel 6 (Office of Emergency Planning).
- Capacity to mobilise personnel at a national level from other Departments by the Lead Department as and when required. Regional and Local levels mobilise personnel through emergency plans that are in place and scale up the response to draw in extra personnel.
- Involvement of volunteers, volunteer organisations, and specialised NGO personnel through planning, exercising and training with their related PRA or Local Authority.
- The Fire Services have 3,245 serving fire personnel of which 1026 are full time and 2039 are retained on a 24 hour basis across the 220 fire stations. 900 of these serving fire personnel are stationed with Dublin Fire Brigade.
- The HSE struggles with capacity issues at hospitals and the emergency operations plan has been activated at some Dublin hospitals recently when A&E departments were unable to cope with above normal to busy numbers. There is very limited numbers of spare capacity hospital beds in the Dublin region and this alone could cause activation of the National Emergency Plan in order to increase resources by drawing on a national pool.
- An Garda Síochána has 14,500 garda and civilian personnel. In the last decade, the Garda Reserve has been introduced which has focused on community policing. The Gardai can also provide dog support, air support, mounted support and water support. An Garda Síochána have an agreement in place with the Northern Irish Police Service and a framework exists for collaboration and assistance when required.
- The Irish Coast Guard Service has responsibility for the national system of marine emergency management in Ireland's Exclusive Economic Zone (EEZ) and inland waterways. It is responsible for response to, and coordination of, maritime accidents which require Search and Rescue and Counter Pollution and Salvage operations. It also has responsibility for vessel traffic monitoring. It has three principal Marine Rescue Centres, 55 operational units (including both permanent and volunteer staff) and operates 6 medium-lift helicopters. It is an unarmed, non-security service. Operations in respect of maritime security, illegal drug trafficking, illegal migration and fisheries enforcement are coordinated by other bodies.
- Mountain Rescue Ireland has 365 members spread across twelve teams in Ireland. MRI is a 24 hour 999/112 emergency service provided by unpaid and voluntary teams.
- The Royal National Lifeboat Institution (RNLI) operates 44 lifeboat stations across the island of Ireland. It is an all-island organisation which is ultimately overseen from London though it has substantial local autonomy. It is a volunteer 24 hour 999/112 emergency service with 4,600 volunteers working as lifeboat crews and a further 3,000 supporting them as shore crew members which provide a 24 hour search and rescue service. The RNLI has specially trained volunteers on call for flooding emergencies who can deal with both urban and rural environments. In addition there are Community Rescue Boat services which are also

volunteer based. The CRB and RNLI crews have both off-shore and inland waterway capabilities.

- Irish Red Cross's membership comprises 2,500 volunteers, supported by staff in Head Office in Dublin and three regional offices. Volunteers are organised in local units, with overarching county and regional structures. The membership is country wide, with 111 units in twenty-five of the twenty-six counties in the state. The main relationship with the principal response agencies in major emergency response is as an auxiliary resource to the ambulance services. Subsidiary search and rescue and in-shore rescue units of the Irish Red Cross support An Garda Síochána and the Irish Coast Guard.
- The Civil Defence service is a statutory organisation of volunteers, which can provide a very important resource for use during major emergencies, in support of the principal response agencies. Civil Defence services, which include over 3,000 active volunteers, are structured on a county basis and are run by the Local Authorities. A Civil Defence Board, with a national Civil Defence Headquarters, oversees and assists the development of the Local Authority based Civil Defence organisation.
- There is a range of voluntary emergency services in Ireland which may be called on in an emergency under the Framework by one of the PRAs. These include; the Order of Malta Ambulance Corps, St John's Ambulance Service, Cave Rescue Teams, Search and Rescue Dog Associations, River Rescue Units, Community Inshore Rescue Units, Sub-Aqua Units, etc.

5.2 Materiel (non-financial) resources

- Crisis management centres have been identified in all eight regions. They are used from day-to-day as emergency call centres.
- Ireland has a total oil reserve stocks for 108 days of which 18 are for industry and 90 are for public consumption under the National Oil Reserves Agency (NORA) act of 2007. 36 days' worth of this oil is held abroad. Ireland is 92% import dependant for its energy needs²³
- Helicopters may be drafted in to assist in an emergency situation from An Garda Síochána which may be used for aerial surveillance; the Irish Coast Guard's six helicopters may provide medium-lift capability; The Defence Forces helicopters may be requested through previously agreed Memorandums of Understanding and Service Level Agreements; and the private sector.
- There are a number of organisations and agencies which may be called on to assist the principal response agencies in responding to major emergencies in addition to specialist national and local organisations, such as the Environmental Protection Agency(www.EPA.ie), the Health and Safety Authority (www.HSA.ie) and local port and airport authorities.
- An "Electricity Interconnection and Trading Agreement (16th June 1995)" exists between the Electricity Supply Board (ESB) and Northern Ireland Electricity (NIE) PLC in relation to sharing of power system reserve requirements, emergency support, coordination of outages of transmission plant and notification of certain system operation matters.

²³ Forfas; "The Irish Energy Tetralemma: A Framework for fuel choices in Ireland", Available from: http://www.forfas.ie/media/forfas130810-irish_energy_tetralemma-a_framework_for_fuel_choices_in_ireland.pdf.

5.3 Training

- National, local and departmental exercises are outlined in the Framework documents
- Centralised specialist training for specific hazards occurs in each of the PRAs.
- Training of volunteers and NGO personnel occurs within these organisations and in collaboration with the PRA that they work with. Exercising takes place on a regular basis at local and regional level to reinforce training.
- Cross-border and multinational training activities occurs primarily within the Gardai.
- Certification systems are specific to the Principal Response Agency, Volunteer organisation or NGO. There is a great deal of mutual recognition, collaborative training and agreed priorities however there is no national certification partly due to the division of responsibility and proficiency between PRAs.
- National educational programmes focus on personal rather than public emergencies such as road safety, fire safety and winter ready campaigns.
- Specialised training programmes for high-level decision makers are provided as and when required to Government departments and run on a more regular basis for PRAs.

5.4 Procurement

5.4.1 Procurement regulation

Background

The public procurement process in public sector organisations is heavily decentralised. Public bodies perform the function independently within a framework of EU/national laws and national guidelines. The National Public Procurement Policy Unit (NPPPU) was established in the Department of Finance as a result of an April 2002 Government decision. Its role is to develop public sector procurement, policy and practice. The national procurement policy framework applies to:

- Central Government departments and bodies under their aegis and which are subject to audit under the Auditor General (Amendment) Act, 1993;
- Commercial and non-commercial state bodies;
- Local and regional authorities.

Public procurement policy and actions are focused on compliance with the relevant EU, WTO and national legal requirements and obligations. They must also comply with relevant procurement guidance issued by the Department of Finance.

EU Directive 2004/18/EC covers the procurement procedure of public sector bodies. Directive 2004/17/EC covers the procurement procedures of entities operating in the utilities sector. These Directives were published in OJ No L 134 of 30 April 2004 and are available on <http://europa.eu.int/eur.lexlen/index.html>, or the EU public procurement guidelines website <http://simap.eu.int> under 'Rules and Guidance'.

The procurement of defence and security materials in Ireland is regulated by Statutory Instrument No 62 of 2012 which transposed the European Award (Award of Contracts relating to Defence and Security) regulations 2012¹. Procurement of utilities is regulated by Statutory Instrument No 50 of 2007 which transposed the European Communities (Award of Contracts by Utility Undertakings) Regulations 2007.

Three new Directives have been issued by the European Commission recently in respect of Public Procurement. These Directives are:

- 2014/23 - Award of Concession Contracts
- 2014/24 - Public Procurement
- 2014/25 - Procurement by entities operating in the water, energy, transport and postal services sectors

The three Directives, taken together, represent a reform of public procurement rules across the EU and require to be transposed into national law by April 2016. It is the Irish government's intention to meet this deadline.

The procedures for awarding public contracts are regulated by European Communities (Award of Public Authorities' Contracts) Regulations 2006. Procedures for awarding of public contracts can be by open, restricted and negotiated procedures. A competitive dialogue procedure is used where the contract is particularly complex or if the use of an open or restricted procedure would not allow the contract to be awarded. Negotiated procedure can be used with and without prior notice of contract. Framework agreements can be entered into with a single economic operator or several economic operators. Finally dynamic purchasing systems are also provided for in the regulations.

Adherence to procurement procedures is audited in all public bodies by the Comptroller and Auditor General and compliance is near universal. As such, all goods and services above the threshold are, except in exceptional circumstances, procured through public channels which are easily accessible to suppliers outside of Ireland.

Procurement for CM tools and services is done by individual agencies. Cross-border contracts are common but joint procurement is not.

Additional legislation would only be required for joint cross-border procurement where the conditions of the relevant Irish regulations could not be enforced or where the procured items would not be based in Ireland and under the control of the procuring agency.

5.4.2 Procurement procedures

Background

Procurement Thresholds

Contract notices below the EU threshold for publication on eTenders or by direct invitation

Amount	Type of Contract	Procedure
€0 - €24,999	Supplies or Services Contracts	Verbal quotes from competitive suppliers
€0 - €49,999	Works & Works Related Services	Quick Quote (direct invitation, not published on eTenders) See www.constructionprocurement.gov.ie See D/PER CWMF GN 2.3 Section 3.2
€25,000 - €125,000	Supplies or Services Contracts	Open Procedure Non-OJEU (See Dept. of Finance Circular 10/10)
€50,000 - €250,000	Works & Works Related Services	See D/PER CWMF GN 2.3 Section 1.2
€125001 – EU Threshold	Works, Supplies or Services Contracts	Any Non-OJEU Procedure but usually Open or Restricted
€250,000 – EU Threshold	Works & Works Related Services	See CWMF GN 2.3 Section 1.2
Above EU Thresholds	Works, Supplies or Services Contracts	Any OJEU Procedure but usually Open or Restricted

(Source: eTenders.gov.ie)

The Official Journal of the European Union (OJEU) advertising thresholds came into effect in January 2014 and the main thresholds are listed below;

Works		
Contract Notice	€5,186,000	Threshold applies to Government Departments and Offices, Local and Regional Authorities and public bodies
Supplies and Services		
Contract Notice	€134,000	Threshold applies to Government Departments and Offices
Contract Notice	€207,000	Threshold applies to Local and Regional Authorities and public bodies outside the Utilities sector
Utilities		
Works Contracts / Prior Indicative Notice	€5,186,000	For entities in Utilities sector covered by GPA
Supplies and Services	€414,000	For entities in Utilities sector covered by GPA

(Source: eTenders.gov.ie)

5.5 Niche capabilities

- The Irish government and NGOs have a highly regarded capability in emergency humanitarian activities. This has not been deployed in Europe in the past but would be available to a major European disaster intervention.
- Due to its island location, Ireland has significant experience in marine rescue disciplines with a significant trained national volunteer corps in three organisations (Irish Coast Guard, RNLI, Community Boats Ireland). The RNLI is involved in international training programmes.

Resources

Legislative acts

None

Other normative acts

None (relevant policies are established by administrative decisions)

Official documents (white papers, strategies, etc.)

Business Continuity Planning for Severe Weather

Forfas; Available at: http://www.forfas.ie/media/Forfas04012012-Business_Continuity_Planning-English%20Version%20Updated.pdf

Cork City Major Emergency Plan; Available at:

<http://www.corkcity.ie/services/corporateandexternalaffairs/corkcitycouncilmajoremergencyplan/Cork%20City%20Council%20Major%20Emergency%20Plan.pdf>

Department of Defence Business Continuity Plan; June 2014.

Dublin City Major Emergency Plan; Available at:

http://www.dublincity.ie/sites/default/files/content//WaterWasteEnvironment/Major_Emergency_Planning/Documents/DCC%20MEP%202013.pdf

National Plan for Pandemic Influenza

(hse.ie/eng/services/Publications/corporate/Emergency_Management/Pandemicplan.html)

National Emergency Plan for Nuclear Accidents

(environ.ie/en/Environment/EnvironmentalRadiation/NationalEmergencyPlan/)

National Climate Change Strategy

(environ.ie/en/Environment/Atmosphere/ClimateChange/NationalClimateChangeStrategy/)

National Risk Assessment for Ireland 2012

(emergencyplanning.ie/media/docs/A%20National%20Risk%20Assessment%20for%20Ireland%20Published.pdf)

Draft National Risk Assessment 2014

Available at:

http://www.taoiseach.gov.ie/eng/Publications/Draft_National_Risk_Assessment_2014.pdf

Framework for Major Emergency Management (and appendices) (mem.ie/framework.htm)

Online resources (e.g. websites of key CM organizations)

Office of Emergency Planning (emergencyplanning.ie)

National Directorate for Fire and emergency management

(environ.ie/en/Community/NationalDirectorateforFireandEmergencyManagement/)

Environmental Protection Agency (epa.ie)

Office of Public Works (flood control) (flooding.ie, floodmaps.ie)

Health Service Executive (hse.ie)

Department of Foreign Affairs & Trade (aid division) (irishaid.ie)

Irish Red Cross (redcross.ie)

Irish Civil Defence (civildefence.ie)

Irish Meteorological Service (meteireann.ie)

Irish Aviation Authority (iaa.ie)

Irish Coast Guard (dttas.ie/maritime/english/irish-coast-guard-ircg)

Publications

Department of Defence; “Strategic Emergency Planning Guidance”, Available at:

<http://www.emergencyplanning.ie/media/docs/1SEPG.pdf>

Department of Defence; “A Risk Assessment for Ireland”, Available at:

<http://www.emergencyplanning.ie/media/docs/A%20National%20Risk%20Assessment%20for%20Ireland%20Published.pdf>

Department of Defence; “Be Winter Ready Handbook”, Available at:

<http://www.winterready.ie/pdfs/BeWinterReady-Web.pdf>

Department of Environment, Community and Local Government; “Keeping Communities Safe – A Framework for Fire Safety in Ireland”, Available at:

<http://www.environ.ie/en/Publications/Community/FireandEmergencyServices/FileDownload,32381,en.pdf>

Department of Transport, Tourism & Sport; “TRANSPORT INFORMATION GUIDE DURING SEVERE WEATHER 2013-2014”, Available at:

<http://www.dttas.ie/sites/default/files/publications/corporate/english/transport-information-guide-during-severe-weather-2013-2014/transport-media-info-guide-severe-weather-2012-2013-final.pdf>

MEM Project Team; "A Framework for Major Emergency Management", Available at:
<http://www.mem.ie/memdocuments/a%20framework%20for%20major%20emergency%20management.pdf>

MEM Project Team; "A Framework for Major Emergency Management- Appendices", Available at:
<http://www.mem.ie/memdocuments/a%20framework%20for%20major%20emergency%20management%20appendices.pdf>

MEM Project Team, "A Guide to Flood Emergencies", Available at:
[http://www.mem.ie/guidancedocuments/A%20Guide%20to%20Flood%20Emergencies%20-%20Ver%202011%20\(July%202013\).pdf](http://www.mem.ie/guidancedocuments/A%20Guide%20to%20Flood%20Emergencies%20-%20Ver%202011%20(July%202013).pdf)

MEM Project Team, "A Guide to Local Coordination Centres", Available at:
<http://www.mem.ie/guidancedocuments/a%20guide%20to%20local%20coordination%20centres.pdf>

MEM Project Team; "A Guide to Managing Evacuation", Available at:
<http://www.mem.ie/guidancedocuments/a%20guide%20to%20managing%20evacuation.pdf>

MEM Project Team; "A Guide to Miscellaneous Issues", Available at:
<http://www.mem.ie/guidancedocuments/a%20guide%20to%20miscellaneous%20issues.pdf>

MEM Project Team; "A Guide to Seveso Obligations", Available at:
<http://www.mem.ie/guidancedocuments/a%20guide%20to%20seveso%20obligations.pdf>

MEM Project Team; "A Guide to Planning and Staging Exercises", Available at:
<http://www.mem.ie/guidancedocuments/a%20guide%20to%20planning%20and%20staging%20exercises.pdf>

MEM Project Team; "A Guide to Preparing a Major Emergency Plan", Available at:
<http://www.mem.ie/guidancedocuments/a%20guide%20to%20preparing%20a%20major%20emergency%20plan.pdf>

MEM Project Team; "A Guide to Risk Assessment in Major Emergency Management", Available at:
<http://www.mem.ie/guidancedocuments/a%20guide%20to%20risk%20assessment.pdf>

MEM Project Team; "A Guide to Undertaking an Appraisal" Available at:
<http://www.mem.ie/GuidanceDocuments/A%20Guide%20to%20Undertaking%20an%20Appraisal.pdf>

MEM Project Team; "A Guide to Working with the Voluntary Emergency Services", Available at:
http://www.mem.ie/guidancedocuments/A%20Guide%20to%20Working%20with%20the%20VES_Jan%202011.pdf

MEM Project Team; “A Guide to Working with the Media”, Available at:

<http://www.mem.ie/guidancedocuments/a%20guide%20to%20working%20with%20the%20media.pdf>

MEM Project Team; “A Guide to Severe Weather Emergencies”, Available at:

<http://www.mem.ie/GuidanceDocuments/SevereWeatherEmergencies.pdf>

MEM Project Team; “Inter Agency Public Communication Plan Media Liaison”, Available at:

<http://www.mem.ie/GuidanceDocuments/Inter%20Agency%20Public%20Communication%20Plan%20Media%20Liaison.pdf>

MEM Project Team; “A Guide to Motorway & Dual Carriageway Emergencies - Strategic”, Available at:

<http://www.mem.ie/GuidanceDocuments/A%20Guide%20to%20Motorway%20&%20Dual%20Carriageway%20Emergencies%20-%20Strategic.pdf>

MEM Project Team; “A Guide to Motorway & Dual Carriageway Emergencies - Tactical”, Available at:

<http://www.mem.ie/GuidanceDocuments/A%20Guide%20to%20Motorway%20&%20Dual%20Carriageway%20Emergencies%20-%20Tactical.pdf>

MEM Project Team; “A Protocol for Multi-Agency Response to Flood Emergencies”, Available at:

<http://www.mem.ie/memdocuments/a%20protocol%20for%20multi-agency%20response%20to%20flood%20emergencies.pdf>

MEM Project Team; “A Protocol for Multi-Agency Response to Radiological/ Nuclear Emergencies”, Available at:

<http://www.mem.ie/memdocuments/a%20protocol%20for%20multi-agency%20response%20to%20radiological-nuclear%20emergencies.pdf>

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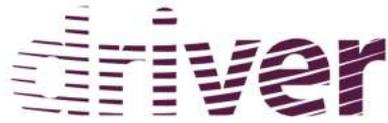
Office of Emergency Planning (including visit)

Cork City Council

Cork County Council

Dublin City Council

Dublin Fire Brigade



Driving Innovation in Crisis Management for **European Resilience**

ISRAEL

Capabilities, Organisations, Policies, and Legislation (COPL) in crisis management and disaster response

Responsible Partner: FhG-INT (Maïke Vollmer, Isabelle Frech)

Scope and limitations

This study serves as supporting information for further work within DRIVER.

Only limited time and budget has been available for this first general survey, which needs to be considered in terms of scope and completeness of the respective studies.

The author/s of this study is/are responsible for its content and quality.

Overview

The Israeli approach to emergency management is based primarily on the need to prepare for and respond to attacks against the nation. The strongest danger facing Israel is war related, and thus out of DRIVER's scope, while the respective development of the emergency management system also strongly affects the management of other types of crisis ("single-hazard based approach" – counting on overlaps and spinoffs from preparation for one type of hazard that can also be applied to managing other types of hazards). The Israeli emergency management system has also been called a "military-centric" model (Rozdilsky 2009).

Among natural disasters, earthquakes are the major field of concern, and organisations put strong efforts in respective risk assessments, and approaches to prepare for and cope with consequences of earthquakes. In addition, also wildfires and storms have caused major disasters.

Main involved organisations in emergency management are the following: In the event of a non-war emergency, the *Israel Police* are the first responders and have operational responsibility over all the rescue services such as *Magen David Adom (MDA)* and the *Fire Service*. In these cases, the Police is in charge (incident commander), and the *National Emergency Authority (NEMA)*, established in 2007 as part of the *Ministry of Defense*, is taking care of the inter agency coordination.

The *Ministry of Public Security* is responsible for the operational preparation and the readiness for emergencies and crisis, of all the authorities subjected to it: the Israel Police, the Israel Prison Service and the Fire and Rescue services.

In case of a large scale event, the incident management can be handed over from the Police to the *Home Front Command (HFC)*, a section of the *Israel Defense Forces (IDF)*, by a governmental decree (which has never happened to date). In other events, HFC is involved with tasks such as Search & Rescue (Ministry of Public Security 2014; expert interview).

Regarding international assistance to Israel, main involved institutions are the *Ministry of Foreign Affairs*, the *Primary Office*, and NEMA. NEMA provides recommendations to the Primary Office, and the Ministry of Foreign Affairs sends out requests for international support.

Volunteers in emergency management are active at the Israel Police, the Fire and Rescue Services, and MDA.

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Figure 1: Districts of Israel (Source: Wikipedia 2014) 7

List of Abbreviations

CBS	Central Bureau of Statistics
CTSC	Commanders' Training Simulative Center
HFC	Home Front Command
IDF	Israel Defense Forces
MDA	Magen David Adom in Israel
NEMA	National Emergency Management Authority

1 Policy

Israel operates under a parliamentary democracy.

The legislative branch is the Knesset, which is the parliament of the State of Israel. It has parliamentary sovereignty, and enacts legislation on every issue.

The executive branch includes the government and government ministries.

The judiciary includes the system of courts: the Supreme Court, the District Court, Magistrates Court, Court for Local Affairs, Religious Court, Traffic Court, Labour Court, Juvenile Court, etc.

The President is elected by the Knesset every seven years, and his main duties are representational.

The incumbent President is Shimon Peres.

The incumbent Prime Minister is Binyamin Netanyahu.

Local authorities are the municipalities, local councils, and regional councils. These authorities have governmental and administrative powers in their areas of jurisdiction, and are responsible for provision of services to their constituencies .

There are six main administrative districts of Israel (see figure 1): Center, Haifa, Jerusalem, North, Southern, and Tel Aviv Districts. The Judea and Samaria Area, as well as parts of the Jerusalem and North districts are not recognized internationally as part of Israel (Wikipedia 2014).



Figure 1: Districts of Israel (Source: Wikipedia 2014)

1.1 Risk Assessment

The primary danger facing Israel is war related, and thus out of DRIVER's scope – the danger from missile or rocket attack (HFC 2014b).

Following disaster statistics of EM-DAT, the following events belong to the most severe natural disasters in Israel: Storm in December 2013 (> 2 Mio. people affected), wildfire in December 2010 (> 20.000 people affected, assistance through EU Civil Protection Mechanism was provided), and flood in December 1998 (1.000 people affected) (EM-DAT 2014; EC 2013).

Even though earthquakes do not appear in these statistics, they are a major concern, they are the threat considered most likely among natural hazards.

The national assessment of risk is an ongoing process and conducted as follows:

The National Emergency Management Authority (NEMA, see chapter 3.1) *is responsible for preparing a national risk profile of security issues that might occur during peace or war times – both conventional and CBRN events. The results of the risk assessment are distributed to all government ministries, which are then required to prepare a sectoral risk assessment report aligned with the overall national programme, covering areas that are under their responsibility. The preparation of the national risk profile is performed by system analysis professionals, based on protocols and procedures developed to ensure in-depth collection and management of relevant information from numerous sources. The profile is reviewed periodically and updated as needed, in accordance with changes in the region (WHO 2012).*

The National Inter-Ministerial Committee for Earthquake Preparedness *was given responsibility for preparing a national risk profile of natural disasters focusing on earthquakes, which are considered to be the most likely threat (among natural causes) to Israel. In order to do so, information from various sources was collected and analysed and the national risk defined, including references to forecasted casualties, damage to infrastructure, implications for the population, and so on. The risk assessment was formally adopted by the government and disseminated to all ministries to serve as the basis for developing a response. Discussions are currently taking place regarding the appropriateness of the risk profile: various experts have expressed their view that with the advancement of risk assessment methodologies, as well as lessons learned from earthquakes in different parts of the world and in the region, it may be that the present profile is too severe. As a result, the national risk profile for earthquakes is undergoing a process of re-evaluation (ibid).*

Overall coordination of risk assessments, national risk profiles and emergency preparedness planning is conducted by NEMA, which also prepares annual reports on the activities implemented by all agencies as part of emergency management programmes (ibid.).

1.2 Policy and Governance

1.2.1 Strategy scope and focus

The strategic approach to crisis management seems to cover all necessary activities for prevention (incl. resilience actions), preparedness, response (incl. mitigation), and recovery. NEMA's responsibilities, for example, "cover all components of emergency management, including disaster risk reduction, prevention, mitigation, response, reconstruction and rehabilitation activities" (see chapter 3.1). Further verification of the strategy scope and focus was not possible in the framework of this study.

1.2.2 Monitoring and analytical support to policy making; R&D

A comprehensive overview was not possible in the framework of this study. Main research institutions with regard to the main hazard earthquakes are the Geological Institute of Israel, the Geophysical Institute of Israel, and the National Building Research Institute of the Technion (Laor 2005). Further, the Institute for National Security Studies can be named.

The Ministry of Public Security "conducts research in the field of public security through the Ministry's Bureau of the Chief Scientist and the newly established Research unit of Strategy and Policy Planning Department.

The Bureau of the Chief Scientist is a professional scientific agency within the Ministry of Public Security, whose principal responsibility is to develop, formulate and promulgate science-driven law enforcement policy as it relates to public security and combating crime in the State of Israel.

The Ministry works in conjunction with the research division in the Israel Police and the Israel Prison Service" (Ministry of Public Security 2014e).

R&D activities at the Home Front Command comprise a) crisis management, situation awareness and disaster resilience, b) critical infrastructure protection, and c) communication technologies and interoperability (HFC 2014d).

Also MDA is involved in respective research activities.

1.2.3 Policy for Prevention

Specific policies distinguished by prevention, preparedness, response, relief and recovery could not be identified in the framework of this study. For organisation, lead responsibilities etc. in emergency management see chapter 3.1 and 3.2.

1.2.4 Policy for Preparedness

Specific policies distinguished by prevention, preparedness, response, relief and recovery could not be identified in the framework of this study. For organisation, lead responsibilities etc. in emergency management see chapter 3.1 and 3.2.

1.2.5 Policy for Response

Specific policies distinguished by prevention, preparedness, response, relief and recovery could not be identified in the framework of this study. For organisation, lead responsibilities etc. in emergency management see chapter 3.1 and 3.2.

1.2.6 Policy for Relief and Recovery

Specific policies distinguished by prevention, preparedness, response, relief and recovery could not be identified in the framework of this study. For organisation, lead responsibilities etc. in emergency management see chapter 3.1 and 3.2.

1.3 Financing

1.3.1 Investing in preparedness

Concrete figures could not be obtained, as too many issues and types of budgets from several organisations would need to be included (expert interview).

However, “emergency preparedness in Israel is a national priority: extensive efforts and resources are continuously invested to ensure readiness for all anticipated potential hazards” (WHO 2012).

MDA as an example spends max. 0.5 million € on training and preparedness (expert interview).

1.3.2 Investing in consequence management

See chapter 1.3.2, no concrete figure could be obtained.

1.4 Policy review, Evaluation & Organisational Learning

1.4.1 Post-Disaster Assessment

See chapters 1.4.2 – 1.4.5.

1.4.2 Departmental Lessons Learned systems

While it could not be verified for each single organisation (see chapter 3.1), in general the involved organisations have their own internal lessons learned system (expert interview).

1.4.3 Centralised (national) Lessons Learned system

For missions under Police control (no war-like or large scale events), the Police conducts an evaluation in the aftermath of the event. Results are shared with all organisations involved in the mission (expert interview).

For the overall picture, NEMA collects all available lessons learned reports, compiles and evaluates them (expert interview).

1.4.4 International exchange for Lessons Learned

Israel participates in international trainings and exercises, while no specific information on international exchange for Lessons Learned could be obtained in the framework of this study.

1.4.5 Regular policy reviews

The WHO report on “Assessment of health-system crisis preparedness – Israel” states in the context of health crisis preparedness that “National management policies are closely and frequently reviewed to ensure their appropriateness and their modification is disseminated to all concerned parties” (WHO 2012).

1.5 Resilience

Israel implements the concept of resilience, there is an overall written strategy (only in Hebrew), which has influence on several sectors, including e.g. education. In further documents, needs or gaps with regard to resilience are mapped for different levels, and respective answers are mapped to these gaps. Specific guidelines for the public on how to behave in hazardous situations, are supposed to enhance public awareness and thus overall resilience (expert interview).

No specific standards being used could be identified, but there are efforts to standardize processes, and to implement international standards (ISO) (expert interview).

A method for assessing community resilience has been developed in Israel – a result of the accumulation of over 30 years’ experience of society’s exposure to emergencies and threat. This method, the Conjoint Community Resiliency Assessment Measure (see Leykin et al. 2013), is being adopted by various government ministries as well as the Home Front Command (HFC) in order to assess, monitor, and evaluate the resilience of the population and its systems for coping with disasters. It enables the identification of weak points – such as leadership, knowledge, social cohesion or security – in order to direct intervention to strengthening these areas (WHO 2012).

1.6 Information sharing and data protection

1.6.1 Please describe whether the country/ IO has adopted specific policies, measures or derogations from EU law with regard to data protection to enable:

- *the sharing of personal data during crises [in 'extreme cases'] or for crisis management purposes, e.g. data on people with particular disabilities*
- *the sharing of classified information (internally and with third states/ organisations), e.g. data about specific vulnerabilities or about terrorist threats*

No regulations on data protection in this context could be identified.

1.6.2 Does the country/IO have registers/databases of volunteers? If yes, under what circumstances can data be used/ shared? e.g. particular capabilities, level of readiness/ availability, contact information

Volunteers are active (at least) at the Israel Police, the Fire & Rescue Authority, and MDA. No overall database of volunteers could be identified.

1.6.3 Does the country have or plan to use data gathered from social media during crises? If so how? (e.g. "crowd sourcing" and "crowd tasking", "citizen as a sensor")

In general, the use of social media seems to play a minor role. It is mostly not actively used by emergency managers – but monitored (expert interview).

Most emergency services instruct the public not to turn to social media to report emergencies or request assistance, but the emergency agencies are nevertheless asked to monitor all their digital platforms for signs of distress and respond when necessary, as well as update them with accurate information in a timely matter.

In terms of reaching the public using social media, it should be considered that part of the Israeli population does not speak Hebrew. Further, Israel has a large Jewish ultra-Orthodox community that does not have much exposure to new media (Ministry of Public Security 2014h).

However, the Israel Police runs a Facebook page, which has been proved useful also in crisis situations, as described on the website of the Ministry of Public Security:

Yamincha, who runs the internet and new media desk at the Israel Police with a staff of 15, manages the Israel Police Facebook page. With over 100,000 followers and climbing, an active Twitter account with over 1,500 followers, a YouTube account and a new and improved website, the Israel Police's presence on the internet and social media sites is a powerful tool for fighting crime and serving the public. [...]

Beyond fighting crime, the Facebook page is a valuable tool in reaching the public and providing it with up-to-date, sometimes vital information. In December 2010, Israel experienced one of its deadliest fires ever, when the Mt. Carmel forest fire tore through Northern Israel for four days. Forty-four people were killed, 25 square kilometers of forest land was burned, and 100 homes were destroyed. "First, people started posting pictures of smoke from outside their windows," Yamincha says of the beginning of the fire. Once pictures were posted and the word got out, residents near the fire and concerned family members began inundating the emergency hotlines. Once the phones crashed, everyone turned to Facebook. "We realized it was going to be a long night," says Yamincha.

For the next four days, the Facebook page fielded, on average, a question every two minutes. “We replaced the hospitals, the army and the home front command. People couldn’t get in touch with them so they contacted us; and we answered each of their questions. And if we didn’t know the answer, we had contacts who could find out for us,” says Yamincha.

Instead of having to disseminate information through typical media sources, the Israel Police had access to the public directly through their Facebook page, where they posted official guidelines and information. Additionally, as part of the spokesperson’s office, the staff running the Facebook page had information streaming in from all other spokespeople, and was the most up-to-date source. As Yamincha puts it, “The media would update themselves based on our posts and answers” (Ministry of Public Security 2014f).

Also during a heavy snow storm in 2013, in which many cities lost power and had inaccessible roads, many citizens and even municipal representatives used social media to report power outages and blocked roads to the relevant emergency authorities (Ministry of Public Security 2014h).

Besides these “success stories”, the Israel Police also states challenges of Facebook:

According to Yamincha, managing an official police Facebook page is a challenge, which requires constant attention. He says the most important thing is to have adequate staff. “You need people; and they have to be experts – experts at writing content, and experts at new media. You have to know how to write, what to write, when, and how often.”

Additionally, there is the challenge of allowing users freedom to post whatever they want. Yamincha says the police’s Facebook wall is open to the public and uncensored. However, it does uphold Facebook’s terms of use, which forbid hateful, pornographic, unlawful or discriminatory content; and Yamincha blocks users who leave posts that violate those terms. So far, Yamincha says he has only had to block 140 users.

Moreover, Yamincha says the constant presence of the police on the internet – working from 6 a.m. to 1 a.m. – creates a false sense that they can respond to anything. “I’m scared that we won’t be in time when something happens,” he says. “Almost everyday people tell us that they’ve seen another user post something about wanting to commit suicide, and we try to locate them. We deal a lot with that.”

What was once a platform for friends to post pictures and stay in touch is now an entire world, where users exchange information, and can affect real change in the world. The police prevent crimes, save lives, and catch criminals through Facebook, and citizens now have a new place to turn in times of emergency, or when they have a question. While there are risks and dangers to Facebook and other social media applications, the Israel Police has managed to harness the power of Facebook for the good of society, and is always improving (Ministry of Public Security 2014f).

For further information on crisis communication, including a planned development of an “Emergency App”, see chapter 4.4.

2 Legislation

2.1 Crisis (emergency, disaster) management concept

A dedicated crisis management concept, other than the structures and documents described in this report, could not be obtained in the framework of this study.

2.2 General crisis (emergency, disaster) management law

The WHO “Assessment of health-system crisis preparedness – Israel” compiled essential attributes on the legal framework for national multisectoral emergency management:

Legal framework for multisectoral emergency management

Israel has had to deal with emergency situations since the declaration of its independence in May 1948. As a result, the national laws, decrees, regulations and guidelines provide extensive authority to the different ministries, clearly delineating roles, responsibilities and managerial tools for emergency preparedness and response. Several laws and government policies, as well as binding guidelines and regulations designated to ensure provision of vital services during emergencies, have been legislated and enacted during the 64 years of the country’s existence.

Emergency Regulations

The Emergency Regulations were enacted by the Israeli Parliament in May 1948. The regulations authorize ministers to activate emergency measures that are required to ensure provision of vital services to the state’s population. The regulations are very powerful tools: upon their application they supersede most other laws. Because of their potential strength, since 2010 these regulations have been under review by all ministries, coordinated by the Ministries of Defense and Justice which are designated to maintain the necessary authority to direct emergency management procedures. Nevertheless, efforts are being made to limit the measures that will be integrated in the Emergency Regulations, to avoid as far as possible any violation of human rights.

Civil Defense Law

The Civil Defense Law of 1951 authorizes implementation of all actions pertaining to the well-being of Israel’s population during periods of emergency. The law establishes the civil defence service; mandates the construction and upkeep of shelters in all buildings, both residential and industrial; enables the state’s authority to make use during emergencies of infrastructure, resources or equipment, regardless of their ownership (whether private or public); and provides the Ministry of Defense with the authority and responsibility for directing the overall smooth operation of all vital services, in order to ensure their provision to the population. The law also

defines a civil state of alert and lays down regulations regarding the use of toxic and hazardous materials. [...]

The declaration of a state of emergency can be activated for the whole state or can cover a specific territory (referred to as “special situation of the home front”). The emergency that triggers this declaration can result from various types of threat, such as war or limited military confrontations, major terror attacks, epidemic outbreaks, natural disasters or operational incidents (with the potential of becoming mass disasters).

Modification of the Police Ordinance

The Police Ordinance was modified in 2005 in order to authorize the Minister of Internal Security to declare a state of “mass disaster” for a period of up to 48 hours. Upon its application, police officers are responsible for the control and command of all on-site operations during the event. Accordingly, the police are authorized to direct operations of all first responders, to confiscate any resource needed by rescue agencies (regardless of ownership) and to close areas or prohibit entrance or exit.

Risk reduction – National Master Plan 38

One of the threats faced by Israel is the potential occurrence of a severe earthquake. As part of the risk reduction programme, rigid building codes were implemented in 1975 as a modification of the Planning and Building Law enacted in 1965. Since many buildings were constructed before the modification of the law, National Master Plan 38 was legislated in 2005, encouraging property owners to implement measures designed to strengthen buildings constructed before 1980 and to enhance their survivability during an earthquake. As part of this programme, in order to provide motivation for its implementation, building owners are eligible for additional building rights if they execute the strict regulations. The Plan, which was initially valid for five years, was extended in 2009 for an additional period of five years to 18 May 2015.

See also chapter 2.3 for laws depending on the existence of a state of emergency.

2.3 Emergency rule

Following article 38 of the Basic Law, the Government determines how an emergency is declared and who has the authority to do so. Article 39 deals with the setting up of emergency regulation (Cabili et al. 2014). The state of emergency has been declared shortly after the inception of the state in 1948, and has been renewed annually, thus Israel has lived in a permanent state of emergency until today. Thanks to the state of emergency, the Israeli legislature (the Knesset) could pass emergency legislation which could violate normal principles of civil liberty as the Knesset saw fit or needed. It has passed and renewed emergency legislation covering a wide range of areas of Israeli society and commerce (Kirshbaum 2007).

Cabili et al. (2014) compiled the following regarding the general state of emergency:

Who may declare the state of emergency and under what conditions?

According to Article 38(a) of the Basic Law: The Government: "Should the Knesset ascertain that the State is in a state of emergency, it may, of its own initiative or, pursuant to a Government proposal, declare that a state of emergency exists". However, the Government itself has the power to declare a state of emergency, meeting the conditions of Article 38(c) of the Basic Law: The Government: "Should the Government ascertain that a state of emergency exists in the State and that its urgency necessitates the declaration of a state of emergency, even before it becomes possible to convene the Knesset, it may declare a state of emergency...".

Moreover, the Knesset's rules of procedure [...] set a number of conditions and procedures regarding the declaration (both by Government and the Knesset). For example, the Knesset's decision to declare a state of emergency will not be accepted without a recommendation from the joint committee, that includes the Knesset's Constitution, Law and Justice Committee and the Foreign Affairs and Defense Committee (hereinafter: the joint committee). The joint committee must submit her recommendation to the Knesset for approval. If the recommendation is regarding renewal of a state of emergency, the recommendation must be submitted to the Knesset's approval no later than 14 days before the state of emergency comes to end.

If a state of emergency has been declared by the government, the government must immediately notify the Speaker of the Knesset and the chairman of the joint committee. The committee should discuss the declaration and submit the recommendation to the Knesset for approval "as soon as possible".

According to Article 38(d) to the Basic Law: The Government, the declarations should be published in the official Gazette (Reshumot) and "should publication in Reshumot not be possible, another appropriate manner will be adopted, provided that notification thereof be published in Reshumot at the earliest possible date".

Statutes that come into force during emergency

The Validity of many laws that were passed over the years depends on the existence of a declaration of a state of emergency. If this declaration will be terminated, these provisions/laws will be repealed along with termination of the state of emergency. Hence, a state of emergency in Israel is consistently extended.

Among the above mentioned laws one can find specific provision of the Tort Ordinance; the Emergency Land Requisition (Regulation) Law, 1949; provisions of the Legal and Administrative Matters (Regulation) Law [Consolidated Version], 1970; the Emergency Powers (Detention) Law, 1979, that provides the legal framework for administrative detentions (see below); the Law Governing the Control of Commodities and Services, 1957, which enables to impose regulation on the market. The law enables that by using orders that allow for general control over commodities and services, including price control, control over sales and purchases of goods and services that were declared as "subjects to control" and control over the actions and conduct of factories engages in "crucial activity", as it is defined by the law; Prevention of Terrorism Ordinance, 1948; and more.

How does a state of emergency end?

The duration of a declaration of a state of emergency by the Knesset will be in accordance with the period prescribed in the declaration, but may not exceed one year.

The Knesset may repeatedly declare a state of emergency (renew the declaration as stated); as mentioned, every year she does so. In fact, since the declaration of independence in 1948, Israel has been under the declaration of a state of emergency, which is yet to be revoked.

As to a declaration made by the Government, according to Article 38(c) of the Basic Law: The Government, "the declaration's validity shall expire upon 7 days from its proclamation, if not previously approved or revoked by the Knesset, pursuant to a decision by a majority of its members; should the Knesset fail to convene, the Government may make a renewed declaration of a state of emergency as stated in this subsection".

As mentioned, the Knesset has the power to terminate a declaration of a state of emergency at any time, regardless the question what branch of the government declared it (such termination should be published in Reshumot)

Besides this, there is primary (Knesset) legislation that allows the declaration of specific states of emergencies, independently of the existence of a general state of emergency. For example, (see chapter 2.2,)

The Police Ordinance was modified in 2005 in order to authorize the Minister of Internal Security to declare a state of "mass disaster" for a period of up to 48 hours. Upon its application, police officers are responsible for the control and command of all on-site operations during the event. Accordingly, the police are authorized to direct operations of all first responders, to confiscate any resource needed by rescue agencies (regardless of ownership) and to close areas or prohibit entrance or exit (WHO 2012).

2.4 Specific, department/agency-level legal arrangements and regulations on emergency and disaster management

Information could not be obtained in the framework of this study.

2.5 Specific to the regional and local authorities legal arrangements and regulations on emergency and disaster management

Information could not be obtained in the framework of this study.

2.6 Legal regulations on the involvement of volunteers and specialised NGOs

Information could not be obtained in the framework of this study.

2.7 Legal regulations for international engagements of first responders and crisis managers

Information could not be obtained in the framework of this study.

3 Organisation

3.1 Organisational chart

The following organisations have a crucial role in the Israeli crisis management (in terms of the DRIVER understanding of crisis):

- Government Ministries, especially
 - o Prime Minister's Office
 - o Ministry of Public Security
 - o Ministry of Foreign Affairs
 - o Ministry of Defense
 - o Ministry of Health
- Public security bodies
 - o The Israel Police
 - o (National) Fire and Rescue Authority
- Magen David Adom
- Israel Defense Forces, including the Home Front Command
- National Emergency Authority/ Reshut Heyrum Le'umit

Further institutions not dedicated to crisis management services might be involved, e.g. Israel Airports Authority, Israel Ports Company.

In the event of a non-war emergency, the Israel Police are the first responders and have operational responsibility over all the rescue services such as Magen David Adom (MDA) and the Fire Service. In these cases, the Police is in charge (incident commander), and the National Emergency Authority (NEMA), established in 2007 as part of the Ministry of Defense, is taking care of the inter agency coordination.

The Ministry of Public Security is responsible for the operational preparation and the readiness for emergencies and crisis, of all the authorities subjected to it: the Israel Police, the Israel Prison Service and the Fire and Rescue services. In case of a large scale event, the incident management can be handed over from the Police to the Home Front Command (HFC), a section of the Israel Defense Forces (IDF), by a governmental decree (never happened so far). In other events, HFC is involved with tasks such as Search & Rescue (Ministry of Public Security 2014; expert interview).

In the following, tasks and responsibilities of the Ministry of Public Security, the Police, the Fire and Rescue Authority, MDA, HFC, and NEMA will be described in detail.

Ministry of Public Security

Following an overview document provided by the Ministry of Public Security (Ministry of Public Security 2014c), the Ministry

was founded in 1948 as the Ministry of Police. Its Minister has three areas of responsibility – public security, law enforcement and corrections – as well as a number of operational bodies: The Israel Police, Israel Prison Service, Israel Fire and Rescue Authority, Israel Anti-Drug and Alcohol Authority and the Witness Protection Authority.

The Ministry's vision is

to bring about a significant improvement to the personal security, sense of security and communal security of the citizens of Israel; and create a law-abiding society that rejects violence and crime, all in order to provide a higher quality of life for the citizens and residents of the state of Israel.

The Ministry's mission is

to serve as the primary arm of the Israeli government responsible for law enforcement, crime prevention, safeguarding lives and property, maintaining public order, protecting the public from terror attacks, incarcerating and rehabilitating criminals, protecting witnesses, preventing violence in society, preventing drug and alcohol abuse, preventing and fighting fires and overseeing firearm licensing.

About the Ministry

The Ministry of Public Security carries out its public security operations and responsibilities through its operational bodies: The Israel Police, the Israel Prison Service, the Israel Fire and Rescue Authority, the Israel Anti-Drug and Alcohol Authority and the Witness Protection Authority.

The administration of the Ministry of Public Security is headed by a Director-General, under whom serve four Deputy Directors and other department heads. The main Deputy Director oversees various departments in the Ministry and takes over for the Director-General in his absence; while the other three Deputy Directors are responsible for operations, human resources, and the Planning, Budget and Monitoring Department.

The operational bodies of the Ministry coordinate their operations with the Minister through his Security Secretariat. The Security Secretariat also aids the Minister in formulating operational policy, monitoring the activities of the bodies and more. The Ministry collaborates with other organizations throughout the world to promote public security; and does so through its International Relations Department, which aims to promote cooperation and develop relations with parallel ministries, institutions and organizations abroad.

Policy targets of the Ministry

- *Significantly improving the level of personal and communal security*
- *Fighting organized crime, severe crime & public corruption*
- *Improving operational readiness for emergencies*
- *Reducing road accidents*

- *Improving rescue and recovery capabilities*
- *Improving security measures, detention conditions & the rehabilitation of prisoners*
- *Increasing the efficiency of the Ministry*
- *Strengthening international cooperation*

Emergency preparedness at the Ministry of Public Security

The Ministry of Public Security is responsible for the operational readiness of all the authorities subject to it in times of emergency and during crisis situations. The Ministry is responsible for Israel's first responders – the Israel Police and the Israel Fire and Rescue Authority. During crisis situations the Ministry is in contact with the various agencies and organizations that aid in emergencies, and coordinates operations with the operational bodies under its authority.

In times of emergency, the Ministry works to:

- *Establish a clear picture of the situation and aid the Minister in policy formation and decision making and to provide guidelines in the areas under his authority*
- *Carry out the instructions of the government and the military cabinet*
- *Preserve the normal fabric of life in Israel and keep essential institutions open*

Emergency Fusion and Operations Center

In order to provide the Minister with up-to-date information and aid him in formulating policies and decision making in times of crisis, the Ministry operates an advanced Emergency Fusion and Operations Center, which provides a common operating picture of the emergency and rescue agencies. The Emergency Fusion and Operations Center aids in evaluating risks, providing situational assessments and making recommendations for the best and most relevant policy.

The Emergency Fusion and Operations Center is manned by representatives of the Israel Police, the Israel Prison Service, the Israel Fire and Rescue Authority, the National Emergency Authority, the Home Front Command and others. In addition, the Ministry is assisted by a group of volunteers – former senior officers – that aid the Ministry with their professional and operational experience in dealing with emergency situations, and act as the Ministry's liaisons with other agencies in times of emergency.

Logistics and Continuous Functionality Forum

In addition to the fusion center, the Ministry also employs a forum which works to provide the Ministry with logistic solutions by overseeing the Ministry's operational bodies and responding to any logistical needs, with the goal of keeping essential institutions running and functional.

Emergency & Crisis Situation Think Tank

The Ministry has a Crisis Situation Think Tank which assists the Minister in decision making, risk management, formulating alternative courses of action and aiding in public relations and media strategy.

Israel Police

The Israel Police operates in compliance with the Police Act of 1971 and additional articles of legislation.

The Israel Police is under the Ministry of Public Security. It is a national level police force, comprised of some 30,000 sworn officers reinforced by 40,000 volunteers.

The Israel Police is the only police organization in Israel and therefore its work includes all aspects of conventional policing, from the local through the national levels. In addition, it has an important role in the fight against terrorism. Its work is guided by the values and principles of the democratic government of the state of Israel.

The task of the Israel Police is to maintain the quality of life, law enforcement and enforcement of traffic regulations, as well as providing guidance on preventive measures for the safety and protection of the population (information provided in context of expert interview, 2014).

Disaster management

Israel Police is the first responder to any emergency event and responsible for solving the immediate situation. In case of an on-going event the Israel Police is responsible for integration of all emergency forces & command & control of the event (ibid.).

Fire and Rescue authority

The Fire and Rescue services are in charge of preventing, extinguishing, and preventing the spread of fires; as well as rescuing people and salvaging property. The firefighters deal with fires in homes and open spaces; handle hazardous substances; rescue victims from road accidents; and any other life and property saving scenario.

The Fire and Rescue Commission operates under the authority of the Ministry of Public Security. The Minister of Public Security is the minister in charge of appointing the Fire and Rescue Commissioner. Currently, the commissioner is Shahar Ayalon. [...]

Background

According to the Firefighting Services law of 1959, the Fire and Rescue services are in charge of putting out and preventing fire, as well as rescuing people and property. The fire and rescue services are municipal services, provided within the framework of municipal unions and municipal firefighting units, and they are in charge of incidents that occur within their jurisdiction.

The Structure of the Firefighting Alignment in Israel

The Fire and Rescue services in Israel are made up of 24 authorities, 20 of which are municipal unions for fire and rescue services, and four which are municipal divisions. The firefighting services are spread across 95 fire stations all over the country.

The service is headed by a commander, who is responsible for the daily operational implementation of the service, and who is subjected to the management of the firefighting authority.

As of 2011 there were a total of 1,900 firefighters, engineers and administrative workers in the fire and rescue services (Ministry of Public Security 2014c).

Magen David Adom

Magen David Adom (MDA) in Israel was established in 1930.

MDA is a national organization, and works in cooperation with other emergency and security authorities (Israeli Police, IDF, Fire fighters etc.)

MDA's objectives and its legal status are defined in section 3 of the Magen David Adom Law passed by the Knesset (Israel's Parliament) on July 12, 1950:

- *to carry out the functions of a national society, to be an auxiliary service to the Israeli Defense Forces in time of war and to be prepared for this in times of peace;*
- *to provide pre hospital emergency medical services.*
- *to provide the national blood services incl. collecting, processing, distributing and storage services of blood, plasma and their by-products;*
- *to carry out any additional functions determined by the Society's By-Laws;*

MDA stats of 2012:

- *In 2012, MDA answered and treated 637,004 calls received from all over Israel.*
- *MDA Blood services collected 300,000 Blood Units from volunteering citizens.*
- *70,000 people (workers, volunteers and citizens) received MDA training courses*

Article 49 of MDA's By-Laws confers the following additional duties of the Society

- *instruction of first aid and pre-hospital emergency medicine;*
- *maintaining a volunteers infrastructure and training them in first aid, basic and advanced life support including Mobile Intensive Care Units;*
- *transportation of patients, women in labor, and evacuation of those wounded and killed in road accidents;*
- *transportation of doctors, nurses and medical auxiliary forces;*

MDA belongs to the International Red Cross and Red Crescent Movement and is Israeli Red Cross National Society.

In this capacity, MDA is providing training and humanitarian aid to countries in need, all over the world (MDA 2014).

Home Front Command

The Home Front Command (HFC) is a section of the Israel Defence Forces (IDF), created in 1992. Its objectives are

- *To constitute the main professional authority for civilian protection in the following areas: Extrication, rescue, the chemical and biological threat on the home front and hazardous materials*
- *To constitute a civilian protection service*
- *To constitute chief operational headquarters for army units intended for the home front*
- *To constitute the staff for forming the forces/ units for the Home Front Command*
- *To make up the command force (HFC 2014).*

The Home Front Command operates in various emergency situations, specializing in the field of civilian protection. In times of crisis or war, the Home Front Command operates to its fullest capabilities, using all its resources in order to instruct the civilian population on how to cope with the threats facing Israel. The purpose of the Home Front Command is to save lives. The Home Front Command operates search and rescue missions in Israel and around the world, aiding in rescue and recovery from incidents such as terror attacks, floods, conflagrations, etc.

Search and Rescue

The IDF National Search and Rescue Unit, under the Home Front Command, is a highly skilled force trained to execute special search and rescue missions, both in Israel and abroad. The unit was founded in 1983, and its' expertise is in rescuing people trapped under ruins.

The unit is comprised primarily of reservists who are always on call, with prepared kits to enable immediate departure, and a small core of soldiers in mandatory service. In addition to the rescue teams, the unit employs doctors, engineers, mechanical engineering equipment operators and rescue dog handlers.

In November 2003 the first Search and Rescue Company, the Shavit Company, was founded in response to the need for a large operational S&R force that would be available at all times. Subsequently, two additional companies, Hetz and Rotem, were established. The soldiers are all graduates of the Search and Rescue course, and are trained in first aid, Krav Maga, infantry, ABC (atomic, biological, chemical) warfare, and more.

The unit is on-call 24 hours a day and are deployed whenever there is a disaster – earthquakes, tsunamis, conventional or unconventional terrorist attacks. The S&R companies also assist IDF infantry forces during routine operations (IDF 2014).

National Emergency Management Authority (NEMA)

NEMA was established in 2007, as part of the Ministry of Defense, and is responsible for preparing Israel's home front for any potential emergencies. This is accomplished by directing and coordinating among emergency organizations, government offices, local authorities, and other relevant institutions.

NEMA is responsible for creating sustainable plans to ensure preparedness of the home front for all types of emergency; ensuring appropriate critical resource reserves (such as fuel, food, water and so on); initiating research in the field of emergency preparedness; promoting activities designed to improve the population's resilience to emergencies; centralizing information collection and distribution; and coordinating the activities of the various government ministries during emergencies. NEMA's responsibilities cover all components of emergency management, including disaster risk reduction, prevention, mitigation, response, reconstruction and rehabilitation activities.

As part of the coordination mechanism, NEMA operates a National Council for Emergency Management, headed by either the Deputy Minister of Defense or the Minister of Civil Protection (depending on the structure of the government at the time). Senior representatives from all government ministries serve as members on this Council. Its major role is to coordinate activities designed to prepare the nation for all hazards and to manage an emergency upon its occurrence. The policies mandated by the Council are implemented by NEMA, so regular evaluations of all government agencies are conducted by this body to assess the ongoing state of preparedness. The organization and structure established at the national level are mirrored at the regional district levels.

In order to ensure proper implementation of emergency preparedness and management, each government ministry has created and maintains a national authority that is responsible for directing operations of the agencies under its jurisdiction during emergencies. For example, the MoH [Ministry of Health] operates a Supreme Health Authority (SHA) that is responsible for coordinating the operations of all health agencies in preparation and management of emergency situations.

NEMA integrates the activities of all ministries, organizations and bodies relevant to effective emergency preparedness and management.

In routine times, NEMA coordinates on a national level several activities designed to ensure emergency preparedness. It prioritizes potential threats; conducts risk analysis; develops national emergency policies; presents to the government annual reports on home front preparedness levels; promotes and leads relevant legislation in the state cabinet and parliament; coordinates international cooperation including exercises and workshops as well as work information-sharing; and leads the building and enhancement of population resilience.

During periods of emergency, NEMA operates the National Emergency Management Center that serves as a supreme operations centre designated to monitor and report a real-time situation analysis to the government; supervises the fulfilment and implementation of directives/instructions disseminated by the Minister of Defense; coordinates with the National Information Directorate the general information dissemination activities; advises the Minister of Defense and the government regarding key decisions that need to be implemented in real

time to ensure effective emergency management; and activates the national resilience system (WHO 2012).

Emergency Economy

The Emergency Economy is a body created in 1955 to ensure continued activity of vital enterprises during an emergency. An Emergency Economy order allows the recruitment of workers for essential private and public services, such as emergency services, medicine, local authorities, food and equipment supply, communications, and any other service deemed vital. Until 2010 the Emergency Economy was responsible for preparing the local municipalities for emergencies, including absorption of evacuees from disaster stricken areas.

A Supreme Emergency Economy Committee was created in 1986, headed by the Minister of Defense or a senior deputy. The directors-general of all government ministries, the head of the Jewish Agency and the chairpersons of the local municipalities, IDF and police are members of this committee, which is responsible for the ongoing effective operation of similar structures in regional districts and local municipalities. In 2010, a few years after the establishment of NEMA, the Emergency Economy was integrated into NEMA as an integral component of the multisectoral emergency management system (ibid.).

Despite defined roles and responsibilities in laws and regulations, it has also been stated that situations in reality can be different, and that points of views concerning specific responsibilities sometimes differ between organisations (expert interview).

3.2 Organisational cooperation

As described in chapter 3.1, NEMA has strong responsibility on coordination among emergency organisations.

Regarding receiving international assistance to Israel, main involved institutions are the Ministry of Foreign Affairs, the Primary Office, and NEMA. NEMA provides recommendations to the Primary Office, and the Ministry of Foreign Affairs sends out requests for international support. Further involved institutions (e.g. Ministry of Health) depend on the type of crisis.

There are “National Guidelines for Receiving International aid in times of emergency” (see description of the national emergency exercise in chapter 5.3), while further information on these guidelines could not be obtained in the framework of this study.

The activations overview of the EU Civil Protection Mechanism 2007–2012 shows one request for assistance from Israel. Assistance was delivered for fighting severe forest fires in December 2010 (EC 2013).

Regarding giving assistance, the Search and Rescue unit of the HFC (see chapter 3.1), has been active all around the globe (expert interviews).

4 Procedures

4.1 Standing Operating Procedures (SOPs) and Guidelines

There are many written SOPs for specific occasions, usually not available in English. They are constantly activated and used in crisis situations. They are also tested in exercises (expert interview).

4.2 Operations planning

The operation planning process is not standardised (expert interviews).

4.3 Logistics support in crises

Private logistic providers are involved in all missions, they are needed for almost all services. Military logistics provide support in large crisis as well (expert interview).

4.4 Crisis communication to general public; Alert system; Public Information and Warnings

Israel's communication system in general is considered to be the most highly developed in the Middle East. Its domestic system comprises both coaxial cable and microwave radio relay; all systems are digital. Four privately owned mobile-cellular service providers offer countrywide coverage. International communications are supported by submarine cables to Europe, parts of the Middle East and satellite earth stations. There are nearly 10 million cellular/mobile lines and 3.3 million land lines. In 2009 there were 4.5 million internet users in Israel.

The state broadcasting network, operated by the Israel Broadcasting Authority, broadcasts on two television channels in Hebrew and Arabic. There are five commercial channels and cable TV provides access to foreign channels. The Israel Broadcasting Authority also broadcasts over eight radio stations and Israel Defense Forces (IDF) Radio broadcasts over two. In addition, there are approximately 15 privately owned radio stations (WHO 2012).

Regarding crisis communication to the public, the spokesperson at the Prime Minister's Office (National Information Directorate) is responsible for crisis communication on the national level. He also coordinates to the different Ministries involved (expert interview).

At the Ministry of Public Security, a Crisis Communication Team was recently established. The team constructs a situational picture of all the emergency agencies, monitors traditional and new media – both in Israel and abroad – and formulates messages and instructions to the public. The messages are

formulated together with the Ministry's operational bodies as well as the National Information Directorate in the Prime Minister's Office.

The Crisis Communication Team is staffed by Ministry employees from the Ministry's Information and Knowledge Unit – responsible for the Ministry's digital presence – and members of the Ministry's Spokesperson's Unit. The team utilizes additional Ministry staff members who speak foreign languages, as well as retired police officers with professional experience in public information and community relations, who volunteer their time in emergency situations.

To more effectively reach the public, the Ministry is currently in the process of developing a smartphone application that will provide information and instructions for emergency situations, such as natural disasters, severe weather, forest fires and more. General instructions about these scenarios will be available at all times, while targeted messages with specific instructions will be sent according to the user's location. This is yet another platform aimed at preparing and informing the public in order to save lives and strengthen the community's resilience during a disaster (Ministry of Public Security 2014h).

By law, the HFC is responsible for instructing the public in specific cases, e.g. where to go, and where not to go. Constant assessments analyse using surveys, how the public perceives respective instructions, in order to adapt them in the best useful way (expert interview).

General instructions for the public on preparedness as well as on how to behave during different incidents (e.g. earthquake, fire, and flood events) is also provided on the HFC website (HFC 2014b).

To achieve situational awareness, a Command & Control system is in use, which is coordinated by NEMA and is being fed by all Ministries and all levels, from local to national (expert interview).

For information on the use of social media in emergency situations see chapter 1.6.3.

5 Capabilities

5.1 Human resources

Numbers of permanent emergency and disaster management personnel – staff and volunteers – are as follows:

Israel Police

- Staff: 30,000
- Volunteers: 40,000

Fire and Rescue Authority

- Staff: 1,800
- Volunteers: 1,000

Magen David Adom

- Staff: 1,600
- Volunteers: 10,000

HFC

- Classified

(expert interview; personal information 2014).

Some more information on volunteers at the Fire and Rescue Authority, MDA, and the Israel Police is provided at the respective websites:

Fire and Rescue Authority:

In the Israel Fire and Rescue Authority there are about 800 young volunteers (Fire Scouts) and some 1,000 adult volunteers. Fire Scouts are youth that volunteer in the Fire and Rescue Authority as part of their “personal commitment” hours in grades 10-12, and help out at fire stations and aid the firefighters (Ministry of Public Security 2014c).

Magen David Adom:

Volunteers have founded and been active in MDA since the organization got under way. Already at the first MDA convention, Dr. Yosef Koot, provisional chairman of the Executive Committee, spoke at length about the importance of volunteering in MDA - “MDA considers the volunteers a vital part of its’ activities. When new branches were opened, we didn’t see the importance in setting up ambulance positions alone. The main point was the volunteers: Our aim is to educate people to become volunteers who are ready and willing to devote their time, money and blood for the benefit of their fellow man.” Today over 13,000 highly trained volunteers are active throughout the country, of which half are youth volunteers serving as part of the crews on ambulances and Mobile Intensive Care Units and “MDA cadets”, who represent MDA’s humanitarian youth movement activities (MDA 2014).

Among the volunteers from the Israel Police, a specialist operational unit is the Israel's Volunteer Search and Rescue Team (Ministry of Public Security 2014g).

The Social Survey, a current annual survey, which has been conducted by the Central Bureau of Statistics (CBS) since 2002, revealed that in 2013, 20 % of the population aged 20 and over in Israel engaged in volunteer activity (covering all sectors): 25 % not permanent or one-time, 38 % 10 hours and more, and 37 % up to 9 hours (CBS 2013).

5.2 Materiel (non-financial) resources

Up to date information on material resources could not be obtained in the framework of this study.

According to a report from 2005, the government holds in storage a stock of blankets, mattresses and beds, to be used in emergencies. There is a yearly budget for renewing and buying of stocks such as: equipment, medicines, essential food items and fuel. There are many water containers for use in emergencies. The Electric Company and the Water Company have many power generators (Laor 2005).

5.3 Training

There is no specific certification system – each organisation sets its own standards on training of its personnel (expert interview).

The Israel Fire & Rescue Authority has a Training Department: “The Israel Fire and Rescue Training School was established in 1979 in Rishon Letzion. The school provides training for all types of firefighting roles, as well as for additional bodies, including prison service personnel, electric company employees and staff from the Nuclear Research Center” (Ministry of Public Security 2014c).

The Home Front Command also has a training center, the “Commanders’ Training Simulative Center” (CTSC). “Operational since 2010, CTSC offers complete training, debriefing, documentation and learning environment in Civil Defense and Homeland Security scenarios” (HFC 2014c).

Annually, national exercises e.g. on earthquake or tsunami scenarios, are conducted including all main players in the civilian area. International exercises, which are conducted especially on earthquake scenarios, include e.g. UN, and Red Cross organisations (expert interviews).

For example, the Ministry of Public Security describes on its website the national emergency exercise “Ends of the Earth”, which was held in November 2013 and focused on receiving international aid and collaboration between staff and organisations (Ministry of Public Security 2014d):

The exercise will examine the ability of government ministries to coordinate their operations and receive international aid, as well as allocate the aid to forces in the field and relevant agencies. “Ends of the Earth” will include the simulation of various systems that deal with the receiving of international aid in times of emergency and during destructive earthquakes.

The exercise is being conducted according to the National Guidelines for Receiving International Aid and will examine the staff work in various ministries and agencies involved, as well as field operations for receiving materials and aid.

Additionally, the exercise will examine the implementation of the National Guidelines for Receiving International aid in times of emergency, taking into account lessons learned from the Mt. Carmel fire and previous national emergency exercises.

Goal of the exercise

The idea behind the exercise is collaboration – collaboration between the staff in the field and between various ministries and agencies in order to efficiently receive international aid.

Participants in the exercise:

- *All government ministries, with an emphasis on the Prime Minister's Office, the Ministry of Home Front Defense, the Ministry of Defense, the Ministry of Public Security and the Foreign Ministry*
- *All public security bodies: the Israel Police, Israel Prison Service, National Fire and Rescue Authority and MDA*
- *The IDF, including the Home Front Command*
- *The Israel Airports Authority*
- *The Israel Ports Company*
- *Municipalities*
- *International representatives from the OSOCC, NATO, the EU and the Red Cross*

In light of recent regional changes and the constant threats facing Israeli, the Ministry of Public Security is responsible for preparing the home front and improving the Ministry's operational bodies' response capabilities for emergency situations and other threats. The Emergency Preparedness Department in the Ministry is headed by Police Brigadier General Chaim Cohen, who is leading the Ministry in improving its preparedness for emergency and crisis situations, and also is responsible for organizing the international aid operations within the Ministry and its operational bodies and for coordinating with other government ministries.

The "Ends of the Earth" exercise is the high point of intensive collaborative efforts of the Emergency Preparedness Department with aid agencies, the Ministry of Home Front Defense, the Home Front Command and other government ministries. "This exercise is an essential tool for us to examine the functioning of all systems so that we can be fully prepared and work at our best in a real life situation," says Brigadier General Chaim Cohen, head of the Emergency Preparedness Department.

5.4 Procurement

5.4.1 Procurement regulation

Only little information on procurement regulation and procedures in crisis management in Israel could be gained in the framework of this survey. There seem to be only few regulation (or not much

implemented regulation), single crisis management organisations have their own rules, while general directives play a minor role (expert interviews).

In general, Israel publishes most public procurement information on its central procurement website: www.mr.gov.il. Furthermore, procurement laws and policies, specific guidance on application procedures such as templates and forms, procurement plans, and contract modifications are also published on the central procurement website. Meanwhile, information on contract awards (name and amount of selected contractor) is only published on the Regulations, Funds and Economy Ministry website (OECD 2011).

5.4.2 Procurement procedures

See 5.4.1

5.5 Niche capabilities

Specific information on niche capabilities, which would be of interest to the EU crisis management, could not be gained in the framework of this study.

Resources

Legislative acts

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Other normative acts

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Expert interviews

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Magen David Adom in Israel, December 2014

National Emergency Authority, December 2014



Driving Innovation in Crisis Management for **European Resilience**

ITALY

Capabilities, Organisations, Policies, and Legislation (COPL) in crisis management and disaster response

Responsible Partner: EOS (Nicola Iarossi, Luigi Rebuffi, Klaudia Tani)

Scope and limitations

This study serves as supporting information for further work within DRIVER.

Only limited time and budget has been available for this first general survey, which needs to be considered in terms of scope and completeness of the respective studies.

The author/s of this study is/are responsible for its content and quality.

Overview

Italy is a parliamentary republic and is divided into 20 regions (first level administrative division), 110 provinces and about 8,100 municipalities. Provinces are administrative sub-divisions of regions and municipalities sub-divisions of the provinces. The 1948 constitution established a bicameral parliament (Chamber of Deputies and Senate), a separate judiciary, and an executive branch composed of a Council of Ministers (cabinet), headed by the president of the council (prime minister). The president of the republic is elected for 7 years by the parliament sitting jointly with a small number of regional delegates. The president nominates the prime minister, who chooses the ministers. The Council of Ministers – in practice composed mostly of members of parliament – must retain the confidence of both houses. The regions have exclusive legislative and executive power regarding any matters not explicitly reserved for national law. In contrast to Germany, however, their financial autonomy is quite modest: they keep 20 % of all levied taxes. By the Italian constitution, five regions are granted autonomy regarding legislation, administration and finance. ^[4]

In Italy the civil protection is divided into a “National Service”, a complex system which includes all the local and central resources necessary for managing a calamity. Compared to the other European countries, Italy has widespread risks throughout the territory and for this reason has developed an intervention system which starts from a local level and involves all the administrations. The evolution of the legislative system and successive institutional set-up of the Italian CM-system was driven by the numerous disasters that stroke the country and that ever since posed an extraordinary risk management challenge for the country. Disaster experiences left on one hand a trail of extraordinary losses, but on the other a trail of lessons learned, leading to the implementation of new institutional arrangements yielding constant improvements in disaster preparedness, prevention, and response and recovery provisions. This civil society represents an active part of the National Service, particularly through the activity of the voluntary organisations.

The coordination of the national service and the promotion of civil protection activities are undertaken by the Department of Civil Protection (Dipartimento della Protezione Civile - DPC) under the office of the president of the Council of Ministers. The Department of Civil Protection is thus the operative arm of the president of the Council, when it comes to coping with the protection of the country's people and goods and nationally coordinated humanitarian aids. ^[1]

The Civil protection expenditures amount almost 0.009% of the GDP.

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ABBR Spell the abbreviation here

1 Policy

1.1 Risk Assessment

Italy has a high exposure to natural risks: earthquakes, floods, landslides, volcanic eruptions, fires. Natural hazards which add up to those related to human activities, which contribute to making our fragile territory.

Risk prediction and prevention, relief to the affected populations, contrast and overcoming the emergency and risk mitigation are the civil protection activities identified by the Law no. 225/92, which established the National Service. Protection of people and safeguard of the territory are the main objectives of these activities - that the Department addresses, promotes and coordinates in collaboration with regional governments and local self-government. Prediction activities- carried out with the participation of relevant scientific and technical subjects - aim to assess risk scenarios and, when possible, to give notice, monitor and supervise events and risk levels expected.

Key risks:

Seismic Risk

Italy is one of the countries in the Mediterranean with the highest seismic risk, due to its particular geographic position at the convergence of the African and Eurasian plates. The highest seismicity is concentrated in the central-southern part of the peninsula, along the Apennine ridge (Val di Magra, Mugello, Val Tiberina, Val Nerina, Aquilano, Fucino, Valle del Liri, Beneventano, Irpinia) in Calabria and Sicily and in some northern areas, like Friuli, part of Veneto and western Liguria. Only Sardinia is not particularly affected by seismic events.

Volcanic Risk

In Italy volcanism owes its origin to a wide ranging geological process, involving the entire Mediterranean area and linked with the Euroasiatic and African tectonic plates converging together.

This process, begun 10 million years ago, at the same time as the mountain ranges of the Apennine chain were being built up, is due to the African plate sliding underneath the Euroasiatic one with subsequent formation of areas characterized by volcanism. It is in fact in these areas, inside the earth, where the conditions are created to form magmas and to propel them up towards the surface.

Even though less frequent and devastating than earthquakes, volcanic eruptions are still a great hazard for the densely populated zones in the Italian territory.

Hydro-meteorological Risk

The terms hydro-meteorological and hydraulic risk are used to identify the phenomena triggered by “unfavourable weather conditions” and the effective or potential damage caused by waters in general, be they surface, in liquid or solid form, or underground.

The most typical examples of hydrogeological phenomena comprise thunderstorms, winds and sea storms, fog, snow and ice, heat waves, landslides, floods, coastal erosion, subsidence and avalanches.

The hydro-meteorological and hydraulic risk is strongly influenced also by man’s actions. Density of population, the ever- progressing urbanization, abandonment of mountain areas, unauthorized buildings, continuous deforestation, the use of non eco-friendly agricultural techniques and the missing maintenance and upkeep of river beds and slopes have definitely worsened the hydrogeological instability and highlighted the fragility of our territory.

Tsunami Risk

Every coast of the Mediterranean Sea is exposed to tsunami risk due to the high seismicity and to the presence of various active volcanoes, both emerged and submerged. Over the past thousand years, along the Italian coasts, tens of tsunamis have been reported, but only some of them were destructive. The most affected coastal areas are the ones of Eastern Sicily, Calabria, Puglia and Eolie archipelago. Minor tsunamis were recorded also along Ligurian, Tyrrhenian and Adriatic coasts. Italian coasts can also be reached by tsunamis generated far from our country (e.g. following a strong earthquake in the waters of Greece).

Fire Risk

30% of the territory in our country is made up of forests, marked by a great variety of species adapting themselves, during the course of millenniums, to the extraordinary variability of the climates, from the sub-arid ones in the extreme south of the peninsula to the nival ones in the Alpine arc. Italy’s forestry heritage, one of the biggest in Europe for extension and variety of species, is an immense wealth for environment and economy, the territory’s equilibrium, conservation of the biodiversity and countryside. Woodlands are moreover a natural habitat to many animal and vegetable species.

Yet every year tens of thousands of hectares of woodlands are burnt either by wilful or culpable fire, linked with building speculation, neglect and carelessness of man. 12% of the domestic forestry heritage has been destroyed on the last thirty years.

The consequences for the natural equilibrium are very serious and the times needed to restore the forestry and environmental ecosystem are very long. Moreover the changes in the natural conditions of the soil caused by fires favour the instability phenomena on mountain sides causing the top strata of the soil to come away and slide downwards, with heavy rainfalls.

The summer months are at the greatest risk, when aridity, high temperatures and strong winds evaporate a part of the water held back by the plants, bringing about natural favourable conditions for fires to break out and spread.

Health Risk

Health risk is always the consequence of other risks or calamities, to the point of being defined as a second degree risk. It emerges every time critical situations possibly affecting human health are created. Difficult to foresee, it can be mitigated by preparing and planning medical assistance in emergencies beforehand, in a quieter period.

In this connection the Civil Defence Department has outlined the “General criteria for organizing rescue work in catastrophes” published in 2001, followed by “General criteria for medicines and medical devices to be kept in a first aid post (Pma II liv.)” in 2003, by the “General criteria for psychosocial treatment in catastrophes” in 2006 and "Procedures and forms of medical triage” published in 2007.

Nuclear Risk

After the accident at the Chernobyl nuclear power plant in 1986, and the moratorium on the use of nuclear energy for peaceful purposes by popular referendum in 1987, Italy interrupts the activity of its power plants and develop a first version of the National Plan for nuclear emergencies.

Despite the closure of nuclear power plants in Italy, the attention on nuclear risk remains high, especially for the presence of nuclear plants in foreign territory, less than 200 km from the national border. In this range, there are currently thirteen active nuclear power plants in France, Switzerland, Germany and Slovenia.

The national plan for radiological emergencies, approved by Decree of the President of the Council of 19 March 2010, identifies and regulates the measures necessary to deal with incidents that occur in nuclear power plants outside the national territory, requiring an intervention coordinated at national level

Environmental Risk

Different types of pollution become a matter for civil protection when environmental risk is connected to the likelihood that an event - caused by a sudden change in the physical and chemical parameters that characterise the environmental water air and soil matrices - occurs with immediate or short term repercussions on the health of the resident population in a given area and such as to involve the adoption of special emergency measures.

In actual fact, many areas on national territory have experienced or are experiencing situations such as to require urgent prescriptive operations for the protection of public safety. In this sphere, the Department of Civil Protection is increasingly called upon to intervene, and is engaged in complex problems that range from waste to water pollution emergencies, such as the emergency involving the River Lambro, when a refinery in the process of being decommissioned spilled a large quantity of oil, creating numerous problems for the delicate ecosystem of the Po river delta. A state of emergency was declared and a civil protection order issued to deal with the situation of grave risk that had been created.

Furthermore, where land decontamination is concerned, the Department is always involved in the management of SIN - Siti di Interesse Nazionale (sites of national concern) – in other words, the areas identified in relation to site characteristics, to the quantity of and danger posed by pollutants, to the impact on the surrounding environment in terms of health and ecological risk, as well as damage to the cultural and environmental heritage. Legislation on the matter includes laws 462/98 and 388/2000, the Ministerial decree 468/01 and law 179/2002. To date, SINs come to 57 and represent 3% of Italian territory of which 34 % is marine or inland waters, representing approximately 330,000

hectares of marine area. The responsibility in terms of administrative procedures for the SINs falls on MATT - Ministero dell'Ambiente e della Tutela del Territorio (Ministry for the Environment and Protection of the territory), with the support of ISPRA (Institute for Environmental Protection and Research).

The sites/areas of national concern require urgent intervention and involve approximately 316 municipalities in all regions of Italy, with approximately 7 million inhabitants. Furthermore, based on the APAT 2003 annual, the sites/areas of “regional interest” are approximately 12,107 polluted or potentially polluted, of which 4,383 are registered in the “Registry of contaminated sites” (only 382 have been cleaned up).

The scale of the pollution on a spatial level and the quantity of spills in these areas require urgent and costly intervention, which must be tackled through the issue of ad hoc orders.

An example of such an emergency is the decontamination of the Orbetello site, where - given the situation of serious environmental danger - the Ministry for the Environment asked the Ministry for the coordination of Civil protection to adopt an Order in accordance with law no. 22524 of February 1992. This allowed for the implementation of urgent measures to activate the operations necessary to reach objectives set by the Ministry for the Environment technical-scientific commission, pursuant to the judgement of the area as one of high risk for an environmental crisis.

Over recent years, the Department has been engaged in the management of emergencies regarding the bad management of solid urban waste, with attempts made to overcome and manage emergency situations in different Italian regions such as Campania, Calabria and Sicily through civil protection orders.

Industrial Risk

The presence of factories using or keeping chemical substances for their production activities in the territory exposes the population and surrounding environment to industrial risk. An industrial accident can in fact cause harm to population and territory.

The effects on human health in the event of exposure to the toxic substances released into the atmosphere during an accident vary, depending on the characteristics of the substances, relevant concentration, period of exposure and quantity absorbed.

Effects on the environment are linked with contamination of soil, water and atmosphere by toxic substances. Effects on objects mainly involve damage to structures.

A full awareness of these aspects is crucial for reducing industrial risk to the lowest possible levels, preventing harm to health and environment. ^[1]

1.2 Policy and Governance

In Italy the civil protection is divided into a “National Service”, a complex system which includes all the local and central resources necessary for managing a calamity. This civil society represents an active part of the National Service, particularly through the activity of the voluntary organisations. Compared to the other European countries, Italy has widespread risks throughout the territory and

for this reason has developed an intervention system which starts from a local level and involves all the administrations. The National Service includes the following in particular:

- **Components:** they are the local and central administrations like Municipalities, Provinces, Regions and Ministries. All the subjects involved in civil protection events, for various reasons, like public authorities, institutes and groups of scientific research, even private institutions and organisations, associated citizens and groups of civil volunteers professional rolls and boards are also members.
- **Operative structures:** they are the organised State corps like the Fire brigade, the Armed Forces and the Forestry Commission, the Mountain Rescue Team, the Red Cross and the Health Service structures. Amongst these, the voluntary organisations of the civil protection service have taken on a role of particular importance and they have grown in all regions of the Country in terms of numbers and of operating and specialisation capacity.

The Civil Protection Department is a “special” member because it heads the National Service, directs and coordinates the activities and intervenes directly in the management of the events that require extraordinary resources because of their extent and duration.

Civil Protection activities. The system intervenes to provide relief to the population, to help overcome the emergency and aid a return to normality. The Mayor is the first person responsible for civil protection on the territory and has the job of coping with the initial moments of a calamity and of providing relief to the population, coordinating the local operative structures including the civil protection volunteers.

If the Municipality cannot cope with the emergency alone, the Provincial council and the Government’s territorial offices, that is the Prefecture and the Regional council intervene by activating all the available resources for the areas affected by the calamity. In the most serious situations, central government intervenes: the President of the Council of Ministers (Prime Minister) assumes direct responsibility operating through the Civil Protection Department.

The operation of the system is actually based on the principle of subsidiarity, according to which the nearest administration to the citizens intervenes first, while the superior administrative levels – Provincial council, Regional Council, Central Government – intervene if the administration is incapable of coping with the event with its own means. The emergency actions are planned according to the principles of the “Augustus method”, a simple, streamlined and flexible instrument.

In ordinary time, on the other hand, the administrations are involved at all levels in predicting and planning actions of prevention and mitigation of risks. In this process, the scientific community, which is considered a member of the National Service, plays an essential role. ^[1]

1.2.1 Strategy scope and focus

The Department of Civil Protection, in collaboration with regional governments and local autonomous bodies, orients, organises and coordinates civil protection projects and activities.

It coordinates activities in response to natural disasters, catastrophes or other events - "c" type events - which, due to their intensity and extent, must be tackled using special means and powers. In this case, the Prime Minister declares a state of emergency with a decree and identifies, through orders, the actions to be undertaken to manage the event.

On an operational level, the Civil Protection Department:

- issues guidelines, aimed at regions, provinces and municipalities, to prepare and implement prediction and prevention programmes in relation to various risk scenarios;
- prepares and implements emergency plans for type "c" events, in agreement with the pertinent regions and local organisations;
- intervenes, at the request of the regional authorities, in extinguishing forest fires using the State aircraft fleet.

It organises periodical drills for national emergency plans, with the objective of verifying the effectiveness of emergency plans and testing out procedures for managing disasters on facilities and the population.

It also promotes information activities for national scenarios, in collaboration with other institutions and associations, as well as training and research activities regarding the prediction and prevention of natural and manmade risks. The training activities, organised in close collaboration with national organisations, are aimed at voluntary organisations, at the "competent territorial bodies", namely regions, provinces, mountain communities and municipalities, as well as schools.

Acting within the Department is the National Functional Centre, which gathers data from the Regional Functional Centres and the Centres of Competence, used to monitor phenomena nationwide, and the coordination centre System, in the National Operations Room. The Department is also where COAU - the Unified Air Operations Centre, and COEMM - the Operations Centre for Maritime Emergencies, both operate.

The responsibility to decide on Civil Protection policies is assigned to the president of the Council of Ministers, or to the Minister of the Interior. The DPC, which is the operative arm of the president of the Council of Ministers, has the mandate to initiate and coordinate all activities of the associated bodies and operational units of the "National Service of Civil Protection".

This accounts for prevention/preparedness activities as well as during disaster management operations. ^[1]

1.2.2 Monitoring and analytical support to policy making; R&D

Together with its outstanding political power and its capacity to fully integrate scientific research and technological expertise, the DPC is a very central body through which innovation, coordinative power and resources are streamlined. [1]

To fulfil its task of identifying the types of events, their geographical distribution and the probability of occurrence and risks, the DPC has established a structured system of collaboration with the scientific community and research through the “Commissione Grandi Rischi”, the major Risk Commission, which is focused on risk assessment. This Commission takes a multi hazards approach and deals with four phases of the emergency management cycle, forecasting, monitoring, surveillance and risk prevention of both natural and technological disasters.

Ministries, universities, public research institutes and centres, and public administrations combine forces with the DPC through different forms of co-operation, agreements, understandings and working teams, in order to define both prevention and forecasting measures for the different types of risk. For the fulfilment of the operational responsibilities of the Italian Civil Protection System, technical, scientific and industrial structures are involved with the aim of ensuring the necessary technical-scientific support. [5]

1.2.3 Policy for Prevention

The regions, assisted by the DPC’s National Research Community (also composed of Local and Regional authorities), were given a role in providing guidelines to provinces to carry out risk prediction and prevention activities serving as the basis for the prefects’ emergency planning.

Early warning, planning, training, dissemination of knowledge of civil protection, information to the population, drills, and application of technical regulations are the main instruments of civil protection for the prevention of territorial risks and are intended to prevent or limit damage in the event of an emergency.

However, their competences on the operational level remain limited. These tasks are reserved for the province and municipal level, whose mandate is to implement forecasting and risk prevention activities and assure that first emergency relief provisions are made. [1]

1.2.4 Policy for Preparedness

The Prime minister issued on 3 December 2008 operational Guidelines for emergency management to regulate the information flow between the different actors involved, the activation and co-ordination of the components and structures of the Italian national Civil Protection Service (NCPS), to describe the organisational model of the emergency management at a national level to support and adequately contribute to the local civil protection response, and to guarantee the necessary operational co-ordination of emergency management. [5]

Regions are required to conduct regional planning and initiate, organize and participate in Civil Protection activities carried out through regional programs as well as supporting and promoting local organizations.^[1]

According to the model adopted by each region, the Rescue Co-ordination Centre (CCS) of the province is activated. In the CCS there are representatives of the region, the prefecture, the province and the institutions, administrations and operational structures dedicated to the management of the emergency. The CCS must according to the guidelines assure unified direction of operations and co-ordinate actions with those carried out by the mayors of the involved municipalities. If the model adopted by the region does not indicate clearly who exercises leadership of the CCS and there is specific agreement between the prefecture and the province in force, then this task is assigned to the prefect who has the duty of ensuring the safety of the people and the goods.

Each region affected by an event guarantees for instance the immediate activation and deployment of the regional column and the volunteer organisations, the management of health care emergency operations, the deployment of its technical experts to check the safety in buildings, assess the damage, evaluating the risks left and induced, verifying if the water is drinkable and conducting environmental recovery and land reclamation operations as well as use of primary necessity goods stored under regional competence to assistance to the population. The region will, in case there is a need for extraordinary means and powers due to the actual needs in an area affected by disaster and on the basis of requests coming from the local institutions, submit a request for a declaration of the State of emergency.^[5]

1.2.5 Policy for Response

During crisis situation well prepared and institutionalized coordination capacity and leadership for fast and immediate resource mobilization is required. The first person responsible for initiating and implementing Civil Protection activities is the mayor, who organises municipal resources according to pre-established plans made to cope with specific risks and disaster impacts in his territory of power.

However, in the case a great disastrous event exceeds regional and local capacities, the government (Council of Ministers) is entitled by prime minister's Decree to declare a State of Emergency in which support for provinces, regions and the assistance of peripheral state administrations will be guaranteed and co-ordinated by the prefects. Decision support for declaring a State of Emergency is provided by the DPC on the national level, established under the direct authority of the Italian government and the prime minister's office.

The DPC is required to conduct an impact assessment within a very short time and to examine whether local resources are sufficient to efficiently manage a disaster. In case of required national resources the DPC takes over the responsibility for overall coordination of CM

operations, while all concerned authorities at regional, provincial and municipal levels perform their specific roles.

Intervention activities dealing with rescue operations are coordinated by the Operational Committee of the DPC including relevant institutions and their administrative units acting at national and local levels. They are carried out through a multi-level hierarchical organization represented by the Municipal Operational Centres (COC), the Mixed Operational Centres (COM) and Rescue Coordination Centres (CCS) at the provincial level, the Regional Operations Centres, and the Command and Control Direction (DI.COMA.C.) at the national level. Even though the DI.COMA.C represents the national level, it is physically set up on the disaster site or close thereby. Furthermore, the DPC has institutionalised the National Situation Room (Sit.I.) at its premises, ensuring a 24 hours' presence of the DPC's main operational structures such as its permanent monitoring and control centre with regard to incidents occurring throughout the national territory. [4]

1.2.6 Policy for Relief and Recovery

Relief activities consists in the set of first assistance interventions to the affected populations. Finally, the emergency overcoming comprises all the necessary steps to remove obstacles in order to resume normal life conditions in the affected territories. [1]

In 2009, Italy made use of the EUSF due to the damage caused by the earthquake in the Abruzzo region. Interestingly, the experience of aid provision and aid acceptance opened the eyes of Italian authorities for the need to improve its legal and institutional set-up on insurable damages, however, in the case of the Abbruzzo region, the fund has not endangered or prevented the responsibility of the national authority in taking preventive actions. The money received by the fund, had more the role of purely refunding of an extraordinary spent made by the Italian governmental budget. This case shows that the EUSF impact is not only providing immediate relief and recovery resources during and after emergency situations but also acts as well as a vehicle to engage countries into disaster preparedness activities, such as institutionalizing recovery structures and instruments. [4]

1.3 Financing

1.3.1 Investing in preparedness

The yearly Civil protection expenditures is estimated at: 0.009% of the GDP (EUR 142m out of EUR 1,572,243m). [3]

Starting with the adoption of the new regulation on the European Civil Protection Mechanism, adopted on 17/12/2013, Italy, like others EU Member States, is committed in a process for the risk assessment where the activities comprised in the preparedness area will be probably

evidenced and thus evaluated the relevant financial figure. A clear picture of the financial investments for the preparedness will be in case available only at the end of such process.

1.3.2 Investing in consequence management

An important share of the State's annual budget is devoted to restoring damages incurred as a result of natural disasters. From 1999-2008, the State spent over EUR 35 billion in ad hoc, ex post disaster compensation. Although no dedicated disaster fund has been established, yearly expenses are progressively growing.

The compensation of disaster losses is handled on a case- by-case basis, whereby the Italian government intervenes in emergencies by providing ex post financial aid and enacting ad hoc laws (so called emergency legislation). Following a disaster the local government of the affected area (town, province or entire region according to the extent of the disaster) may petition for a "Declaration of State of emergency". If the central government Cabinet approves the proposal, it opens the way to an order specifying the financial amounts to be made available to the public for long term reconstruction.

These funds are primarily directed toward paying for reconstruction of public infrastructure and to contribute to the rebuilding of private houses. The area identified in the declaration may make claims for compensation from the fund for recovery measures through the region where it is located, and the President of the region delegates a body to monitor reconstruction works. The Department of Civil Protection acts as an intermediary in this process. [5]

In this way, the major disaster recovering costs where in the past supported at National level, also using dedicated and limited-in-time taxes; however, recently adopted also the use of European Solidarity Fund at the scope:

In 2009, Italy made use of the EUSF due to the damage caused by the earthquake in the Abruzzo region in which 300 persons lost their life. The damage costs were estimated at € 10.2 billion. The EU Commission verified that the criteria defining a 'major disaster' were met (threshold value for EUSF activation is fixed for Italy at € 3.4 billion) clearly justifying European intervention. The aid helped to cover costs for emergency operations, temporary shelter, housing and school projects (approx € 500 Million). [4]

1.4 Policy review, Evaluation & Organisational Learning

1.4.1 Post-Disaster Assessment

The large amount of disasters Italy experienced contributed to a certain degree of centralization of CM. Centralizing the Italian Civil Protection System was seen as a "must" to manage disasters effectively. [1]

There is no formalized system or structure for evaluating systematically the individual events and drawing lessons from these that could feed into specific proposals to change policy, although this has occurred after certain disastrous events. For example, after the San Giuliano earthquake the government considered the knowledge gap between scientific knowledge and its translation into risk mitigation tools to be unacceptable, and established a working Group to obtain scientific advice on the possible upgrade of both seismic mapping and seismic code. The output of this effort was a by-law (n. 3274) issued by the Prime minister on “general criteria for seismic mapping of the national territory and on seismic codes”.^[5]

1.4.2 Departmental Lessons Learned systems

The national Civil Protection Service has developed and increased its capacity and capability by continually learning lessons and gathering experience from past events, and with the support of legislation and ordinances that have been introduced over time for this purpose. One such event that provided many such lessons for emergency planners was the San Giuliano earthquake in 2002. For example:

- It is difficult to create and maintain a culture of risk in areas with rare events although several seismic tremors had occurred in the affected area over the centuries, no destructive earthquake had taken place for so long that the public awareness of the hazard had faded over time.
- Urban sprawl may be particularly vulnerable to tremors. No destructive earthquake was reported in the past probably because the historical centre of the city was built on rock, while more recent construction was built on soft clay soil.
- The national building codes were obsolete. Authorities should act according to the latest available information with wide scientific consensus. Keeping norms unchanged for a long time increases the indolence of engineers in updating their professional skill.
- Buildings constructed in past are not necessarily safe enough. There is a need to conduct seismic assessment of the buildings and infrastructures that have a crucial role in emergencies or with relevant consequences in case of collapse.
- Due to the absence of any seismic awareness, local authorities were not ready to manage a seismic emergency. The relief model used by the national Civil Protection told local authorities what to do and how to do it, but did not check their preparedness.^[5]

1.4.3 Centralised (national) Lessons Learned system

Disaster statistics and lessons that are informally drawn from events are not compiled in a dedicated data bank as part of the information and decision support system of the national Civil Protection Service.^[5]

1.4.4 International exchange for Lessons Learned

At the state there are no specific lesson learned program put in place except the interchange within the DG-ECHO lesson learned mechanism relevant to operations where the Italian first responders have been involved.

1.4.5 Regular policy reviews

At the state there are no specific mechanisms established for reviewing the policies adopted, evaluate their effectiveness and improve the policy process.

1.5 Resilience

At the state a specific resilience concept adopted in the country is not identifiable. Italy seems to relay on improved preparedness mechanism for general society resilience augmentation. Private and public organisations managing with critical infrastructure have in place business continuity management plans.

In the private sector however, Telecom Italia Group, active in fixed-line and mobile telecommunications, has a Business Continuity Plan even if there is no legal obligation to have one, but the plan is in the Group's own interest.

Specific tasks in National Crisis Protection Situations, in the event of an emergency are very extensive and include the supply of all information regarding the state of fixed line telephone and mobile phone services in the areas hit by emergency and the alternative networks supplied by each operator, highlighting the organisational and infrastructural impact as well as the identification of the corrective measures needed to guarantee the best possible connection continuity of the networks throughout the national territory, in order to avoid a domino effect on other types of infrastructure and to solve traffic congestion problems that are reported in real time at the operators' co-ordination centres.

ENI, a major integrated energy company, among the other tasks, have to contribute to restore safety in the areas affected by the event and co-ordinate all activities for the immediate restoration of safety in the damaged infra- structures and power plants. ^[5]

The efforts to guarantee business continuity is also in the duties of GME and TERNA, the major electrical power service companies, which are also in obligation to provide a contact centre for the spreading of useful information to the community with respect to the emergency and to contribute with support to the updating of the state of the plants. ^[5]

1.6 Information sharing and data protection

1.6.1 Please describe whether the country/ IO has adopted specific policies, measures or derogations from EU law with regard to data protection

At the status of our research is not clear if derogations from the EU law on data privacy are in place in the country.

1.6.2 Does the country/IO have registers/databases of volunteers?

The country has adopted National list of voluntary organizations of civil protection

Organisations wishing to participate in the activities of forecasting, prevention and intervention in sight or in the event of natural disasters and carry out training activities and training missions in the same scope must be registered on the national list of voluntary organizations of civil protection. According to the provisions of the Directive of the President of the Council of Ministers of 9 November 2012, the national list is composed of:

- a central list
- lists of the territorial force in the Regions and Autonomous Provinces

The central list

This section of the national organizations that accommodates for operational characteristics and diffusion, are of particular importance in direct liaison with the Department of Civil Protection in the case of events of national importance.

Requirement for the inclusion in the list:

- The national coordinating structures of organizations established under Law 266/1991 spread to more regions
- The national coordinating structures of the organizations of other component to mostly voluntary;
- Organizations with no regional organization, but able to perform specific functions deemed by the Department of Civil Protection of particular relevance and interest at the national level;
- The national coordinating structures of municipal and inter-municipal groups.

Applications for inclusion on the List Central received are numerous and, as established by the Directive, require a thorough audit. To this effect from August 1 2014 shall enter into force the first edition of the List, which will be integrated as the examination of further requesting organisations will be completed. For applicant organizations that are already listed in their respective regional lists, remains valid, with continuity, this registration.

The territorial lists

To intervene and operate in the case of activities and events of regional / local scope, organizations must be included in the list of local volunteer in their region or autonomous province.

The list is set up separately from the central register provided for by Law 266/1991 (framework law on volunteers). Organizations possessing the relevant requirements can subscribe to both. In the territorial lists can enrol:

- Voluntary organizations established under Law 266/1991 with local character
- Organizations otherwise established, but predominantly voluntary
- Local branches of the organizations, with national distribution, mentioned in the previous paragraphs
- Municipal and inter-municipal groups
- Organizations that collect most of the types mentioned above

Prior to the adoption of a Directive of November 9, 2012, the national list was made up of a single section that united organizations of national importance and those of a local nature. This list is no longer valid. ^[1]

1.6.3 Does the country have or plan to use data gathered from social media during crises? If so how? (e.g. "crowd sourcing" and "crowd tasking", "citizen as a sensor")

There are no information on planned use of social media in the country.

2 Legislation

2.1 Crisis (emergency, disaster) management concept

In Italy, over the years the responsibility regarding civil defence has progressively been passed from the State to the local authorities; the main steps of this process were legislative decree no. 112 dated 1998 and the modification of Title V of the Constitution with constitutional law no. 3 dated October 18 2001, with which the Civil Protection became a concurrent subject of legislation, thus of regional competence.

The Civil Protection and Crisis Management concepts has evolved during the time; this process is well described by the set of laws (see the following paragraph) promulgated at the scope. Within these laws particular attention should be posed on the ones directly concerning the establishment of the National Service for Civil Protection which was established with law no. 225 dated 24 February 1992, later integrated and modified by law no. 401 dated November 9, 2001 and no. 152 dated July 26 2005.

Assessing the core elements of all the legal instruments leads to a conclusion that the existence of opposite trends, a trend towards centralization and a trend towards decentralization within the Italian Civil Protection legislation reflects the struggle between higher or lower degree of autonomy among the regional, national level and local levels. The strong coordination role played by the Italian Department of Civil Protection and the outstanding power of the prime minister to declare a state of emergency illustrates the first trend revealing a more centralized system activated in extreme challenging emergency conditions. The fact that some provinces have evolved enormously its own regional system illustrates the later trend. ^[1]

2.2 General crisis (emergency, disaster) management law

The following legislations constitute the main pillars of the Italian CM legal framework:

- The "National Civil Protection Service", composed of all various kinds of actors at different administrative levels (compare figure 3-3), was institutionalized by Act no 225 adopted on 24 February 1992.
- L.225/92 introduced a marked legal distinction between Civil Protection and civil defence and is until today the legislative core of the Italian CM system: In the law a broader definition of "protection of civilians" extended the concept of Civil Defence aiming at protecting civilians during armed conflicts. Civil Protection is now understood as the series of actions and activities put forward by a country in order to protect human lives, goods, settlements and the

environment from damages or from the danger of damages deriving from natural calamities, catastrophes and other disastrous events. Thus, Civil Protection was understood not only as a matter of post-emergency management but of forecasting and prevention as important pillars. Moreover, L.225/92 defined roles and responsibilities of and between different governmental and non-governmental executive bodies in the context of decentralization. Competences are shared between the administrative national, regional, and community level as well as the research community, voluntary organizations and private entities. Although, the law provided the national government (cabinet) with the power to declare a “State of Emergency”, the law had the intention of harmonizing and improving CM-efficiency but not to centralize powers and competences. According to the principle of subsidiary, CM-decisions are made and interventions are implemented only at a higher administrative level, if subordinate entities are unable to manage a crisis situation. The mayor (community / municipality) was given the responsibility to decide when to pass on responsibilities to the higher administrative level.

- Based on the provision in the constitutional law of 16 March 1997 (L 15.3.1997 n. 59) on decentralization, the legislative Decree 112/98 has renewed the distribution of public service provision, tasks and responsibilities.
- In 2001 (L. Constitutional 18.10.2001 n. 3), a constitutional reform increased the legislative and executive power of the regions and regional governments were given the opportunity to develop their own Civil Protection structures.
- Also in 2001, law 343 and 401 significantly changed the operational-coordination structure of Civil Protection.
- In 2002 law 245 transferred full authority to the prime minister to initiate CM activities during an emergency situation. ^[4]

2.3 Emergency rule

In Italy, for the purposes of civil protection, the calamitous events are classified in three different types. For each event, on the base of its extent, intensity and capacity of the civil protection response, it's identified the relevant civil protection levels which should take the direction and coordination of interventions:

- type a (municipal level),
- type b (provincial and regional s)
- type c (national).

The state of emergency may be declared as "imminent" and not just at "the occurrence" of a natural disasters, or related human activities that, for intensity and extent must be tackled with immediate intervention with extraordinary powers and means (Decree law n. 59 of 15 May 2012, converted into Law n. 100 of 12 July 2012).

For events "type c" the Council of Ministers shall act the state of emergency, proposed by the Chairman of the Board, or, by proxy, of a Minister with the portfolio or the Undersecretary of State at the Presidency of the Council of Ministers Secretary of the Board. The request may also come from the President of the Region concerned. Until the entry into force of Decree-Law n. 59/2012, converted into Law n. 100/2012, the declaration of a state of emergency was accomplished by a decree of the President of the Council of Ministers.

The duration of the state of emergency, in accordance with art. 10 of Law n. 119 of October 15, 2013, may not exceed 180 days and may be extended up to an additional 180 days, with further deliberation by the Council of Ministers. In fact, standing to the art. 2, (Italian Law 225/92), should occur events with an intensity and extent that require extraordinary means and power, the Council of Ministers, approves the proposal for state of emergency by the Prime Minister, and decides duration and territorial coverage

Interventions to deal with the emergency will be defined by ordinances notwithstanding the provisions of the law, but within the limits and according to the criteria indicated by the declaration of a state of emergency and in accordance with the law.

The orders are issued by the Head of the Department of Civil Protection, unless otherwise determined by resolution of the state of emergency by the Council of Ministers. The implementation of the ordinances is cured, in any case, by the Head of the Department. Before the law 100/2012, orders were issued by the President of the Council of Ministers or by a Minister appointed by him. The enactment requires the prior acquisition of concert from territorial regions concerned.

At least ten days before the expiration of the state of emergency is issued an order of the Head of Department that identifies the respective public administration in the ordinary status of government and regulates the governing replacement for the activities to definitively overcome the difficulties caused by the emergency.

If an emergency occurs exceptionally, even before the declaration of a state of emergency, the President of the Council of Ministers may order the involvement of national operational structures, on the proposal of the Head of the Department of Civil Protection and heard the President of the region concerned. In these cases, assessed in relation to the serious risk of impairment of the integrity of human life, the coordination is entrusted to the Head of the Department of Civil Protection. (art. 3 of Decree-Law n. 245 of 2002 converted into Law 286 of 2002).^[1]

2.4 Specific, department/agency-level legal arrangements and regulations on emergency and disaster management

Based on the provision in the constitutional law of 16 March 1997 (L 15.3.1997 n. 59) on decentralization the legislative Decree 112/98 has renewed the distribution of public service

provision, tasks and responsibilities of the government between the different levels of government towards a stronger decentralization of power and tasks to the regions and local authorities (provinces and municipalities). With regard to Civil Protection power has been transferred from the prefects, chief representatives of central government in the provinces, to the regional and provincial governments.

Also in 2001, law 343 and 401 significantly changed the operational-coordination structure of Civil Protection. According to the law, now again, as it was defined by the legislation in 1992, the prime minister, in collaboration with the regions and local communities, is responsible for the planning of operational emergency guidelines, forecasting and prevention programmes, rescue programmes and the coordination of their implementation.

In 2002 law 245 transferred full authority to the prime minister to initiate CM activities during an emergency situation. A state of emergency is declared after the prime minister has consulted the Head of the DPC and the president of an affected region. New in the decrees is that large events are not defined precisely. [4]

2.5 Specific to the regional and local authorities legal arrangements and regulations on emergency and disaster management

In 2001 (L. Constitutional 18.10.2001 n. 3), a constitutional reform increased the legislative and executive power of the regions to stimulate regional and local institutions' competence and responsibilities while at the same time safeguarding the state's role of overall guidance and coordination. Within the frame of the reorganization of Italy's administrative structure, the regions were also required to improve their Civil Protection service by transferring operational CM responsibilities to the local level and supporting and promoting local CM-organizations. Thus, regional governments were given the opportunity to develop their own Civil Protection structures according to the requirements of their specific territorial and risk specificities. [4]

2.6 Legal regulations on the involvement of volunteers and specialised NGOs

In 2001 (L. Constitutional 18.10.2001 n. 3), a constitutional reform not only touched vertical subsidiarity power relations but also horizontal relationships between the public and private sector, by increasing the role of associations and business enterprises during high level coordination activities between Civil Protection authorities, volunteer organizations and critical infrastructure operators. [4]

2.7 Legal regulations for international engagements of first responders and crisis managers

In the event of natural disasters or serious events abroad, the Civil Protection Department may define the measures, signed by the President of the Council of Ministers, for the declaration of a state of emergency and to cope with the disaster (art. 4 of Law n. 152 of 2005).^[1]

3 Organisation

3.1 Organisational chart

Civil protection in Italy is not a structure, but an integrated system that allows the coordinated use of all available state and private resources. The operational structure set-up in case of major disasters takes into account the administrative organisation of the country.

The general mission of national civil protection is, both at central and local levels, to protect the lives, goods, properties and environment from damage or threats caused by natural and technological disasters and other calamities.

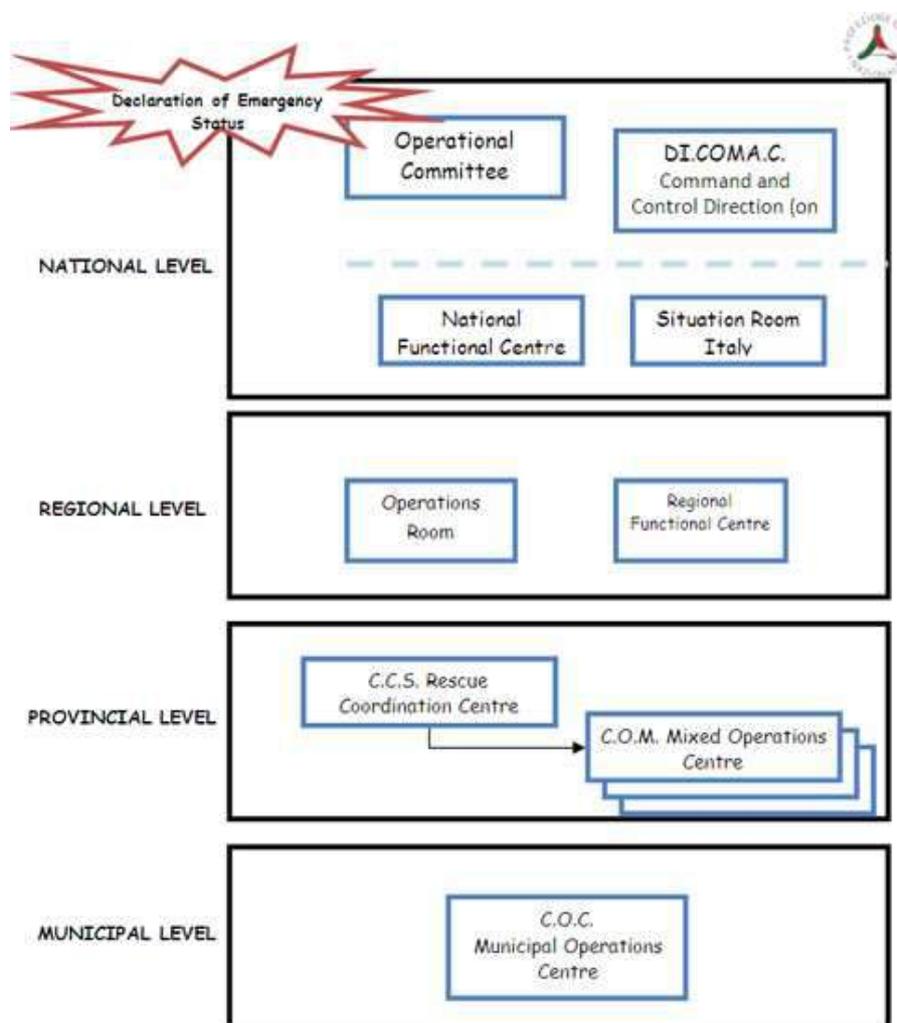


Figure 1: Organisational Chart of the CM in Italy

The "National Service of Civil Protection" was institutionalised by Act no 225 adopted on 24 February 1992. As stated in its first article, the Act is drawn up by the state administrations, both central and

peripheral, the regions, the provinces, the municipalities and the mountain communities, the national public and local institutions and all other institutions or organisations, both public and private, present on the national territory. Together, they constitute the National Service of Civil Protection with designated components and operational structures.

The responsibility to decide civil protection policies is assigned to the president of the Council of Ministers, or to the Minister of the Interior appointed by him.

The coordination of the national service and the promotion of civil protection activities are undertaken by the Department of Civil Protection (Dipartimento della Protezione Civile - DPC) under the office of the president of the Council of Ministers. The Department of Civil Protection is thus the operative arm of the president of the Council, when it comes to coping with the protection of the country's people and goods.

The DPC is managed by a Head of Department and is divided into eight main offices, where each one is managed by a General Director. Each office is furthermore divided into two or more "Services" carrying out specific tasks. [2]

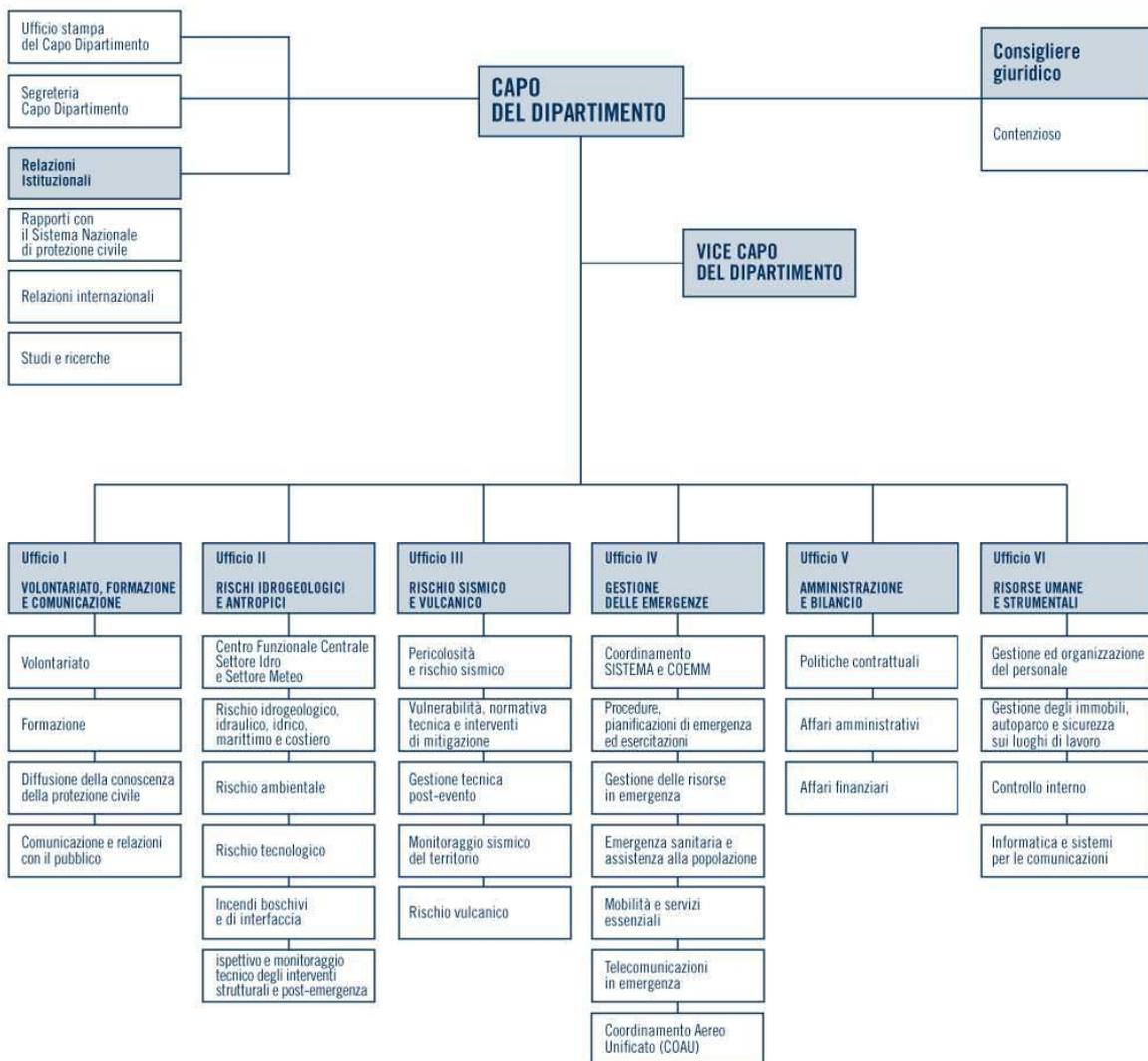


Figure 2: DPC (Dipartimento Protezione Civile) Chart

- Interdepartmental (inter-ministerial) emergency and disaster management authority

The inter-ministerial coordination in case of national emergencies takes place primarily within the Operational Committee, which meets under the direction of the head of the Department of Civil Protection.

- National permanent emergency and disaster management unit(s)/ formations; first responders

Act 225/92 recognises as part of the National Service of Civil Protection, being a "national operational structure" the institutional components such as:

- the National Fire-Fighters Corps,
- the armed forces,
- the police force,
- the National Forestry Corps
- the Coast Guard
- others

In fact, the "Civil Protection National Service" is composed of different operational units that are coordinated centrally by the DPC. Operational units include: The National Fire- Fighters Corps, police and the armed forces, State Forest Corps, Italian Red Cross, National Health Service, National Alpine Rescue Corps, volunteer forces, state administrations, executive powers of the regions, provinces and municipalities, technical-scientific experts and private institutions and organizations. These operational units belong to, according to their tasks and responsibilities, to different line ministries and other public authorities and private entities.

The illustration below shows the institutional set-up of the "Civil Protection National Service". [4]

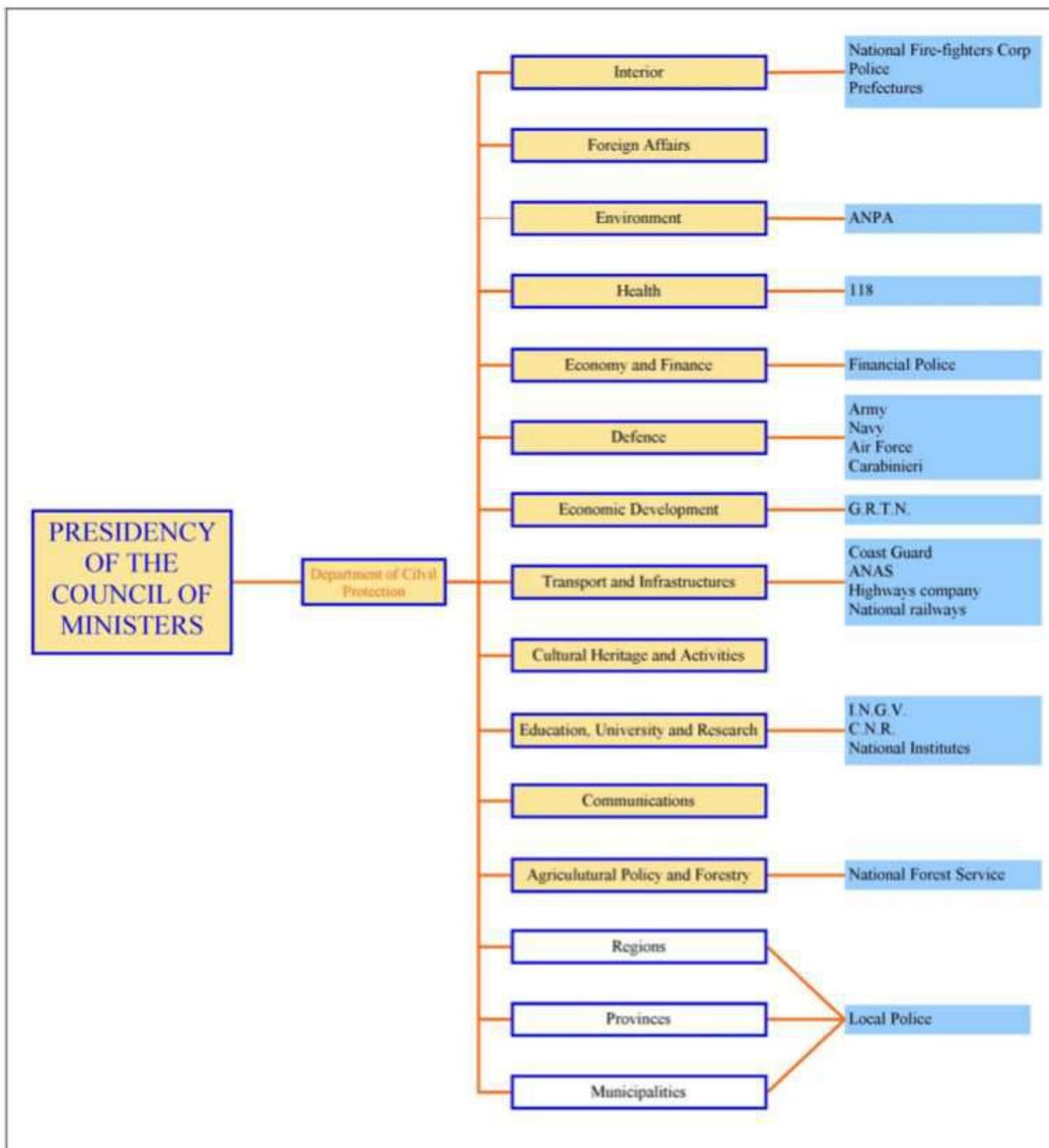


Figure 3: Italy’s main emergency first-responders units

- Planned/ anticipated use of specialised military assets

Civil-Military Cooperation is fully implemented in Italy. The Armed Forces are fully integrated in the National Civil Protection Service and arrangements are in place for planning and implementing cooperation on a daily basis. The Italian Armed Forces also participate in Civil Protection operations conducted abroad.^[3]

Representatives of the COI (Comando Operativo Interforze) are integrated ordinarily into the DPC Operational Rooms at central and local level, as well as into the Operational Committee which decide

at high level the deployments of specific resources. The use of specific financial plan for the emergency in the Armed Forces will support the interventions which will be actuated, at operational level, following, in the most of cases, standard procedures which could be consider part of a sort of operational plan.

- **Departmental emergency and disaster management arrangements**

The Departmental emergency and Disaster bodies, must ensure the implementation of the established intervention activities with respect to the specific competences and procedures of these components and structures.

In particular the representative of the:

National Fire Brigades Corps

Immediate actions

- a) provide detailed information regarding the consequences of the event for the purpose of making a first estimate of fatalities, the number of injured persons, the population in need of assistance and the accessibility to the area affected by disaster;
- b) provide information regarding the human resources, logistics and technology available and ready for immediate use on site, in particular resources for search and rescue activities, including those already deployed;
- c) provide information about additional resources available for potential use, identifying their location, characteristics, time frame for action and instructions for use;
- d) make available the mobile operational centres of the fire brigades as first co-ordination headquarters in situ;
- e) identify the co-ordinators of the urgent technical rescue operations on site;

Within 12 hours

- a) make the personnel of the fire brigades available for safety control of strategic buildings and the structures hosting the operational and coordination centres of the rescue and relief system supported by local technical experts;
- b) guarantee the service of its staff at the operational and co-ordination centres in disaster areas;

Within 24 hours

- a) supply the required operational and logistic support for the urgent accommodation needs of the affected population;
- b) provide information concerning the interventions carried out to secure the safety of structures and infrastructures;

Police forces

(the national Police, the Carabinieri, the Revenue Guard Corps and the national Penitentiary Police and the national forest Corps are represented in the operational Committee)

Immediate actions

(through the direct co-ordination of the Department of Public Security, for general matters, or the prefects for local matters)

- a) provide detailed information regarding the consequences of the event for the purpose of making a first estimate of fatalities, the number of injured persons, the population in need of assistance and the accessibility to the area affected by disaster;
- b) provide information regarding the human resources, logistics and technology available and ready for immediate use on site, in particular resources for search and rescue activities;
- d) propose the possible use of additional resources, by indicating their location, characteristics, time frame for action and instructions for use;
- e) the Police administration head of the affected province is responsible of identifying the co-ordinator of public security and safety actions in the province;
- f) adopt public security and safety competence measures;

Within 12 hours

- a) guarantee in collaboration with the health authorities the activation of the necessary scientific technical competences and experts for the procedures needed to identify bodies and ensure the presence of specialized staff at the operational and co-ordination centres activated in the affected area;
- b) ensure the presence of staff from the Police forces at the operational and co-ordination centres active in the affected area.

Within 24 hours

- a) guarantee safety in the base camps hosting the rescue teams, the population's shelter areas and the operational and co-ordination centres activated in the affected area.

Harbour Offices of the Coast Guard*Immediate actions*

- a) provide detailed information regarding the consequences of the event for the purpose of making a first estimate of fatalities, the number of injured persons, the population in need of assistance and the accessibility to the area affected by the event;
- b) provide information regarding the human resources, logistics and technology available and ready for immediate use on site, in particular resources for search and rescue activities;
- c) plan the potential deployment of additional resources, identifying their location, characteristics, time frame for action and instructions or modalities for use;

- d) identify the co-ordinators of rescue operations at sea;
- e) provide information on the operability of harbour and maritime infrastructures in the areas affected by disaster;
- f) activate naval resources, also the ones provided on a private basis, supplied autonomously or jointly with other administrations, institutions or structures, for the inflow of relief operators and to guarantee a timely evacuation and treatment and transfer of injured victims (meDevaC) to safe areas or hospital facilities which can provide temporary shelter areas for the population;
- g) dispose the issuing of avURnav in order to provide restrictions of the areas at risk and to facilitate rescue and relief operations;

Within 12 hours

- a) plan the necessary activities to survey and evaluate the damage to the bunkering ports and coast and marine industrial plants;
- b) identify the harbour infrastructures which can be utilized as gathering areas for the rescue teams and for the means and equipment;
- c) ensure the presence of its staff at the operational and co-ordination centres active in the affected area;

Within 24 hours

- a) provide all the information regarding the survey of damage to the marine environment and the necessary measures to guarantee the protection and safety of the marine areas under environmental protection and the equipment and production plants and companies involved in the event. ^[5]

- **Other national civil service organisations**

In the following is described the commitment and arrangement for the most relevant civil service organisation active in the emergency situation :

Italian Red Cross

Immediate actions

- a) participate in gathering detailed information regarding the consequences of the event for the purpose of drafting a first estimate of the casualties, the number of injured persons and the population in need of assistance;
- b) provide information regarding the human resources, logistics and technology available and ready on site;
- c) plan the potential deployment of additional resources, identifying their location, characteristics, time for action and modalities for use;
- d) ensure participation in rescue and relief operations and providing assistance to the injured population;

within 12 hours

- a) ensure the presence of its personnel at the operational and co-ordination centres activated in the area;
- b) guarantee participation in setting up and co-ordinating the base camps hosting the resources for relief operations and shelter areas for the population;
- c) ensure participation in providing assistance to the population in particular to particularly sensitive groups of the population;
- d) activate its permanent structures with the purpose of guaranteeing, within its capacity limits, assistance with the sheltering of the evacuated population hit by the event;
- e) propose the potential deployment of expert teams for both special rescue operations and assessing the specific risk situations (health-logistic – psychological support);
- f) propose the deployment of special teams responsible of assisting the population in contacting their families;
- g) activate the transportation staff of the Red Cross by supplying special means of transport;

Within 24 hours

- a) ensure the preparation and distribution of meals for the rescue teams and the population;
- b) ensure the deployment of the equipment and staff needed across the affected area for the co-ordination of water purifiers and distribution of drinkable water. ^[5]

- Provincial (regional) authorities and arrangements for emergency and disaster management (e.g. crisis HQ)

The functions ascribed specifically to the regions by Legislative Decree no 112/98 are described in Art. 108, which defines how to address emergencies and planning and operational functions, such as the activation of urgent interventions in case of crisis (e.g. by using the Fire-Fighters Corps), the extinction of forest fires and so on.

The most important regional tasks can be summarised as follows:

- Making regional programmes for risk prevention and forecasting
- Launching interventions through the National Fire-Fighters Corps in case of a crisis caused by an emergency or an imminent danger
- Formulating the guidelines for the drafting of emergency provincial plans.

The provinces are mainly responsible for the forecasting and prevention activities. Their functions are summarised below:

- To carry out, at the provincial level, forecasting and risk prevention activities established by regional programmes and plans through the adoption of the necessary administrative acts
- To draft provincial emergency plans on the basis of the regional guidelines
- To control how the provincial structures of the emergency services are set up by the civil protection, including the technical services to be activated in case of disasters.

The functions ascribed to the municipalities by Art. 108 of the Legislative Decree no 112/98 concern particularly the prevision and forecasting activities (emergency preparation, setting of plans) and the operational activities (activation of first relief service to the population and urgent interventions), while confirming - without significant innovations- the important role assigned by Legislative Decree

no 225/92 to the municipality, and particularly to the mayor as the local authority of civil protection.^[2]

- **Local (municipal, town) authorities and arrangements for emergency and disaster management**

The functions ascribed to the municipalities by Art. 108 of the Legislative Decree no 112/98 concern particularly the prevision and forecasting activities (emergency preparation, setting of plans) and the operational activities (activation of first relief service to the population and urgent interventions), while confirming - without significant innovations- the important role assigned by Legislative Decree no 225/92 to the municipality, and particularly to the mayor as the local authority of civil protection. The functions of the municipalities can be summarised as follows:

- To launch, at the municipal level, forecasting activities and risk prevention interventions established by regional programmes and plans
- To adopt all decisions, including those concerning the emergency preparation, necessary to assure first emergency relief in case of disasters at the municipal level (type A)
- To draft municipal and inter-municipal emergency plans in the form of association or cooperation and through the mountain communities to control that these are implemented on the basis of regional guidelines.^[2]

- **Volunteers and volunteer organisations; specialised NGOs**

Act 225/92 recognises the volunteers' organisations as part of the National Service of Civil Protection, being a "national operational structure" and fundamental public component of the system.

The volunteers' organisations of civil protection keep growing thanks also to a very foreseeing law (Framework Act no 266/91) recognising the added value of organised volunteering as an expression of solidarity, participation and pluralism, while supporting its organisational development.

Another important piece of legislation to regulate the activities of the volunteers' organisation within the National Service of Civil Protection is the Decree of the President of the Republic no 194/2001, which regulates the participation of the volunteers' organisations in the civil protection activities by establishing a national register.

Currently, 3,878 voluntary organisations are recognised by the national registry of civil protection on voluntary organisations. Regions and municipalities also maintain their respective registries.^[2]

- **Private businesses**

According to Art. 6 of Legislative Decree no 225/92 also the private and institutional organisations can participate in the implementation of civil protection activities. For this purpose, the national and local structures of civil protection can stipulate conventions with public and private subjects.^[2]

As Private Sector component of the National Civil Protection mechanism are considered:

- Public transportation companies
- Water, gas, electricity and telecommunication companies
- Waste and sewage management companies
- Roads and highways management companies
- Special service providers (e.g. shelter, heavy-duty machinery etc).
- Any other organization or company whose assets and/or services can be employed to face an emergency. ^[2]

3.2 Organisational cooperation

The Civil Protection Department operates on a European and International level with civil protection interventions abroad, promoting international relations, agreements and technical scientific programmes to improve the prevention of the natural risks or those caused by man.

In particular:

- the Department participates in technical-scientific knowledge exchange and sharing projects and interventions in Europe and on an international scale (e.g. Euromed);
- the Department belongs to monitoring networks for preventing and forecasting risks;
- the Department maintains permanent relations with research centres, specialists and structures organised by the civil protection department of the other Countries;
- the Department promotes, coordinates and participates in international drills;
- the Department shares its own organisational model with the other countries, also through guided tours to international delegations interested in furthering their knowledge of the Italian Civil Protection system;
- the Department participates in meetings and events whose objective is to improve coordination and promote the civil protection culture at an international level.

It also participates in the European Civil Protection Mechanism, the instrument of the European Union activated to respond in a timely and effective manner to the emergencies occurring on an international scale. All the interventions are based on the principle of subsidiarity, according to which the actions of the Union must always be undertaken on request of and in coordination with the authorities of the affected state. The emergencies can be tackled by means of pre-constituted intervention modules.

Emergency Interventions. In the event of a natural calamity or of a serious event which affects the population of a European or overseas country, the Department may make its own resources and technical competences available, in accordance with the local authorities, either in the emergency phase or in the recovery and reconstruction phase. Like for national emergencies, the Department of Civil Protection declares the state of emergency with a decree and outlines the interventions in the

orders to cope with and overcome the situation. The measures prepared by the Department are signed by the Prime Minister.

Like for domestic emergencies, the Department of Civil Protection defines the measures, signed by the Prime Minister, to declare the state of emergency (decrees) and those necessary to cope with the calamities on an international scale (orders), as envisaged by art. 4 of law no. 152 dated 2005.^[1]

4 Procedures

4.1 Standing Operating Procedures (SOPs) and Guidelines

SOPs are set by law for prevention and preparation to emergencies, while response is conducted on the basis of the “Augustus Methodology”, which is not compulsory but has been extensively adopted on the whole National territory, and on the basis of Prime Minister’s Decrees setting rules for operational coordination.^[3]

Emergency response procedures are set by law and by Prime Minister’s Decrees. The main driver of response is the local capability to face the event.

Three different “typologies” or “levels” of response are identified by the law:

- A-type events, which can be managed at local level by a single organization operating under its ordinary function;
- B-type events, that can be managed at provincial or regional level by more than one organizations cooperating under their ordinary function;
- C-type events, whose extension or severity requires a National response and the employment of extraordinary measures and resources.

C-type events require a Declaration of State of Emergency issued by the Council of Ministers under proposal of the Prime Minister. The Declaration gives the Prime Minister the power to issue Ordinances that can derogate to ordinary law into a predefined timeframe and area set in the Declaration itself.^[1]

Internal Procedures are in place internally to DPC in order to activate the CM mechanism in case of emergency. The procedures and relevant guidelines are described in written (i.e. the so called “Libretta Rossa” for the CM system activation).

4.2 Operations planning

In Italy Forecasting and Prevention Programmes and Emergency Plans coexist in order to ensure a multi-disciplinary and multi-sectoral coverage of the whole Civil Protection Cycle. Forecasting and Prevention Programmes start at National Level.

All National Authorities are involved in their preparation under the coordination of the National Civil Protection. National Programmes are based on risk maps and event scenarios and are meant to give

to Regions a common programming framework for disaster prevention and preparedness. They are then translated by Regions in directives to Provinces and Municipalities for the adoption of coordinated measures. Planning starts at local level. All Municipalities are responsible for preparing emergency plans. Provincial Plans are meant to support Mayors in first response and assistance to the population by coordinating resources located in the different Municipalities of the Province. Regional Plans provide coordination of resources of the Provinces belonging to the Region. At National level, plans are in place for the coordination of response of the entire system in case of major disasters.^[3]

As example we mention the National Plan for seismic risk prevention (art. 11, Abruzzo Decree Law):

- After the Abruzzo earthquake of 6 April 2009 a new legal measure was issued in order to give a stronger push to seismic prevention. Article 11 of decree no. 39 of 28 April 2009 provides for the funding of seismic risk prevention works on the whole national territory and allocates 965 millions euros in 7 years. The Civil Protection Department manages the carrying out of art. 11, and orders of the President of Council of Ministers regulates it.^[1]

4.3 Logistics support in crises

In general, logistics & resource planning is based on:

- Resource allocation and use of military assets
- National guidelines (*Augustus* used in planning existing systems generally work well and are frequently used timely, clear and accurate requests for assistance. Accurate methodology for registration of incoming teams, their equipment, capabilities and needs.^[3]

ANAS S.p.a, the government owned company which operates motorways have, in the event of an emergency the specific task

- to provide the logistic structures and infrastructures (heliports, deposit areas for the storage of means and other useful resources to the rescue teams) as well as escort and dispatch riders to the transportation of special material and mobile columns of rescue teams which are allowed easy access to the tollbooths.^[5]

Similar duties are in charge of RFI and TRENITALIA for the railways side.

The information on logistic in emergencies is managed in liaison with different civil authorities, agencies and critical infrastructure manager. For example:

- ANAS S.p.a, in the event of an emergency have the specific task to provide information regarding the state of national mobility particularly focusing on the specific complexities determined by the event and supply all information on the damages suffered by the road system's infrastructures, administered directly or by contract, in the area affected by the

emergency and to propose in respect to the highways the use of alternative road systems and adoption of extraordinary traffic regulations, particularly aimed at ensuring the operability of Civil Protections means.

- The specific tasks of the Civil Aviation Authority of Italy (ENAC) in the event of an emergency include the supply of information regarding the operability and capacity of airports, air routes and heliports in the areas affected by the emergency as well as adoption of necessary regulations, in order to facilitate rescue operations, limiting ordinary and commercial flight activities in the airports concerned by the event and identifying alternative intermediate stops and rerouting air traffic.
- Similarly, the ENAV (Ente Nazionale Assistenza al volo) tasks include to supply all information regarding the operability and capacity of the airports in the areas affected by the emergency and plan all measures and regulations necessary to co-ordinate and control the flow of air traffic, in agreement with the DPC/CoaU, including regulation of flight activity in the areas at risk, in order to facilitate the required rescue operations enav/aCU). ENAV is also to assist in the co-ordination of the limitation of the air flow within Italian air space or landing at airports located in the area affected by the emergency with EUROCONTROL, when necessary.
- In respect to for instance a volcano evacuation scenario, the Trenitalia and RFI will contribute in any situation and in the emergency planning which touches their structures. When in an event it would be important to evacuate many people, the train circulation situation can be changed to take away people suddenly. Emergency plans are approved by each prefecture.
- The tasks of the Italian Postal System are to supply information regarding the state of efficiency of the mail services and infrastructures in the areas hit by an emergency or disaster and perform all actions aimed at the restoration of services in the areas hit by disaster, including the possible deployment of additional human and technological resources including hi-tech devices.^[5]

4.4 Crisis communication to general public; Alert system; Public Information and Warnings

In course of alerts for floods, tsunamis and volcanic eruptions, for example, responsibility for risk communication and provision of information to the affected public is primarily placed with the mayor of the affected municipality.

DPC actively promotes the dissemination of information to the affected public to ensure timely and accurate public awareness concerning the event. These efforts include making the population aware of the relevant risk scenarios in the immediate term, and instructions on self-help measures to take.

DPC has a Press office and Communication Service that disseminate information directly and that liaises with the national and foreign media.

DPC is establishing an in-house call centre, which is under development and will be used in the event of disasters. The aim of the call centre will be:

- to provide information to the population concerning the event and the primary measures to safeguard the population;
- to handle calls of potential importance to improve the management of emergencies.

The public utility radio channel isoradio covers most of the Italian highways. It regularly broadcasts traffic reports, weather conditions, railway information and public service reminders at regular intervals around the clock. During emergencies, isoradio also provides listeners with updated information about the incident as it develops.

A recent project is aimed at improving the quality of the existing isoradio network services and at widening the coverage of highways not yet covered by the service. The new isoradio network will be carried out using three different types of radio-diffusion systems: mountain systems, highway systems and subway systems.^[5]

In addition to this unidirectional media the telephone infrastructure composed by the “emergency call number” is widely used for bidirectional communications.

In Italy there are several possible telephone numbers to call different emergency lifeline services, for example 112 emergency calls are answered by the Carabinieri. Requirements under EC Directive 2002/22* call for member states to ensure that the 112 number is well known by their citizens, which is difficult when many different emergency call numbers are maintained, and leads to immediate action by the competent authority for providing the necessary help. The common European Union 112 emergency call number serves the purpose of facilitating urgent help for an individual in an emergency situation or disaster anywhere in the European Union through one single call. This is of particular importance in a country such as Italy where the important tourist industry draws so many foreigners, most of whom would not know of any other number to call than 112 should they find themselves in urgent need to obtain help.

In 1968, Italy had already initiated a process to simplify and standardize the operational liaison between emergency services that resulted in the adoption in 1976 of 112 for use as a common emergency number for the operational centres of the Carabinieri. Citizens were thereafter able to request help in dangerous situations from the Carabinieri and would, when relevant, be transferred to other competent structures or informed how to contact these services. When the 112 was adopted in 1991 as the single European emergency call number, measures were taken to make it possible to receive the calls also in foreign languages. The use of 112 increased from about 2.7 million calls in 1992 to about 6.2 million calls in 2004.

Since the infraction procedure initiated by the European Commission in 2006, the Italian government has been developing initiatives aimed at fully complying with the European Union law on the 112 emergency Call number. In particular, Italy issued a decree dated 22 January 2008, which provided for a first phase of implementation of the European Directive within the Italian system. This decree

was implemented within the province of Salerno to serve as a test for a subsequent implementation in the remaining Italian provinces. However, due to financial constraints, the project had to be suspended in July 2008.

It is important to highlight that following a sentence issued by the Court of Justice on 15 January 2009, the Italian government has promoted the establishment of an operational inter-ministerial working Group co-ordinated by DPC, which is currently setting up a strategy aimed at full implementation of the Universal Service Directive, and thus comply with the sentence issued by the European Court of Justice. The working Group consists of representatives of the major ministries and institutions involved in the implementation, such as the ministry of health, the ministry of interior, the ministry of Defence and the ministry for economic Development.

In northern Europe, 112 is, or is becoming, the sole emergency call number i.e. a common number for all emergency services which also serves as an impetus for enhanced collaboration between these countries.

Another development is to introduce modern digital tetra communication systems and integrate these with the 112 services, which also facilitates cross sector co-operation in emergency response operations. The Review team has found that DPC is strongly convinced of the importance of a single European emergency number and DPC is committed to reinforcing the Italian capacity to address all phases of disaster as well as early warning systems, which can benefit from the implementation of 112 in all EU member States.^[5]

5 Capabilities

5.1 Human resources

Civil Protection in Italy mobilizes resources from all rescue and emergency services (National Fire Brigade; National, Regional and local Police; Carabinieri; Armed Forces; local, provincial, regional and National Civil Protection organizations; local, provincial, regional and National administrations and services; organizations managing essential services, academia, more than 1 Mln. volunteers managed by Civil Protection volunteer organizations, etc.).^[3]

Permanent Personnel:

Dedicated professional resources are permanently working at the DPC; rescue workers operating in the emergency services (National Fire Brigade; National, Regional and local Police; Carabinieri, etc..) are also in permanent duties and alert.

Volunteer

The voluntary organisation of the Civil Protection Department has blended religious and non-religious bodies and guarantees the right to receive professional relief. With law no. 225 dated February 24 1992, establishing the National Service of Civil Protection, the voluntary organisations took on the role of “national operative structure” and became an integral part of the public system.

With decree of January 25 2008 published in the Official Gazette of the Italian Republic no. 61 dated March 12 2008, the Prime Minister established the National Council of Volunteers of Civil Protection at the Department of Civil Protection of the Prime Minister’s Office. This collegial body with consulting functions has the job of discussing the problems regarding promoting, training and developing the volunteers of the Civil Protection system. The Council also has the job of coordinating the volunteer organisations with the other members and operative structures of the National Service. The Council is made up of a representative for each national volunteer organisation, with offices in at least six regions, registered in the national list established at the department of Civil Protection. The Chairman, in harmony with the Department, convenes the Council each time he or she feels the need and in any case, at least three times a year. Apart from the members, the Head of the Civil Protection Department, the manager of the institutional and international relations of the volunteers office, the coordinator of the voluntary service and a representative of the national association of voluntary firemen, a representative of the Italian Red Cross, a representative of the National Mountain and Speleological Rescue Corps as well as the directors of the Civil Protection department, who are called upon in relation to the items on the agenda, participate in the Council meetings. The council was updated with Decree of the Department Head dated July 30 2010.^[1]

Citizens:

Citizens are an integral part of Civil Protection by law. All citizens are called to provide themselves with self-protection and to assist Civil Protection operations by adopting the behaviours

recommended by Civil Protection Authorities. Citizens are informed and trained through risk awareness programmes set up at National and local level, informative campaigns in schools and to the general public. [3]

The first authority of civil protection at the municipal level is the Mayor, who has the duty to inform citizens about possible dangers and security plans for all the community. [1]

5.2 Materiel (non-financial) resources

In case of concrete emergencies, coordination and operational activities are carried out through a multi-level hierarchical organisation. This consists of:

- the Municipal Operational Centres (C.O.C.) at the municipal level,
- the Mixed Operational Centres (C.O.M.) and Rescue Coordination Centres (C.C.S.) at the provincial level,
- the Regional Operations Centres at the regional level,
- the Command and Control Direction (DI.COMA.C.) at the national level. Even though the DI.COMA.C represents the national level, it is physically set up on the disaster site or close thereby.

Furthermore, the Department of Civil Protection has institutionalised the National Situation Room (Sit.I.) at its premises, ensuring the 24 hours' presence of the National Service of Civil Protection's main operational structures representing the permanent monitoring and control centre of incidents occurring throughout the national territory and determining risk situations endangering the population, goods, buildings and the environment while guaranteeing the coordinated intervention on behalf of a number of institutions or administrations. [4]

5.3 Training

Training is performed at all levels (Municipal, Provincial, Regional and National of the system. It involves Civil Protection professionals, members of rescue organizations and emergency services, personnel from private companies which activities are relevant for Civil Protection purposes, volunteers and citizens. Exercises are an essential tools for providing training and spreading risk awareness. Table top, command post and full-scale exercises are therefore organized at all levels. Every year at least one National/European fullscale exercise is conducted. High level and frequent exercising and an established public-private dialogue. [3]

5.4 Procurement

5.4.1 Procurement regulation

The legislative decree no. 33/2013 re-ordered obligations of publicity, transparency and dissemination of information by public authorities.

The DPC website (www.protezionecivile.gov.it) propose a page (under the tag “Trasparenza” which is mandatory for publication on corporate websites where all the information and data, including procurement tenders, budgetary and expenditure figures are published, in compliance with the annex of the legislative decree.

The Administration section of the page replaces and incorporates the transparent section and contracts Job opportunities previously available on the site.

From this page, using the appropriate links, it is possible to reach the information and data available on other pages of the site or the site of the Italian government. Some data are also available in tabular format as provided in Article 7 of the law.

However is not clear in which extend the decree is actuating the procurement directives of the EU.

At the central level (DPC) standing to the data published for the year 2013 on the website of “Consiglio dei Ministri” (<http://www.governo.it/>), beside the ordinary expenditures for the normal activities carried out by the DPC offices, the main topics procured are:

- Fund for seismic risk prevention
- Recovery support to population for the recent seism (May 2012)
- Technical and scientific services for monitoring and awareness toward natural disaster
- Meteorological Radars and similar appliances
- Renting and operational cost for fire bombers aircrafts
- Contribute to NGOs and other associations
- Training and similar services^[1]

5.4.2 Procurement procedures

In conformance with the Decree no. 33/2013, the procurement procedures are based on public tenders.

At central national level (DPC) the office which is charge to manage tenders and similar procurement act is the “Amministrazione e bilancio” office in the DPC structure (office V).

The office is responsible for the management of all the contractual relationships entered into by the Department. It also caters to the setting, management and control of financial and fiscal policies, the development and management of all accounting and financial records and management of the administrative affairs relating to the activities of the various services of the Department. It also handles relations with institutional bodies.

In particular, within this office, the service “Servizio politiche contrattuali”, is committed to:

- proceed and negotiate for the supply of goods and services related to the general operation;
- prepare the bid documents to the offices of the Department on the basis of technical specifications drawn up by them or sole responsibility of the procedures covered.
- operate on the basis of the indications of the Office jurisdiction, such framework agreements entered into for the acquisition of goods and services;
- care, on the proposal of the relevant offices, any outsourcing of activities and services;
- provide training for acts of commitment accounting, settlement and payment of bills resulting from the activity of negotiation, on the basis of regularity and visa clearance on each page by the competent office or the Consignee.
- define, on the basis of guidelines and technical specifications provided by aviation, the preparation of contracts for the fleets of the Department and the shaping of measures of financial commitment and pay the resulting bills, based on the regular visa and clearance affixed by that Office.

The service is ultimately responsible for the payment of expenses connected with the settlement of disputes. ^[1]

5.5 Niche capabilities

Standing to our information there are two nice sectors where Italy could strongly contribute to the overall EU CM:

- Satellite based awareness, communication and detections in emergencies
- Field Hospital assets.

Resources

Legislative acts

Other normative acts

Official documents (white papers, strategies, etc.)

Online resources (e.g. websites of key CM organizations)

[1] <http://www.protezionecivile.gov.it>

[2] http://ec.europa.eu/echo/files/civil_protection/vademecum/it/2-it-1.html# [2]

Publications

[3] CRISYS project – Summary of National meeting: Italy

[4] ACRIMAS project : The Political and Legal Framework of EU Aftermath CM - ACRIMAS_D2-1

[5] OECD Reviews of Risk Management Policies: ITALY – REVIEW Of THE ITALAN NATIONAL CIVIL PROTECTION SYSTEM (SBN 978-92-64-08220-59)

Expert interviews

- 1) DPC, Oct. 2014
- 2) Anonymous expert, Oct. 2014



Driving Innovation in Crisis Management for **European Resilience**

LATVIA

Capabilities, Organisations, Policies, and Legislation (COPL) in Crisis Management and Disaster Response



Responsible Partner: CSDM (Philip Spassov)

Scope and limitations

This study serves as supporting information for further work within DRIVER.

Only limited time and budget has been available for this first general survey, which needs to be considered in terms of scope and completeness of the respective studies.

The author/s of this study is/are responsible for its content and quality.

Overview

Latvia is a Parliamentary republic where the President is the Head of State. The President is elected by the Parliament (Saeima). The Government, or the Cabinet of Ministers, is appointed by the President, approved by the Parliament and led by the Prime Minister. There is no regional government level as territorially Latvia is divided into 109 rural municipalities and 9 cities under state jurisdiction. These two main types of municipalities are led by municipal council.

The National Security Concept is a strategic document based on analysis of national threat stating principles for prevention of threats, priorities and measures, which must be taken into account when executing new political planning documents, legislative enactments and action plans in the area of national security. The priorities determined in the Concept provide the basis for the development of the National Security Plan by the Cabinet of Ministers.

As in the other Baltic Region States the organisational structure is centralised, i.e. coordinated and mostly organised by the central national civil protection authority, as is the case with Estonia, Latvia, Lithuania. Additionally, the use of private rescue services is low in the Baltic Countries.¹

The Prime Minister has the responsibility for the continuous function of the operation of the crisis management system and for the implementation of the related tasks and obligations. The State Fire and Rescue Service, an organisation directly subordinated to the Ministry of Interior, plans, coordinates, leads and controls the civil protection operations. The State Fire and Rescue Service has significant responsibility for crisis management at national level.



Figure 1. Logo of the Latvian State Fire and Rescue Service.

At local level the municipal authorities are responsible for establishing and managing the Civil Protection Commission of the municipalities and cities. The Commission coordinates civil protection measures in crisis situations in their respective administrative territories.

¹ EUROBAL TIC Survey: Civil Protection Research in the Baltic Sea Region, p.13

The civil protection framework of Latvia foresees the involvement of military forces in support of civil authorities during peacetime emergencies. Latvian Ministry of Foreign Affairs is responsible for the cooperation with the European Union as it implements and coordinates the state external security policy. Cross-border and international collaboration is also organised through the Monitoring and Information Centre operated by the European Commission.

The systems for training in the field of civil protection are quite different in the Baltic region, however they share some basic features. Education in civil protection and rescue has a legal foundation in all of the Baltic Region countries. Basic and advanced education at the national level is standardised through the use of certificates, as well as the development of educational and training curricula. All of the Baltic region states have specialised schools and colleges which carry out education in civil protection and rescue area.²

Potential niche capability that could be filled by Latvia and represent interest to EU crisis management structures is the development of single crisis information systems. The Latvian civil security institutions are looking to improve cooperation in the field of crisis management as they are exploiting new ways for cooperation for the creation of a unified national information system.

² EUROBAL TIC Survey: Civil Protection Research in the Baltic Sea Region, p.14

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List of Abbreviations

EADRCC	Euro-Atlantic Disaster Response Coordination Centre
EURDEP	European Radiological Data Exchange Platform
EU NAVFOR	EU Naval Force
GIS	Geographical Information Systems
MIC	Monitoring and Information Centre
HELCOM	Baltic Marine Environment Protection Commission - Helsinki Commission
UNEP	United Nations Environment Programme

1 Policy

In Latvia there is no concrete definition of crisis management. In the Civil Protection Law the term “disaster management” is used as the performance of preventive, readiness, response and emergency measures for the elimination of the consequences in cases of disasters and when there are threats of disaster. Disaster management shall be implemented by the State institutions, local governments, businesses and citizens.³

The crisis management structure of Latvia consists of definitions such as “civil security” or “civil protection”. The main tasks of the civil security system are to carry out disaster management, to provide aid to victims of disasters and to reduce the possible damage to property and the environment caused by disasters. The main responsibility for the operation of the civil security system and the implementation of the tasks of the system is held by the prime minister of Latvia.⁴

The Latvian crisis management system has to ensure the anticipation of potential crisis factors, timely decision-making and implementation of measures, as well as management and coordination of state and municipal institutions in preventing crisis situations and mitigating their consequences. The creation of a unified crisis management system in Latvia aims at establishing means for better coordination of the actions of the respective governmental institutions involved and for envisaging the potential factors and risks in a crisis situation.⁵

1.1 Risk Assessment

In Latvia the most common crises are natural disasters which include extreme temperatures, storms and floods. The two of the most severe and recent extreme temperatures events occurred in January 2006 and February 2012. Other disasters that have been registered include heavy snowfalls, strong winds, chemical and infrastructure accidents, oil spills and other hazardous materials spills and forest fires.⁶

Risks caused by chemical and infrastructure accidents are associated with the transit of hazardous chemicals and oil products through the territory of the country. Long-distance oil and gas pipelines cross the territory of the country and problems could be caused by abandoned chemical substances or waste.⁷

³ Civil Protection Law, Section 1 (3)

⁴ ANVIL Project Country Study Latvia, p.7

⁵ National Security Concept 2002, p.10

⁶ ANVIL Project Country Study Latvia, p.7

⁷ National Security Concept of the Republic of Latvia, 2005_nd_en p.7

The risk analysis mechanism is based on provisions in the Civil Protection Law where the tasks of the ministries are specified. These tasks include conducting risk assessment of possible threats to the civil security sector, submission of proposals to the Ministry of Interior at the beginning of each year in order to update the national civil protection plan, and preparing notice regarding the measures and operations carried out in civil protection during the previous year. Additionally, the ministries must plan the actions for the provision of the operation of the sector in cases of disaster.⁸

Furthermore, the National Security Law envisages preparation of risk analysis by the Information Analysis Service, on the basis of information provided by national security institutions. The analysis is examined by the national security institutions council and based on proposal by the Prime Minister is then examined by the National Security Council and the Cabinet.⁹

The National Civil Protection Plan provides definitions for possible types of risk and provides detailed description of potential areas of risk of storms, earthquakes, flooding, forest fires, leakage of dangerous substances, as well as points out hazardous objects within and outside the state that may endanger the national security. The Plan also assesses the threat of radiation accidents, transport emergencies, damage to gas pipelines, water supplies and electrical facilities, dangerous infectious diseases, etc.¹⁰

There are numerous government regulations defining the development of risk assessments in the specific civil protection areas. For instance, Regulation No. 1354 dated November 2009 prescribes the development of preliminary flood risk assessment, the flood hazard maps, flood risk maps and flood risk management, as well as the provision of additional information in updating documents;¹¹ Regulation No.532 from 2005 defines the regulations regarding the procedures for industrial accident risk assessment and the risk reduction measures; and so forth.

1.2 Policy and Governance

The Latvian civil protection system could be best described as a mixed model, where single-level coordination is executed by the Prime Minister's Office, while multi-level preparedness and response functions related to hazards of man-made and natural origin fall in the domain of multiple stakeholders. In other words there is no single institution or authority that has the overall responsibility for the operational and strategic levels.¹² The crisis management responsibilities are distributed among the ministries and state agencies depending on the type of crisis or disaster that has occurred and the respective fields of expertise.

For example, in case of a forest fire the Ministry of Interior and the Ministry of Agriculture will be leading authorities. In emergency cases involving oil or chemical substances spills the involved

⁸ Civil Protection Law, section 8

⁹ National Security Law, section 26

¹⁰ National Civil Protection Plan, Chapter II

¹¹ Regulation 1354, issued in accordance with the Water Management Act, 24 Nov. 2009

¹² ANVIL Project Country Study Latvia, p.8

authorities would be Ministry of Economy, Ministry of Interior and the Ministry of Environment. The official division of competence of institutions/persons is based on the structure of state, rules of parliamentary democracy and the principles of division of state powers as defined by the Constitution of Latvia.¹³

The Prime Minister has the responsibility for the continuous function of the operation of the crisis management system and for the implementation of the related tasks and obligations. The State Fire and Rescue Service, an organisation directly subordinated to the Ministry of Interior, plans, coordinates, leads and controls the civil protection operations. The State Fire and Rescue Service has significant responsibilities for crisis management at national level.¹⁴

The Latvian national security is based on the total defence principle, meaning that ensuring the defence of the state is not only a military task but also a national one. The total defence system provides joint use of civil and military personnel, as well as material technical resources. The implementation of the total defence system is based on rendering of mutual support and close cooperation between the military and the civil defence systems.¹⁵ The Crisis Management Council, led by the Prime Minister, is responsible for management of the coordination of operational measures of the State institutions in the event of disasters and for civil-military cooperation.

Civil-military cooperation is based on the active participation of the armed forces by providing support in search and rescue work, in conducting preventive and response activities, as well as undertaking emergency measures for mitigation of the consequences in event of disaster.¹⁶

At local level the municipal authorities are responsible for establishing and managing the Civil Protection Commission of the municipalities and cities. The Commission coordinates civil protection measures in crisis situations in their respective administrative territories. The civil protection measures are provided for in the National Civil Protection Plan, the Local Government Civil Protection Plans and the Civil Protection Plan of Institutions.¹⁷

1.2.1 Strategy scope and focus

A thorough analysis of the disasters and crises conducted by Latvian experts suggest that there are several main gaps in the strategic approach of the crisis management activities.

For example, after analysing the technological accident in the city of Talsi in 1997, which resulted in nine victims and twenty one injured, the researchers suggested several main areas for improvement:

¹³ Ibid., p.9

¹⁴ International CEP Handbook 2009, p.139

¹⁵ National Security Concept (2002)

¹⁶ ANVIL Project Country Study Latvia, p.9

¹⁷ International CEP Handbook 2009, p.139

the response coordination between the responsible authorities, alongside the control and technical supervision of the involved equipment.

Furthermore, in the case of the Daugava River major flood in 1998 caused by high water levels, as main shortfalls were underlined the inefficient communication between the decision-making authorities, the need of improvement of relevant legislation and the allocation of the available resources. The evaluation conducted following the flood resulted in a proposition for long-term measures which included State control and maintenance of the barrage systems; cleaning of the Daugava riverbed and conducting research regarding the influence of the Daugava cascade.¹⁸

In general, several gaps that affect the crisis management system and require improvement are revealed. These gaps mainly include uneven/unstable regulation and institutionalization, resource constraints and deterioration of critical infrastructure.¹⁹

1.2.2 Monitoring and analytical support to policy making; R&D

The State Fire and Rescue Service is a comprehensive, all-hazard type of civil security institution that performs scientific research in these fields. The Fire Safety and Civil Protection College provides education for civil security experts for undertaking positions in the State Fire and Rescue Service or other relevant civil security institution in Latvia. The training processes are supported by social media and electronic mass media as part of innovative educational approaches and solutions. The usage of these new appliances is carried out by the state institutions and local level authorities.

Latvia conducts extensive scientific research in the area of civil security and emergency management not only through the Fire Safety and Civil Protection College but also through numerous private sector actors and consultancies which generate applied research in the field of civil protection. Non-profit organizations are involved in public crisis management structures and major exercises and have a growing role in the field of education, training and applied research.²⁰

Latvian universities, enterprises, non-governmental organisations and other civil associations are actively participating in EU funded research programmes in the civil protection domain. These projects mainly consist of applied research, exercises and vocational training.²¹

The Latvian government cooperates with the European Union in the field of civil by supporting participation in various exercises that are carried out in this field, both with neighbouring countries and within regional organizations such as HELCOM (Baltic Marine Environment Protection Commission - Helsinki Commission) and the Council of the Baltic Sea States.

¹⁸ *Crisis Management in a Transitional Society: THE LATVIAN EXPERIENCE*, Eric K. Stern and Dan Hansén (editors), p.327

¹⁹ *Ibid.*, p.347

²⁰ ANVIL Project Country Study Latvia, p.29-30

²¹ *Ibid.*, p.35-36

The State Fire and Rescue Service participates in the development of regulatory enactments regulating fire safety, fire fighting, rescue and civil protection, as well as in the preparation of opinions regarding the drafts of regulatory enactments developed by other authorities.

The Ministry of Interior has underlined the need for conducting studies of possible threats of storms, natural hazards and to increase applied research as key for hazard prevention and mitigation, as well as the need of improving the work in hazard identification and forecasting within the Latvian Environment, Geology and Meteorology Agency.²²

1.2.3 Policy for Prevention

Latvia's authorities have distinguished the importance of improving the overall crisis management capacity of the country in order the country to efficiently deal with the full spectrum of all potential natural and man-made disasters and crises. Measures have been undertaken for the creation of a set of decision-making and response mechanisms and a national crisis management system. This system is gradually created and it should integrate the existing crisis management capabilities of the public agencies. The system will ensure the ability to coordinate the actions of relevant governmental authorities in order to foresee, prevent crises and mitigate the consequences, as well as to maximise overall efficiency. The principles of total defence will be exploited in the development of the crisis management system.²³

For achieving adequate level of preparedness, functioning and development of the crisis management system it is required to regularly conduct exercises and training within the inter-institutional framework. The system should be developed in such way that it is compatible to similar structures as of the Latvia's partners in NATO, the EU and the Baltic States.²⁴

The National Civil Protection Plan of Latvia defines the measures and objectives for prevention, readiness and response intended for states of emergency, as well as for the mitigation of consequences in crisis situations. The Plan is drawn by the Ministry of Interior in cooperation with other ministries and is approved by the Cabinet of Ministers.²⁵

According to the National Civil Protection Plan, the State Fire and Rescue Service in cooperation with local governments develops emergency plans for the provision of prevention, preparedness, response and recovery in emergency measures, taking into account the potential types of disasters, the scale and high-risk subjects in the administrative area.²⁶

The functions of the State Fire and Rescue Service include implementing state policy in the field of fire safety, fire-fighting, civil protection and operation of the single emergency phone number 112. Additionally, the organisation has to perform the fire-fighting and rescue works, coordinate fire-

²² Ibid., p.19-21

²³ National Security Concept 2002

²⁴ ANVIL Project Country Study Latvia, p.19-21

²⁵ National Security Law, Section 36

²⁶ National Civil Protection Plan, Part III

fighting and rescue services and volunteer fire-fighter organisations established by local institutions, organisations or companies.

The tasks of the State Fire and Rescue Service for the performing these functions include identifying the state of fire safety and potential hazards, and provide the state institutions and local governments with recommendations regarding improvements. Further, the institution organises and performs prevention measures in the field of state fire safety and civil protection and participates in the evaluation of measures taken for assessment and reduction of the risk of industrial accidents.²⁷

Threats to cyber environment in Latvia exist, although the level is considered as average and has not directly influenced the Latvian national security, it is anticipated that electronic attack will occur and have increasing impact in the future. As part of the national security policies, ensuring the safety of information technologies as well as enhancing existing mechanisms and reducing risks caused in the area of information technologies is foreseen in the National Security Concept.

The Crisis Management Council coordinates the operational management of suppression in a crisis situation, as well as the development of plans for prevention.

As priorities of Latvia for prevention of threats in the electronic information environment two essential points are highlighted. First, it is necessary to enhance legal regulation, thus establishing framework of IT critical infrastructure protection, forming and effective institutions for prevention of IT incidents. Second priority is the enhancement of inter-institutional and international collaboration.²⁸ It is necessary to continue cooperation of responsible public authorities both at the strategic and operational level, i.e. in prevention of electronic attacks and elimination of their consequences.²⁹

1.2.4 Policy for Preparedness

The National Security Law defines that the national security system emergency preparedness level has to be determined depending on the type of danger, the intensity and the nature, as well as on the size of the endangered territory by the threat. A national security system emergency preparedness shall be determined for a time period, which is necessary in order to prevent the possible danger to the State or to overcome the danger to the State and to perform the emergency measures to eliminate the consequences thereof.³⁰

The National Civil Protection Law describes the status of the system readiness control. The State institutions and local governments control the development of the civil protection plans of the relevant subordinated institutions, as well as the fulfilment of the measures provided in the plans.

²⁷http://www.vugd.gov.lv/eng/about_vugd/about_vugd, last accessed 16.10.2014

²⁸ National Security Concept 2011, p.12

²⁹ National Security Concept 2011, p.12

³⁰ National Security Law, Section 22

The State institutions and local governments shall organise civil protection instruction for ensuring the system readiness as the types of civil protection instructions and organisational procedures will be determined by the Cabinet.³¹ The Crisis Management Council prepares for submission to the Cabinet proposals regarding the specification of national security system emergency preparedness.

Educational activities are important part in ensuring preparedness and are mainly organized by the Ministry of Interior and the Fire Safety and Rescue Service. The education and training courses involve key civil security actors such as heads of state institutions, local governments and commercial companies. The courses also aim at involving citizens as volunteers and they include exercises and simulations of possible crisis incidents. In addition to these activities, the state-accredited specialised institutions of higher education provide professional training in this field. This includes mandatory courses in civil security to students and organizations involved in crisis management structures.³²

Moreover, the Radiation Safety Centre of State Environmental Service is the national regulatory authority in the field of radiation and nuclear safety. The Centre together with representatives from other institutions and professional associations deals with certification of radiation and nuclear safety officers.³³ In a 2011 report by the Environmental Board, Radiation Safety Department evaluated the Latvian emergency preparedness and response arrangements in the radiation safety domain. In the report it was noticed that despite that there is limited radiation risk in the country the implementation of preparedness and response arrangements was needed.

The main recommendations provided by experts include the performing of exercises, incorporated verification of preparedness and response arrangements for radiological emergencies; and that the level of training and availability of necessary equipment at State Fire and Rescue Service, State Police, State Emergency Medical Service should ensure the sufficient protection of the personnel intervening during such type of emergency.³⁴

The National Armed Forces Law states that State Border Guard and Bank of Latvia Security Department shall perform duties under command of the National Armed Forces to mitigate threats to national security. To ensure readiness of the state institutions in time of crisis, the National Armed Forces, the Bank of Latvia Security Department and the State Border Guard coordinate mechanisms for cooperation in crisis situations and ensure interoperability regarding armament, equipment and communications and training.³⁵

³¹ Civil Protection Law, section 23

³² ANVIL Project Country Study Latvia, p.29-30

³³ Latvia CNS report 2012, p.5

³⁴ Latvia CNS report 2012, p.6

³⁵ State Defence Concept, Executive Summary, p.11

1.2.5 Policy for Response

Depending on the type of disaster the responsibility for managing the emergency measures for the response and elimination of the consequences is held by the State Fire-fighting and Rescue Service or the State institution indicated in the National Civil Protection Plan or the local government civil protection plan. The State Fire and Rescue Service performs and manages fire-fighting and rescue operations and activities, responds, performs and manages rescue operations in road accidents and fires, as well as performs rescue works in water accidents.

In cooperation with other authorities the organisation performs measures for urgent emergency response and elimination of consequences of emergency, it receives and processes signals of the single emergency number 112 and provides assistance to individuals in the event of fire or emergency.³⁶

The Latvian National Security Concept underlines the readiness of competent agencies for immediate response to crisis situations and disasters as an essential task and priority. The Information Analysis Service, an organisation supervised by the Cabinet of Ministers, has to develop and apply most modern methods and technologies for analytical work. The Concept also foresees the creation of unitary Crisis Control Centre in order to establish compatible communication channels between institutions involved in the crisis management.³⁷

The National Armed Forces participate in preventive and response actions, in the performance of emergency measures for the elimination of consequences, and provide support in search and rescue activities. Other state institutions, including local governments and merchants, must cooperate with the Armed Forces in the management of disasters in accordance with the civil protection plans and agreements.³⁸

To improve readiness for crisis and disaster control, Latvia develops crisis control and civil defence elements within the scope of the unitary national security system. This requires making conceptual assessment of legal framework in respect of legal regimes of crisis situations, attraction of additional resources to the civil defence system in such events, as well as of principles for establishing of the national material reserve system. The readiness of responsible authorities for immediate response to crisis situations and disasters must be developed with emphasis on preventive activities, crisis forecasting and elimination scenarios. To enhance the readiness in crisis situations and disaster management effective cooperation and coordination between competent institutions and services is underlined as national security priority.³⁹

³⁶http://www.vugd.gov.lv/eng/about_vugd/about_vugd, last accessed 16.10.2014

³⁷ National Security Concept of the Republic of Latvia (2005), p.8

³⁸ Civil Protection Law, section 12

³⁹ National Security Concept of the Republic of Latvia (2005), p.7

1.2.6 Policy for Relief and Recovery

As the fundamental strategic principle of the national defence is to minimise the potential for threats to national security,⁴⁰ the National Civil Protection Plan includes measures for the implementation of the State civil protection system as well as measures for the liquidation of the consequences of emergency situations. The State Fire and Rescue Service manages the response and emergency measures for recovery and elimination of the consequences.

In the case of danger to the State, the Cabinet is entitled to authorise the involvement of the National Armed Forces in the maintenance of public order and liquidation of the consequences in a crisis situation.⁴¹

1.3 Financing

1.3.1 Investing in preparedness

According to the Civil Protection Law, national institutions shall finance the fulfilment of the civil protection tasks from the allocated State budget resources, while the local governments and merchants from their own resources.⁴²

The State Fire and Rescue Service of Latvia and the Estonian Rescue Board have signed an agreement seeking to improve first responders' efficiency and effectiveness regarding response time to an emergency and additionally, for the development of capability to work in rough environment such as areas with a difficult or limited access and remote areas with a shortage of water resources. The main risks in such territories in the border area are wildfires. The project is part of the Estonian – Latvian Programme, which is co-financed by the European Regional Development Fund. The budget for this project is over 3 million euros.⁴³

State Fire and Rescue Service resources include 92 fire station buildings, of which approximately 33% were built before 1940, 65% - in the period from 1940 to 1992, 2% - built or renovated in the period after 1990. Fire fighting depot buildings and facilities are physically and morally outdated and are in a very poor state and do not comply with European or National requirements set out by the relevant legislation.⁴⁴ This example reveals the need for investing and improving current rescue facilities in order Latvia to establish better crisis management capabilities.

In addition, Latvian government has signed Memorandum of Understanding with the Swiss Federal Council regarding financial support covering various areas such as security, stability and support for

⁴⁰ State Defence Concept, Executive Summary, p.11

⁴¹ National Security Law, section 23 (5)

⁴² Civil Protection Law, section 18

⁴³ Estonia - Latvia Programme available at: <http://www.estlat.eu/supported-projects/?project=65>, last accessed 10.10.2014

⁴⁴ Strategy of the Ministry of Interior 2014 – 2016 (unofficial translation), p.18-20

reforms, environment and infrastructure, promotion of the private sector, human and social development and support to non-governmental organisations.

One of the most important projects implemented and financed in accordance with the agreement is the “Support for fire safety measures in local government general education institutions”. This project aims at improving children safety in case of fire incidents in general education institutions in peripheral and disadvantaged regions of Latvia. The project involves partners from 61 local governments in peripheral and disadvantaged regions of Latvia.⁴⁵

The United States European Command in collaboration with the U.S. Embassy in Latvia have invested in projects for the complete refurbishment of 8 fire brigade stations across Latvia worth over 2.3 million US dollars. The project improves existing station building’s structure, therefore improving the work conditions of fire brigades. In Strenči, Gulbene, Aizkraukle and Ventspils, additional garage docks have been built for storing newly acquired, modern rescue equipment.

Furthermore, within this cooperation with the U.S. European Command Several new projects have been undertaken, such as the planning to locate an emergency medical service dispatcher centre in the currently abandoned Kuldīga city hospital building with estimated costs of 880.000 USD.⁴⁶

1.3.2 Investing in consequence management

Following an analysis by the department of Strategy at the Ministry of Interior, several suggestions for improving the Latvian civil security system as a result of recent crisis experiences has been made. These suggestions involve allocating funding for improving the coordination between state institutions and local municipalities, as well as reserve funding that would be available in the case of storms, flooding and similar hazards. The allocation of these resources is intended for institutions directly responsible for emergency situations.⁴⁷

Moreover, the Long-Term Stabilisation Fund was created in 2008 and aims at ensuring the availability of resources in emergency situations.⁴⁸

During the past decade the following incidents can be summarized: Chemical accident in Riga (2009), Oil spill in the Daugava River (2007), Extreme temperatures causing 40 deaths (2006), Strong storm (Erwin), causing damage at estimated USD 325 m in 2005, Floods in the Daugava River caused by melting snow (2003), Extreme temperature in Riga with 15 casualties (2003), Extreme temperature in

⁴⁵ Annual Report on the Implementation of the Swiss–Latvian Cooperation Programme in Latvia April 2013 – March 2014

⁴⁶ U.S. funds fire station depot reconstruction in Latvian regions, <http://www.vugd.gov.lv/eng/news/6014-us-funds-fire-station-depot-reconstruction-in-latvian-regions>, last accessed 15.10.2014

⁴⁷ ANVIL Project Country Study Latvia, p.21

⁴⁸ *Budgeting in Latvia*, OECD Journal on Budgeting, Volume 2009/3

the Riga region, 21 casualties 2001), Epidemic diphtheria in Riga, where 102 persons affected (2000), and Storm (Anatol), six casualties and estimated damages of USD 0.5 m (1999).⁴⁹

These significant emergencies and crises that have struck Latvia have changed or played role for improving the Latvian civil security system. For instance, following the accident in Talsi (1997) the government assigned a commission with the task of coordinating the subsequent funding for victims and their families.⁵⁰

All the measures taken by the authorities have signified the need for allocating additional funding for the affected areas and population. The costs for recovery in a crisis situation are not formally specified and usually include private responsibilities for disaster management.

1.4 Policy review, Evaluation & Organisational Learning

1.4.1 Post-Disaster Assessment

The National Civil Protection Plan specifies that the crisis system performance evaluation is carried out for each specific disaster as well as for variety of threats to disasters (national and regional). The evaluation is carried out by the responsible Ministry or institution. The assessment measures include criteria such as timeframe, efficiency and safety for evaluating the performance of the responsible institution. The Plan also sets out the specific timelines for measuring the actual time spent to respond to a crisis event. Further, the measures that have been taken are evaluated as “sufficient” or “insufficient”, depending on the involvement of available resources, national reserve resources of the National Armed Forces, or request for international assistance has been made. The assessment report is submitted to the Ministry of Interior.⁵¹

1.4.2 Departmental Lessons Learned systems

N/A

1.4.3 Centralised (national) Lessons Learned system

The National Security Law specifies the functions of the Information Analysis Service, which is state administration institution supervised by the Cabinet of Ministers. The agency has to assess and analyse the information received from the national security institutions and provide it to the members of the National Security Council. Further, the organisation develops proposals and recommendations for the National Security Committee, the President and the Prime Minister regarding subsequent activities. It is important to mention that the Information Analysis Service also analyses and forecasts the potential danger to the State.

⁴⁹ ANVIL Project Country Study Latvia, p.7

⁵⁰ *Crisis Management in a Transitional Society: THE LATVIAN EXPERIENCE*, Eric K. Stern and Dan Hansén (editors), p.145

⁵¹ National Civil Protection Plan, Chapter IV

According to the Latvian legislation the Information Analysis Service has to be approved by the Cabinet of Ministers. The National Security Council may request from the Information Analysis Service and State security institutions all the existing information at their disposal, when it concerns national security interests.⁵²

The analysis of threats to the State has to be prepared by the Information Analysis Service, on the basis of information provided by State security institutions. This analysis represents a comprehensive assessment as a result of which the existing and potential specific danger or risk factors to the national security are identified.⁵³

The head of the Information Analysis Service may be invited to participate in the meetings of the National Security Council but with adviser rights.⁵⁴

1.4.4 International exchange for Lessons Learned

Latvia participates in the “Baltic every day accident, disaster prevention and resilience” project through Jelgava City Municipality. The project aims at enhancing learning and sharing of lessons learned and will strive to achieve a common understanding of evaluation methods, sharing experiences and knowledge and best practices in the Baltic Sea Region.

The project will make use of the UNEP Awareness and Preparedness for Emergencies at Local Level procedures, together with the safe community and safety performance indicators concepts and existing methodology for assessing the vulnerability of local communities to disasters. It will contribute to implementing the Priority Area Secure of the EU Strategy for the Baltic Sea Region Action Plan and the EU Host Nation Support.⁵⁵

1.4.5 Regular policy reviews

The National Civil Protection Plan specifies that the crisis system performance evaluation is carried out for each specific disaster as well as for variety of threats to disasters (national and regional). The evaluation is carried out by the responsible ministry or institution. The assessment report is submitted to the Ministry of Interior.⁵⁶ The Department of Strategy at the Ministry conducts analyses regarding various topics including crisis management issues.

⁵² National Security Law, section 15

⁵³ Ibid., section 26

⁵⁴ National Security Law, section 26

⁵⁵ *Civil protection financial instrument 2013* available at: <http://ec.europa.eu/echo/en/funding-evaluations/financing-civil-protection-europe/civil-protection-financial-instrument-2013>, last accessed 14.10.2014

⁵⁶ National Civil Protection Plan, Chapter IV

The Latvian State Fire and Rescue Service implements the state policy with regard to fire fighting, rescue and civil protection, as well as the monitoring of the statutory fire and civil defence requirements.⁵⁷

The Latvian National Security Concept emphasises the importance for conducting conceptual assessment of the legal framework with regard to crisis situations, as well as on the attraction of additional resources for the civil protection system in event of threat to the national security.⁵⁸

1.5 Resilience

The term Resilience is not highlighted in policy or legislative documents related to civil protection or crisis management. Within the framework of this country study resilience term has been identified in few research papers related to different topics. However, these topics do not cover civil protection or crisis management. For example, *The concept of the system resilience within a multi-hazard scenario: application to a Latvian case study* emphasizes primarily on infrastructure issues for withstanding severe weather conditions.⁵⁹

1.6 Information sharing and data protection

In Latvia the main legislative act regarding data protection is the Personal Data Protection Law which is in force since 2000 and implements Directive 95/46/EC into the national legislation. This law, along with the latest amendments made, defines that the provisions of the Personal Data Protection Law are applicable to the processing of personal data in the field of criminal law and national security.

In addition, the Latvian Data State Inspectorate was established under Regulation No. 408 dated November 2000. The duties of the Inspectorate include ensuring compliance of personal data processing in the State with the requirements of the Personal Data Protection law; taking decisions and reviewing complaints regarding the protection of personal data; registering personal data processing systems; proposing and carrying out activities aimed at raising the efficiency of personal data protection and submission of reports on compliance of personal data processing systems created by government and local government institutions. Furthermore, the act states that the Latvian Data State Inspectorate together with the Office of the Director General of the State Archives

⁵⁷ SFRS Sectoral Policy, available at: http://www.vugd.gov.lv/lat/par_vugd/nozares_politika, last accessed 14.10.2014

⁵⁸ National Security Concept of the Republic of Latvia, 2005_nd_en p.8

⁵⁹ Tatjana Kuznecova, Francesco Romagnoli, Claudio Rochas, *The Concept Of The System Resilience Within A Multi-Hazard*, p.1

of Latvia may decide on the transfer of personal data processing systems to the State archives for preservation.⁶⁰

According to the Law on the Security of Information Technologies the critical infrastructure of information technologies has to be protected in order to ensure the essential functionality of the State and society. The status of the critical infrastructure of information technologies is approved by the Cabinet and in accordance with the National Security Law.

The Security Incidents Response Institution is responsible for promoting security of information technologies in Latvia. The operational tasks and rights of the Security Incidents Response Institution are delegated to the University of Latvia's Institute of Mathematics and Computer Science. The tasks of this institution include providing support for the prevention of an information technologies security incident or coordinate the prevention of such; and providing of recommendations regarding the prevention of the current risks of information technologies, drawn up in accordance with the current threats.⁶¹

Processing of personal data is allowed in order to provide protection from malicious software. The Security Incidents Response Institution is allowed to transfer processed personal data to the institutions or units specified in the Law on the Security of Information Technologies in cases of recognised threat by malicious software to the national security.⁶²

The Crisis Communication Action Plan - 2011 to 2013 foresees the creation of educational materials, social campaigns and targeted training programs for different interest groups - schoolchildren, tourists and people with special needs, etc. Further, the creation of a single website is intended in the Plan, where all the information regarding crisis situations and subsequent actions to be taken could be found. The 112 emergency phone number sites will act as a central electronic source of information on various types of crisis situations for the public. Additionally, 112 emergency phone number accounts on social websites will be created, along with the development of guidelines for crisis communication in social media. Recommendations for local regarding suggested actions in case of crises and how to organize thematic information campaigns for actions in various crisis situations will also be developed.⁶³

⁶⁰ Latvia - Data Protection, available at: <http://www.privereal.org/content/dp/latvia.php>, last accessed 14.10.2014

⁶¹ Law On the Security of Information Technologies, section 4

⁶² Ibid., section 7

⁶³ Crisis Communication Action Plan - 2011 to 2013, chapter IV

2 Legislation

The overall civil protection legislative framework in Latvia is based on two main acts - the National Security Law enacted in 2000 and the Civil Protection Law, which was adopted in 2006. These laws define the roles and responsibilities for civil protection for local governments and institutions.⁶⁴

The National Security Law defines the national security system and its tasks, the competence of responsible authorities and institutions for the national security system, including crisis management. In addition, the Act provides the principles and procedures of coordination, for implementation and control of their activities.⁶⁵

The National Security Law also defines the provisions for the National Civil Protection Plan, which has to include measures for the implementation of the State civil protection system, as well as for preventive, readiness and response measures that are intended for states of emergency. In addition, the Plan sets out measures for the liquidation of the consequences in emergency situations, and determines the actions of the civil protection system in state of war.

The Civil Protection Law creates a system of civil protection for disaster management, ensuring the legal and organisational grounds for the protection of persons, property and the environment in cases of disasters and when there are threats of disaster.⁶⁶

Apart from these two Laws there are multiple other acts and regulations that address and civil protection and the civil security system.

2.1 Crisis (emergency, disaster) management concept

The National Security Concept is a strategic document based on analysis of national threat stating principles for prevention of threats, priorities and measures, which must be taken into account when executing new political planning documents, legislative enactments and action plans in the area of national security. The document is prepared by the Latvian Cabinet, examined by the National Security Council and approved by the Parliament, at least once on each convening (by 1 October) from its first year of operation.⁶⁷

The Concept sets out that disasters listed in the National Civil Security Plan, such as storms, extreme temperatures, earthquakes, floods, fires, leakage of dangerous substances, industrial accidents,

⁶⁴ International CEP Handbook 2009, p.139

⁶⁵ ANVIL Project Country Study Latvia, p.15

⁶⁶ Ibid., p.16

⁶⁷ National Security Law, section 26

dangerous infectious diseases, etc., must be resolved within the framework of the civil security system. The priorities determined in the Concept provide the basis for the development of the National Security Plan by the Cabinet of Ministers. The Plan includes specific state threat neutralisation and prevention measures and means.⁶⁸

In order to ensure the forecast of potential crisis, timely decision-making and implementation of measures for management and coordination of state and municipal institutions in preventing crisis situations and mitigating the consequences national crisis management system is being developed and enhanced.⁶⁹

The Strategy of the Ministry of Interior 2014 – 2016 sets out the strategic objectives for the Ministry and its subordinate agencies, including the State Fire and Rescue Service. They include promoting public safety and effective prevention of hazards and developing of closer cooperation national institutions and organizations for crime prevention.⁷⁰

2.2 General crisis (emergency, disaster) management law

The National Security Law determines the national security system and tasks of such, the competence of the persons or institutions responsible for the national security system and the principles and procedures of co-ordination, implementation and control of their activities.

According to it the Crisis Management Council in case of a danger to the State coordinates civil-military co-operation and the operational measures of national administration institutions in suppression of the danger to the State. The By-law of the Crisis Management Council shall be approved by the Cabinet. The Crisis management Council is chaired by the Prime Minister and it is composed by the Ministers for the Interior, for Defence, for Foreign Affairs, for Economics, for Finance, for Justice and for Health. The Council may include the heads of State security institutions as well as other State officials but with advisory rights.

The competence of the Crisis Management Council includes coordination of the operational management for suppression of the emergency; to coordinate the development of plans for the prevention of danger to the State; and to prepare for submission to the Cabinet proposals regarding the specification of national security system emergency preparedness. Additionally, in the case of a danger to the State, the Council coordinates the unified and timely implementation of political decisions in national administration institutions, prepares and submits to the Cabinet proposals regarding the status of critically important infrastructure for the national security, alongside the security measures that need to be performed.

⁶⁸ National Security Concept (2002)

⁶⁹ National Security Concept (2002)

⁷⁰ Strategy of the Ministry of Interior 2014 – 2016 (unofficial translation), p.20

The Crisis Management Council is supported by Crisis Management Secretariat which guarantees the operation of the Council and ensures the purposeful and continuous provision of cooperation and support of the responsible institutions to the Crisis Management Council.⁷¹

The National Security Law also defines the provisions for the State Civil Protection Plan, which has to be drawn up by the Ministry of the Interior in co-operation with other ministries and approved by the Cabinet. The State Civil Protection Plan incorporates the measures for the implementation of the State civil protection system, as well as measures for preventive, readiness and response actions intended in states of emergency, as well as the measures for liquidation of consequences of such events.⁷²

The Civil Protection Law is the other main legislative document in Latvia which provides the Structure and Organisation of the civil protection system. The purpose of the act is to create a system of civil protection for disaster management, ensuring the legal and organisational grounds for the protection of persons, property and the environment in cases of disasters and when there are threats of disaster.⁷³

It defines that the structure of the civil protection system has to be formed by the national institutions, local governments and merchants. The main tasks of the system are to carry out disaster management; to provide aid to victims of disasters; to reduce the possible damage to property and the environment caused by disasters; and in emergency situation caused by military invasion or war to support the National Armed Forces with resources.

The Civil Protection Law also defines the management procedures of the civil protection system. The Prime Minister has the responsibility for the operation of the system and the implementation of the tasks thereof and, within the framework of the system, to manage the measures at national or regional level for the prevention and overcoming the emergency situation.

The State Fire-fighting and Rescue Service shall manage, co-ordinate and control the operation of the system, however depending on the type of disaster the emergency measures for the response and elimination of the consequences may be taken by another competent national institution indicated in the State civil protection plan or the local government civil protection plans.⁷⁴

2.3 Emergency rule

According to the National Security Law the Cabinet has the responsibility to announce a state of emergency, exceptional state and mobilisation in cases determined by law, as well as to decide upon

⁷¹ National Security Law, section 23-24

⁷² Ibid., section 36

⁷³ Civil Protection Law, section 2

⁷⁴ Ibid., section 1-8

the necessity for support by the armed forces of the North Atlantic Treaty Organisation and European Union Member States during a state of emergency or exceptional state. In addition, the Cabinet has the responsibility for strengthening the national defence capacity in peace time.⁷⁵

Depending on the type of danger to the State, the nature and intensity, as well as on the size of the endangered territory, a state of emergency or an exceptional state may be declared in accordance with the procedures prescribed by the law.

State of emergency is declared in cases of natural disasters or accidents, epidemics, epizooties, epiphytes, public disorder, terrorism and armed conflicts, if the safety of society, environment and economic activity is significantly endangered.

An exceptional state has to be declared in the cases in which the state is endangered by an external enemy or within the country internal disturbances have occurred, or if there is a threat that such may arise, in this way endangering the nation. In cases of a state of emergency and exceptional state, mobilisation may be announced in order to carry out tasks related to national security and national defence, as well as to liquidate consequences.⁷⁶

2.4 Specific, department/agency-level legal arrangements and regulations on emergency and disaster management

The Civil Protection Law defines the tasks of the state institutions and ministries in civil protection which include exploring possible threats in the sector and submitting proposals to the Ministry of Interior up to 20 January each year regarding the clarification of the national civil protection plan, as well as notifying regarding the measures and operations carried out in civil protection during the previous year. In addition, ministries need to plan action for the provision of the operation of the sector in cases of disaster, to coordinate the operation of the subordinated authorities in cases of disasters and coordinate and control the formation of the State material reserves in the sector.

Further, the ministries have to ensure the fulfilment of the measures specified in the State civil protection plan in case of a military invasion; to ensure the training of employees of the institution in civil protection matters.

The tasks of the other responsible national institutions performing civil protection consist of providing information regarding the resources at the disposal of the institution for the management of disasters upon request from the State Fire-fighting and Rescue Service; ensuring the fulfilment of the measures specified in the National civil protection plan; and ensuring the training of employees of the institutions in civil protection matters.⁷⁷

⁷⁵ National Security Law, section 10

⁷⁶ Ibid., section 21- 22

⁷⁷ Civil Protection Law, section 8

Additionally, there are multiple other specific legal arrangements and regulations on emergency and disaster management. For example, the Fire Safety and Fire-fighting Law determines the system of fire safety, fire-fighting and rescue services and organisations, tasks and competence of natural persons and legal persons in the field of fire safety and fire-fighting, as well as the structure, functions of the State Fire-fighting and Rescue Service, course of service, obligations, rights, legal protection and social guarantees of State specialised civil servants serving in the State Fire-fighting and Rescue Service.⁷⁸

According to this legislative act the Cabinet defines the procedures by which institutions, organisations and commercial companies have to establish fire safety, fire-fighting and rescue services; and subsequent functions and rights.⁷⁹

Each civil security institution in Latvia has their specific crisis management proceeding.⁸⁰

2.5 Specific to the regional and local authorities legal arrangements and regulations on emergency and disaster management

At local level the Civil Protection Law describes the tasks and rights of local governments in civil protection. The emphasis is on the role of the chairperson of the local government city or county council, who holds the responsibility for the implementation of the tasks for civil protection in the relevant administrative territory. The main tasks of the local governments include establishing and managing the district civil protection commission; participating in preventive measures in the relevant administrative territory; providing support for to operation and emergency services and if necessary, to evacuate the inhabitants from the territories endangered or affected by a disaster. The civil protection commission of the local government operates pursuant to the regulations developed in accordance with the model regulations approved by the Cabinet.⁸¹

Further, the tasks of the local governments include providing proposals regarding formation, maintenance and storage of the national material reserves and organising instruction for the members of the local civil protection commission. The rights of the local governments in civil protection are also defined and incorporate receiving of information from the institutions and merchants located in the relevant administrative territory for the performance of civil protection tasks, as well as developing additional tasks of civil protection for merchants present in the relevant administrative territory.⁸²

⁷⁸ Fire Safety and Fire Fighting Law, section 1

⁷⁹ Ibid., section 4-5

⁸⁰ ANVIL Project Country Study Latvia, p.27

⁸¹ Civil Protection Law, section 9

⁸² Civil Protection Law, section 9

2.6 Legal regulations on the involvement of volunteers and specialised NGOs

The Latvian civil security system does not involve non-government relief organisations to a great extent, due to the fact that the sector has not yet developed after the independence of Latvia in 1991. Their role is more visible in the field of preparedness than in responsive matters.

There are volunteer fire-fighting units in some municipalities. The main non-government organisation in Latvia is the Latvian Red Cross with the spectrum of its operations cover the whole territory of Latvia. The Latvian Red Cross Committees are located all around Latvia and cover each district.⁸³

Section 19 of the Civil Protection Law specifies the involvement of legal and natural persons in response measures. According to this act legal and natural persons may be involved in response measures and their property may be used in cases of disasters and if human life is endangered. However, they are entitled to receive compensation for expenses and loss caused during response measures. The procedures for compensation and the amount of compensation are determined by the Cabinet. The head of rescue operations shall involve legal and natural persons in response by entering into an agreement in writing.

In the Fire Safety and Fire-fighting Law is stated that local government and volunteer fire-fighting organisations as part of the overall fire-fighting and rescue services teams in Latvia. Volunteer fire-fighter organisations operate in accordance with the Law on Public Organisations and the Associations thereof.⁸⁴

The Civil Protection Law defines the tasks and Rights of Merchants and their tasks in civil protection include informing the fire safety, fire-fighting and rescue services and local governments regarding the disaster that occurred in the territory of the merchant's object; to ensure the training of employees concerning civil protection; and to organise the fulfilment of civil protection measures at the merchant's object.

In addition merchants has to organise and carry out preventive, response measures and measures for the elimination of the consequences in cases of emergency on the territory of the merchant's object, to establish an alarm and notification system in the objects of industrial accident risk and in other explosive, fire hazard and critically important objects. The overall responsibility is held by the head of the commercial company. Merchants have the right to establish units of civil protection for response in case of disaster and for the performance of emergency measures for the mitigation of the consequences.

⁸³ ANVIL Project Country Study: Latvia, p.29-30

⁸⁴ Fire Fighting Law, section 1

2.7 Legal regulations for international engagements of first responders and crisis managers

According to the Latvian legislation, humanitarian assistance, as well as assistance for the performance of emergency response measures and the elimination of consequences, may be provided to states that have been struck by a disaster. In such scenarios, the State Fire-fighting and Rescue Service and the Centre of Emergency and Disaster Medicine has to establish rapid response unit and medical support unit respectively, for the affected states and thus provide assistance in performing response and emergency measures for the elimination of the consequences.

The Latvian Cabinet determines the procedures for the establishment, maintenance, training and financing of the referred to units, as well as the procedures by which the involvement in the international assistance provision shall be performed. The Latvian Cabinet also sets out the procedures for the receipt and provision of humanitarian assistance, as well as takes a decision regarding the provision of assistance.⁸⁵

With regard to the participation in NATO and EU international operations aiming to prevent crises the participation of the Latvian National Armed Forces allows the improvement of their response capabilities and interoperability.⁸⁶

⁸⁵ Civil Protection Law, section 25

⁸⁶ National Security Concept 2011, p.4

3 Organisation

3.1 Organisational chart

The overall responsibility for crisis management and for the continuous function of the operation of the civil protection system lies with the Prime Minister of Latvia. Civil protection operations are planned, coordinated, and led by the State Fire and Rescue Service - organisation subordinated to the Ministry of the Interior, while the heads of institutions and companies are responsible for civil protection in their own institutions and companies.

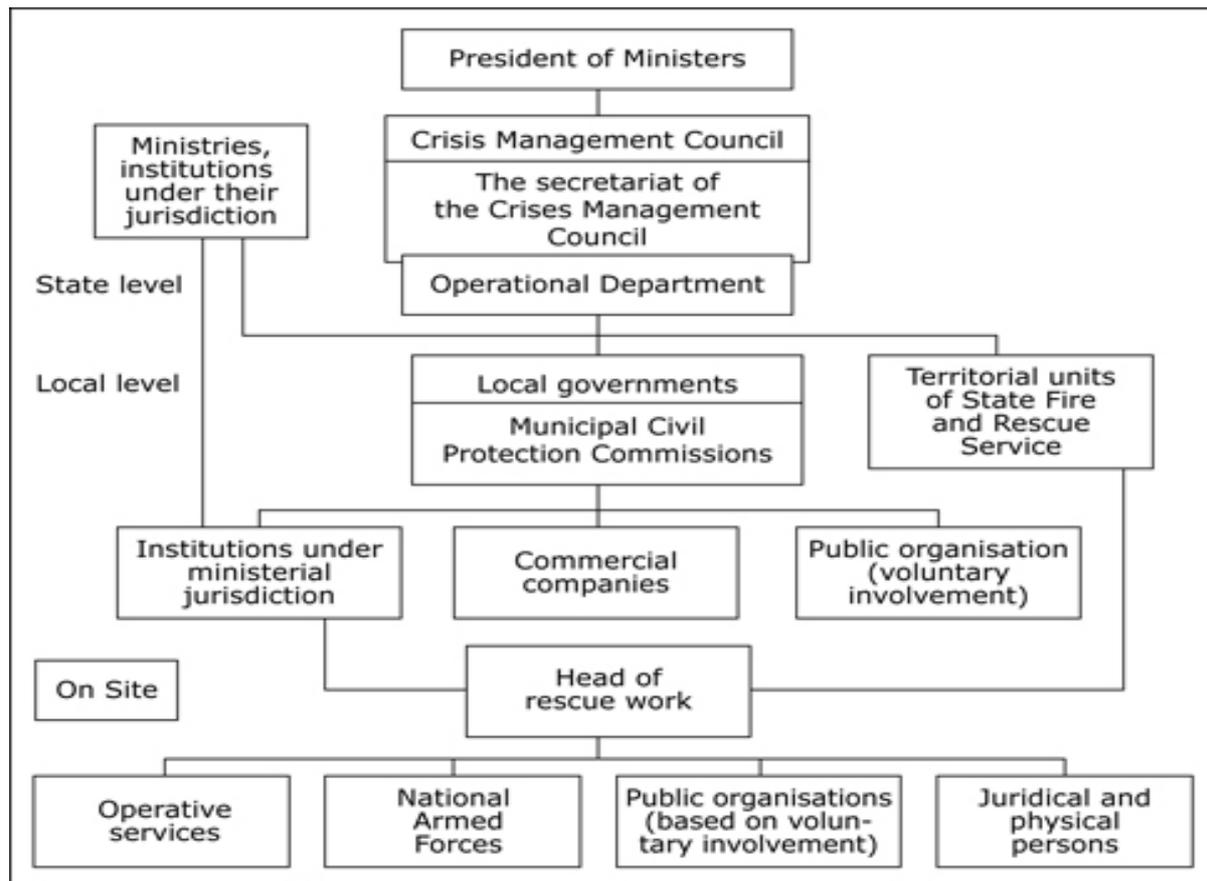
The Prime Minister leads the Crisis Management Council which is the main managing body in the emergency events. The Crisis Management Council coordinates the operational measures of the involved national institutions in events of disasters and in cases of civil-military cooperation. The Crisis Management Council Secretariat supports the activities and guarantees the successful functioning of the Council.

The State Fire and Rescue Service performs and manages fire-fighting and rescue operations and activities, responds, performs and manages rescue operations in road accidents and fires, as well as performs rescue works in water accidents. The functions of the State Fire and Rescue Service include implementing state policy in the field of fire safety, fire-fighting, civil protection and operation of the single emergency phone number 112. The State Fire and Rescue Service in cooperation with local governments develops emergency plans for the provision of prevention, preparedness, response and recovery in emergency measures, taking into account the potential types of disasters, the scale and high-risk subjects in the administrative area.⁸⁷

At local level the municipal authorities are responsible for establishing and managing the Civil Protection Commission of the municipalities and cities under state jurisdiction. The Commission coordinates civil protection measures in disaster events in the relevant local administrative territories.

⁸⁷ National Civil Protection Plan, Part III

Figure 2. Structure of the Latvian Civil Protection System (Source: EC ECHO)



The civil protection framework of Latvia foresees the involvement of military forces to civil authorities during peacetime emergencies. The structure of the National Armed Forces consists of the Defence Forces, the Home Guard and the Reserve Forces. Among the duties of the Armed Forces defined in the Armed Forces Law is the participation during peacetime emergency operations. Their main tasks include support civilian services with manpower, vehicles, communication and life-support equipment, participating in rescue work and in maintaining public order, as well as to fulfil other specific tasks that require their capabilities, such as blowing up ice on rivers, clearing mines, decontamination, etc.

The Home Guard is organisation created on territorial principle in order to have a battalion ready within the territory of a district or city municipality. The Home Guard battalions have agreements concerning mutual assistance and cooperation with respective local and municipal fire brigades and police departments.⁸⁸ The largest emergency assistance operations carried out so far by the National Armed Forces have been the involvement in the forest fires of 1992 and the spring floods of 1996 and 1998.⁸⁹

⁸⁸ International CEP Handbook 2009, p.138-139

⁸⁹ Ibid., p.138-139



Figure 3. Structure of the State Fire and Rescue Service⁹⁰

Volunteer fire fighting units are created in some municipalities however their contribution to crisis management activities is somewhat limited.⁹¹

The main NGO in the crisis management domain in Latvia is the Latvian Red Cross. It represents a non-profit volunteer-based humanitarian organisation with its operations cover the whole territory of Latvia. The Latvian Red Cross Committees are located in each district having their branches in cities, municipalities and organisations all around Latvia.⁹²

⁹⁰ Source: State Fire and Rescue Service website, available at <http://www.vugd.gov.lv/eng/structure>

⁹¹ ANVIL Project Country Study Latvia, p.29-30

⁹² Ibid., p.30

One of the main activities of The Latvian Red Cross is the participation in disaster relief operations. Therefore the organisation has to maintain preparedness in order to participate in the training of society for action during emergencies, as well as to provide support to government bodies responsible for emergency assistance to victims involving local resources and international assistance.

The tasks of the Latvian Red Cross for reducing the impact of emergencies on the affected population include:

- operating within the framework of the Civil Protection Law and cooperating with local governments;
- participation in the districts' planning process for preparedness for emergencies in cooperation with the relevant national bodies;
- engaging disaster preparedness units in relief operations when necessary;
- storing resources to be used in emergency situations and making regular inventory of these resources;
- facilitating the cooperation of the Baltic region Red Cross disaster preparedness units and other actors to be prepared for emergency situations.

Furthermore, the organisation provides educational activities to the society on related actions in emergency situations, for reducing vulnerability, as well as for raising the communities' disaster preparedness by developing and implementing community educational activities. The organisation intends to implement a program for psychological support in crisis situations that will enhance the awareness of the population.⁹³

3.2 Organisational cooperation

Operational crisis management responsibility normally rests with the counties and municipalities which, after declaring a state of emergency, form task forces led by the highest local political actor. The overall coordinating responsibility for civil security in Latvia lies with the Ministry of Interior. It provides assistance at local level along with other responsible for crisis management agencies.⁹⁴

To be more specific, operational cooperation in crisis management operations in Latvia could be divided into two main levels of responsibility – the national level and the institutional level (where ministries and their subordinate agencies are the main operational actors).

The national level is the highest level in the Latvian civil security system and is coordinated by the Crisis Management Council. The council has a coordination function as it coordinates operational crisis management between institutions and civil-military cooperation in events of disaster and other threats to the state. The Crisis Management Council is convened only in cases of major emergency, if

⁹³ Latvian Red Cross Strategy 2010 – 2012, p.2-3

⁹⁴ ANVIL Project Country Study Latvia, p.20

the crisis is multi-sectoral and requires coordination.⁹⁵ The Council is chaired by the Prime Minister and is composed of other Ministers, as it coordinates the implementation of political decisions in emergency situations concerning the national security. In addition it also coordinates the development of preventive plans.⁹⁶

The main operational crisis management is the second level of institutional responsibilities which is covered by the Ministries and agencies. The most important tasks of the ministries within the civil security system include the forecasting and prevention of possible threats in their sector, coordination and control of the operational response, to implement the State Civil Protection Plan and to maintain and further enhance the capacities for response and mitigation. Ministries also have to prepare action plans and coordinate the role of their subordinated bodies in emergency scenarios.

As one of subordinated organisations to the Ministry of Interior, the State Fire and Rescue Service is the main operational manager and coordinator for civil emergencies such as floods, fires, accidents, etc. Each ministry has several subordinated agencies directly or indirectly engaged in civil security issues.⁹⁷

Further, the Ministry of Interior coordinates several other agencies that include the State Emergency Medical Service, as the provider of health services in case of general public health emergencies; the Centre for Disease Prevention and Control, as the main responsible body in case of threats caused by diseases; the Security Police, as the main actor in events such as terrorist attacks; and the Coast Guard Service, which is the main actor in case of marine pollution and for search and rescue works at the sea.⁹⁸

Cross-border and international collaboration is also organised through the Monitoring and Information Centre (MIC), which is operated by the European Commission within the Framework of Community Mechanism to facilitate reinforced cooperation in civil protection assistance interventions and the Euro-Atlantic Disaster Response Coordination Centre (EADRCC/NATO).

An example for the procedures by which Latvia contributes to the international humanitarian and disaster relief operations could be the participation of the State Fire and Rescue Service and the Centre of Emergency and Disaster Medicine in such operations. These two organisations establish rapid response unit and medical support unit, respectively, for states affected by a disaster. Their aim is focused at responding to and providing emergency measures in the elimination of the consequences. The Latvian cabinet determines the procedures for establishing, maintaining, training and financing the relevant units, as well as the procedures the relevant international assistance has to be provided.⁹⁹

⁹⁵ Ibid., p.22

⁹⁶ Ibid., p.22

⁹⁷ Ibid., p.23

⁹⁸ ANVIL Project Country Study Latvia, p.23

⁹⁹ Vademecum - Latvia

Latvian Ministry of Foreign Affairs is responsible for the cooperation with the European Union as it implements and coordinates the state external security policy. The Ministry also has the leading role in organizing humanitarian assistance and in developing the legal framework with regard to the civil security system.¹⁰⁰

Latvia is actively involved in cross-border exercises in the Baltic Sea Region by either hosting or participating. The most recent international exercises include 2006 EU Joint Assistance exercise in Ukraine; the 2008 consequence management field exercise Uusimaa that took place in Finland and was organised by the EADRCC; the field exercises in 2009 performing chemical pollution scenario in the Daugava River; the 2009 field exercises in the case of a chemical spill in Grodno Azot and the annual Latvian-Estonian exercise under the bilateral Rescue Services Agreement.¹⁰¹

In addition, Latvia has signed several cross-border agreements within the EU framework. Such projects include the “Building Cross-border Capacity to Perform Joint Activities in Tough Environment” aiming at improving first responders’ efficiency and effectiveness to an emergency; INTERREG Baltic Sea Region Latvian - Lithuanian - Belarusian cross-border cooperation programme supported by the European Neighbourhood and Partnership Instrument; and the cross-border cooperation programme between Latvia and Lithuania in protection of population and environment.

Latvia engages in a broader discussion within the European Council on the strategic perspective of the further development of the Common Security and Defence Policy, the forms of military cooperation among member states and the enhancement of the EU's civilian and military capabilities.

BaltFloodCombat is a cross-border cooperation project between Estonia, Latvia and Lithuania. The three Baltic States are represented respectively by the Estonian Rescue Board, Latvian State Fire and Rescue Service and Lithuanian Fire and Rescue Department under the Ministry of the Interior. The project is within the framework of the Preparatory Action of the Civil Protection Mechanism and is funded by the European Commission. The European Commission finances 80% of the project while the remaining funding comes from the national budgets. The aim of the project is to create reliable and efficient national flood response capacity, and also to establish and register in CECIS a multinational High Capacity Pumping (HCP) module, consisting of commonly trained personnel and up-to-date equipment. Main objectives of the project include enhancing national flood response capability; strengthening European rapid response capacity, and also to discover, through innovative approach, possibilities and ways of multilateral civil protection capacity building.¹⁰²

The Operational Management Department of the State Fire and Rescue Service is the national contact point for disaster management and response and, if necessary, ensures regular

¹⁰⁰ ANVIL Project Country Study Latvia, p.24

¹⁰¹ Ibid., p.29

¹⁰² BaltFloodCombat, available at: http://www.baltfloodcombat.eu/index.php?option=com_content&view=article&id=22:whats-new-in-15&catid=29:the-cms, last accessed 10.10.2014

communication and exchange of information with the European Commission's Emergency Response Coordination Centre (ERCC) and the NATO Euro-Atlantic Disaster Response Coordination Centre (EADRCC).¹⁰³

Latvia takes part in the EU-MIC and NATO-EADRCC systems and the OSCE Observer Mission to Georgia. In 2013 national experts participated in the EU civilian operations in Georgia and in Afghanistan, as well as in EU naval operation EUNAVFOR Atalanta. Experts from the State Fire and Rescue Service participate in various working groups and committees within the framework of EU and NATO, such as the Civil Protection Working Group of the Council of Europe.

Latvia has not officially requested cross-border or international disaster assistance through regional and international arrangements. Latvia has signed mutual civil security and civil protection agreements to receive and provide assistance in the emergency and crisis situations with Estonia (2001), Lithuania (2001), Sweden (2002), Belarus (2002), Hungary (2003), Ukraine (2006), Uzbekistan (2008), Russia (2010) and Azerbaijan (2011). In addition, Latvia actively participates in regional intergovernmental forums such as the Council of the Baltic Sea States and the Helsinki Commission (HELCOM).¹⁰⁴

Moreover, Latvia has signed bilateral agreements for early warning and assistance in case of radiological or nuclear accidents with Lithuania, Estonia and Ukraine and also agreements for cooperation in case of natural and man-made accidents with Belarus, Estonia, Hungary, Lithuania and Sweden.

The Latvian Radiation Safety Centre of State Environmental Service also participates in EURDEP (European Radiological Data Exchange Platform), which represents both a standard data format and a network for the exchange of environmental radiation monitoring data between European countries in real-time.¹⁰⁵

¹⁰³ European Union Civil Protection Mechanism, available at: http://www.vugd.gov.lv/lat/starptautiska_sadarbiba/eiropas_kopienas_civilas_aizsardzibas_mehanisms, last accessed 10.10.2014

¹⁰⁴ ANVIL Project Country Study Latvia, p.23

¹⁰⁵ Latvia CNS report 2012, p.7

4 Procedures

4.1 Standing Operating Procedures (SOPs) and Guidelines

N/A

4.2 Operations planning

The National Civil Protection Plan provides the provisions for civil protection entities undertaking preventive, preparedness, response and recovery emergency measures in occurrence of national and regional disasters, as well as a military invasion or in case of war. The Plan defines the implementation of the Civil Protection Law requirements and identifies the civil defence planning and operational objectives. Additionally, the document sets out the courses of action, tasks and the objectives in planning and carrying out civil protection measures in disaster events.¹⁰⁶

At local level Cabinet of Ministers Regulation No. 423 dated 26 June 2007 establishes the civil protection plans of local governments, merchants and institutions as well as the procedures for developing and approving these plans. In addition, there are several other Cabinet Regulations that provide for risk reduction measures such as No. 532 "Regulations regarding the procedures for industrial accident risk assessment and risk reduction measures" (19 July 2005) and No. 626 "Regulations regarding criteria for the specification of objects of increased danger and the duties of the owners (possessors, managers) of such objects for ensuring measures for reduction of risk" (18 September 2007).¹⁰⁷

Local governments develop the respective civil protection plans at local government level in cooperation with the State Fire and Rescue Service. Each civil security institution in Latvia has their specific crisis management proceeding.¹⁰⁸

4.3 Logistics support in crises

The Ministry of Interior coordinates the emergency logistics. The Latvian armed forces provide assistance in civilian emergencies in terms of manpower and logistics when required.¹⁰⁹

¹⁰⁶ National Civil Protection Plan, section 1-3

¹⁰⁷ Ibid., section 5

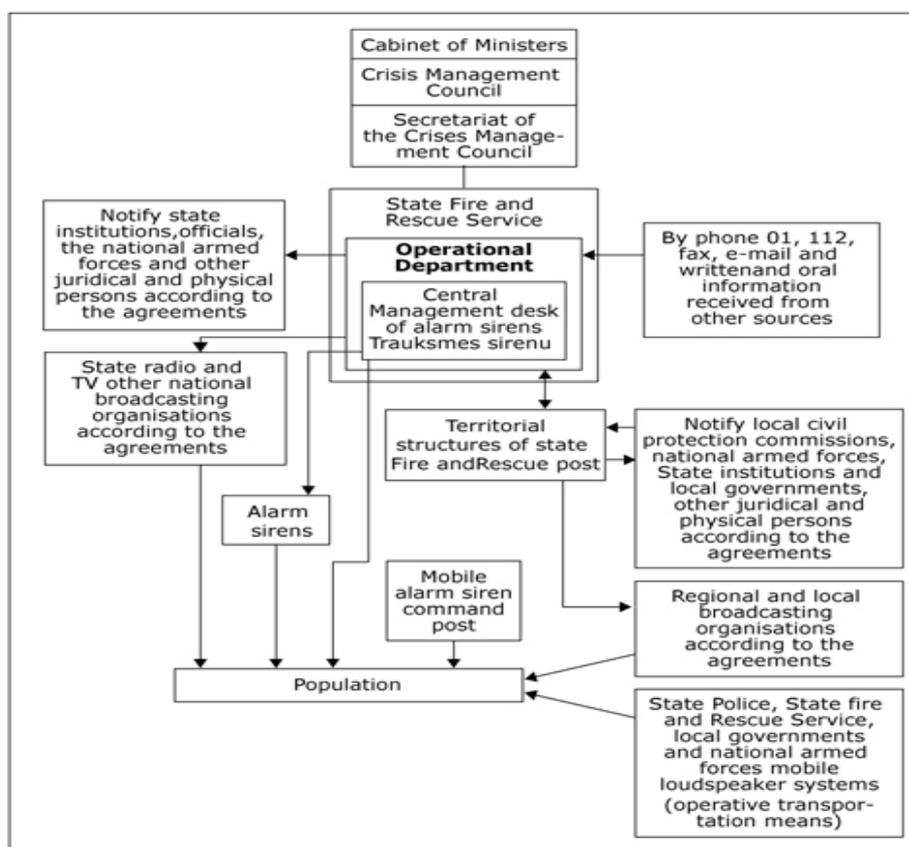
¹⁰⁸ ANVIL Project Country Study Latvia, p.27

¹⁰⁹ Ibid., p.22, p.36

4.4 Crisis communication to general public; Alert system; Public Information and Warnings

According to the Civil Protection Law the civil alarm and notification system has to ensure the warning and informing of the population regarding disasters or threats, as well as the announcement of an emergency situation, the state of emergency or mobilisation. The relevant procedures for the use, establishment and financing of the civil alarm and notification system are determined by the Latvian government. Mass media has to provide information received by the State Fire and Rescue Service regarding the threat and guidance for further actions of the population free of charge in such event.¹¹⁰

The Crisis Communication Action Plan 2011 – 2013 is designed to provide a planned, coherent and coordinated communications in crisis situations and to facilitate competence of the officials involved in communication as well as to raise awareness and educate population for actions in the event of a crisis. The Plan also foresees the development of planned, integrated and coordinated public administration procedures for circulation of information in crises situations. In addition, crisis communications expert group is to be established within the Crisis Management Council. The plan anticipates the development of recommendations for crisis communication intended for government communications professionals and other officials involved in crisis communications. Moreover, the development of procedures for managing crisis events information, as well as the rights and obligations of communications officers in crisis situations are stated in the Plan.



¹¹⁰ Civil Protection Law – Section 15

Figure 4. Civil alarm and notification system (Source: EC ECHO)

The Crisis Communication Action Plan highlights the importance of educational activities and actions in case of crisis situation. Existing training programs in secondary and vocational education institutions are to be updated and supplemented in order to increase the crisis communication knowledge of the state and local officials responsible in crises situations. Training of state and local government officials is also listed as one of the main tasks in the Plan for the developing efficient crisis communication. The Ministry of Interior is the coordinating authority for the executing the plan.¹¹¹

Municipalities and local governments are main actors responsible for maintaining the emergency communication system. Emergency services in Latvia have their own risk mapping services including risk registration systems.

The “112” single emergency number has been implemented in Latvia and National Geographical Information Systems (GIS) is being gradually enhanced. The GIS system aims at describing the coordination of GIS services, collection of data and creation of state GIS portal. The aim of the GIS Pilot Project is to create a digital map of Riga with the information regarding emergency events that fall under the competence of the State Police and State Fire and Rescue Service. The overall responsibility and coordination for the development of GIS services has the Information Centre of the Ministry of Interior and the State Fire and Rescue Service. Additionally, Electronic Communications Office has been established with its operational goal is to manage the resources of radio-frequency range in the field of electronic communications.¹¹²

¹¹¹ Approval of the "Crisis communication plan 2011 – 2013, available at: http://www.vugd.gov.lv/eng/about_vugd/815-approval-of-the-crisis-communication-plan-2011-2013, Last accessed 11.10.2014

¹¹² ANVIL Project Country Study Latvia, p.27

5 Capabilities

5.1 Human resources

The National Armed Forces provides support to the Security Police, State Police, State Border Guard, State Fire and Rescue Service, and other institutions when resources at the disposal of these institutions are not sufficient for the implementation of emergency measures necessary for crisis and consequence management and special resources (such as mine clearance and explosive devices, ships, aircraft and off-road land equipment or specific geo-spatial information) are only available by the National Armed Forces and are deemed necessary.¹¹³

It is prohibited to form, train and arm military public organisations of volunteers or associations of such organisations.¹¹⁴ Volunteer fire fighting units are created in some municipalities however their contribution to crisis management activities is somewhat limited.¹¹⁵

Regarding cyber defence the Latvian State Defence Concept foresees the development of capabilities of the Armed Forces and the Cyber Defence Unit to react in a crisis situation and to manage the consequences of major incidents. It is planned that the Armed Forces will establish an electronic communication network for emergency situations, as well as an information technology and communication systems to ensure the support of National Armed Forces management capabilities in crisis situations will be developed.¹¹⁶

5.2 Materiel (non-financial) resources

In the National Security Concept the importance of making a conceptual assessment of legal framework in respect of legal regimes of national threat and crisis situations, attraction of additional resources to the civil defence system in the event of national threat, as well as of principles for establishing of the national material reserve system is highlighted.¹¹⁷

In Latvia, the involvement of resources in disaster management involves the operational and emergency services, civil protection formations that are mobilisable – the Operational Control Centre of the State Fire and Rescue Service, the State material reserve resources, local government resources; and the resources available at the disposal of a commercial company.

¹¹³ State Defence Concept 2012, p.9-10

¹¹⁴ National Security Law – Section 18

¹¹⁵ ANVIL Project Country Study Latvia, p.29-30

¹¹⁶ Cyber Security Strategy of Latvia 2014–2018 p.12

¹¹⁷ National Security Concept of the Republic of Latvia, 2005_nd_en p.8

The State Material Reserves Law defines the creation and storage of state material reserves for the civil defense system the usage in cases of national risk. The material reserves are to be used for disaster management by the institutions involved, in cases of shortage in the available response measures. Reserves planning of the civil protection measures are defined in the plans provided by the Ministry of Interior, involving their subordinated institutions, as well as by local authorities and businesses. Material Reserves are to be used in cases such as disaster response activities for the elimination of consequences of an emergency; for the response actions of the involved personnel for ensuring the protection of the population; for public safety and order; for the civil protection and disaster management training of involved personnel.¹¹⁸

State Fire and Rescue Service resources include 92 fire station buildings, of which approximately 33% were built before 1940, 65% - from 1940 to 1992, 2% - built or renovated in the period after 1990. Fire fighting depot buildings and facilities are physically and morally outdated and are in a very poor state and do not comply with European or national requirements set out by the relevant documentation.

In addition, another issue concerning the capabilities of the State Fire and Rescue Service is the location of these fire station buildings. They are mostly situated in limited area that prevents the perspective for establishing modern fire fighting and rescue equipment, special and technical equipment, nor safety conditions for the effective performance of the functions specified.

According to statistics by the National Fire and Rescue Service over period of five years the number of rescue operations increases every year to reach 6173 for 2013, compared to 2640 in 2009, 2010 - 3431, 2011 - 4517, 2012 – 4835. The number of fires has increased by 9.16% compared to 2012, to reach 9821.¹¹⁹

According to Regulation No. 61 dated 3 February 2004 by the Cabinet of Ministers, the State Fire and Rescue Service has to ensure the arrival on scene of the response teams in cities within 5 minutes, to the rest of the urban and rural areas with a population density of 10 or more persons per square kilometre - within 15 minutes and in rural areas with a population density of less than 10 people on the square kilometres – within 25 minutes after receiving the emergency signal.¹²⁰

Currently, only about 80% of the emergency cases, State Fire and Rescue Service unit can be sent to the scene to perform fire extinction and rescue work.

In several regions the distance from the State Fire and Rescue Service fire station building to the point of the emergency event is as much as 30 to 40 km, meaning that in about 20% of the cases it is not possible to ensure the required action and as a result of the population does not receive timely and quality assistance.

¹¹⁸ State Material Reserves Law, art. 1-2 and 10.

¹¹⁹ Strategy of the Ministry of Interior 2014 – 2016 (unofficial translation), p.18-20

¹²⁰ *Ibid.*, p.21

In order to provide the public with timely, high-quality assistance it is needed to improve the State Fire and Rescue Service territorial unit network.¹²¹

The Air Force carries out Latvian airspace surveillance, control and defence, provides air defence support to the Land Forces units and participates in search and rescue operations over the Baltic Sea, the Bay of Riga and dry land. In the beginning of the new century two new Mi-8 Hip helicopters were bought. Both helicopters are fitted with search and rescue equipment, but could also be used for transportation of troops, evacuation and support of the Special Forces.¹²²

The State Border Guard has one helicopter Augusta Bell 206 and two Augusta Bell 109 capable of performing search and rescue missions both on the water and on land, and can also provide simultaneous transport of multiple victims (up to 30 people). Operational capability at sea is limited, because the helicopters' permanent site is one-hour flight from the Baltic Sea coast. The "Concept for Search and Rescue Capability Development and Improvement Using Helicopters" envisages possible solutions for the main capabilities shortfalls when using helicopters in rescue operations.¹²³

The existing radio system by the Ministry of Interior currently covers approximately 93-94% of the country by providing operational radio services in emergency situations such as natural disasters, or technological accidents, and regardless of public communications operators.¹²⁴

In Latvia there are 164 alarm sirens in Riga and other cities for population warning of potential hazards.

5.3 Training

Training and education activities are mainly organized by the Ministry of Interior and its subordinate the State Fire and Rescue Service. The training courses conducted include exercises and simulations of possible crisis incidents. The target group involves heads of state institutions, local governments and commercial companies, as well as citizens as volunteers. Volunteers have been increasingly integrated into civil protection activities, despite still having limited influence in crisis management operations.¹²⁵

Alongside the training activities performed by the above mentioned institutions, the national accredited higher education institutions provide training in this field. The requirements for the civil

¹²¹ Strategy of the Ministry of Interior 2014 – 2016 (unofficial translation), p.21

¹²² http://en.wikipedia.org/wiki/Latvian_Air_Force

¹²³ Government Regulation No.198 "Concept For Search And Rescue Capability Development And Improvement Using Helicopters"

¹²⁴ Strategy of the Ministry of Interior 2014 – 2016 (unofficial translation), p.18-20

¹²⁵ ANVIL Project Country Study Latvia, p.36-37

security training are set by the government, however, local authorities and municipalities can conduct complementary courses.¹²⁶

In addition, the Civil Protection Law states that educating to the population in civil protection matters through the mass media and for distributing informative materials, has to be performed by the State institutions and local governments, as well as by merchants in the relevant cases of affected persons within the merchants' objects.

The Regulations of the Cabinet for provisions of methods and procedures for organizing civil protection training, issued in accordance with the Civil Protection Law, defines the rules of civil defence training and the procedures of their organization, as well as the types of training and procedures for civil defence training. The document divides training into four main categories:

- Local training, which testing the readiness for cases of local disaster;
- Regional-level training, which testing regional disaster preparedness;
- State-level training, which testing the readiness of national-wide disaster;
- International training, which is established to examine the coordinated actions between a number of the competent national authorities and international organizations.¹²⁷

Local level training is organised at least once every three years and is conducted by the chairman of the local government council, head of institution. Training of employees in civil protection matters shall be organised by the employer.¹²⁸

National and regional training is conducted by the responsible training manager, who is appointed by the Prime Minister. At national level, training has to be organised at least once in every four years.

International Training is organised according to the relevant international organization procedures and the participation of Latvian institutions is based on the basis of invitations.¹²⁹

The Fire Safety and Civil Protection College is an educational establishment subordinate to State Fire and Rescue Service. The College provides professional educational programmes in the preparation of civil protection specialists for the State Fire and Rescue Service, and for other civil protection services and units such as fire-fighters, rescue and protection services, etc.¹³⁰

Furthermore, national exercises are performed as part of the Latvian - Lithuanian cross-border cooperation programmes and the Baltic Sea Regional INTEREG IIIB Neighbourhood Programme between Latvia, Lithuania and Belarus. Another exercise carried out was the exercise conducted in

¹²⁶ Ibid., p.29

¹²⁷ Cabinet of Ministers Regulations No. 772, Riga, September 22, 2008

¹²⁸ Civil Protection Law – Section 19-21

¹²⁹ Cabinet of Ministers Regulations No. 772, Riga, September 22, 2008

¹³⁰ Fire Safety and Civil Protection College, available at: <http://ucak.vugd.gov.lv/>, last accessed 09.10.2014

2005 and its main scenario was rupture of dam and subsequent floods. Latvia participates in various international exercises which include EU Joint Assistance in 2006, Ukraine, consequence management field exercise Usimma in 2008 organised by the Euro-Atlantic Disaster Response Coordination Centre (EADRCC) in cooperation with Finland; the Field exercises in 2009 with the cases of chemical pollution of the river Daugava and chemical spill in Grodno Azot, as well as the Annual Latvian-Estonian exercise under the bilateral Rescue Services Agreement.¹³¹

Latvian cooperation in the field of training with other NATO member states in the territory of Latvia and other Baltic States is essential for the improvement and enhancement not only of the disaster response preparedness and response, but also is important for the Latvian national armed forces. Responsible institutions have to ensure the maintenance of the host nation support system and must carry out regular mutual coordination and training in order to ensure the possibility to rapidly deploy allied forces. The host nation support system is of vital importance in prevention of the consequences of natural and human-caused catastrophes and international training.¹³²

In the cyber security domain, the 2014–2018 Cyber Security Strategy of Latvia lists the required actions for improving the capabilities for crisis preparedness and capacity to act in crisis situations.

These actions include organising regular theoretical and practical training at national level with the involvement of high-level officials and the private sector in order to develop mutual understanding and to coordinate the management of crisis situations. Moreover, the strategic document outlines the need of developing regional and international cooperation, to ensure regular training for providing and receiving support in a crisis situation and to organise crisis training and security breach tests at a national, regional and international level.

In addition, planning and implementation of security measures for critical infrastructure is regulated by the Cabinet of Ministers. In order to exchange knowledge and experience, as well as for improvement of procedures, representatives of critical infrastructures are regularly involved in training organised by Information Technology Security Incident Response Institution of Latvia.¹³³

5.4 Procurement

5.4.1 Procurement regulation

The national legislation of Latvia for public procurement is regulated by two main laws – the Public Procurement Law and the Law on Procurement for the Needs of Public Service Providers. The Ministry of Finance is in charge of the overall public procurement policy.

¹³¹ EC Vademecum – Country profile: Latvia, prevention and preparedness

¹³² National Security Concept 2011, p.4

¹³³ Cyber Security Strategy Of Latvia 2014–2018

Latvia has adopted several EU Directives into its legislation such as Directive 2004/18/EC and Directive 2007/66/EC, both implemented by the Public Procurement Law which is in effect since 1 May 2006.

Directive 2009/81/EC is implemented by a separate law – the Defence and Security Procurement Law with amendments under the Directive 2009/81/EC; Directives 2004/17/EC; Directive 2004/18/EC.

The central purchasing bodies in Latvia in the security and defence sectors are the Providing Agency of the Ministry of Interior and the State Agency for Defence Properties of the Ministry of Defence. In addition, other ministries, agencies and local governments have their own purchasing structures that act as purchasing bodies.¹³⁴

5.4.2 Procurement procedures

N/A

5.5 Niche capabilities

Potential niche capability that could be filled by Latvia and represent interest to the EU crisis management structures is the development of single crisis information systems.

The Latvian civil security institutions are looking to improve cooperation in the field of crisis management as they are exploiting new ways for cooperation for the creation of a unified national information system. The system will contain data on registered events and provide this data for the development of analytical, planning, statistical and other activities and strengthen the collaboration among the services.¹³⁵

The Ministry of Interior, the State Fire and Rescue Service and the State Police are the key actors involved in leading the initiative for developing electronic data exchange among the emergency services. Such initiative will allow having simultaneous visualization of information regarding events registered by the State Police, as well as regarding predefined types of events registered by the State Fire and Rescue Service.

Furthermore, the NATO Strategic Communications Centre of Excellence established in Latvia provides comprehensive analyses, timely advice and practical support to the Alliance in the strategic communications area of expertise. The centre conducts analyses, develops doctrines, conducts research and experimentation activities, and enhances training and interoperability through common understanding of NATO Strategic Communications policy and procedures.¹³⁶

¹³⁴ Comparative Survey On The National Public Procurement Systems Across The PPN, Rome 2010

¹³⁵ ANVIL Project Country Study Latvia, p.28

¹³⁶ <http://www.stratcomcoe.org/Organisation/FocusAreas.aspx>, last accessed 30.11.2014

The centre's activities could serve as an example of a potential niche capability of interest to the EU. Strategic communications is a broad topic that encompasses all information disciplines within the STRATCOM community - Public Diplomacy, Public Affairs, Military Public Affairs, Information Operations and Psychological Operations. In crisis management context strategic communication play an important role as it focuses on objectives at strategic and tactical levels, and especially important for the decision making process.

Latvia could develop similar capabilities, within the European Union, in the field of strategic communications, communication during crises or other related subject to the benefit of the Member States.

Resources

Legislative acts

Civil Protection Law, into force 1 January 2007, adopted 5 October 2006;

Fire Safety and Fire Fighting Law, into force 1 January 2003, adopted 24 October 2002;

Law on the Security of Information Technologies, into force 1 February 2011, adopted 10 November 2010;

National Security Law into force 1 January 2002, adopted 14 December 2000;

Personal Data Protection Law, in force since 2000

State Material Reserves Law into force 1 January 2008, adopted 21 June 2007;

Other normative acts

Cabinet of Ministers Regulation 1354, adopted 24 November 2009

Cabinet of Ministers Regulation No.198

Cabinet of Ministers Regulations No. 772, adopted 22 September 2008

Crisis Communication Action Plan - 2011 to 2013, available at http://www.vugd.gov.lv/eng/about_vugd/815-approval-of-the-crisis-communication-plan-2011-2013, last accessed 16.10.2014

National Civil Protection Plan into force 1 January 2007, adopted 5 October 2006

Official documents (white papers, strategies, etc.)

Annual Report on the Implementation of the Swiss–Latvian Cooperation Programme in Latvia April 2013 – March 2014

Cyber Security Strategy of Latvia 2014–2018

Latvian Red Cross Strategy 2010 – 2012

National Security Concept of the Republic of Latvia (2002)

National Security Concept of the Republic of Latvia, (2005)

State Defence Concept, 10 May 2012

Strategy of the Ministry of Interior 2014 – 2016 (unofficial translation)

Online resources (e.g. websites of key CM organizations)

<http://www.mk.gov.lv/en> – Government of the Republic of Latvia

<http://www.iem.gov.lv/eng/> - Ministry of Interior of Latvia

<http://www.mod.gov.lv/en.aspx> - Ministry of Defence of Latvia

http://www.vugd.gov.lv/eng/about_vugd/about_vugd - State Fire and Rescue Service

<http://ucak.vugd.gov.lv/> - Fire Safety and Civil Protection College

<http://www.rs.gov.lv/?setlang=1> – State Border Guard

http://www.baltfloodcombat.eu/index.php?option=com_content&view=article&id=22:whats-new-in-15&catid=29:the-cms – BaltFloodCombat

http://ec.europa.eu/echo/files/civil_protection/vademecum/lv/2-lv.html – Vademecum: Country profiles - Latvia

<http://www.estlat.eu/supported-projects/?project=65> – Estonia – Latvia Programme

Publications

ANVIL Project Country Study: Latvia, Timo Hellenberg and Pekka Visuri, June 2013

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Tiziana Bianchi, Valentina Guidi, *Comparative Survey on the National Public Procurement Systems across the PPN*, Rome, December 2010

Terhi Elomaa & Anna Halonen, *EUROBALTIC Survey: Civil Protection Research in the Baltic Sea Region*, University of Helsinki (2007)

Expert interviews



Driving Innovation in Crisis Management for **European Resilience**

LITHUANIA

Capabilities, Organisations, Policies, and Legislation (COPL) in Crisis Management and Disaster Response



Responsible Partner: CSDM (Philip Spassov)

Scope and limitations

This study serves as supporting information for further work within DRIVER.

Only limited time and budget has been available for this first general survey, which needs to be considered in terms of scope and completeness of the respective studies.

The author/s of this study is/are responsible for its content and quality.

Overview

As in the other Baltic Region States the organisational structure is centralised, i.e. coordinated and mostly organised by the central national civil protection authority, as is the case with Estonia, Latvia, Lithuania. Additionally, the use of private rescue services is low in the Baltic Countries.¹

The National Security Strategy establishes the basic goals and means of the national security policy. The aim of the Lithuanian National Security Strategy is to provide a vision of the state's development, its national interests and the necessary actions for their implementation.

The civil security system and the civil protection system of Lithuania is comprised by the Government, the state and municipal institutions, economic entities, public organisations, civil protection forces such as fire and rescue, police, state border guard, medical services, public security service, state food and agriculture service, other emergency services, forces of economic entities, volunteers, the emergency commissions and emergency operation centres.²

The management of civil protection in Lithuania is organised in three levels - national, regional (county) and local (municipal). At national level, the Government, the Government Emergency Commission, the Emergency Management Centre, the Ministry of National Defence, the Civil Protection Department, the State Fire Prevention and Rescue Service, Ministries, and other public authorities are the main stakeholders entitled to make strategic decisions on the implementation of civil protection measures.

At county level, administrations of county governors, county civil protection departments, and county emergency management centres are responsible for organising and ensuring preparedness for emergencies as well as for assisting when necessary in their relief.

At municipal level, mayors of municipalities, civil protection departments, civil protection personnel, municipal emergency management centres, fire protection, search and rescue services, warning and information, evacuation, civil protection services and economic entities are responsible for organising preparedness for emergency situations and when required mitigate their effect.

International cooperation in Lithuania in the field of crisis management is coordinated by the Fire and Rescue Department, which is subordinated to the Ministry of Interior. Individual ministries and other state civil security institutions also participate in international civil protection activities.

¹ EUROBALTIC Survey: Civil Protection Research in the Baltic Sea Region, p.13

² ANVIL Project Country Study: Lithuania, p.14



Figure 1. Logo of the Fire and Rescue Department under the Ministry of Interior

Crisis management institutions part of the civil protection and rescue system, Training Centre, other educational institutions of civil protection as well as the forces of the civil protection and rescue system are financed by the state budget, while the economic entities are financed from their own resources.³

The systems for training in the field of civil protection are quite different in the Baltic region, however they share some basic features. Education in civil protection and rescue has a legal foundation in all of the Baltic Region countries. Basic and advanced education at the national level is standardised through the use of certificates, as well as the development of educational and training curricula. All of the Baltic region states have specialised schools and colleges which carry out education in civil protection and rescue area.⁴

³ Civil Protection Law, Chapter VII, article 38

⁴ EUROBAL TIC Survey: Civil Protection Research in the Baltic Sea Region, p.14

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List of Abbreviations

CIVPRO	Civil Protection Research in the Baltic Sea Region
CFRBs	Counties Fire and Rescue Boards
ENSEC COE	NATO Energy Security Centre of Excellence
ERDF	European Regional Development Fund
EURATOM	European Atomic Energy Community
LRCS	Lithuanian Red Cross Society

1 Policy

Lithuania has no nation-wide specified definition of crisis situations or major emergencies.⁵

1.1 Risk Assessment

Since gaining its independence in 1991 Lithuania has not faced any large scale natural or technological disasters. The occurrence of natural disasters is rather low due to the fact that climate is mild, ranging between maritime and continental. The most usual natural disasters are floods and storms as well as forest fires.

Affected People

Disaster	Date	Affected	(no. of people)
Storm	1993	780,000	
Extreme temp.	2001	0	
Storm	2005	0	
Flood	2005	0	
Drought	2006	0	
Extreme temp.	2010	0	
Flood	2010	0	
Drought	1992	0	
Storm	1999	0	
Extreme temp.	1999	0	

Casualties

Disaster	Date	Killed	(no. of people)
Extreme temp.	1999	32	
Extreme temp.	2001	20	
Storm	1993	6	
Extreme temp.	2010	5	
Flood	2010	4	
Storm	1999	2	
Storm	2005	0	
Flood	2005	0	
Drought	2006	0	
Drought	1992	0	

Economic Damages

Disaster	Date	Cost	(US\$ X 1,000)
Drought	2006	225,573	
Drought	1992	52,900	

⁵ ANVIL Project Country Study: Lithuania, p.9

Storm	2005	30,000	
Storm	1993	4,600	
Storm	1999	500	
Extreme temp.	2001	0	
Flood	2005	0	
Extreme temp.	2010	0	
Flood	2010	0	
Extreme temp.	1999	0	

Table 1. Index Top 10 Natural Disasters Reported.

There are also a considerable number of diverse cross-border risks affecting Lithuania. These include floods in the basin of the Nemunas River, which creates risk also to the Russian Kaliningrad district and forest fires created in the Russian Federation. Additionally, Baltic Sea pollution and related oil spills are regarded as a major risk factor.⁶

According to Lithuanian legislation, all economic entities starting operation have to conduct a risk assessment. When referring to natural disasters municipalities and county administrations are responsible for preparing risk assessments. In relevant responsible institutions hazards are evaluated and mapped according to their field of activities and responsibilities.

Risks and threats to the national security of Lithuania are defined by the National Security Strategy which is approved by a resolution of the Parliament. The decisions taken by state and municipal authorities are analysed in respect of their contribution for mitigating the risks and threats to national security.

The Strategic Research and Analysis Centre was established by the Government with the aim of analysing and forecasting changes in the external and internal security environment, analysing the occurrence and development of threats, dangers and risks and submitting proposals to the Parliament, the President of the Republic, the State Defence Council and other institutions engaged in ensuring national security.⁷

The Fire and Rescue Department under the Ministry of Internal Affairs, working in close cooperation with data and assessments provided by ministries and other national institutions, prepare the Lithuanian National Risk Analysis. The document is drafted in accordance with the provisions of the European Commission "Risk Assessment and Mapping Guidelines for Disaster Management" (SEC (2010) 1626 FINA) working paper. When finalised, the analysis is submitted to the European Commission.⁸

⁶ ANVIL Project Country Study: Lithuania, p.8

⁷ Law on Basics of National Defence, Part II, Chapter 9

⁸ <http://www.vpgt.lt/index.php?1114501839>, last accessed 30.10.2014

There are several Government Regulations regarding conducting risk assessments for example: Resolution no. 1558 concerning the procedure for approval and management of flood risk assessment (Official Gazette., 2009, no. 144-6376); Resolution on The Rescue, Search and Emergency Work, Events, Extreme Events and Extreme Situations and Liquidation of their Consequences (Official Gazette., 2010, no. 102-5271).

Further, the Provisions on Major Industrial Accidents Prevention and Consequences Liquidation, approved in 2004 by the Lithuanian government, were prepared according to the SEVESO II Directive as well as to the Lithuanian Civil Protection Law.

Additionally, in Lithuania risk-mapping is conducted that includes possible accidents at dangerous chemical sites.⁹

1.2 Policy and Governance

The management of civil protection in Lithuania is organised in three levels - national, regional (county) and local (municipal).

At national level, the Government, the Government Emergency Commission, the Emergency Management Centre, the Ministry of National Defence, the Civil Protection Department, the State Fire Prevention and Rescue Service, ministries, and other public authorities are the main stakeholders entitled to make strategic decisions on the implementation of civil protection measures.

At county level, administrations of county governors, county civil protection departments, and county emergency management centres are responsible for organising and ensuring preparedness for emergencies as well as for assisting, when necessary, for their relief.

At municipal level, mayors of municipalities, civil protection departments, civil protection personnel, municipal emergency management centres, fire protection, search and rescue services, warning and information, evacuation, civil protection services and economic entities are responsible for organising preparedness for emergency situations and when required mitigate their effect.

The Prime Minister has the lead role at national level for the management of the civil protection operations. Other key responsible actors include the chief executive officers of ministries, departments and other public administration bodies and county governors, and in exceptional circumstances - directly to mayors of municipalities.¹⁰ The model of the crisis management framework in Lithuania could be described as centralised. It is mainly managed by the Government and the Ministry of Interior.

⁹ ANVIL Project Country Study: Lithuania, p.18

¹⁰ Civil Protection Law, Chapter IV, article 19

At national level, the key civil protection objective is to ensure emergency preparedness and the capability development at all levels of the civil protection management system, in order to meet the main requirements for national security and civil protection in emergencies, encompassing response and recovery after emergencies.¹¹

At regional (county) level, the county governors, county civil protection departments and county crisis management centres organise preparedness for emergencies and assist in the response in such situations.

At municipal level, the municipal administrators, civil protection departments, which include divisions and services, civil protection personnel, municipal emergency management centres and other civil protection entities organise preparedness for emergencies and, when necessary, respond thereto.

The Law on Basics of National Defence outlines that the crisis management system has to be created and developed to forecast and monitor emergencies and events that pose threat, in order to prepare and implement preventive measures, as well as to respond to, determine and manage crises. In addition a crisis management strategy has to be approved by the Government.

The Emergency Commission, formed by the Government and chaired by the Prime Minister, has the responsibility for the coordination of crisis management. The Committee consists of the main ministers responsible for crisis management, the Chancellor of the Prime Minister or First Deputy thereof. The Commission, with the approval of the Government, has the authority to call for establishing Joint Coordination Centre consisting of representatives of appropriate ministries and other state institutions for the coordination of crisis management and response. Crisis management is regulated by laws and other legal acts.¹²

The main purpose of the civil protection and rescue system is the protection of the population from threats during war and in peacetime. The system has to ensure the readiness of all the rescue services and their preventive actions and, in the event of emergencies, natural disasters, provide necessary emergency assistance and evacuation from the regions at risk.

In order to deal with large-scale disasters and to carry out rescue and emergency response operations the use of military forces, specialists from the reserve, ministries, other state and municipal institutions and bodies, the resources which are at their disposal and volunteer organisations will be employed. The conditions and procedures for their employment and participation in operations are defined by law.¹³

¹¹ ANVIL Project Country Study: Lithuania, p.12

¹² Law on Basics of National Defence, Part II, Chapter 14, Section II

¹³ Ibid., Chapter 21

1.2.1 Strategy scope and focus

The civil security system of Lithuania has mainly been developed over the past two decades, more precisely since the independence of the country, to reach sufficient preparedness and readiness to protect its population, property and environment using its resources.¹⁴

1.2.2 Monitoring and analytical support to policy making; R&D

Lithuania conducts extensive scientific research in the area of civil security and crisis management. The Lithuanian Fire and Rescue Department was one of the key initiators of the CIVPRO civil protection network, established in 2006 by the EUROBALTIC II project for civil protection, as part of the EUROBALTIC Programme for Civil Protection, initiated by the Council of the Baltic Sea States.

The CIVPRO network conducted studies addressing research questions in civil protection, risk management and emergency preparedness. The project performed high quality research using state-of-the-art experimental approaches and risk mapping technologies. It also built a web-based knowledge database for disseminating accurate and detailed definitions of various risks in the Baltic region. The project also promoted collaboration with experts within and beyond the network in civil protection, risk management and emergency preparedness fields of expertise (see 3.2 for more international cooperation activities).¹⁵

The Fire Research Centre, under the Fire and Rescue Department of the Ministry of Interior, is a body investigating the cause of fires, performing technical expertise in fire, fire testing, developing normative and methodological documents. The Centre provides methodological support in fire protection and police officers.

Each year, the Fire Research Centre conducts about 500-700 fire tests and surveys. It tests and evaluates building products, coatings, fire equipment, fire protection materials, electronics, pyrotechnics, and even toys. The tests are carried out in accordance with international standards and Lithuanian methods. The Fire Research Centre has been storing up and developing a database of International (ISO), European (EN), Lithuanian (LST) and other countries' standards.¹⁶

In Lithuania various academic and research communities cooperate with national or local institutions in the field of disaster reduction on ad hoc basis. Besides public entities and universities there are various private entities which participate in EU funded research programmes and projects.

1.2.3 Policy for Prevention

Crisis prevention and preparedness for crisis management is coordinated by the Office of the Prime Minister. The Office coordinates the drafting of integral crisis and emergency prevention and management plans and measures, while the ministries and other state institutions prepare similar

¹⁴ ANVIL Project Country Study: Lithuania, p.32

¹⁵ Ibid., p.27

¹⁶ <http://www.vpgt.lt/index.php?393254094>, last accessed 30.10.2014

plans and measures within the sphere of their competence providing for action coordination with other institutions.¹⁷

An example of a successful preparatory work in the case of a natural disaster and for a response operation has been the flooding of the Lithuanian Nemunas River. Due to rainfalls river levels reach devastating levels approximately every 12-15 years, thus submerging vast territories of about 50,000 hectares in the regions of Klaipeda and Taurage with over 50 villages and 700 farms in areas populated by around 4,000 inhabitants. The most recent emergency event occurred in 1994 when 40,000 hectares were flooded and 19 villages, 168 farms and over 600 persons were affected. The Nemunas flooding resulted in improvements in the preparedness and response mechanisms of the Lithuanian civil security system in general. A permanent programme of preparedness to flooding and effects elimination has been established with the aim of reducing the effects and economic losses caused by floods. The Nemunas case has been an example of civil-military cooperation as the Lithuanian Army has taken active part in the rescue and response efforts in cooperation with the SFRS. Also the national defence voluntary forces have accomplished some reconnaissance missions and air rescue operations.¹⁸

1.2.4 Policy for Preparedness

Civil emergency preparedness is a key national function that directs the civil emergency preparedness and response measures undertaken by public institutions, local authorities and the private sector.¹⁹

The Lithuanian Crisis Management System's main objective is to prevent crises by collecting information regarding on-going processes, analysing them and informing the superior authorities about the current situation, possible threats, as well as submitting proposals related to actions and operations required for managing crises. The Crisis Management System also maintains the readiness of the necessary integral infrastructure and keeps in preparation all the offices, institutions and procedures necessary for control of crisis management actions and operations.²⁰

The Crisis Management System incorporates forecast, prevention and control of a wide range of threats. The Lithuanian White Paper on Defence Policy especially pays attention to importance of expanding the mechanisms for crisis forecast and prevention in order to enable early stage detection of crises. The Crisis Management System is designed at three levels:

- strategic: President, Prime Minister and ministers;
- operational: Emergency Management Centre;
- tactical: operational crisis management offices in all ministries and departments.

¹⁷ Law on Basics of National Defence, Part II, Chapter 14, Section II

¹⁸ ANVIL Project Country Study: Lithuania, p.18-19

¹⁹ Ibid., p.13-14

²⁰ White Paper 2002, Lithuanian Defence Policy, p.9-10

The tasks of the Emergency Management Centre include performing monitoring of risk factors and threats, forecasting possible crises; coordinating activities of state institutions and entities within the crisis prevention area; ensuring the operation of crisis management infrastructure and constant exchange of information on crisis management between institutions; and to develop international cooperation within the field of crisis management.²¹

The Emergency Commissions are the main operational bodies of the civil security system in Lithuania and are technically assisted by the Fire and Rescue Service. There are two types of emergency commissions: at governmental and municipal levels.

The overall responsibility for the status of the civil protection system, as well as for evaluating the preparedness of the state and municipal institutions, is held by the governmental Emergency Commission. It submits proposals to the government related to the use of civil protection supplies of the State Reserve in the event of an emergency. The Commission facilitates discussion of the condition of the civil security system, evaluates the preparedness of state and municipal institutions and other agencies for emergency response and takes measures to improve it. It is also in charge of government level information sharing and situational awareness.

The municipal Emergency Commission is responsible for the municipal civil protection system as well as for the preparedness and response actions during a crisis situation. It also submits requests to the Fire and Rescue Department regarding the use of civil protection supplies of the state in crisis events. In Lithuania there are 60 municipal Emergency Commissions which are also responsible for informing the public about the actual emergency and related response mechanisms.

The state commander of operations will be appointed by the prime minister from the government cabinet, and the national operations centre will be convened. It is important to point out here that the relationship between ECs is based on the principle of supremacy of decisions: the municipal level EC is the lowest level and the government EC the highest level.²²

1.2.5 Policy for Response

Depending of the scope of the emergency there are two levels of emergency situations - national and municipal. In cases of emergency within a single municipality the response to such crisis is managed with forces of the civil protection system located within a municipality with the material resources held at the disposal of the municipality or obtained from other municipalities. In cases that the emergency covers territory that affects more than three municipalities it is categorised as national level emergency.

If an emergency has occurred within the territory of a single municipality then a local municipal Emergency Commission will be formed. The head of the municipal administration has to appoint a municipal operations commander and the municipal operations centres will be convened. The head

²¹ White Paper 2002, Lithuanian Defence Policy, p.9-10

²² ANVIL Project Country Study: Lithuania, p.17

of the municipal administration is also responsible for carrying out response of the civil security system within the municipality. He/she declares and lifts a municipal level of emergency and organizes municipal level civil protection exercises, organizes search and rescue operations and mobilizes other forces of the civil protection system. Respectively, in case of national level emergency a government Emergency Commission will be convened.²³

Furthermore, as part of the obligations of the Lithuanian Armed Forces are ensuring of the national security in peacetime. The Lithuanian Armed Forces along with the institutions supporting them have to be ready to respond to military and non-military threats and emergencies occurring in the country in peacetime. In order to achieve such support and readiness to assist state or municipal institutions, the Armed Forces develop capabilities for effective and coordinated intelligence activities that allow the identification of a possible crisis at an early stage and application of preventive measures against the spreading of the crisis. In addition, in case of extreme situations and a state of emergency, the Armed Forces provide assistance to state and local municipal institutions if capabilities of these institutions are limited; and ensure security and defence of the national cyber space by contributing to the response to mass cyber-attacks carried out against Lithuanian public authorities and critically important entities.²⁴

1.2.6 Policy for Relief and Recovery

The Government Emergency Commission, as a permanent Government commission, organises emergency prevention and direct emergency relief actions where the territory of one or more counties is affected or where there is a need for assistance from public administration bodies for forces and material resources necessary for mitigation of the effects an emergency.

Lithuanian legislation foresees not only preparedness of state institutions and population for emergencies but also their active participation for reducing the consequences and engaging in recovery activities. Responsibility for recovery activities is held primarily with the municipal authorities. In cases where the available resources are insufficient, municipalities may require assistance from the government. Owners of private enterprises are obliged to establish emergency management units in stand-by preparedness for mitigation of consequences according to the contingency plans.²⁵

1.3 Financing

1.3.1 Investing in preparedness

Crisis management institutions part of the civil protection and rescue system, training centre, other educational institutions of civil protection as well as the forces of the civil protection and rescue

²³ ANVIL Project Country Study: Lithuania, p.19-20

²⁴ Military Strategy of the Republic of Lithuania, approved November 22, 2012

²⁵ ANVIL Project Country Study: Lithuania, p.28

system are financed by the state budget, while the economic entities are financed from their own resources.²⁶

1.3.2 Investing in consequence management

The government is the main provider of financial support to affected entities in case of natural disasters. In cases when material resources owned by legal and natural persons are used in the mitigation of disaster effects they have to be compensated by the Government accordingly.²⁷

The resources for recovery activities are primarily taken from the objects, usually the economical entities, and in case there are not sufficient, from municipalities or the government.²⁸

The civil security and civil protection system, excluding the economic entities, are financed mainly from the state budget, municipal budgets and other funding sources such as EU funding. Economic entities are expected to finance their preparatory measures from their own resources.²⁹

The compensation for damage and losses caused by natural disasters, expenses of rescue and mitigation of the effects to natural and legal persons is provided in the manner prescribed by the Government.³⁰

Furthermore, Lithuania receives funding along the lines of the Latvia – Lithuania Cross Border Cooperation Programme (see 3.2 for cross border cooperation). 19 projects are approved for funding according to this Programme. Additionally, the projects part of the Programme requested around EUR 28 million co-financing from the European Regional Development Fund (ERDF).

Some of the approved projects include:

- „Common Fire and Rescue Service Response System on the Border” for the creation of joint fire fighting rescue service response system in the Lithuanian and Latvian border, aimed to operatively accumulate fire fighting rescue forces responding to incidents and extreme situations;
- „Continuance of Latvia-Lithuania cross-border cooperation in protection of population and environment”, which is aimed at fostering creation of effective cross-border cooperation in emergency situations, thus improving safety of citizens on both sides of the border;
- „Creation of disaster management system in neighbouring regions of Latvia and Lithuania, Phase II”, which facilitates the implementation of three main priorities set forth in the Strategy of the Programme: Legal and institutional development, Establishment of data exchange system in risk management and Development of risk management infrastructure

²⁶ Civil Protection Law, Chapter VII, article 38

²⁷ Ibid., Chapter VII, article 38

²⁸ ANVIL Project Country Study: Lithuania, p.28

²⁹ Ibid., p.31

³⁰ Civil Protection Law, Chapter VIII, article 41

thus ensuring accessibility, quality and effectiveness of disaster management and emergency recovery services in Latvia and Lithuania by year 2015.³¹

1.4 Policy review, Evaluation & Organisational Learning

1.4.1 Post-Disaster Assessment

N/A

1.4.2 Departmental Lessons Learned systems

N/A

1.4.3 Centralised (national) Lessons Learned system

The Register of hazardous objects is one of the information management systems that are gradually being developed in Lithuania. It consists of the main database, managed by the Civil Protection Department of the Ministry of National Defence and the counties database, which is managed by the counties Civil Protection Departments. This data basis contains information on all the hazardous objects that might threaten the population in case of an emergency.

1.4.4 International exchange for Lessons Learned

N/A

1.4.5 Regular policy reviews

The Fire and Rescue Department under the Ministry of the Interior in accordance with the emergency prevention procedures set out in resolution No. 1028, approved by the Lithuanian government in 2010, prepares an annual review that analyses and summarizes the information obtained regarding the national civil protection system, the emergency preventive and preparedness measures of the state to and of the state of the system.³²

There are numerous governmental regulations and resolutions that outline conducting of regular policy reviews. They include resolution No. 966 regarding the prevention, elimination and investigation; government resolution No. 924 approved in 2009 on monitoring carried out (Official Gazette, 2009, no. 103-4322) and resolution No. 404 for regulatory monitoring (Official gazette 2009, no. 59-2294).³³

1.5 Resilience

³¹ http://www.latlit.eu/eng/news/19_projects_will_receive_cofin/_gv/print_1, last accessed 24.10.2014

³² <http://www.vpgt.lt/index.php?-1476599038>, last accessed 22.10.2014

³³ <http://www.vrm.lt/lit/Teisinio-reguliavimo-stebesena-/227>, last accessed 29.10.2014

The term Resilience is not used in Lithuanian policy or legislative documents. Over the course of this study no information has been found within the academic domain referring to the resilience concept addressing crises, disasters, crisis management or other related topics.

1.6 Information sharing and data protection

The tasks of the Emergency Management Centre include constant exchange of information on crisis management between institutions; and developing international cooperation within the field of crisis management. In addition, the Centre, in implementing the tasks assigned to it, collects and analyses information received from the national authorities, mass communication and news agencies regarding threats and ensures the protection of information representing a state or official secret.³⁴

Civil security is a primary function of institutions and specialized agencies in Lithuania. However, the role of the society and citizens of Lithuania in crisis management is increasing thanks to the introduction and use of high-technologies. *The citizens' role is growing in terms of coherent risk awareness but also in terms of producing items for the authorities' situational awareness.*³⁵ There are a number of IT related projects where risk information is collected and analysed through internet, social media and text messages. In Lithuania, citizens are considered as a valuable source of civil protection data that is being processed and stored into databases.³⁶

³⁴ White Paper 2002, Lithuanian Defence Policy, p.9-10

³⁵ ANVIL Project Country Study: Lithuania, p.23

³⁶ Ibid., p.23

2 Legislation

2.1 Crisis (emergency, disaster) management concept

The National Security Strategy establishes the basic goals and means of the national security policy. The aim of the Lithuanian National Security Strategy is to provide a vision of the state's development, its national interests and the necessary actions for their implementation.

Further, the Strategy defines the basic goals of specialised strategies and doctrines in relevant areas of state policy. These strategies have to be based on the provisions of the National Security Strategy and must be revised every time the National Security Strategy of Lithuania is updated.

In the National Security Strategy as one of the main priorities listed is conflict prevention, more particularly participating in international crisis management and establishing policies and legislation to address new security challenges, dangers, and threats.

Additionally, the Strategy foresees cooperation with NATO Member states to further strengthen regional security, in order to consolidate the national security system of the Republic of Lithuania and reinforce national and international crisis management capabilities. The Strategy also highlights the readiness of Lithuanian forces for participation in international peace operations, crisis management and prevention.

The Strategy also underlines the importance for the establishment of crisis management system in Lithuania in order to ensure effective detection and prevention of threats, as well as the national security in the area of crisis management. The system is being established for functioning in the pre-crisis situations, ensuring comprehensive monitoring of dangerous situations and threats, crisis detection, preparation and implementation of preventive measures.

The main means and measures for improving crisis management and response capabilities include: enhancing the preventive role of the crisis management system for detecting and eliminating emergency situations and threats; establishing civil safety and rescue institutions for managing crisis situations and to ensure immediate emergency aid in the case of fire, industrial disaster or another incident.

2.2 General crisis (emergency, disaster) management law

The Civil Protection Law of Lithuania establishes legal and organisational principles for the organisation and operation of the civil protection and rescue system, along with the duties and rights of state and municipal institutions, economic entities, public organisations and residents.³⁷

The goals of the civil protection and rescue system include guaranteeing the optimum use of state resources in order to ensure public security, maintain the operability of the national economy, localise the emergency areas and mitigate the effects thereof; preparing the public for practical actions in the event of an emergency and strengthen the confidence in the activity of civil protection and rescue system.

The main tasks of the Civil Protection and Rescue System in Lithuania, considering the causes, the type and threat of the emergencies, encompass: warning the population of the emergency, the possible effects and the necessary measures to mitigate the effects; undertaking emergency prevention; organising the supply of the population with collective protection equipment; carrying out reconnaissance and mapping of the hazard area, rescue and other urgent operations; provide medical aid and carry out public health care in case of emergencies; evacuate the people and property from risk territories; organise the restoration of disrupted critical infrastructure services; creating stockpile with essential supplies; making arrangements for the training for emergencies of chief officers, personnel, civil protection and rescue system forces and the population and investigate and analyse the causes of emergencies.

For the implementation of the goals and tasks the civil protection institutions has to be guided by the principles for the organisation and functioning of the system. The key principles for the organisation and functioning of the rescue system include territorial, differentiation, compulsiveness, transparency, constant readiness and interoperability.³⁸ The territorial principle refers to national scale organisation of the civil protection, embracing the entire population as well as foreign nationals located in the territory of Lithuania. The differentiation principle that the civil protection measures and preparedness for rescue operations will be performed in individual administrative units taking into account the level, scope of danger of the emergency anticipated within the territories of the state. By compulsiveness it is meant that civil protection measures are obligatory to all institutions of public administration and local government, all economic entities and residents. The transparency principle refers to the activities of public administration and local government institutions in the sphere of civil protection that need to be transparent to the public and the mass media. The institutions and forces of civil protection and rescue system must be in constant readiness to act in emergency conditions. The interoperability principle covers the effectiveness of civil protection measures and actions in emergency situations, which has to be ensured by coordinating the interoperability plans and management system of the public administration and local government institutions, civil protection and rescue system forces, the Lithuanian Armed Forces, medical institutions and other services.

³⁷ Civil Protection Law, Chapter I, art. 1

³⁸ Ibid., Chapter I, art. 6

Civil protection and rescue system institutions are guided by the Constitution of Lithuania, laws and other legal acts enacted by the Parliament, decrees of the President of the Republic, Government resolutions, Prime Minister's ordinances, orders of the National Defence Minister and international treaties to which the Republic of Lithuania is a party.³⁹

Other Lithuanian Government resolutions in the crisis management domain include:

Resolution No. 551, dated 8 November 2000; Resolution No. 1386 regarding dangerous objects of national significance, dated 2010; Resolution No. 512, dated 4 May 2010; Resolution No. 555, dated 4 May 2004; Resolution No. 966 regarding the prevention, elimination and investigation approval of the regulations, dated 2010; Resolution No. 1108 on the procedure of Lithuanian Republic's civil protection system readiness levels, dated 2010; Resolution No. 1212 on the procedure of the organization of rescue, search and emergency work, events, disaster and emergency liquidation and elimination of their consequences, dated 2010; Resolution No. 1213 on the formation and organization of emergency operations centers; Resolution No. 1502 on procedure for population evacuation, dated 2010; and Resolution Nr.1503 regarding the State Emergency Management Plan 2010.⁴⁰

2.3 Emergency rule

Declaring and lifting emergencies is responsibility of the government, which is also in charge when lifting a national level of emergency, establishing the procedure for organizing rescue, search operations and urgent actions and responding to emergencies and mitigating their consequences. The government is in charge of evacuation measures, as well as for shelters and other collective protection mechanisms in Lithuania.⁴¹

To date, Lithuania has not declared a state of emergency. The Lithuanian defence forces and volunteers can provide assistance in crisis situation when required.⁴²

2.4 Specific, department/agency-level legal arrangements and regulations on emergency and disaster management

The key duties and functions of the public administration and local government institutions as well as economic entities in the sphere of civil protection are as follows:

The Government is responsible for drawing up civil protection and rescue system development programmes and submitting them to the Parliament for approval; for developing the procedure for implementing civil protection and rescue system priority development trends; for establishing the

³⁹ Civil Protection Law, Chapter I, art. 7

⁴⁰ <http://www.vpgt.lt/index.php?-1747337895>, last accessed 29.10.2014

⁴¹ ANVIL Project Country Study: Lithuania, p.13-14

⁴² Ibid., p.29

emergency prevention procedure; approving the levels of civil protection preparedness, emergency criteria; approving national level plans of civil protection emergency preparedness; establishing the procedure for using the material resources in case of an emergency as well as the composition of state reserve technical means, food, clothing, the size of the reserve, etc.; preparing the civil protection training procedure; notifying the President and the Parliament about emergencies, their consequences and causes, and in support of the declaration of an emergency situation.⁴³

The Ministry of National Defence in peacetime has to implement, in cooperation with other institutions, the Government's policy in the area of civil protection, to coordinate the activities of civil protection and rescue system institutions in accomplishing the tasks assigned to their competence.

In addition, the Ministry of National Defence has the responsibility for specifying the procedure for notifying the Emergency Management Centre of emergencies; approving the needs for shelters and other collective protection structures, the norms and procedure of provision of the population with individual means of protection; approving the plans of the national level civil protection exercise and the annual plan for the enrolment of students in the civil protection training centre; approving the annual plan of activities of its Civil Protection Department; and presenting to the Government generalised information on the state of the civil protection and rescue system.⁴⁴

The Civil Protection Department is an essential part of the civil protection and rescue system, directing the activities of the civil protection and rescue system, organising the prevention of emergencies, coordinating the activities of public institutions and economic entities in the sphere of civil protection and planning the national preparedness for the implementation of civil protection tasks in case of emergencies in time of peace and in wartime.⁴⁵

The tasks assigned to the Civil Protection Department include informing state institutions, economic entities and the population of a national-scale threat in case of an emergency; planning of measures to ensure the optimum use of state resources, localisation of emergency area and for mitigation of the effects of the crisis; compiling the register of objects of national significance which are potentially hazardous; controlling the activities of the civil protection and rescue system; organising the preparedness of public administration institutions and the community for actions in case of an emergency; and organising and directing the national level civil protection exercise.

The State Fire Prevention and Rescue Service is part of the Civil Protection and Rescue System maintaining constant readiness and commands for the extinguishing fires, search and rescue as well as providing first aid in emergencies. The State Fire Prevention and Rescue Service is subordinate to the Fire Prevention and Rescue Department under the Ministry of the Interior.

⁴³ Civil Protection Law, Chapter II, art. 8

⁴⁴ Ibid., art. 9

⁴⁵ Ibid., art. 10

The State Fire Prevention and Rescue Service carries out state supervision of fire prevention and its tasks include fire prevention and guaranteeing of the availability of technical and organisational measures for extinguishing fires. The work of state fire prevention supervision is organised in compliance with the regulations approved by the Government.

The activities of ministries and other institutions in the civil protection domain are directed by their chief executives or persons authorised by the chief executives. The most important tasks of ministries and other authorities include: organisation of civil protection according to the type of activity and competence assigned to them; approval of regulations of the emergency management centre of ministry or other institution of state administration, as well as plans of emergency preparedness upon coordination with the Civil Protection Department; building of departmental reserves of supplies and funds in order to increase the stability of functioning and security under emergency conditions; organisation of training in civil protection for the chief executives and experts; drawing up plans of emergency preparedness of civil protection; coordination of the planning of civil protection measures; and conducting a yearly analysis of the state of emergency preparedness of civil protection and submitting it to the Civil Protection Department.⁴⁶

2.5 Specific to the regional and local authorities legal arrangements and regulations on emergency and disaster management

The County Governor is the lead authority in civil protection of the county. His/hers responsibilities are defined by the Civil Protection Law and include: to be responsible for civil protection preparedness in the county; to organise the drawing up of plans of emergency preparedness of civil protection in the county, to warn the public and local authorities, economic entities, the population of the imminent emergency; to obtain from all district municipalities information necessary for the implementation of civil protection tasks; in the event of emergencies to organise and implement preventive measures of civil protection within the territory of the administrative unit; to notify the Civil Protection Department of the emergencies which have occurred; to make arrangements to mitigate the emergency effects, organise supply of search and rescue operations; to control the preparedness of executive bodies of municipalities to avoid the likely consequences of emergencies or to mitigate the effects thereof; to request support from the Government for aid in case when available resources and forces prove to be insufficient; to perform a yearly analysis of the state of emergency preparedness of civil protection and submitting it to the Civil Protection Department.⁴⁷

The Mayor of a district or city has the following responsibility for crisis management: to be responsible for the preparedness of civil protection within the territory of the municipality; to organise development of a plan of preparedness of civil protection in the event of emergencies; warn public authorities, economic entities, and the population about the scope and possible effect of the emergency; prescribe tasks and functions of civil protection for administrative units of the municipality, approve plans of civil protection emergency preparedness; to organise training of civil protection forces.

⁴⁶ Civil Protection Law, Chapter II, art.12

⁴⁷ Civil Protection Law, Chapter II, art.13

Further, the Mayor has to implement preventive measures for civil protection, rescue and other urgent tasks, mitigate the effects of emergencies, evacuate the population and to organise civil protection training of the population; to collect information from all the economic entities within the territory of the municipality necessary for carrying out the tasks of civil protection; to notify the district governor about emergencies within the municipality territory; to mobilise all civil protection forces within the municipality for mitigation of the emergency; to analyse the state of civil protection and submit an annual report about it to the county governor in the manner prescribed by him.

The Civil Protection Law also sets out the obligations of the Manager of an Economic Entity or an Institution in emergency situations. The manager of an economic entity or an institution has the responsibility to ensure the civil protection preparedness at the entity he is in charge of; to warn and inform the personnel about the imminent danger; project emergencies and plan preventive measures; develop plans of civil protection emergency preparedness; and to provide the personnel with individual and collective protection equipment; organise evacuation of the employees, first-response rescue operations and be in charge of them.

Public organisations may be called to take part in organising state civil protection measures for elimination of the consequences of emergencies and to provide assistance to victims in cooperation with the municipal civil protection service units.⁴⁸

2.6 Legal regulations on the involvement of volunteers and specialised NGOs

The Lithuanian civil security system involves non-profit relief organisations across all levels and fields of civil security. However, their role is more visible and documented in relation to response operations than in the field of prevention and preparedness.

The Civil Protection Law regulates the role of non-profit organisations in prevention, preparedness, response and mitigation of emergencies. The municipalities usually reach agreements with NGOs, such as the Lithuanian Red Cross, for emergency mitigation activities.⁴⁹

This system consists of a single fire and rescue forces: the State Fire and Rescue Service, local fire departments, departmental forces and voluntary fire formations.

The Fire Safety Act defines the participation of Lithuanian residents in fire safety, as well as the creation and consolidation of the voluntary fire formations.⁵⁰

⁴⁸ Ibid, Chapter II, art.17

⁴⁹ ANVIL Project Country Study: Lithuania, p.27

⁵⁰ <http://www.vpgt.lt/go.php/lit/Bendra-informacija/1121>, last accessed 30.10.2014

2.7 Legal regulations for international engagements of first responders and crisis managers

Decisions on the participation of elements of the Lithuanian military forces in international military operations shall be taken by the President of the Republic and the Parliament in accordance with the procedure are laid down by the Constitution and laws.⁵¹

The Law on International Operations, Military Exercises and other Events, adopted July 2000, defines the participation of Lithuanian Army units in international exercises, and other international military co-operation events and also, in international operations abroad as well as participation of foreign states military units in international exercises and other international military co-operation events conducted on the territory of Lithuania.

The Law defines the participation of Lithuanian Army units in international rescue and humanitarian operations. The President takes the decision on the use of Lithuanian army units in international rescue and humanitarian operations and has to submit such a decision for approval to the nearest sitting of the Parliament.

At international level the Lithuanian legislation implements Council Decision 2007/779/EC, Euratom establishing a Community Civil Protection Mechanism.⁵²

⁵¹ Law on the Basics Of National Security, Chapter 8

⁵² http://ec.europa.eu/echo/files/civil_protection/vademecum/lt/2-lt-1.html, last accessed 30.10.2014

3 Organisation

3.1 Organisational chart

The Civil Protection and Rescue System of Lithuania is comprised of: the Government Emergency Commission; the Emergency Management Centre; the Civil Protection Department under the Ministry of National Defence; the State Fire Prevention and Rescue Service; and fire protection, search and rescue, other territorial population warning and information, evacuation and civil protection services of ministries, other institutions of public administration and local government municipalities, civil protection and rescue system bodies of economic entities; environment monitoring and laboratory control network.⁵³

The civil protection system of Lithuania is managed and organised at three levels: national, county and municipal.

At national level, the key actors are the Government, the Government Emergency Commission, the Ministry of the Interior, the Fire and Rescue Department under the Ministry of the Interior and the subordinated agencies, ministries and other state institutions make strategic decisions regarding the implementation of civil protection measures.

At county level, the system is organised by county governors, county civil protection departments and county emergency management centres.

At municipal level, municipal administrators, civil protection departments, civil protection personnel, municipal emergency management centres, fire prevention and other civil protection services, economic entities and agencies are responsible for the organisation of preparedness for emergencies and the respond to such events.

Departmental emergency management centres shall be established at the ministries and other public administration institutions. Emergency management centres shall be formed under the office of the county governor and the district (city) mayor. The regulations, heads and structure of these centres shall be approved by the founders. Permanent civil protection staff has to be employed at all the potentially hazardous facilities.⁵⁴

⁵³ Civil Protection Law, Chapter I, art. 3

⁵⁴ Civil Protection Law, Chapter IV, art. 20-22



Figure 2. Organisational chart of the Lithuanian crisis management structure. (Source EC ECHO)

The Government Emergency Commission is a permanent Government commission responsible for organising emergency prevention and direct emergency relief actions in cases where an emergency encompasses the territory of one or more counties or where there is a need for assistance from public administration bodies for rallying without delay forces and material resources necessary for mitigation of the effects an emergency. The composition of the Emergency Commission and its regulations are approved by the Government.

The Emergency Management Centre is established to function as a permanent institution of the Emergency Commission having the function of a Government institution. In the event of large-scale natural disasters, technological accidents and catastrophes the Centre is responsible for organising disaster containment, rescue of people and mitigation of the effects. If there is a need to assist the civil protection forces engaged in rescue operations the Centre is able to mobilise services and equipment under the control of other state institutions.

In the event of emergencies the Emergency Management Centre has to adopt and submit to the ministries, other public administration institutions, local authorities and the population mandatory decisions on localisation and mitigation of the effects of an emergency. The Emergency Management Centre has to be established and its regulations approved by the Government.⁵⁵

⁵⁵ Civil Protection Law, Chapter IV, art. 20-22

The tasks of the Emergency Management Centre include performing monitoring of risk factors and threats, forecasting possible crises; coordinating activities of state institutions and entities within the crisis prevention area; ensuring the operation of crisis management infrastructure and constant exchange of information on crisis management between institutions; and developing international cooperation within the field of crisis management.⁵⁶

Further, the Centre, in implementing the tasks assigned to it, collects and analyses information received from the national authorities, mass communication and news agencies regarding threats and ensures the protection of information representing a state or official secret. The Centre carries out a comprehensive analysis of information received in the area of crisis management, forecasting possible crisis situations and the scope of such situations; prepares for the President, the Parliament, the Government and the Council of National Defence overviews of the most important developments, special communications and draft recommendations regarding crisis prevention.

Moreover the Centre acts as a contact point for the national authorities and international organisations that is available 24 hours a day.⁵⁷

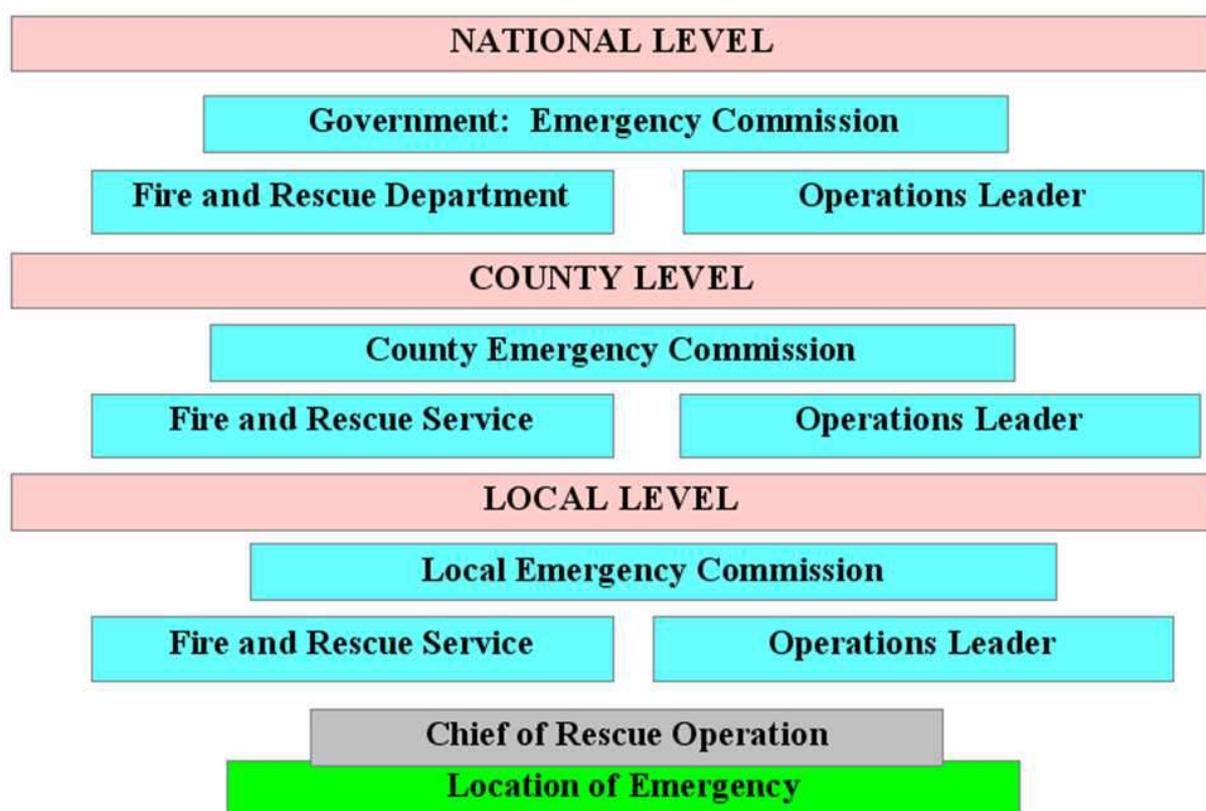


Figure 3. Lines of coordination of the Lithuanian crisis management system. (Source EC ECHO)

⁵⁶ White Paper 2002, Lithuanian Defence Policy, p.9-10

⁵⁷ Resolution No. 939, Regulations of the Crisis Management Centre under the Ministry of National Defence, Chapter II, art. 5

In addition, the Emergency Management Centre, under the Ministry of National Defence, obtains from national authorities detailed information necessary for prevention and management of crises and access to databases and registers in order to obtain the necessary information on possible threats.⁵⁸

The Lithuanian civil security operators such as fire brigades and rescue teams are accountable to mayors and county commissioners, which hold the central responsibility for operational crisis management and head the crisis information exchange between state and local levels.⁵⁹

The Fire and Rescue Department is an essential institution of the Lithuanian civil security system in directing the activities of the civil protection system and coordinating the overall national organization of emergency prevention. The Fire and Rescue Department also play key role in organising civil protection training, coordinating the evacuation of citizens and to mobilization inter-agency resources.⁶⁰

Moreover, the Fire and Rescue Department coordinates the organisation of national civil protection exercises, informs neighbouring states of imminent emergencies, establishes national emergency operations centre and manages the civil protection supplies of the state reserve. In addition to these tasks, the Department drafts the national emergency management plan and leads the activities of the civil protection and rescue system. It is responsible for organising disaster prevention, coordinating the civil protection activities of public institutions and economic entities and ensuring preparedness to implement the planned civil protection measures in emergency situations during peacetime and war.⁶¹

The State Fire and Rescue Service of the Republic of Lithuania consists of the following entities: the Fire and Rescue Department under the Ministry of the Interior and its 17 subordinate services. These services are divided into 10 county Fire and Rescue Boards, 3 Fire and Rescue Services for the protection of critical infrastructure, the Specialised Fire and Rescue Service, the Fire-fighters Training School, the Fire Research Centre and the Emergency Response Centre.

The Fire and Rescue Department under the Ministry of the Interior is responsible for the protection of people, property and environment in case of emergencies. In addition, it is in charge of fire and emergency prevention. The Fire and Rescue Department is an independent body of the Ministry of the Interior. The main tasks of the institution include:

- Determining national policy regarding fire and civil protection of the country;
- Developing strategies for its subordinate services;

⁵⁸ Resolution No. 939, Regulations of the Crisis Management Centre under the Ministry of National Defence, Chapter II, art. 5

⁵⁹ ANVIL Project Country Study: Lithuania, p.14

⁶⁰ Ibid., p.14-15

⁶¹ ANVIL Project Country Study: Lithuania, p.15

- Drafting fire and civil protection legislation for implementation;
- Performing state fire supervision;
- The Department is in charge of prevention and management of emergencies;
- Providing counseling to the public institutions and businesses in the field of civil protection;
- Coordinating fire and civil protection training;
- Recording fire and rescue statistics;
- Encouraging NGO's and volunteer organizations in the field of fire prevention.⁶²

Furthermore, Counties Fire and Rescue Boards (CFRBs) are established to operate counties' located centres. The CFRB's and their subordinate fire and rescue services in districts and cities are responsible for a variety of rescue operations such as extinguish fires, rescue operations, response to industrial and traffic accidents, chemical and other emergencies as well as rescue people from water incidents. In addition the Boards provide aid to other special services when required.⁶³

Moreover, there is a separate Search and Rescue Service, subordinated to the Ministry of Transport and Communications. It is comprised of the Maritime Search and Rescue Co-ordination Centre and the Aeronautic Search and Rescue Co-ordination Centre and other specialized divisions. The aim of the service is to provide a search and rescue capability for aircraft and ships in danger or experiencing other unforeseen calamities in, around or above the territory of Lithuania, in accordance with international agreements.⁶⁴

The Lithuanian Red Cross, founded in 1919, is the biggest NGO in the crisis management domain in Lithuania.⁶⁵

Lithuanian Red Cross Society (LRCS) is a part of the International Red Cross and Red Crescent Federation, with its headquarters in Geneva. LRCS is entitled to prevent suffering of human beings and provide assistance to people in need. Lithuanian Red Cross Society unites more than 2825 members, and 821 of them are the members of the Youth LRCS and number around 1200 volunteers.⁶⁶

3.2 Organisational cooperation

International cooperation in Lithuania in the field of crisis management is coordinated by the Fire and Rescue Department in cooperation with the disaster response monitoring and coordination centres of the United Nations. The Department represents Lithuania in the Civil Protection Work Group of the EU Council, EU ECHO DG meetings, EC SEVESO II and is a member of the European

⁶² <http://www.vpgt.lt/index.php?400236387>, last accessed 27.10.2014

⁶³ <http://www.vpgt.lt/index.php?400236387>, last accessed 30.10.2014

⁶⁴ Christer Pursiainen, Sigrid Hedin and Timo Hellenberg, *Civil Protection Systems in the Baltic Sea Region, Towards Integration in Civil Protection Training*, p. 15-16

⁶⁵ ANVIL Project Country Study: Lithuania, p.27

⁶⁶ <http://www.redcross.lt/en/about-us/history>, last accessed 29.10.2014

Union Fire Safety Network. Lithuania is also an active member in NATO Civil Emergency Planning Committee's work.

Individual ministries and other state civil security institutions participate in other international civil protection activities. International assistance in civil protection and civil security is provided by an international emergency response team, experts and/or by providing assistance supplies. An international emergency response team is formed by the minister of the Interior and the procedures for requesting, accepting and providing international civil protection assistance are established by the government.

Lithuania has entered into bilateral and multilateral agreements with the Baltic and Nordic countries which share the land and maritime border and are close to the strategic and operational sphere of the Lithuanian civil security system.

Lithuania, Estonia and Latvia signed bilateral agreements since 1992. In 1993 Lithuania signed an agreement with the Swedish Rescue Services Agency.

In 1998, similar agreements were signed with Finland, Denmark and Ukraine. In 2000, the Lithuanian fire and rescue service signed an agreement with the fire service of Hamburg Meckelburg-West Pomerania. This was an interregional agreement. In 2002, agreement was made with the Emergency Ministry (EMERCOM) of Russia¹⁷. Further and additional bilateral agreements have been made with Belarus (2003), Poland (2003), Sweden (2003), Hungary (2001), Latvia (2001), Ukraine (2003) and Germany (1994). Also agreements with Czech Republic (2004), Georgia (2008) and Azerbaijan (2010) have been signed. There is also a separate agreement with the Pennsylvania Emergency Management Agency (2007).⁶⁷

Furthermore, an agreement has been signed with Poland and Norway in 1995, regarding early notification in case of nuclear accident and cooperation in the field of nuclear safety and radiological protection, as well as an agreement on information exchange and cooperation in the nuclear safety and radiological protection domain with Denmark (1993).

Lithuania has been active participating and providing international assistance in various international crisis situations, which include the 1998 floods in Poland, 2005 floods in Georgia, the major earthquake in Pakistan in 2005, forest fires in Macedonia in 2007, oil spill in the Daugava River in Latvia (2007), the 2008 floods in Ukraine, Moldova and Romania, the armed conflict in Georgia (2008), forest fires in Russia (2010), floods in Pakistan (2010), floods in Poland (2010) and floods in Moldova in 2010. Lithuania has not officially requested disaster assistance through any international or regional arrangements.⁶⁸

⁶⁷ ANVIL Project Country Study: Lithuania, p.21-22

⁶⁸ Ibid., p.21-22

The Fire and Rescue Department has been actively participating in various European Union activities, adopting the legal acts of the EU in the field of civil protection. The Fire and Rescue Department represents Lithuania's interests by participating in the Civil Protection Working Group of the Council of the European Union and in the Civil Protection Committee and the Committee for the Implementation of the Directive on the Control of Major Accidental Hazards Involving Dangerous Substances (SEVESO II). Since 2004, the Fire and Rescue Department is a member of the European Union Fire Safety Network.

The Fire and Rescue Department also taking part in the activities of the NATO Civil Emergency Planning Committee, as well as coordinates the activities of other state institutions in planning boards and committees. It is also responsible for the implementation of the UN Convention on the Trans-boundary Effects of Industrial Accidents.

The Civil Protection Board Situation Coordination Unit of the Fire and Rescue Department liaises with the NATO's Euro-Atlantic Disaster Response Coordination Centre and informs it about Lithuania's capabilities to provide assistance.⁶⁹

Moreover, Lithuania participates in the BaltFloodCombat initiative. It is a cross-border cooperation project between Estonia, Latvia and Lithuania where the three Baltic States are represented respectively by the Estonian Rescue Board, Latvian Fire and Rescue Service and Lithuanian Fire and Rescue Department under the Ministry of the Interior. The project is within the framework of Preparatory Action of the Civil Protection Mechanism and is funded by the European Commission. The European Commission finances 80% of the project while the remaining funding comes from the national budgets. The aim of the project is to create reliable and efficient national flood response capacity, and also to establish and register in CECIS a multinational High Capacity Pumping (HCP) module, consisting of commonly trained personnel and up-to-date equipment. Main objectives of the project include enhancing national flood response capability; strengthening European rapid response capacity, and also to discover, through innovative approach, possibilities and ways of multilateral civil protection capacity building.⁷⁰

⁶⁹ <http://www.vpgt.lt/go.php/lit/NATO-civilinio-pasirengimo-ekstremaliosioms-situacijoms-planavimas/742>, last accessed 28.10.2014

⁷⁰http://www.baltfloodcombat.eu/index.php?option=com_content&view=article&id=22:whats-new-in-15&catid=29:the-cms, last accessed 13.09.2014

4 Procedures

4.1 Standing Operating Procedures (SOPs) and Guidelines

The Civil Protection Law defines the procedures to be taken in cases of emergency. The Law sets out that fire fighting search and rescue activities in case of disaster are organised by the commander of rescue operations in charge of the civil protection actions at an initial emergency stage. In urgent situations for mitigating the effects of emergencies, fire protection and rescue unit officers have to perform the functions of the commander of rescue operations without a special order.

All civil protection and rescue system forces, irrespective of their subordination, when arrive at the disaster scene become subordinate to the commander of rescue operations. No official has the right to interfere in the activities of the commander of rescue operations or cancel his orders and instructions to the forces of the civil protection and rescue system.

The police coordinate their actions with the commander of rescue operations or the officer performing his functions. The first aid service manages first aid on the scene of the disaster, notifying the nearest individual health care institutions about the victims and ensuring their transport. All individual health care institutions must be prepared to organise the work of the institutions in an emergency in accordance with a plan prepared in advance and co-ordinated with the municipality. Such plan is developed according to the recommendations of the Ministry of Health.

The Lithuanian Armed Forces may be employed in disaster operations by the responsible for the crisis operation officers in accordance with the plans drawn up in advance on the interaction with chiefs of military districts.

The procedure for the evacuation of the population shall be established by the Government. Taking into account the magnitude of an emergency and the threat for the population, county governors, mayors of districts/cities and managers of economic entities have to take decisions for the evacuation of the population; in individual cases, decisions evacuation of the population from the disaster area has to be made by the State Fire Prevention and Rescue Service, fire prevention services of district (city) municipalities and police officers. The population shall be evacuated in accordance with the territorial principle.

Evacuation of the population shall be organised by evacuation commissions, formed at the district (city) emergency management centres and has to be directed by people appointed by mayor of a district (city) municipality. The expenses of the evacuation of the population and their

accommodation will be compensated from the state budget in the manner prescribed by the Government.⁷¹

Furthermore, procedures for prevention of nuclear accidents, their containment and mitigation of their effects are defined in the Law on Nuclear Energy.

4.2 Operations planning

The main operational bodies of the civil security system in Lithuania are the Emergency Commissions, which are technically assisted by the State Fire and Rescue Service. The emergency commissions can be formed on two levels: municipal, chaired by the director of the municipal administration and government, chaired by the minister of Interior.⁷²

The role of the Fire and Rescue Department is to implement the civil protection measures developed by the government and to coordinate the activities of governmental institutions and economic entities. In addition, the Department prepares civil protection plans for the management of emergencies, major accidents or natural disasters in both peacetime and wartime, as well as organises the training and education of emergency officers.⁷³

The National Emergency Management Plan defines the procedures for warning and informing the public, for rescue operations and coordination and for organising crisis communication, as well as the procedures for evacuation.⁷⁴

In addition, the Plan is a document that defines the material and human resources of the civil protection entities in event of municipal or state level emergencies, as well as the procedures for mobilisation of human resources and for the organization of liquidation, elimination for the consequences thereof.

Disaster contingency plans of state level include:

- Plan of the Republic of Lithuania on population protection in case of a radiological accident at Ignalina Nuclear Power Plant,
- State search and rescue plan in case of an aircraft or watercraft accident in the territory of the Republic of Lithuania,
- National sea accidents pollution liquidation plan,
- State rescue and flood consequences liquidation in Klaipeda county plan.

⁷¹ Civil Protection Law, Chapter V, art. 30-32

⁷² ANVIL Project Country Study: Lithuania, p.17

⁷³ EC ECHO, Vademecum, http://ec.europa.eu/echo/files/civil_protection/vademecum/lt/2-It-2.html#cipro, last accessed 30.10.2014

⁷⁴ National Emergency Management Plan of Lithuania, Chapter I, Chapter II, Chapter III

4.3 Logistics support in crises

An agreement signed between the United States Secretary Of Defense and the Republic of Lithuania Minister of National Defense concerning Mutual Logistic Support, provisions that the parties will respond to the requests of the other party for logistic support, supplies, and services not only in peacetime, but also in periods of crisis, contingency operations or, war.⁷⁵

4.4 Crisis communication to general public; Alert system; Public Information and Warnings

The Minister of the Interior approves the national civil protection exercises and is in charge of information exchange on an incident or emergency event.

The National Emergency Management Plan states the procedures for warning and informing the public, for rescue operations and coordination, organisation of communication, the provisions of material resources and their use, as well as the procedures for evacuation.⁷⁶

The Fire and Rescue Department is an essential institution of the Lithuanian civil security system in directing the activities of the civil protection system and for coordinating the overall national organization of emergency prevention. The Fire and Rescue Department also has the main responsibility of early warning and public information in case of an emergency.

The director of the Department is responsible for maintaining the comprehensive early warning system and civil protection signals of citizens, state and municipal institutions and economic entities in case of an emergency.

Furthermore, the Director approves civil protection recommendations, regulations of municipal Emergency Commissions, regulations of the national emergency operations centre and the recommendations for emergency management plans.⁷⁷

Lithuania has early warning systems for flooding, for an accident in case of an emergency at the Ignalina Nuclear Power Plant, for radiological pollution and others. In Lithuania there is a complex early warning system for radiological risks which uses a surveillance tool for gamma monitoring of the environment and the central monitoring server. The system is constantly operational and is fully automatic. In case the radiation reaches threshold levels, the system will automatically report to the main server at the Joint Research Centre. In addition, there are 392 measuring points manually operated at the Fire brigades.

⁷⁵ Implementing Arrangement (Ec-Lh-01) Between the United States Secretary Of Defense and the Republic of Lithuania Minister of National Defense Concerning Mutual Logistic Support

⁷⁶ National Emergency Management Plan of Lithuania, Chapter I, Chapter II, Chapter III

⁷⁷ ANVIL Project Country Study: Lithuania, p.15

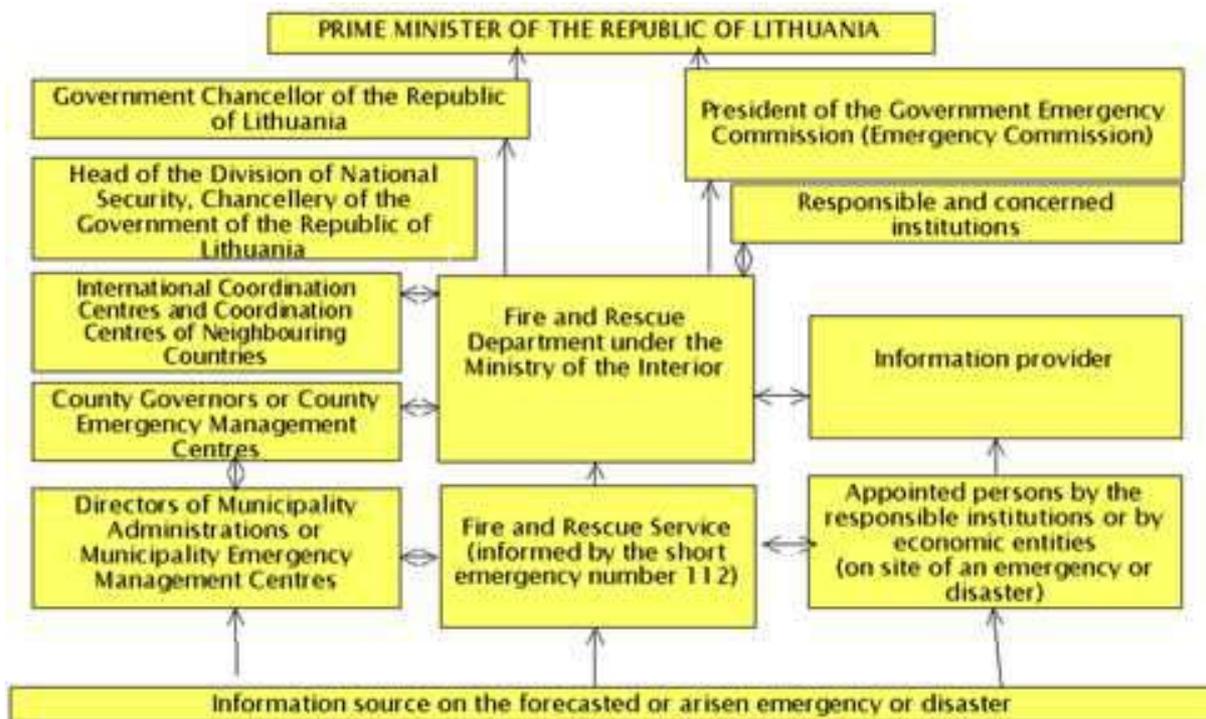


Figure 4. Lines of communication of the Lithuanian crisis management structure. (Source EC ECHO)

5 Capabilities

5.1 Human resources

The State Fire and Rescue Service, as the main operational authority in crisis management, consists of the Fire and Rescue Department under the Ministry of the Interior and 17 subordinate units: 10 county Fire and Rescue Boards, 3 Fire and Rescue Services for the protection of critical infrastructure, the Specialised Fire and Rescue Service, the Fire-fighters Training School, the Fire Research Centre and the Emergency Response Centre. Altogether, the State Fire and Rescue Service employ almost 5,000 people.⁷⁸

Educational activities are mainly organised by the State Fire and Rescue Service. The Fire-fighters Training School is the main stakeholder in Lithuanian civil security education. It comprises administrative and theoretical training divisions, divers training division, civil protection training centre and practical training division. The Fire Research Centre represents the main entity in terms of CBRN education in Lithuania.

Besides the educational activities, the centre performs fire tests, technical fire exercises, fire investigations, attestations of fire equipment and construction products and takes part in the standardization processes, as well as develops various methodological documents.

Universities and other public institutions provide courses and vocational training in the field of civil security and their curriculum and include courses such as natural disaster reduction and roots and causes of violent extremism.

However, civil security training is mainly conducted by the public institutions in Lithuania. They also establish the procedures for organizing civil protection exercises, which are implemented by the relevant responsible authorities, such as the Ministry of Interior and the Ministry of Defence.

5.2 Materiel (non-financial) resources

The State Fire and Rescue Service operates 455 vehicles - 236 fire-fighting tankers, 168 with special purpose, 202 are light operational, and 115 other types of vehicles. The State Fire and Rescue Service maintains and uses 123 building complexes.⁷⁹

Lithuania plans to develop air and maritime search and rescue capabilities, using potential financing for the acquisition of helicopters and other necessary equipment from EU funds and programmes.⁸⁰

⁷⁸ <http://www.vpgt.lt/index.php?393254094>, last accessed 30.10.2014

⁷⁹ <http://www.vpgt.lt/index.php?393254094>, last accessed 30.10.2014

⁸⁰ Guidelines of the Minister of National Defence for 2014–2019, Chapter II, art. 13.5

The participation of the Lithuanian Armed Forces in emergency situations could be requested in case of national threat. Two helicopters and a ship are on constant duty for search and rescue missions in the territory of Lithuania.⁸¹

The Fire and Rescue Department manages the public warning and information system P - 160, which cover the whole country, for warning and informing the public about the risks of emergencies. It also collects and stores data in a central registry database of dangerous objects, which collects information about possible threats to the state. The Department coordinates the level of response of the county fire and rescue board with the average response time of 6-10 minutes in cities, and 14-20 minutes in rural areas.⁸²

In emergency or urgent cases, the rescue manager or operations manager determines how much and what material resources are needed for emergency response, search and rescue works and for elimination of the consequences caused by the crisis situation and requests to the Director of Municipal Administration to provide them.⁸³ Government resolution 1107, dated 21 July 2010, provides the definition for the use and compensation of material resources in case of emergency, search and rescue work.

The Fire and Rescue Department manages the state stockpile of the civil protection resources and in this way makes it possible for the state and municipal institutions, businesses and population to become prepared for emergencies, to maintain the sustainability of the national economy, and to protect property and environment against disasters.⁸⁴

In case of threat the Civil Protection Department sends signals, information and recommendations to population via the "Signal" automatic warning system, which is equipped with centrally operated sirens, radio and loudspeakers, national TV and radio. The State Public Warning and Information System operates 706 centrally sirens, which cover around 2 million people. Most of these sirens are located in Ignalina and Zarasai regions. In addition the warning system has 564 local operational warning sirens.

The local operated sirens are located mostly in rural areas. In the territories not covered by the sirens special equipped vehicles are intended to be used. The police, firemen or other civil protection forces are foreseen to perform such warning and their routes are included in the plans in advance.

5.3 Training

In Lithuania, the Minister of the Interior approves the national civil protection exercises.

⁸¹ Guidelines of the Minister of National Defence for 2014–2019, Chapter II, art. 12

⁸² <http://www.vpgt.lt/index.php?393254094>, last accessed 30.10.2014

⁸³ <http://www.vpgt.lt/go.php/lit/Materialiniu-istekliu-teikimas/724>, last accessed 30.10.2014

⁸⁴ <http://www.vpgt.lt/index.php?400236387>, last accessed 29.10.2014

Training in the basics of civil protection is organised by general secondary schools and college education institutions through programmes developed by the Civil Protection Department and approved by the Ministry of Education and Science. Students are trained in higher educational institutions according to civil protection training programmes approved by the heads of higher educational institutions. The training in civil protection basics of economic entities and institutions is given in accordance with civil protection training programmes approved by the Civil Protection Department. The training of officials of emergency management centres of economic entities, the State Fire Prevention and Rescue Service and other civil protection personnel is carried in accordance with civil protection training programmes developed by the Civil Protection Department.

The Civil Protection Training Centre is the principal educational authority for civil protection and rescue activities. The Training Centre is established and its regulations are approved by the Minister of National Defence.

For testing the preparedness of the public administration institutions, local government and economic entities in emergencies and for the improvement of their civil protection management skills, exercises and training are financed from the state budget and conducted according to the regulations set out by the Government.⁸⁵

Moreover, educational programmes related to disaster response and risk reduction are taught in the public school system for 11-18 year juveniles, in vocational schools and colleges. In addition, civil protection teachers attend trainings and seminars on civil protection. There are various training programmes available depending on the type of audience. The Government of approves the programmes as well as their duration.

5.4 Procurement

5.4.1 Procurement regulation

The purchases of the Fire Rescue Department are made in accordance with the Law on Public Procurement.⁸⁶

Further, Lithuania aims at developing air and maritime search and rescue capabilities using the possibility to finance the acquisition of helicopters and other equipment necessary for this function from EU funds.⁸⁷

⁸⁵ Civil Protection Law, Chapter VI, article 33-35

⁸⁶ <http://www.vpgt.lt/index.php?-297797137>, last accessed 27.10.2014

⁸⁷ Guidelines of the Minister of National Defence for 2014–2019, Chapter II, art. 13.5

Select the type of procurement procedure

Purchase an object type: The purchase will be carried out by

Select the type of purchase objekto

Type of Service: The purchase will be carried out in accordance with Article 13 of

Select the type of purchases

The purchase will be subject to enviro

Object of the contract	The contracting authority	Quantity	Date ↓
Travel services <i>Services (3)</i>	Fire and Rescue Department under the Ministry of Internal Affairs (188601311)	£ 370,980.00	2013-01-01 Quarter: I
Warning and informing the population using public mobile telephone service providers, network infrastructure systems maintenance <i>services (7)</i>	Fire and Rescue Department under the Ministry of Internal Affairs (188601311)	1.00 System	2013-01-01 Quarter: I
Public warning and information using a public mobile telephone service providers, network infrastructure, the development of the 3G (UMTS) networks <i>Product</i>	Fire and Rescue Department under the Ministry of Internal Affairs (188601311)	1.00 System	2013-01-01 Quarter: I
Cleaning Services <i>Services (14)</i>	Fire and Rescue Department under the Ministry of Internal Affairs (188601311)	£ 131,936.00	2013-07-01 Quarter III
Building in Vilnius, Švitrigailos. 18. II, housing repairs, installation hideout State Emergency Commission for operation of the <i>Works</i>	Fire and Rescue Department under the Ministry of Internal Affairs (188601311)	£ 5,041,322.00	2013-07-01 Quarter III

Figure 5. Example of the Lithuanian online public procurement portal.
(Source: <http://www.eviesiejipirkimai.lt>)

5.4.2 Procurement procedures

Cross-border purchases carried out in the field of defense and security are complied with European Council Directive 2009/81/EC on defence and sensitive security procurement, as well as Directives 2004/17/ EC and 2004/18/ EC.⁸⁸

5.5 Niche capabilities

Potential niche capability that could be filled by Lithuania and represent interest to the EU crisis management structures could be providing expertise in the energy security domain. In the future energy security will increase in importance for crisis management.

An example of development of such research capability is the NATO Energy Security Centre of Excellence (ENSEC COE) was established in 2012 and currently operates as a widely recognised international military organization with the aim of providing qualified and appropriate expert advice on questions related to operational energy security.

The ENSEC COE assists the Strategic Commands and other NATO bodies, nations, partners, and other civil and military bodies by providing expertise on all aspects of energy security in support of NATO's capability development process, mission effectiveness, and interoperability.⁸⁹

⁸⁸ <http://www.vpt.lt/rtmp8/dtd/index.php?pid=121189211152&lan=LT>, last accessed 27.10.2014

⁸⁹ <http://www.enseccoe.org/en/about-us/centre-of-excellence.html>, last accessed 27.10.2014

Similar centres or agencies could be established by the EU in order to provide expertise in various fields related to crisis management. Potential niche capability that could be filled by Lithuania and represent interest to EU crisis management structures is the development of expertise in the energy security domain or other relevant area.

Resources

Legislative acts

Civil Protection Law, adopted 15 December 1998

Law on Basics of National Defence, adopted 5 December 2002

Law of Fire Safety, adopted 19 December 1996

Other normative acts

Guidelines of the Minister of National Defence for 2014–2019, adopted 20 January 2014

Implementing Arrangement (Ec-Lh-01) Between the United States Secretary Of Defense and the Republic of Lithuania Minister of National Defense Concerning Mutual Logistic Support, 29 March, 1996

National Emergency Management Plan of Lithuania, adopted 20 October 2010

Resolution No. 939, Regulations of the Crisis Management Centre under the Ministry of National Defence, adopted 27 July 2001

Official documents (white papers, strategies, etc.)

Military Strategy of the Republic of Lithuania, approved November 22, 2012

White Paper, Lithuanian Defence Policy, approved 2002

National Security Strategy of Lithuania, approved 2002

Online resources (e.g. websites of key CM organizations)

<http://www.lrv.lt/en> - Government of Republic of Lithuania

<http://www.vpgt.lt> - Fire and Rescue Department under the Ministry of Interior

http://ec.europa.eu/echo/files/civil_protection/vademecum/lt/2-lt-1.html - Country Profile: Lithuania - Disaster management structure, Vademecum - Civil Protection

<http://www.vrm.lt/> - Lithuanian Ministry of Interior

http://www.latlit.eu/eng/news/19_projects_will_receive_cofin/_gv/print_1, - Latvia–Lithuania CBC Programme

<http://www.pasienis.lt/lit/English> - State Border Guard Service

<http://www.redcross.lt> - Lithuanian Red Cross

<http://www.eviesiejpirkimai.lt> - Lithuanian Public Procurement Portal

Publications

ANVIL Project Country Study: Lithuania, Timo Hellenberg and Pekka Visuri, June 2013

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Second Investigation Department under the Ministry of National Defence Assessment of Threats to National Security, 2014

Terhi Elomaa & Anna Halonen, *EUROBALTIC Survey: Civil Protection Research in the Baltic Sea Region*, University of Helsinki (2007)

Expert interviews

Expert from the academic field (3 November 2014)



Driving Innovation in Crisis Management for European Resilience

LUXEMBOURG

Capabilities, Organisations, Policies, and Legislation (COPL) in crisis management and disaster response

Responsible Partner: ECORYS (Laura Birkman, Linette de Swart)



Scope and limitations

This study serves as supporting information for further work within DRIVER.

Only limited time and budget has been available for this first general survey, which needs to be considered in terms of scope and completeness of the respective studies.

The author/s of this study is/are responsible for its content and quality.

Overview

National Protection in Luxembourg originates from protection of the public interests against the military threats and was mainly set up after the Second World War. When the Cold War ended, the national protection mechanism was frozen. After 11 September 2001, it was reactivated again and placed under the authority of the Prime Minister. Since then, several project laws regarding the restructuring of the crisis management system have been drawn up. In 2012, for example, the Draft Law (n. 6475) concerning national protection was created. It is currently under assessment of parliament. It is envisaged that in the near future the Draft Law will be passed, thus a new crisis management set-up will be created.

The number of crises and disasters on the territory of Luxembourg is rather limited. Therefore, the main feature of Luxembourg crisis management policy is that it is approached case-by-case. Similarly, the financing of crises takes place on a case-by-case basis. Some organisations are mobilised only once a crisis is identified, so financing them is decided after the onset of a crisis as well.

Despite this ad-hoc approach, the government of Luxembourg has adopted several plans on how to respond to Ebola, pandemic influenza, and cyber attacks. The close location of a nuclear plant in France also required a (nuclear) emergency response plan which was updated in October 2014.

Currently, national protection and crisis management functions are distributed across multiple governmental organisations, largely depending on the nature of the disaster and risk involved. The Ministry of Labour Employment and Immigration, the Inspectorate of Labour and Mines, the Ministry of Home Affairs and the Greater Region, the Rescue Service Agency (Administration des services de secours, ASS), The Ministry of Health, the Grand Ducal Police, the Army (the list is not exhaustive and can vary depending on the crisis) are involved in a natural or man-made crisis management.

The main authority lies with the Prime Minister. He is assisted by the High Commission for National Protection (Haut-Commissariat à la Protection Nationale) which is a civil authority. The Prime Minister is also assisted by the Supreme Council for National Protection (Conseil supérieur de la Protection nationale, CSPN) which is a consultative body for the overall national protection in Luxembourg. The Council consists of one delegate from each Ministry and directors (or heads) of other administrations and services involved in crisis management. Depending on the nature of the crisis, the composition of the CSPN might differ. In addition, there are National Committees, which are created to address a specific field of national protection assisting the government in those areas. The military in general is not involved actively. However, representatives of the military are present in the national committees and CSPN.

As soon as a crisis or a disaster is identified, the Crisis Cell (Cellule de Crise, CC) is activated by the Prime Minister and is chaired by the High Commissioner for National Protection. The CC initiates, coordinates and monitors the execution of all measures destined to counter the consequences of a crisis and to favour recovery.

The operational lead is taken by the Rescue Service Agency (Administration des services de secours) which is subordinated to the Ministry of the Interior. In case of major accidents or disasters, this agency leads rescue operations. It is also the organisation that trains the volunteers and divisions of the ASS are equipped with the corps of volunteers.

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List of Abbreviations

ASS	Rescue Services Agency (Administration des services de secours)
Benelux	Belgium, the Netherlands and Luxembourg
CC	Crisis Cell (Cellule de Crise)
CERT	Computer Emergency Response Team
CHL	Centre of Hospitalisation of Luxembourg (Centre Hospitalier de Luxembourg)
CIRCL	Computer Incident Response Center Luxembourg
CMPN	Ministerial Committee for National Protection (Comité Ministériel de Protection Nationale)
CONAT	National Committees (Comités Nationaux)
CRED	Centre for Research of Epidemiology of Disasters
CSPN	Supreme Council for National Protection (Conseil Supérieur de la Protection Nationale)
EC	European Commission
EEA	European Economic Area
ENPC	National School of Civil Protection (l'Ecole Nationale de la Protection Civile)
ENSIS	National Civil Protection Support Base (l'Ecole Nationale du Service d'Incendie et de Sauvetage)
FNSP	National Federation of Firefighters (la Fédération Nationale des Corps de Sapeurs-Pompier)
HCPN	High Commission for National Protection (Haut-commissariat à la Protection nationale)
INES	International Nuclear Events Scale
ISO	International Organisation for Standardisation
MEDEVAC	Transport ambulances and repatriation by air
NATO	North Atlantic Treaty Organization
NGO	Non-Governmental Organisation
SECRICOM	Seamless Communication for Crisis Management for EU safety'
SIP	Information and Press Agency (Service Information et Presse du gouvernement luxembourgeois)
SOP	Standing Operating Procedures
WHO	World Health Organization

1 Policy

1.1 Risk Assessment

Luxembourg is one of the smallest countries in Europe: it is about 2,586 square kilometres in size, while being 82 kilometres long and 57 kilometres wide. Luxembourg has an oceanic climate with high precipitation, particularly in late summer. There are a number of rivers on the territory of Luxembourg: the Alzette, the Attert, the Clerve, and the Wiltz. The border between Luxembourg and Germany is formed by three rivers: the Moselle, the Sauer, and the Our.

Natural hazards

The exposure to natural hazards together with response capacity determine potential impact a natural hazard might have on a region. Luxembourg is exposed to a limited number of natural hazards. According to the Brussels based Centre for Research of the Epidemiology of Disasters (CRED), the most common natural disaster is a storm (see Table 1). It is also one of the most recurring natural disasters. Floods also happen in Luxembourg. The last flood happened about a decade ago and it was also one of the most costly natural hazards. Among other natural disasters occurring in Luxembourg, a year of 2003 was marked by a heat wave which resulted in a loss of 170 people with no economic damages involved¹. Between 1980 and 2010 there were 8 storms, 2 floods and 1 heat wave, in total there were 170 people killed.²

Table 1. Top 10 Natural Disasters in Luxembourg by economic damages between 1990 and 2014.

Disaster	Date	Damage (000 US\$)
Storm	25-1-1990	90 000
Storm	3-2-1990	90 000
Storm	25-2-1990	90 000
Storm	28-2-1990	90 000
Storm	28-2-2010	31 000
Flood	20-12-1993	10 000
Storm	21-1-1995	10 000
Storm	7-2-1990	5 000
Storm	13-2-1990	5 000

Source: The OFDA/CRED International Disaster Database, www.em-dat.net.

¹ The data are retrieved from The OFDA/CRED International Disaster Database, www.em-dat.net.

² The data are retrieved from the website of PreventionWeb, serving the information needs of the disaster reduction community (<http://www.preventionweb.net/english/countries/statistics/?cid=102>).

The World Risk Report³ estimates that Luxembourg has a risk index of 2.52% of natural disasters where the risk is understood as an interaction between a natural disaster (earthquakes, floods, cyclones, droughts, sea level rise) and the vulnerability of societies. Luxembourg is on 153 place out of 171 countries (meaning that country 171 has the least risk). This implies that even though population of Luxembourg is vulnerable to natural hazards, the country has the abilities and capabilities to cope with them.

Technological hazards

In terms of technological disasters, the Brussels based Centre for Research of the Epidemiology of Disasters (CRED) reports only one technological disaster in the past hundred years. In 2002 there was an air transport accident which led to 20 people being killed with no economic damages involved.

Table 2. Top 10 Technological Disasters in Luxembourg between 1990 and 2014.

Disaster	Date	Number of people killed
Transport Accident	6-11-2002	20

Source: The OFDA/CRED International Disaster Database, www.em-dat.net.

Luxembourg has no nuclear installation on its territory. There are also no facilities on the territory of Luxembourg generating radioactive substances. As a result Luxembourg does not spend nuclear fuel. Thus radioactive wastes are only generated from the industries. However, there are three nuclear plants that are located nearby Luxembourg: Tihange (65 km, located in Belgium), Chooz (70 km, in France) and Cattenom (8.5 km, in France) as presented on the Figure 1. Since the nuclear plant Cattenom is located in a close range to the country, the government of Luxembourg '*...attaches great importance to the protection of the population in the event of a severe accident at the nuclear power plant at Cattenom*⁴'. The policy formulated at the national level mainly concerns the population living in the area within a radius of 25 kilometers from the nuclear site Cattenom (this area is extended, if necessary).

³ Alliance Developments Work (2014), 'World risk report 2014'.

⁴ Information and Press Service of the Luxembourg Government (2014), 'What to do in the event of a nuclear alert?'



Figure 1: Schematic location of 3 closest nuclear plants to Luxembourg.

Therefore in short, the main areas of concern for civil protection in Luxembourg are:

- Floods
- Nuclear accidents
- Industrial and transport accidents.

Regarding other potential threats that might occur in Luxembourg, the government has prepared several plans on how to respond (in particular in case of pandemic flu and cyber attacks)⁵. Currently the risk assessment procedures are being considered to be included in the Draft Law (n. 6475) on the national protection (Projet de loi (no. 6475) relative à la Protection nationale). Formally the risk assessment will be under the authority of High Commission for National Protection (Haut-commissariat à la Protection nationale, HCPN). Though, since Luxembourg does not suffer from natural hazards very often, currently the risk assessment procedures take place when the threat of a disaster or a major risk is identified.

⁵ For more details please refer to Chapter 1.2.5.

1.2 Policy and Governance

Currently, national protection and crisis management functions are distributed across multiple governmental organisations, largely depending on the nature of the disaster and risk involved. The following organisations are involved in a natural or man-made crisis management:

- The Ministry of Labor Employment and Immigration, the Inspectorate of Labor and Mines
- The Ministry of Home Affairs and the Greater Region
- The Rescue Service Agency
- The Ministry of Health
- the Grand Ducal Police
- the Army.

Besides listed organisations, other institutions might be involved in resolving a disaster or crisis as well depending on a nature of its nature. The composition and methods of operation and organizational structure of the national protection are determined by the Grand Ducal Regulation. The approach to crisis management currently is being reconsidered as a new law is expected to be passed in the near future (see more in Chapter 2 with regard to the new law being adopted). Now the crisis mechanisms are placed under the authority of Prime Minister.

1.2.1 Strategy scope and focus

There is a limited number of natural risks that Luxembourg is exposed to. Therefore the crisis management system mostly focuses on man-made risks.

A number of organisations are involved in shaping the strategy regarding crisis management in Luxembourg. The main feature of the policy is that it is case-by-case based meaning that the policy is formulated when a crisis occurs.⁶ For several cases, like a pandemic flu, nuclear accident and cyber attack, the government has developed several plans on what to do in case such a disaster occurs.⁷ Currently, the crisis management system in Luxembourg is in the process of changing (see more in Chapter 2 with regard to the new law being adopted). At this point, the crisis management system is mainly focused on preparedness and response activities which can be seen in the plans as well⁸. It is envisaged that the new crisis management policy is going to also focus on the prevention and planning activities as well as post-disaster assessment according to the expert interviews.

The Ministerial Council for National Protection (Conseil ministériel de la Protection nationale, CMPN) determines the mainstream policy regarding crisis management, defines objectives and ensures strategic control during the policy implementation. Therefore the authority of command and decision is in the hands of this organisation. Depending on the crisis or disaster happening, the

⁶ See more details in rest of this Chapter and Chapter 2.

⁷ See more details in Chapter 1.2.5.

⁸ See more details Chapter 1.2.5.

Council may be formed from different bodies. For example, in case of a pandemic disease the Ministry of Health is going to take the lead in the prevention and disaster resolution planning.

High Commission for National Protection (Haut-commissariat à la Protection nationale, HCPN) develops and coordinates a national strategy in crisis management under the authority of the Prime Minister. Since February 2007, the High Commissioner for National Protection (Haut-Commissaire de la Protection Nationale) is in charge of coordinating the fight against terrorism at the national level. The Commission is responsible for coordination among all the ministries, departments and services involved in civil and military crisis management.

1.2.2 Monitoring and analytical support to policy making; R&D

The Supreme Council for National Protection (Conseil supérieur de la Protection nationale, CSPN) is a consultative body for the overall national protection in Luxembourg. The main mission of the Council is to assist and advise the government. It can also issue an opinion paper on any project related to national protection. The CSPN initiates, coordinates and monitors the implementation of measures and activities to prevent and anticipate the occurrence of a crisis. The members of the CSPN meet frequently, about two times a year.

The Council consists of one delegate from each Ministry and directors (or heads) of other administrations and services involved in crisis management. Depending on the nature of the crisis, the composition of the CSPN might differ. The following parties are involved (the list is not exclusive):

- The Director of Police
- Chief of the Army
- The Director of the Customs and Excises
- The Director of the Intelligence Service
- The Director of Information and Press
- The Director of Health
- The Director of the Rescue Service Agency.

The CSPN is supported by the specific committees and is chaired by the High Commissioner for National Protection⁹.

In terms of research projects implemented in the past, the government of Luxembourg has participated in the development of the risk assessment tool Monarc¹⁰ for processing of sensitive and personal information. This tool assesses the risks, determines the level of criticality for the organisation and describes the possible consequences for the organisation. If the organisation uses such a tool, it will obtain a certification of ISO/IEC 27005 standard (Information technology – Security techniques – Information security risk management).

⁹ For more information about the High Commission for National Protection see Chapter XX.

¹⁰ The information has been obtained through the website of CASES (www.cases.lu), that is operated by the SMILE (Security made in Lëtzebuerg GIE; this organization operates the Computer Incident Response Center Luxembourg, CIRCL).

Currently, the University of Luxembourg is also involved in a collaborative research project 'Seamless Communication for Crisis Management for EU safety' (SECRICOM) with the aim is to develop a reference security platform for EU crisis management operations¹¹.

1.2.3 Policy for Prevention

As it has already been mentioned Luxembourg is mainly exposed to storms and floods in terms of natural disasters. With regard to that, different preventive measures have been taken by the authorities in relation to country planning and regional development: for example, dykes and retention basins have been constructed. There are also frequent checks of the river levels and radiological activity performed and when needed early warning systems towards professionals are used. The following early warning systems are currently in place¹²:

- MIC- Monitoring Information Centre, CECIS network of the European Commission
- ECURIE - European Community Urgent Radiological Information Exchange for Nuclear Emergencies (Radiological/Nuclear)
- RAS BICHAT- Rapid Alert System for Biological and Chemical Agent Attacks
- EMERCON - Emergency Convention on the mutual exchange of information (IAEA)
- ENAC – Emergency Notification and Assistance Convention (IAEA)
- SELCA – System of exchange and liaison between Cattenom and authorities (dedicated information system between France, Germany and Luxembourg on events in the French PWR Cattenom)
- UNECE-IAN– Industrial Accident Notification of the United Nations Economic Commission for Europe, Convention on the Transboundary Effects of Industrial Accidents
- Commission of the Rhine (alert and mutual information in case of accidental pollution of the river Rhine): www.iksr.org
- Commission of the Moselle and Saar (alert and mutual information in case of accidental pollution of the rivers Moselle and Saar): www.iksms-cipms.org
- Commission of the Maas (alert and mutual information in case of accidental pollution of the river Maas): www.cipm-icbm.be
- Dedicated alert and information system between France, Germany and Belgium on transboundary floods: www.timisflood.net.

At the moment, there is no national agency in charge of formulation of the policy for prevention. The policy is envisaged to be included in the new legislation regarding the crisis management system. Formally the prevention procedures will be under the authority of High Commission for National Protection. Since Supreme Council for National Protection is an advising body to the HCPN, it will also play a consultative role when a policy for prevention is being prepared.

¹¹ For more information about this project please refer to the website www.secricom.eu.

¹² http://ec.europa.eu/echo/files/civil_protection/vademecum/lu/2-lu.html.

1.2.4 Policy for Preparedness

The government of Luxembourg has prepared several plans on how to respond to the emergency¹³. These plans are publicly available on the website, www.infocrise.lu (<http://www.infocrise.public.lu/fr/index.html>), which was launched in October 2014. This website provides up to date information in case an emergency or crisis is taking place and offers documents and plans on the procedures. This website serves as a basis for the public being prepared to respond to the crisis. Department of Media and Communications of the Ministry of State is responsible for provision of the information on [infocrise.lu](http://www.infocrise.lu). The Rescue Service Agency (Administration des services de secours, ASS) also keeps the public informed on the measures to be undertaken in case of floods taking place. The information is provided on the website www.112.public.lu. The ASS also operates the nationwide network of electronic sirens warning the population in case an accident or crisis might take place.¹⁴

1.2.5 Policy for Response

As soon as a crisis is identified, the Ministerial Council for National Protection starts to function under the authority of the Prime Minister. CMPN is assisted by the Supreme Council for National Protection, a consultative body, consisting of a delegate from every ministry. The Prime Minister is also assisted by HCPN which ensures the inter-ministerial communication and coordinates the measures taking place in case of a crisis. Each minister is responsible for reviewing their area of activity. For example, Ministry of Health is responsible for the pandemic.

The Rescue Service Agency leads the rescue operations reporting to the Minister of Home Affairs and the Greater Region. The Agency is responsible for implementation of all the measures and means necessary for protection and supply of aid and medicines¹⁵. The fire brigades are coordinated at local level by municipalities. In case of a larger crisis the operational lead is in hands of the Rescue Service Agency. Currently, this set up is under discussion and subject to change. It is envisaged that the Rescue Service Agency and the fire brigades are going to be combined under authority of one governing body according to the expert interviews.

The Rescue Service Agency is also responsible for recruiting and training instructors and volunteers. The recruited volunteers then compose the brigades of ambulance-emergency-rescue workers (brigades des secouristes-ambulanciers et des secouristes-sauveteurs) which are based in the relief centres established around the country to ensure the protection and rescue of people. Figure 2 shows the location of the relief centres.

¹³ See more details about the adopted plans in Chapter 1.2.5 and in Chapter 2.

¹⁴ For more information see Chapter 1.6.

¹⁵ For more details please refer to Chapter XX.

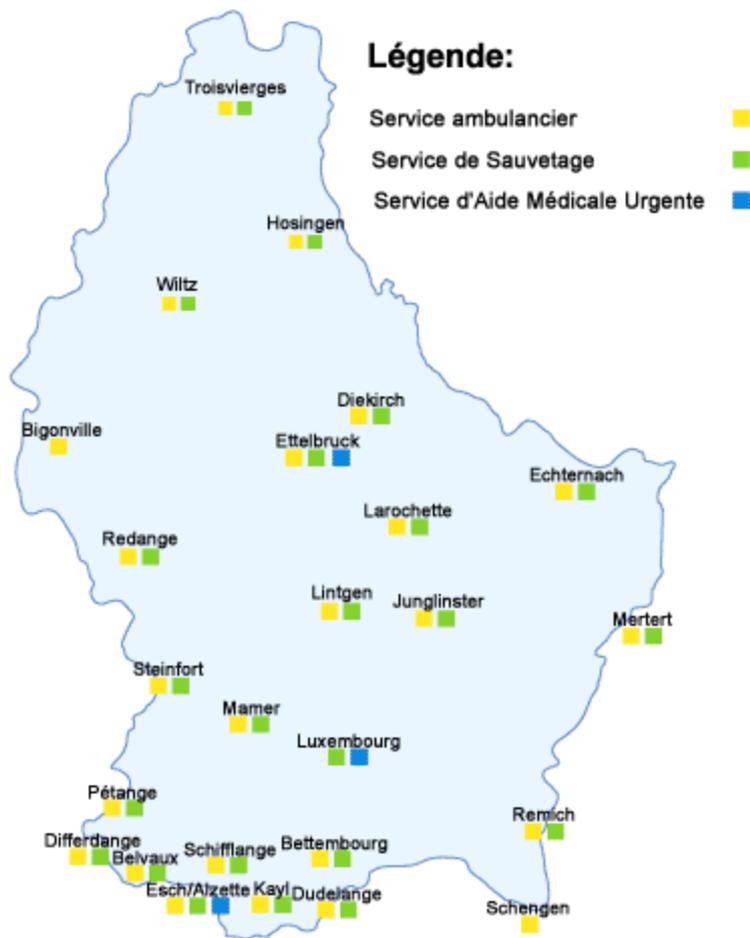


Figure 2: Location of the relief centres in Luxembourg.¹⁶

At the moment this report was under preparation¹⁷ there were several plans adopted on how to respond to the Influenza pandemic plan, Ebola emergency intervention plan, Cyber Plan and Emergency Response Plan in case of a nuclear accident. All these plans are publicly available on the new website (infocrise.public.lu) which was launched in October 2014.

- The “Influenza Pandemic” Plan

This plan¹⁸ was adopted by the Governing Council of 21 July 2006 (Règlement grand-ducal du 11 mai 2006 établissant des mesures de lutte contre l'influenza aviaire¹⁹), which serves as a basis for the preparation and management conduct of an influenza pandemic. The government plan describes more specifically the government's response to the risk of pandemic influenza, including avian influenza in animals and humans.

¹⁶ Rescue Services Agency, www.112.public.lu.

¹⁷ The report was prepared in August – December 2014.

¹⁸ Adapted from <http://www.infocrise.public.lu/fr/grippe-pandemie/index.html>.

¹⁹ Legislation is available here <http://www.gouvernement.lu/708654/21conseil>.

The plan contains a catalogue of 187 measures applicable before, during and after an influenza pandemic. These measures reflect the six phases set by the World Health Organization (WHO)²⁰ as part of the evolution of a pandemic.

- The Ebola emergency intervention plan

Published by the Government of Luxembourg in October 2014²¹, this plan aims to set up the structure for the response to an eventual Ebola epidemic in Luxembourg. It has been elaborated by the High Commission for National Protection and determines the bodies in charge of managing the crisis, the different possible scenarios, the emergency measures to be taken and the procedures to be followed.

In case the plan is started, the Crisis Cell (Cellule de Crise, CC) is activated by the Prime Minister and starts monitoring the different actions in response to the crisis. The CC is composed by members from the Ministries of Health, of Foreign Affairs, of Home Affairs and of Infrastructure backed by representatives from the Army, the Police, the ASS and the Administration of Duties and Excises.

The plan identifies four main scenarios entailing a likely/confirmed case of Ebola:

- landing in Luxembourg,
- detected in Luxembourg (elsewhere than the airport),
- who is a Luxembourgish national/resident that must be brought back to Luxembourg,
- detected on a Luxembourgish ship.

In all of the abovementioned situations, the structure in charge of the hospitalisation is the CHL (Centre Hospitalier de Luxembourg) or, in the hospitals of Dusseldorf, Strasburg and Nancy.

The published plan does not detail all the measures and the schedules prepared for the abovementioned scenarios.

- Emergency Response Plan in case of a nuclear accident in Cattenom

The new Emergency Response Plan (ERP) in case of nuclear accident or incident has been adopted and made enforceable by the Governing Council in October 2014²².

The ERP includes four key measures of prevention and protection of the population: the sheltering, the absorption of potassium iodide tablets, evacuation and food restrictions. It also distinguishes

²⁰ For more information please refer to the website of WHO concerning Pandemic Influenza Risk Management, http://www.who.int/influenza/preparedness/pandemic/influenza_risk_management/en/.

²¹ For more information please refer to the Plan d'intervention d'urgence Cas probables / confirmés EBOLA au niveau national (Plan EBOLA), available at: <http://www.infocrise.public.lu/fr/publications/ebola/plan-gouvernemental-ebola/PLAN-EBOLA-VERSION-GRAND-PUBLIC.pdf>.

²² For more information please refer to the Plan d'intervention d'urgence (PIU) en cas d'accident nucléaire', available at: <http://www.infocrise.public.lu/fr/publications/urgence-nucleaire/piu/PIU-VERSION-GRAND-PUBLIC-15-10-2014.pdf>.

between different phases of the accident, the emergency phase and the post-accident phase which are based on International Nuclear Events Scale (INES). To facilitate the implementation of the plan the country is divided into two areas. The first area is within a radius of 15 km from Cattenom – people living in this area are going to be evacuated in case of an accident in Cattenom. Most of the measures concern this area and if necessary it is extended further to 25 km. In case the accident is rather severe, the rest of the country is also alerted and the measures are adopted for the whole country. In case of an incident, a Crisis Cell will be activated at the national level by the Prime Minister or his delegate. A Cell of radiological assessment (Cellule d'évaluation radiologique) can be activated as well and it will be composed of experts from the Radiation Protection Division of the Department of Health and members of the Rescue Services Agency.

- Plan 'Cyber'

In case of an information attack or technical fault systems of information systems the 'Cyber' plan is adopted since March 2014²³. This plan has been updated as part of the implementation of the national strategy on cyber security. It defines the action of the government in the event of large-scale attack against information systems in the public and / or private sector, that may cause a major malfunction or unavailability of these systems, which threatens the interests vital or essential needs of all or part of the country or the population of Luxembourg. Routine incidents are managed by the Computer Emergency Response Team (CERT).

1.2.6 Policy for Relief and Recovery

As soon as the crisis is resolved, the alarming system (in case of flooding and nuclear accident), information on the website (infocrise.lu) and media informs the population about this. Then begins the post-accident phase dedicated to the treatment of consequences of the accident. Since the number of disasters in Luxembourg is rather limited, at the moment the main focus of the policy is on the response. Therefore there is no specific policy for relief and recovery. It is formulated on case-by-case basis.

1.3 Financing

1.3.1 Investing in preparedness

The Rescue Service Agency, High Commission for National Protection and Computer Emergency Response Team are under authority of the Ministry of Home Affairs and the Greater Region and therefore are funded by the state budget allocating predefined credits on a yearly basis. The Department of Radiological Protection which is a part of the Ministry of Health is also financed through the state budget.

The government of Luxembourg may provide additional budgetary resources through some other organisations which can be released in case of an emergency, crisis or disaster. When a crisis occurs thus the organisations come to live, the amounts budgeted can be enlarged with the necessary

²³ The information was assessed from: http://www.hcpn.public.lu/plans_nationaux/Plan_-_Cyber_/index.html.

amounts (the predefined credits established on a yearly basis are not limited which allow to cover important non-foreseen and thus not predictable costs). When a crisis is identified and the Crisis Cell is reactivated additional financial resources are allocated. When a crisis has not been foreseen and if the crisis resolution financing can be put under a budget of the next year, it will be financed from the next year and most likely by the Ministry of State. In other cases, the decision on the financial allocation is taken after the consultation with the HCPN.

One of the important elements of being prepared to a disaster is the provision of trainings in various fields of protection. The trainings are mainly given by the National School of Civil Protection and the National Civil Protection Support Base which are both managed by the Rescue Service Agency. Most of the budgeted activities for crisis management have decreased since 2012 with the exception of the Department of Radiological Protection.

Table 3. Budgeted activities for the Rescue Service Agency, High Commission for National Protection and Computer Emergency Response Team based on the adopted budgets of 2012 – 2014 (in euros).

Budget article	2012	2013	2014
Haut-Commissariat de la Protection Nationale			
operating costs; office expenses; miscellaneous expenses frais de fonctionnement; frais de bureau; dépenses diverses	46.617	50.000	45.000
Office of National Protection: operating costs for crisis management. (Credit not limited exercise without distinction) frais de fonctionnement pour la gestion de crises. (Crédit non limitatif et sans distinction d'exercice)	—	1.000	35.000
acquisition costs for crisis management. (Credit not limited exercise without distinction) frais d'acquisition pour la gestion de crises. (Crédit non limitatif et sans distinction d'exercice)	—	1.000	1.000
acquisition costs of special equipment, office and telecommunication frais d'acquisition d'équipements spéciaux, de bureau et de télécommunication	19.387	17.200	12.000
Computer Emergency Response Team			
acquisition et installation d'équipements spéciaux; frais accessoires	94.747	150.000	75.000
frais de mise en oeuvre et d'exploitation des opérations de prévention et de prise en charge de la lutte contre la cybercriminalité. (Crédit non limitatif et sans distinction d'exercice)	575.351	535.000	480.000
Administration des services de secours			
Administration des services de secours (budget ordinaire des dépenses)	16.147.449	16.291.442	16.793.967
- including Frais résultant d'assistance au Luxembourg en cas de catastrophe dans le cadre des accords bilatéraux. (Crédit non	—	100	100

Budget article	2012	2013	2014
limitatif) - Frais d'instruction et d'entraînement des volontaires de la protection civile	124.420	128.500	125.000
Administration des services de secours (budget extraordinaire des dépenses)	5.086.308	4.485.412	4.937.573
Division de la Radioprotection: frais de location d'un local pour l'entreposage intérimaire de sources radioactives hors usage. (Crédit non limitatif)	3.750	3.750	3.750
Division de la Radioprotection: Mesures pour réduire l'irradiation médicale au Luxembourg.	17.120	25.000	20.000
Division de la radioprotection: frais d'expertises dans le cadre des procédures d'autorisation et dans le cadre des conventions, traités et accord internationaux. (Crédit non limitatif)	—	100	100
Division de la radioprotection: frais d'entretien des appareils. (Crédit non limitatif)	38.240	37.000	40.000
Division de la radioprotection: frais de surveillance de la radioactivité; dépenses diverses. (Crédit sans distinction d'exercice)	137.377	115.000	117.000
Division de la radioprotection: acquisition, stockage et distribution d'iode stable. (Crédit non limitatif)	—	25.000	100
Division de la Radioprotection: assurance qualité des équipements de mesure dans le domaine de radioprotection et du laboratoire de radiophysique	39.949	45.000	45.000

Source: Projet No 05/2014-1 5 mars 2014, Texte du projet Projet de loi concernant le budget des recettes et des dépenses de l'Etat pour l'exercice 2014; Budget de l'État: Loi du 29 avril 2014 concernant le budget des recettes et des dépenses de l'Etat pour l'exercice.

1.3.2 Investing in consequence management

The beneficiaries of the response measures and the respective financial resources are (mainly) national authorities and municipalities. Since the crisis management policy is mostly case-by-case based, the decision on the financial resources for consequence management is also taken on case-by-case basis. The involvement of the European Union funding can be involved in the consequence management. The decision on this is taken considering the nature of the crisis or disaster at stake.

Funding of the several divisions of the Rescue Service Agency (Fire and Rescue Services) is partially provided through insurance against risk of fire²⁴. At the level of individual level the material damages are reimbursed based on the personal insurance policies.

²⁴ Ministère de l'Intérieur (2013), Rapport d'activité 2013.

1.4 Policy review, Evaluation & Organisational Learning

1.4.1 Post-Disaster Assessment

Currently there is no official framework or system in place for assessing the experience of individual emergencies and disasters. At present, the post-disaster assessment is happening at the level of the organisations that were involved in the crisis resolution after the disaster took place. This way the individual emergencies and disasters are evaluated on case-by-case basis.

1.4.2 Departmental Lessons Learned systems

Currently there is also no official Lessons Learned system. The organisations that were involved in crisis handling assess the lessons learned from the specific disaster resolution and seek for the ways to improve it. Moreover, there is an exchange of the experience and techniques as a result of, for example, the international exercises. Thus the exchange of information is happening on the operational level.

1.4.3 Centralised (national) Lessons Learned system

Currently there is no official Centralised Lessons Learned system. In practice, there is an exchange of information on the departmental level and inter-departmental level (for more details on this please refer to Chapter 1.4.2). The experience gained from personnel deployed in EU and other international exercises is exploited in accordance to the EU guidelines.

1.4.4 International exchange for Lessons Learned

Luxembourg participates in international exercises to increase the cooperation, procedures and services and capabilities of supporting members. During those exercises there is an exchange of experience and techniques happening that is later incorporated in the crisis management system of Luxembourg. For example in 2013 Luxembourg took part in TRIPLEX 2013, OPEX, SIMEX 'Count Down', ARF DIREX 2013²⁵.

1.4.5 Regular policy reviews

The crisis management system in Luxembourg is mainly working on case-by-case basis. Therefore when a plan to solve the crisis is developed, it is foreseen to have a policy review from all the levels of the government (national, regional, local). Formally CSPN as an advising body makes a decision whether the changes should be incorporated into the plan. Other reviews are incorporated in the functioning of the organisations and institutions involved in the crisis management. Currently, there is no a formal institution that conducts regular policy reviews.

²⁵ Ministère de l'Intérieur (2013), Rapport d'activité 2013.

1.5 Resilience

Since Luxembourg is not exposed to many disasters and in general the number of disasters is very limited every year, there is no official concept of resilience. The concept of resilience mainly concerns the critical infrastructure. According to the interviews, it is envisaged, that such a concept will be included in the new legislation regarding national protection in Luxembourg. The organisations also do not apply the ISO standards like ISO 22301 “Business Continuity Management – Requirements”.

1.6 Information sharing and data protection

Regarding the organisations that set the framework of the data protection, the Act of 2 August 2002 on the protection of individuals²⁶ with regard to the processing of personal data established an independent authority, the National Commission for Data Protection (Commission nationale pour la protection des données). The Commission is responsible for verifying the legal base of all files and information about identifiable individuals transmissions and must ensure that the fundamental rights and freedoms of individuals, including their privacy, are respected.

There are a number of laws that regulate the processing of personal data. The Directive 95/46/EC on data protection (Data Protection Directive) is implemented through the Law relating to the protection of individuals in relation to the processing of personal data in 2002 (the Act of 2 August 2002). This law aims to protect the freedom and fundamental rights of individuals, and notably their private life, in relation to the processing of their personal data. It was further modified in 2005²⁷ with regard the specific provisions in the electronic communications sector, as part of the implementation of the EU “telecom package” in Luxembourg.

The Rescue Service Agency, the emergency call centres of the police force and the fire services fall under the specific provisions of the laws when it concerns the data access of sensitive information:

The “112” emergency services centre, the emergency call centres of the Grand Duchy’s police force, and the fire and rescue services of the City of Luxembourg will have [...] automatic access on request and through the Luxembourg Institute of Regulation²⁸ to the data on the identity of subscribers and users of both electronic communications operators and suppliers and the postal services and the suppliers of these services²⁹.

²⁶ Loi du 2 août 2002 relative à la protection des personnes à l’égard du traitement des données à caractère personnel.

²⁷ Loi modifiée du 30 mai 2005 relative aux dispositions spécifiques de protection de la personne à l’égard du traitement des données à caractère personnel dans le secteur des communications électroniques et; portant modification des articles 88-2 et 88-4 du Code d’instruction criminelle.

²⁸ Institut Luxembourgeois de Régulation.

²⁹ Loi du 2 août 2002 relative à la protection des personnes à l’égard du traitement des données à caractère personnel..

The National Commission for Data protection will first check how secure the system is and can allow the remote access by electronic communication. The gathered data can be transferred within the European Economic Area (EEA). There are special rules that apply to the transfer of data outside of EEA, therefore it can be granted after the National Commission gave a permission.

In case of a crisis, relevant authorities might gather personal data after the National Commission has permitted to do so. After the crisis the personal data has to be destroyed. In case of regional disasters, the Rescue Service Agency might gather information from the social media with the help of the police.

Luxembourg provides trainings to a large number of volunteers, therefore they have a databases of volunteers with the relevant information stored there. This information is in hands of the organisations that train the volunteers (the Rescue Service Agency) and the relevant databases are created after the National Commission for Data Protection has granted permission.

The usage of social media to gather information in times of a disaster is rather limited in Luxembourg. The crisis management authorities have several platforms to communicate to the public during the crisis, they are not used to collect data. The Crisis Cell could decide to use the social media to collect data from the social media. In case of local crises, the police of Luxembourg, for example, uses the social media to gather information from the public. Currently, the adopted emergency response policies (the influenza pandemic plan, the Ebola intervention plan, Emergency Response Plan in case of a nuclear accident in Cattenom, Plan 'Cyber') do not plan to use the social media to gather data during the crisis.

2 Legislation

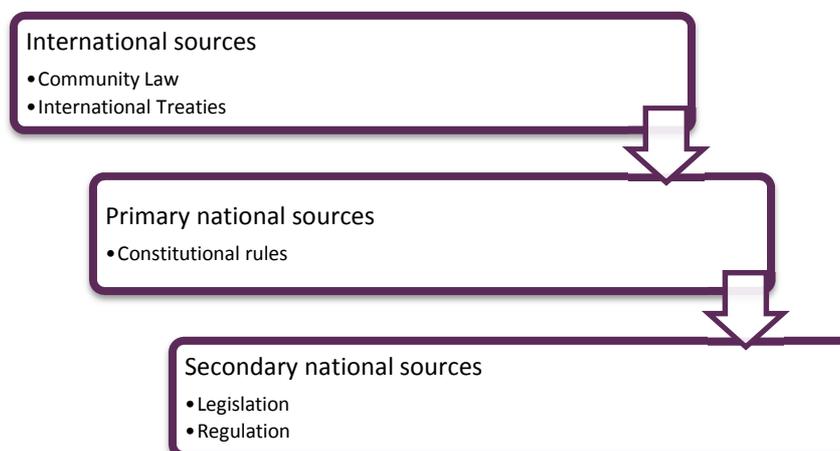
National Protection in Luxembourg originates from the Grand Ducal Decree of 31 December 1959 concerning the general organization of the National Protection³⁰, adopted on the basis of the law of 22 August 1936 authorizing the government to take measures to protect public against the dangers arising from air attacks³¹.

The Grand-Ducal Regulation of 25 October 1963 is currently the statutory basis for the National Protection. 30 years later it seemed that the threat disappeared and the national protection mechanism was put on hold. Following the terrorist attacks of 11 September 2001 in the US, the Permanent Security Committee which was established by Ministerial Decree of 27 January 1975 was reactivated to take protective measures. In the end of 2001 the Office for National Protection has been reactivated. Since 2003 there were several project laws regarding national protection drafted.

It is expected in the near future that a new law regarding national protection is going to be adopted which is currently being assessed by the parliament (Projet de loi (no. 6475) relative à la Protection nationale).

2.1 Crisis (emergency, disaster) management concept

The legal hierarchy in Luxembourg is the following:



There are several main legal acts establishing provisions on crisis management in Luxembourg:

- The Grand-ducal regulation of October, 25th 1963 on the general organization of the national protection (Règlement grand-ducal du 25 octobre 1963 concernant l'organisation générale de la protection nationale);

³⁰ Règlement grand-ducal du 25 octobre 1963 concernant l'organisation générale de la protection nationale.

³¹ Loi du 22 août 1936, autorisant le Gouvernement à prendre les mesures propres à protéger la population contre les dangers résultant d'un conflit armé international et notamment des dangers dus aux attaques aériennes.

- The Law of June, 12th 2004 on the creation of an Administration of the Rescue Services (Loi du 12 juin 2004 portant création d'une Administration des Services de Secours); and

The Draft Law (n.6475) concerning the national protection (Projet de loi (no. 6475) relative à la Protection nationale) is going to set up the whole national protection structure in Luxembourg thus can also be considered as one of the main legal acts regarding crisis management. It is not legally binding yet since it has not been passed law by the parliament.

Following the chronological order, the Grand-ducal regulation of October, 25th 1963 on the general organization of the national protection constitutes the legal basis on which the national protection mechanism is put in place, albeit only in case of military threat. No further typology of crisis is taken into consideration in this act and the regulation itself cannot be considered a detailed conceptual document (it is only built around 12 articles). The main reason for such a narrow scope is that this regulation finds its legal foundation in the Law of 22 August 1936 authorizing the Government to take measures to protect the population against the dangers of an international armed conflict, including hazards due to air attack (Loi du 22 août 1936, autorisant le Gouvernement à prendre les mesures propres à protéger la population contre les dangers résultant d'un conflit armé international et notamment des dangers dus aux attaques aériennes) which back then focused only on military threats.

The second legislative act to be considered is the The Law of June, 12th 2004 on the creation of an Administration of the Rescue Services (Loi du 12 juin 2004 portant création d'une Administration des Services de Secours) that abrogates the Amended Law of 18 November 1976 concerning the organisation of civil protection (Loi modifiée du 18 novembre 1976 portant organisation de la protection civile). It is worth noting that this law is based on a draft law submitted to the parliament in 1937 and considering the creation of a Civil Protection Mechanism.

The aim of the law is to organize the Rescue Service Agency (Administration des Services de Secours, ASS) whose role is to implement those acts necessary to protect and aid the people affected (by the event) and protect their goods in case of calamities, catastrophes, major incidents, fires or floods. More than a conceptual document, this law and its implementing regulations are meant to provide an administrative framework of the activities of the ASS (administrative division, tasks, career paths, roles, etc...). The ASS itself is put in place in order to group under one administrative body the coordination of all the services that would be involved in case of emergency (rescue services, fire brigade and medical support). This law however does not specify the relevant notions of calamities, catastrophes, major incidents.

The only legal document considering and developing the concept of "crisis" is the Draft Law (n. 6475). To date (consultation of LegiLux in the October 2014), the law is under reconsideration by the Commission on Institution and Constitutional Revision (since 12/12/2013) that has received the suggestions from the Council of State in terms of political responsibility of the government's members in the management of the crisis. This document provides clear definitions of a risk, a crisis and crisis management:

“Risk” the danger to which the population or the country might be exposed at due to a threat towards which they are vulnerable and that might produce a negative impact on the population or the country

“Crisis” all event that by its very nature or effect would:

- *Threaten the vital interests or the basic need of all or a part of the country and of the population;*
- *Require urgent decisions*
- *Require a national-level coordination of the different ministries, administrations, services and organisms as well as, if needed, international coordination.*

“Crisis Management” the whole of the measures and activities undertaken by the competent authorities in order for them to ensure the fulfillment of their tasks and missions.

“Critical Infrastructure” every point, system or part of system that is fundamental for the safety of the vital interests or the basic need of a part or the whole of the country or the population and which is a source of risk or it may be the object of a particular threat³².

Furthermore, in the section “Notes to the articles” it is specified that *the activities of crisis management include the achievement of a series of complementary components, including risk analysis, preparation, prevention, monitoring, protection, communication, response, victim support, recovery and feedback. The measures under the crisis management include reduction of threats, vulnerabilities and impacts, increase in the predictability and reduction of the likelihood of a crisis.*

2.2 General crisis (emergency, disaster) management law

According to the Draft Law (n. 6475) the present situation in Luxembourg is the following:

Concerning all the risks that go beyond the routine management, a wide array of the instruments necessary to cope with them is at present lacking, especially in terms of formal coordination among the public and private services meant to prevent or to tackle a possible threat. It is worth pointing out that most of these risks have an international nature and that European mechanisms are being progressively put in place to cope with them, whilst Luxembourg does not have yet an organ formally in charge of the coordination with the crisis centers from other states or international organizations³³.

The current legal national protection mechanism is underlain in the Grand-ducal regulation of October, 25th 1963 on the general organization of the national protection. It establishes that in case of a crisis (only defined here as coming from a military threat), the Government will organize the

³² Projet de loi (no. 6475) relative à la Protection nationale, Chapter 2.

³³ Projet de loi (no. 6475) relative à la Protection nationale.

response by constituting the Ministerial Committee for National Protection (Comité Ministériel de Protection Nationale, CMPN).

This setup was frozen in 1994 when it became clear that the end of the Cold War had implied the end of the major military threat and thus of the usefulness of the CMNP. Nevertheless, after the 9/11 attacks, the Council of Government decided to revert its previous decision. As a result it resumed the national protection mechanism (December 2001³⁴) and unveiled a project to create a crisis management structure based on this setup (which is detailed in the Draft Law (n. 6475) regarding national protection). The organization and the functioning of this structure is detailed below.

As soon as a disaster is happening in Luxembourg, the CMPN starts functioning and its president, the Prime Minister, guides it. The president is assisted in this task by the National Protection Superior Committee (Conseil Supérieur de la Protection Nationale, CSPN), composed of a representative from each of the CMPN members (mostly from each Ministry as well as the Army and other organisation involved in crisis management). The CSPN also coordinates the work of the National Committees (Comités Nationaux, CONAT) that are in charge of specific functional areas.

The president is also assisted by the High Commissioner for National Protection (Haut-Commissaire de la Protection Nationale). The Commissioner assures the secretarial functions of the CSPN and chairs the High-Commissariat for National Protection (Haut-Commissariat de la Protection Nationale, HCPN). The HCPN advises the Prime Minister on:

- The preparation of the necessary national resources,
- The protection of the authorities and of the population,
- The maintaining of the public order, the provision of psychological and informational support,
- The potential financial problems.

This complex structure linking all the organs through their functional/hierarchical relationship is presented in a Figure 4:

³⁴ Mentioned in <http://www.hcpn.public.lu/HCPN/Base-legale/index.html>

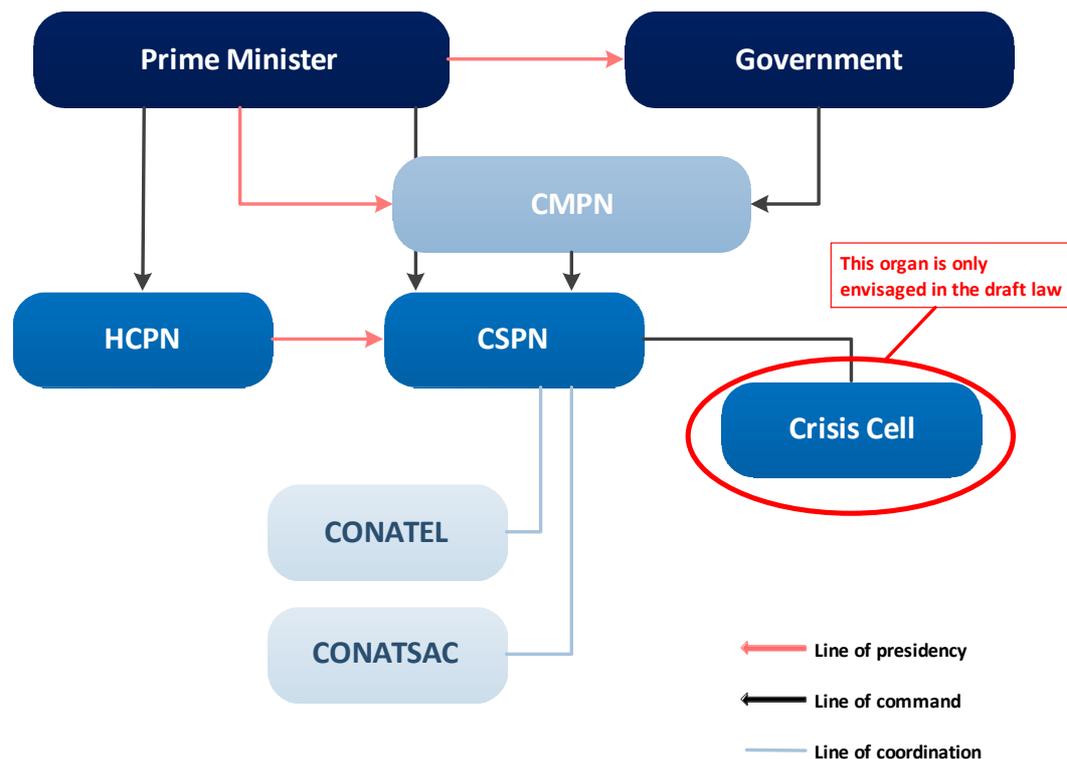


Figure 4: Structure of the crisis management in Luxembourg.³⁵

This current setup is however criticised in the Draft Law (n. 6475) since at present there is no a formal institution bringing altogether the high-level participants of the crisis resolution in case of a disaster or major accident and incident impending. This body should also have a role of developing, coordinating, implementing and monitoring the implementation of measures with the primary goal of acting and responding quickly. This however will be available under the mandate of the Draft Law.

Another legally binding document is the Law of June, 12th 2004 on the creation of the Rescue Service Agency. It covers the organizational void mentioned in the draft law (see above) in case of exceptional situations (described as calamities, catastrophes, major incidents, fires or floods) by granting the Ministry of Interior Affairs the role and the power to coordinate all the services and organisms meant to organize first aid measures (mesures de secourisme). The Law states that the organisms and services performing and leading the operations in case of exceptional situation are the three divisions of the ASS:

- The Division of Civil Protection, acting in case of exceptional events (calamities, catastrophes, major incidents, fires or floods);
- The Division of Fire and Rescue Services; and
- The Administrative, Technical and Medical Division.

The measures that are subject to the ASS intervention are generally defined to be as those acts necessary to protect and aid the people affected and protect their goods in case of calamities,

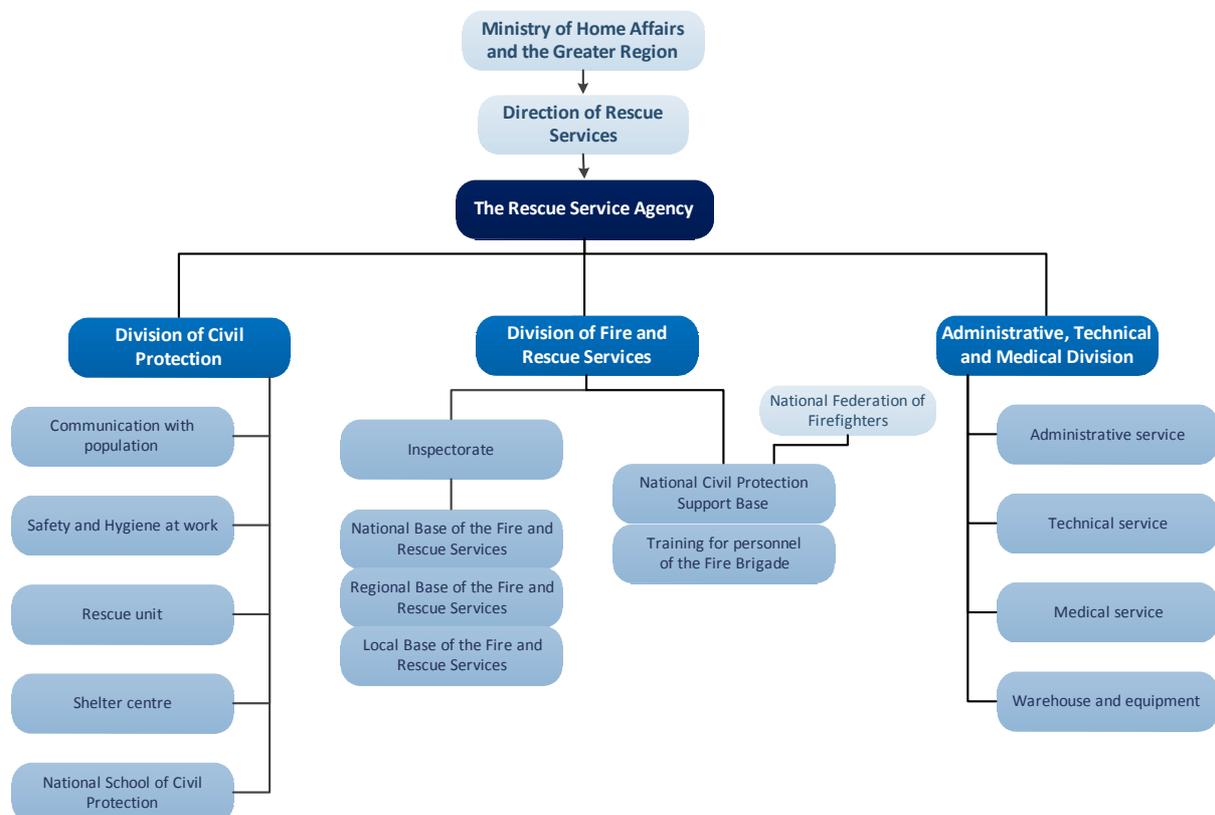
³⁵ Note: draft law on the figure is referred to the Draft Law (n. 6475).

catastrophes, major incidents, fires or floods. They are detailed in the Grand Ducal Regulation of 6 May 2010 determining the specific tasks, composition, organization and functioning of the Division of Civil Protection of the Rescue Service Agency (Règlement grand-ducal du 6 mai 2010 déterminant les missions spécifiques, la composition, l'organisation et le fonctionnement de la division de la protection civile de l'Administration des services de secours). Figure 5 presents the organizational structure of the Rescue Service Agency.

This regulation states that the ASS is responsible for the organization of the first aid, rescue and transport of victims needing medical care. It also sets up or contributes to general and individual intervention plans and organizes public training in first aid. Lastly, in case of crisis it has the duty to safeguard the national heritage and property.

Furthermore, the regulation also states that in case of a crisis an Alert group is activated. The mission of the group is to ensure in times of crisis or war the operation of the warning centers that fall under the authority of the Rescue Service Agency³⁶. The alert group is guided in accordance with the guidelines and instructions laid down by the ASS.

The Rescue Service Agency is also qualified to recruit and train the instructors and volunteers of the assistance units and in the various fields of protection. In addition, it manages the National School of Civil Protection (l'École Nationale de la Protection Civile, ENCP), which instructs volunteers in weekend training courses and the National Civil Protection Support Base (l'École Nationale du Service d'Incendie et de Sauvetage, ENSIS) including training with heavy intervention equipment.



³⁶ Loi du 12 juin 2004 portant création d'une Administration des Services de Secours, Article 11.

Figure 5: Organisational structure of the Rescue Service Agency³⁷.

The Draft Law (n. 6475) regarding the National Protection

The aim of the Draft Law (Projet de loi (no. 6475) relative à la Protection nationale) is to enhance the crisis management mechanism. The draft law further details and extends the structure of the National Protection as it is actually in place. In particular, it establishes a Crisis Unit (Cellule de Crise, CC). The CC will have the responsibility of coordination during a major crisis or a disaster. Besides that, it will prepare the political decisions to be taken by the Government, implement the operational measures and control their execution. From the standpoint of its composition, it will be characterised by a variable geometry, depending on the nature of the attack. Ministries, departments and agencies that provide operational resources will thus be fully involved in the coordination process and execution. To avoid delays and inefficiencies, agencies and administrations will be required to comply with the instructions of the Crisis Unit and will report directly to it. However, they retain the responsibility in the use of their own resources.

The Crisis Unit initiates, coordinates and monitors the implementation of all measures to cope with the crisis and its effects to return to the normal state. Ministries, departments and services involved in the implementation of measures and activities organized as part of the crisis management by the Crisis Unit shall act in accordance with the instructions thereon and report directly to it.

If an operational intervention in the field is required, the mission of the Crisis Unit is also in charge of the coordination and monitoring of implementation. It may as well designate an authority or a service that coordinates the operations on the ground³⁸.

The Draft also establishes that “operating and organizational procedures for the bodies of the National Protection structure can be detailed by a Grand-ducal Regulation” (Projet de loi (no. 6475) relative à la Protection nationale, Article 9). Thus avoiding further detailing in the body of the law and leaving it to implementing regulations that will be defined once the draft is passed into law. At the time that this report was under preparation, the Draft Law has not been passed by the parliament.

2.3 Emergency rule

According to the Law of June, 12th 2004 on the creation of the Rescue Service Agency, Ministry of Interior Affairs can resort to special powers in case of exceptional situations (calamities, catastrophes, major incidents, fires or floods). Article 7 states that Minister of Interior may assign a place of temporary residence for threatened or affected population and even restrain them from traveling or moving in case of an emergency. Recovery of the expences by the State will be executed through the Administration of Registration and Domains (l'administration de l'Enregistrement et des Domaines).

³⁷ Adapted from the website of the Rescue Service Agency (www.112.public.lu).

³⁸ Projet de loi (no. 6475) relative à la Protection nationale, Article 7.

Under the Draft Law (n. 6475) no declaration of Emergency Rule (*Etat d'urgence*) is evocated. The only provisions that are considered are those on the necessary requisitions under the Law of 8 December 1981 on requisitions in armed conflict, serious international crisis or disaster (Loi du 8 décembre 1981 sur les réquisitions en cas de conflit armé, de crise internationale grave ou de catastrophe) by the Title V of the Act of 31 May 1999 establishing a body of grand Ducal police and a general inspection of the police (Titre V de la loi du 31 mai 1999 portant création d'un corps de police grand-ducale et d'une inspection générale de la police) and in Chapter 4 of the Municipality Act amended on 13 December 1988 (Loi communale modifiée du 13 décembre 1988).

The extent to which personal liberties can be limited is detailed in every one of the aforementioned acts in different articles. For instance, Article 8 in the Law of 8 December 1981 on requisitions in armed conflict, serious international crisis or disaster states that any person or entity, whether Luxembourgish or foreigner, residing in the Grand Duchy of Luxembourg, may be required to execute tasks of public interest. The government may as well requisition any business or company active on the territory of the Grand Duchy of Luxembourg.

There are several plans adopted by the government of Luxembourg regarding the emergencies and disasters:

- the “Influenza Pandemic” Plan,
- The Ebola emergency intervention plan,
- Emergency Response Plan in case of a nuclear accident in Cattenom,
- Plan ‘Cyber’.

In any of the plans no reference is made to Emergency Rule in the legislation³⁹. The dispositions concerning potential restrictions on the mobility of the people in the areas concerned are very limited. In case of an accident in a nuclear plant, the authorities may prohibit any outdoor activity. This action is taken as a precaution to protect the population against exposure to or contamination of radioactive releases. The activities of concern are sports and games for children outdoor, hunting, camping, gardening, etc. This also relates to the post-accident phase. Several countermeasures are envisaged in case of a pandemic but none of them is concretely restrictive for the civil liberties.

2.4 Specific, department/agency-level legal arrangements and regulations on emergency and disaster management

In the present organisational setup, the national protection is assured by the Rescue Service Agency, whose legal base is the Law of 12 June 2004 on the creation of an Administration of the Rescue Services (Loi du 12 juin 2004 portant création d'une Administration des Services de Secours). This

³⁹ The legal base is constituted by Règlement grand-ducal du 14 décembre 2000 concernant la protection de la population contre les dangers résultant des rayonnements ionisants and Plan d'intervention d'urgence (PIU) en cas d'accident nucléaire; Règlement grand-ducal du 11 mai 2006 établissant des mesures de lutte contre l'influenza aviaire, Plan gouvernemental - Pandémie grippale; Plan d'intervention d'urgence Cas probables/confirmés EBOLA au niveau national.

document sets up the legal framework enabling the Agency to act in case of exceptional situations (calamities, catastrophes, major incidents, fires or floods).

Also, from the point of view of specificity, the abovementioned Emergency Plans on Nuclear Accidents and Pandemic Flu can be considered under this section (the pandemic flus can be of several sorts, the specific plan was born to counter the H1N1 pandemic but is conceived as an adaptive document).

The legal bases and the plans are respectively⁴⁰:

Radiologic emergency:

- Grand-Ducal Regulation of 14 December 2000 on the protection of the public against the dangers arising from ionizing radiation (Règlement grand-ducal du 14 décembre 2000 concernant la protection de la population contre les dangers résultant des rayonnements ionisants).
- Emergency Response Plan (ERP) in case of nuclear accident (Plan d'intervention d'urgence (PIU) en cas d'accident nucléaire).

Pandemic Flu:

- Grand-Ducal Regulation of 11 May 2006 establishing measures against avian influenza (Règlement grand-ducal du 11 mai 2006 établissant des mesures de lutte contre l'influenza aviaire).
- Government Plan - Influenza Pandemic (Plan gouvernemental - Pandémie grippale).
- Grand-Ducal Regulation of 22 October 2009 concerning the processing centers and vaccination centers under the management of an influenza pandemic (Règlement grand-ducal du 22 octobre 2009 relatif aux centres de traitement et aux centres de vaccination dans le cadre de la gestion d'une pandémie grippale).

Ebola plan:

- Emergency Response Plan to Ebola (Plan d'intervention d'urgence Cas probables / confirmés EBOLA au niveau national, Plan EBOLA).

2.5 Specific to the regional and local authorities legal arrangements and regulations on emergency and disaster management

Under the present organisational structure, out of the three Divisions of the Rescue Service Agency the local authorities are actively involved only in what concerns the Fire and Rescue Services Division. The Coordinated text of the Municipality Act of 13 December 1988 (Texte coordonné de la loi communale du 13 décembre 1988) speaks of local fire and rescue corps (Services communaux d'incendie et de sauvetage) whose management (provision of adequate structures and equipment) is

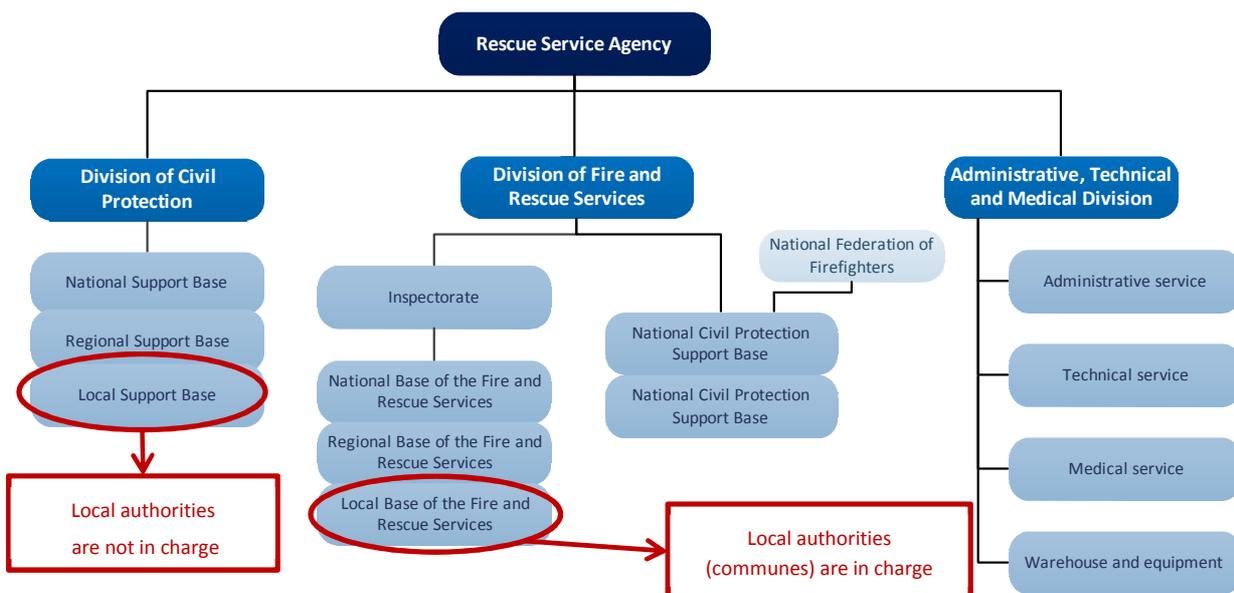
⁴⁰ The information on the Cyber Plan (Plan d'intervention d'urgence en cas d'attaque contre les systèmes d'information ou de faille technique des systèmes d'information, Plan 'Cyber') is presented on the website of HCPN (http://www.hcpn.public.lu/plans_nationaux/Plan-_Cyber_/index.html).

delegated to the local authorities. However, the law establishes that these locally organised bodies must not hamper in any way the national and regional organisation put in place to coordinate them (i.e. it should not overlap with or disturb the work of the ASS). Article 100 states that without prejudice to national and regional structures of civil protection, each municipality is required to create or maintain a fire and rescue department with at least one corps of volunteers and professional firefighters and having the facilities and equipment needed.

Another division of the ASS has operational centres at national, regional and local level. The local level centres are under authority of ASS and not under authority of the local municipalities. There are one national, three regional and 25 local support bases of Division of Civil Protection. This structure is established by the Law of 12 June 2004 on the creation of an Administration of the Rescue Services (Loi du 12 juin 2004 portant création d'une Administration des Services de Secours) and detailed under the Grand Ducal Regulation of 6 May 2010 determining the specific tasks, composition, organization and functioning of the Division of Civil Protection of Rescue Service Agency (Règlement grand-ducal du 6 mai 2010 déterminant les missions spécifiques, la composition, l'organisation et le fonctionnement de la division de la protection civile de l'Administration des services de secours):

The Division of Civil Protection is responsible for the implementation at national level of those measures necessary to protect and rescue the population and safeguard its properties during calamitous events as well as of the application of all those means related to this task. In order to fulfil these tasks, the Division of Civil Protection has a national base, regional bases and rescue centres, whose organization and technical functioning are determined by Grand-Ducal Regulation⁴¹.

Therefore, the local authorities are not entitled with any power in what the management of an emergency situation is concerned. Figure 6 presents the organisational structure specifying the involvement of local authorities. Division of Civil Protection has several units which are details on Figure 5.



⁴¹ Règlement grand-ducal du 6 mai 2010 déterminant les missions spécifiques, la composition, l'organisation et le fonctionnement de la division de la protection civile de l'Administration des services de secours, Article 4.

Figure 6: Organisational structure of the Rescue Service Agency with the distinction of authority levels⁴².

Nevertheless, the Law of 8 December 1981 on requisitions in armed conflict, serious international crisis or disaster (Loi du 8 décembre 1981 sur les réquisitions en cas de conflit armé, de crise internationale grave ou de catastrophe) establishes that, in case of an emergency, local authorities may have some back-up functions. In the event of a disaster, the mayor (Bourgmestre) of any municipality affected or threatened is entitled to exercise provisionally, in case of emergency, the right to requisition, until the persons like government advisers, delegates of district commissioners, members of the government and delegated persons by the Council of Government (conseillers de Gouvernement et aux commissaires de district délégués par le membre du Gouvernement compétent ainsi qu'aux personnes déléguées par le Gouvernement en conseil) can intervene. In any case, the application of the requisition orders made by the government is always put into effect by the mayor (Bourgmestre).

2.6 Legal regulations on the involvement of volunteers and specialised NGOs

The Luxembourgish administration has an official portal providing information on volunteering and NGOs⁴³. It lists all the organisations through which it is possible to volunteer, classifying the volunteering actions by typology. Under the typology “Secours” (rescue), it is possible to find all the opportunities related to rescuing services. Most of them are however under the authority of the ASS.

For what concerns the engagement of volunteers in different divisions of the ASS, the Law of 12 June 2004 on the creation of an Administration of the Rescue Services establishes that the personnel from of the ASS may be backed by volunteers. The Grand Ducal Regulation of 6 May 2010 determining the specific tasks, composition, organization and functioning of the Division of Civil Protection of Rescue Service Agency (Règlement grand-ducal du 6 mai 2010 déterminant les missions spécifiques, la composition, l'organisation et le fonctionnement de la division de la protection civile de l'Administration des services de secours) details the rights and the requirements necessary for the volunteers. These requirements among other things include age limit, the proof of a good physical condition, a certificate of good conduct, a certificate of adhesion to the group and a certificate of having succeeded in the preparatory course. Also, the attendance to all the other courses and seminars is compulsory. Other specific requirements may be asked depending on the division and groups. Besides that, volunteers in the performance of their duties are entitled the insurance against accidents and occupational diseases in accordance with Article 90 (4) of the Code of Social Security.

The Minister is authorized to subscribe an additional insurance to eventually complement the voluntary workers compensation in case of accidents. In case the volunteers are going outside of the territory of Luxembourg (international crises), the law prescribes that the their employers will be reimbursed for the absence.

⁴² Adapted from the website of the Rescue Service Agency (www.112.public.lu).

⁴³ <http://www.benevolat.public.lu/fr/index.html>.

2.7 Legal regulations for international engagements of first responders and crisis managers

Of all the organisations Luxembourg is member of, the following are relevant for this section:

- The European Union
- The NATO
- Benelux

All these organisations are active on Crisis Management and Civil Protection Mechanisms and Luxembourg is represented there by the High Commission for National Protection (Haut-Commissariat à la Protection Nationale, HCPN).

There are two main legislative acts connecting Luxembourg to these organisations:

- COUNCIL DIRECTIVE 2008/114/EC of 8 December 2008 on the identification and designation of European critical infrastructures and the assessment of the need to improve their protection transposed into the national legislation through the Règlement grand-ducal du 12 mars 2012 portant application de la directive 2008/114/CE du Conseil du 8 décembre 2008 concernant le recensement et la désignation des infrastructures critiques européennes ainsi que l'évaluation de la nécessité d'améliorer leur protection.
- The Act of 16 December 2011 approving the Memorandum of Understanding on cooperation in the field of management of crises that may have trans boundary effects between the Kingdom of Belgium, the Kingdom of the Netherlands and the Grand Duchy of Luxembourg, signed in Luxembourg on 1 June 2006 (Loi du 16 décembre 2011 portant approbation du Mémorandum d'accord concernant la coopération dans le domaine de la gestion des crises pouvant avoir des conséquences transfrontalières entre le Royaume de Belgique, le Royaume des Pays-Bas et le Grand-Duché de Luxembourg, signé à Luxembourg, le 1er juin 2006).

Also Luxembourg has signed, in 2013, two Memoranda of understanding as a NATO member, namely the:

- Memorandum of Understanding on cyber defence reached between the HCPN and NATO Cyber Defence Management Board (Mémorandum d'entente en matière de cyberdéfense" conclu entre le HCPN et le NATO Cyber Defence Management Board)
- Memorandum of Understanding on the Facilitation of Cross Border Transport of vital importance (Mémorandum d'entente sur la facilitation des transports civils transfrontières d'importance vitale).

For more information about international cooperation please refer to Chapter 3.2.

3 Organisation

3.1 Organisational chart

The roles and the organisations involved in crisis management system are outlined in the legislation of Luxembourg (see Chapter 2). Currently, it is under discussion and most likely will change as new regulations are envisaged. The organisational chart presented in this report is prepared in October 2014.

The main responsibilities and the main organisations involved in the crisis management are outlined in the respective legislation (For more details please refer to Chapter 2). In this Chapter we briefly describe the lines of command and the organisations responsible for certain field of crisis resolution.

The current structure of the crisis management has been created after the Second World War. The main authority is the Prime Minister. Other players involve High Commission for National Protection, the Ministerial Council for National Protection, the Senior Council for National Protection (CSPN), the Crisis Cell and the National Committees, which are created to address a specific field of national protection. The military in general are not involved actively while representative are present in the national committees and CSPN. The military might help with evacuation, for example, after the decision has been made by CSPN.

Once the crisis starts, the CMPN starts functioning and its chairman (which is the Prime Minister) guides it and is assisted in this task by a National Protection Superior Committee (Conseil Supérieur de la Protection Nationale, CSPN), composed by a member delegated from each of the CMPN members (so from each Ministry). The CSPN also coordinates the work of the 'thematic' national committees, National Committee for Telecommunication (le Comité national des Télécommunications, CONATEL) and National Committee for Civil Aviation Safety (le Comité national de Sûreté de l'Aviation civile, CONATSAC), that are in charge of different functional areas. The composition of the National Committees is presented in Figure 7.



Figure 7: Composition of the National Committees of Luxembourg.

The president (Prime Minister) is also assisted by a High Commissioner for National Protection (Haut-Commissaire de la Protection Nationale) assuring the secretarial functions of CSPN and chairing the High-Commissariat for National Protection (Haut-Commissariat de la Protection Nationale, HCPN), a secretarial body. HCPN also ensures the inter-agency communication (both internal and external). The key players involved line of command and presidency are presented on the Figure 8.

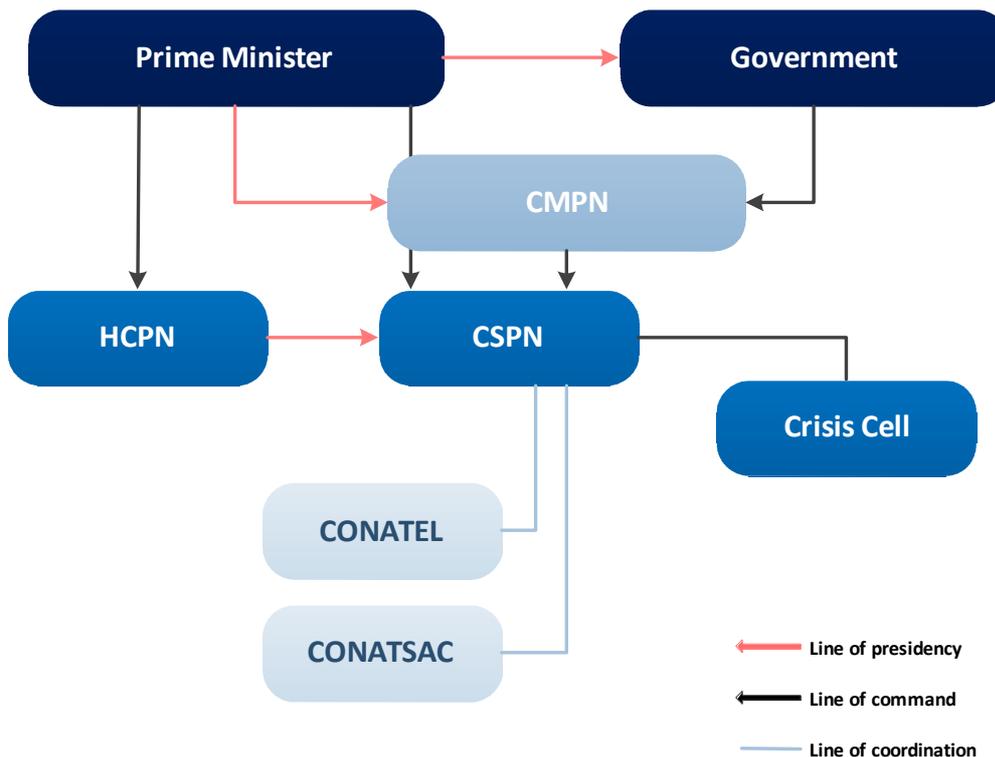


Figure 8: Diagram of national protection structure of Luxembourg.

The Draft Law (Projet de loi (no. 6475) relative à la Protection nationale) is currently still under discussion. It provides further details and extends the structure of the National Protection as it is actually in place. In particular, it establishes a Crisis Cell. In the event of a large disaster potentially affecting the territory of Luxembourg the Prime Minister activates the crisis cell. Members of the cell are alerted through the HCPN. Under the authority of the Government, the crisis cell initiates, coordinates and monitors the implementation of all measures to cope with the crisis and its effects, respectively, promotes the return to normal. It prepares the necessary decisions. The crisis cell is composed of 12 permanent members and 9 topic related members. It is envisaged that the Crisis Cell will be enlarged in the future. The Crisis Cell initiates, coordinates and ensures the implementation of all measures to deal with the crisis Under the authority of government. It also prepares the necessary decisions and submit them to the Government for approval.

The Crisis Cell composition is presented in Figure 9.

The Crisis Cell is chaired
by a member of the government

The Direction of Crisis Cell
is chaired by HCPN

Members of the Crisis Cell:

- | | | |
|--|-----|-----|
| - Cell "Operations" (COP) | COP | CSE |
| - Cell "Communication and Information" (CCI) | CCI | CAL |
| - Cell "Means of communication" (CMC) | CMC | CAJ |
| - Cell "Situation and Evaluation" (CSE) | | |
| - Cell "Administration and Logistics" (CAL) | | |
| - Cell "Legal Support" (CAJ) | | |

Figure 9: Composition of the Crisis Cell of Luxembourg⁴⁴.

⁴⁴ Adapted from the website of the High Commission for National Protection (http://www.hcpn.public.lu/Protection-nationale/Concept_organisation-et-fonctionnement/Cellule-de-crise/index.html).

In case of a nuclear emergency, the Department of Radiological Protection of the Ministry of Health (this ministry has the executive competence in the field of radiological safety and radiation protection) is also involved in the crisis management. The Department of Radiological Protection exists since its' establishment by the law of 21 November 1980 concerning the organization of the Directorate of Health. The organizational structure is presented in Figure 10.

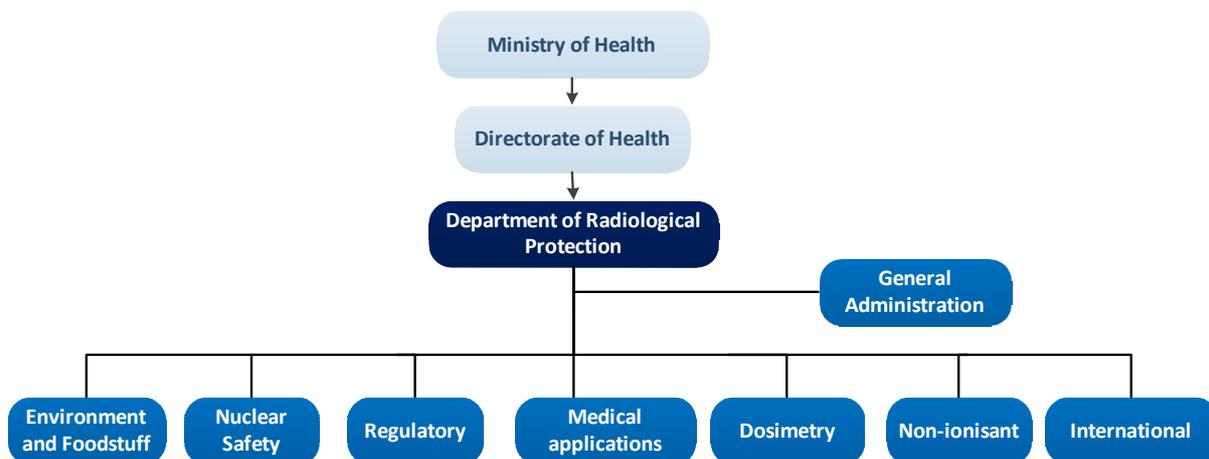


Figure 10: Organisational structure of the Department of Radiological Protection⁴⁵.

The Rescue Service Agency (ASS) takes the operational lead and reports to the Minister of Home Affairs and the Great Region. The agency operates the national emergency phone number (112). Currently, the fire brigades are in hands of the municipalities. In case of a large crisis or disaster the ASS is taking over the operational leadership of them. It is envisaged that the new crisis management legislation will incorporate both local fire brigades and the ASS under one governing body. At the moment the organizational structure of the ASS is presented below in Figure 11.

The ASS also recruits and trains instructors and volunteers in various fields of protection (for more details please refer to Chapter 5.3). There is an agency that has the mission to promote initiatives in the field of volunteerism, including the establishment and management of the agency in charge of the volunteers (the Agency for Voluntary Services). NGOs and agencies are partners of this agency like Luxembourg Red Cross and National Federation of Firefighters.

⁴⁵ Adapted from Department of Radiation Protection (2014), National Report on the measures taken by Luxembourg to fulfill the obligations laid down in the "CONVENTION ON NUCLEAR SAFETY" to the Sixth review meeting of the contracting parties in 2014, on behalf of the Government of Luxembourg.

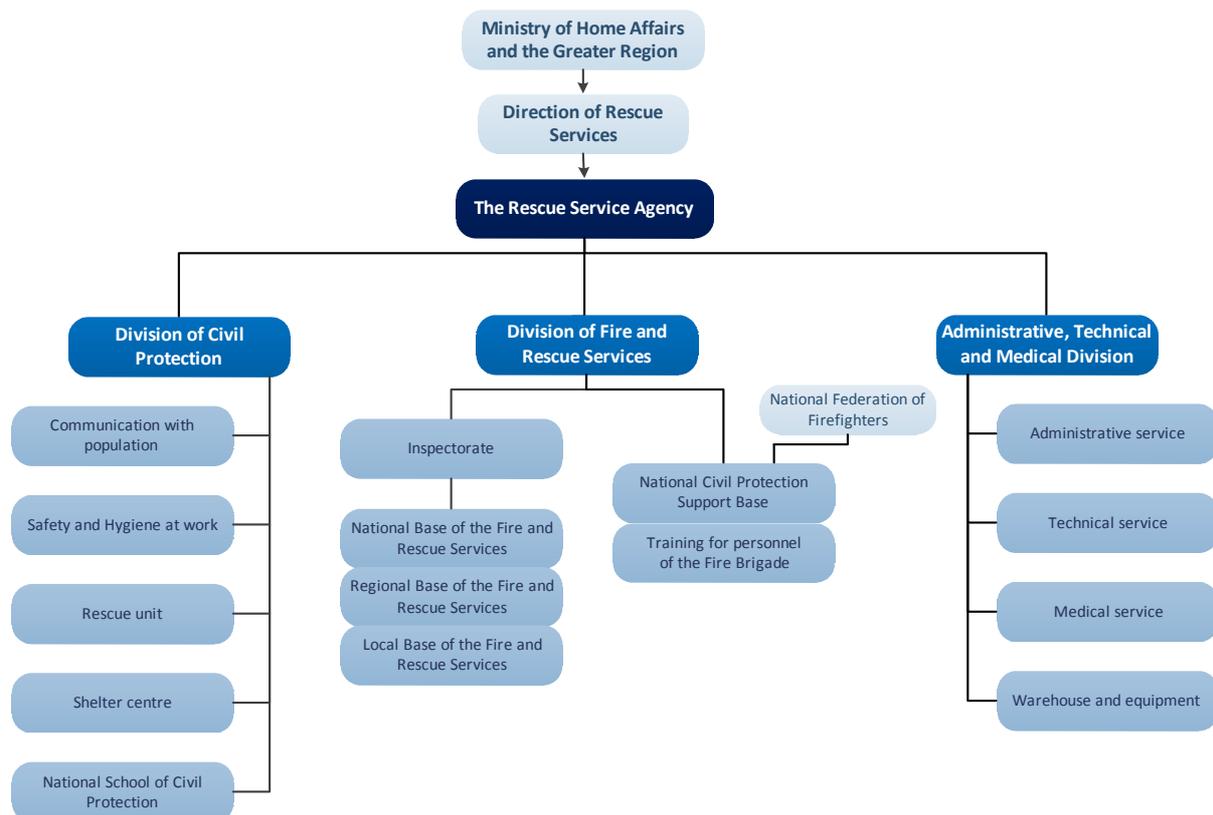


Figure 11: Organisational structure of the Rescue Service Agency⁴⁶.

3.2 Organisational cooperation

In terms of the legal provision, the cooperation with other Member States of the European Union is regulated by several treaties and agreements. Cross-border assistance to and from Belgium, the Netherlands is facilitated by the means of bilateral agreements. These agreements are based on the Madrid Convention of 1980 offering the regional and local authorities a basis to cooperate with regard to the disaster response. Cross-border cooperation in the Benelux has a legal base in the Benelux Convention on cross-border and inter-territorial cooperation of 1991. The Senningen Memorandum concerning cooperation in the fields of police, justice and immigration was signed June 4th, 1996 in Luxembourg (Senningen) and in 2004 was relaunched with a wider scope extending it to security, antidrug policies and trans-border cooperation regarding catastrophes and accidents. Another treaty was concluded between Belgium, Germany, Spain, France, Luxembourg, the Netherlands and Austria in 2005 regarding intensifying border crossing collaboration, in particular to fight terrorism, border crossing criminality and illegal migration. There is also an international agreement, Memorandum of Understanding on cooperation in the field of crisis management that may have transboundary effects between Belgium, the Netherlands and Luxembourg, signed in Luxembourg on 1 June 2006⁴⁷.

⁴⁶ Adapted from the website of the Rescue Service Agency (www.112.public.lu).

⁴⁷ Loi du 16 décembre 2011 portant approbation du Mémorandum d'accord concernant la coopération dans le domaine de la gestion des crises pouvant avoir des conséquences transfrontalières entre le Royaume de

The High Commission for National Protection (HCPN) acts as a national representative of Luxembourg in the international fora (European Union, NATO and other international organisations that deal with crisis management and civil protection) in terms of coordination. It is also responsible for establishment and maintenance of the contact with the similar organisations in other countries.

HCPN participates in various working groups as it is also a national contact point in the field of the protection of critical infrastructure. This includes among other things being a contact point for European Programme for Critical Infrastructure Protection driven the European Commission⁴⁸. Thus HCPN contributes to the implementation and formulation of strategies.

The Rescue Service Agency has an intervention group for humanitarian missions that are conducted outside the territory of Luxembourg. This group might be involved in resolution of large crises and disasters at a request of the country or countries concerned or as part of the international assistance.

In case of an international crisis, it is possible that firstly the national contact points are informed about the crisis. It could be a contact point that the Rescue Service Agency is in charge of. The national contact point informs the organisation in charge which in turn informs the Prime Minister. The Prime Minister then decides to formulate the Crisis Cell. Then the mechanism described in previous chapters starts functioning.

In case of a simultaneous occurrence of disasters and emergencies, the Crisis Cell will decide on the priorities and main responsibilities to handle crises. There are no prescribed instructions in case of such events thus the decision is taken case-by-case.

Belgique, le Royaume des Pays-Bas et le Grand-Duché de Luxembourg, signé à Luxembourg, le 1er juin 2006. Available at www.legilux.public.lu/leg/a/archives/2011/0263/a263.pdf.

⁴⁸ Directive 2008/114 / EC of 8 December 2008 on the identification and designation of European Critical Infrastructure and the assessment of the need to improve their protection.

4 Procedures

4.1 Standing Operating Procedures (SOPs) and Guidelines

Currently there are no formal standing operation procedures for civil protection. At present the legislative set up of the crisis management system is under revision and new laws are envisaged to come into force, therefore it is possible that the SOPs and guidelines will be established as well. Departments and agencies responsible for certain area of disasters also participate in national and international exercises, which then return in application of certain practices in the field. With regard to the nuclear safety for example Luxembourg has established mechanisms with the neighbouring countries that allow the exchange of information on a regular routine basis. Also the adopted plans (for more details please refer to Chapter 1.2.5 and Chapter 2) and the respective legislation have detailed instructions for the organisations involved in crisis management.

4.2 Operations planning

The policy of Luxembourg with regard the crisis management is mainly case-by-case based, therefore the plans are being formulated when a disaster is identified. Nevertheless, there are several plans already adopted by the Government of Luxembourg. At the moment this report was under preparation, there were four plans elaborated and communicated to the population: the “Influenza Pandemic” Plan, the Ebola emergency intervention plan, Emergency Response Plan in case of a nuclear accident in Cattenom, Plan ‘Cyber’. Below briefly we present the description of those plans.

The “Influenza Pandemic” Plan⁴⁹

This plan was adopted by the Governing Council of 21 July 2006⁵⁰, which serves as a basis for the preparation and management conduct of an influenza pandemic. The government plan describes more specifically the government's response to the risk of pandemic influenza, including avian influenza in animals and humans.

The plan contains a catalogue of 187 measures applicable before, during and after an influenza pandemic. These measures reflect the six phases set by the World Health Organization (WHO) as part of the evolution of a pandemic. They cover the whole of the organization and functioning of the company in the socio-economic health plan, social, transport, security, international relations, etc.

The Ebola emergency intervention plan

⁴⁹ Adapted from <http://www.infocrise.public.lu/fr/grippe-pandemie/index.html>

⁵⁰ Legislation is available here <http://www.gouvernement.lu/708654/21conseil>.

Published by the Government of Luxembourg in October 2014⁵¹, this plan aims to set up the structure for the response to an eventual Ebola epidemic in Luxembourg. It has been elaborated by the HCPN and determines the bodies in charge of managing the crisis, the different possible scenarios, the emergency measures to be taken and the procedures to be followed.

In case the plan is started, the Crisis Cell (Cellule de Crise) is activated by the Prime Minister and starts monitoring the different actions in response to the crisis. The CC is composed by members from the ministries of health, of foreign affairs, of home affairs and of infrastructures backed by representatives from the Army, the Police, the ASS and the Administration of Duties and Excises.

The plan identifies four main scenarios entailing a likely/confirmed case of Ebola:

- a. landing in Luxembourg,
- b. detected in Luxembourg (elsewhere than the airport),
- c. who is a Luxembourgish national/resident that must be brought back to Luxembourg,
- d. detected on a Luxembourgish ship.

In all of the abovementioned situations, the structure in charge of the hospitalisation is the CHL (Centre Hospitalier de Luxembourg) or, in the hospitals of Dusseldorf, Strasburg and Nancy.

The published plan does not detail all the measures and the schedules prepared for the abovementioned scenarios.

Emergency Response Plan in case of a nuclear accident in Cattenom⁵²

The new Emergency Response Plan (ERP) in case of nuclear accident or incident has been adopted and made enforceable by the Governing Council in October 2014.

The ERP includes four key measures of prevention and protection of the population: the sheltering, the absorption of potassium iodide tablets, evacuation and food restrictions. It also distinguishes different phases of the accident, the emergency phase and the post-accident phase which are based on International Nuclear Events Scale (INES). To facilitate the implementation of the plan the country is divided into two areas. The first area is within a radius of 15 km from Cattenom – people living in this area are going to be evacuated in case of an accident in Cattenom. Most of the measures concern this area and if necessary it is extended further to 25 km. In case the accident is rather severe, the rest of the country is also alerted and measures are taking place for the whole country. In case of an incident, a Crisis Cell (Cellule de Crise) will be activated at the national level by the Prime Minister or his delegate. A Cell of radiological assessment (Cellule d'évaluation radiologique) can be activated as well and it will be composed of experts from the Radiation Protection Division of the Department of Health and members of the Rescue Services Agency (ASS).

Plan 'Cyber'⁵³

⁵¹ Adapted from: "Plan d'intervention d'urgence - Cas probables / confirmés EBOLA au niveau national ("Plan EBOLA")".

⁵² 'Plan d'intervention d'urgence (PIU) en cas d'accident nucléaire'.

⁵³ The information was assessed from: http://www.hcpn.public.lu/plans_nationaux/Plan-_Cyber_/index.html.

In case of an information attack or technical fault systems of information systems the 'Cyber' plan is adopted since March 2014. This plan has been updated as part of the implementation of the national strategy on cyber security. It defines the action of the government in the event of large-scale attack against information systems in the public and / or private sector, that may cause a major malfunction or unavailability of these systems, which threatens the interests vital or essential needs of all or part of the country or the population of Luxembourg. Routine incidents are managed by the CERT (Computer Emergency Response Team).

4.3 Logistics support in crises

During the crisis the Rescue Service Agency provides the transportation (mainly ambulances and fire brigades if the crisis is rather large). Usually military and private logistics providers are not involved in crisis resolution. The decision of their involvement is made by the Supreme Council for National Protection. Article 8 in the Law of 8 December 1981 on requisitions in armed conflict, serious international crisis or disaster states that any person or entity, whether Luxembourgish or foreigner, residing in the Grand Duchy of Luxembourg, may be required to execute tasks of public interest. Therefore it is possible that the private logistics providers will have to be involved in crisis resolution.

4.4 Crisis communication to general public; Alert system; Public Information and Warnings

As soon as a crisis is identified and the relevant organisation come in force, the information is also transferred to the public. Depending of the disaster and crisis, the information is delivered by the competent ministry or agency involved in the response to crisis. For example, if the crisis concerns the health policy, the Ministry of Health will take the lead in informing the public. Generally, the Information and Press Agency (Service Information et Presse du gouvernement luxembourgeois, SIP) of the Ministry of State (Présidence du Gouvernement, Ministère d'État) is generally coordinating the information contents and the information flow.

While the external communication is lies with the Information and Press Agency, the inter-agency and inter-ministry communication is ensured by the High Commissioner for National Protection. For all the parties that are involved in crisis management in Luxembourg, the exchange of the information is also happening using the Log files which are transferred to the Crisis Cell. This way it is ensured that the flow of information is continuous keeping the involved parties updated with all the decisions made as well as the bodies that made it.

The information to the public is transferred through the official government website dedicated to crisis communication, www.infocrise.lu, which came to live in October 2014. The main rationale to create such a website was to increase the awareness of the action and conduct to adopt as well as of the protective measures taken by the authorities thus making the crisis easier to manage. This website



provides the most up-to-date information on the status of the crisis as well as the brochures that inform and prepare the population for a certain disaster. All government emergency plans available, the information related to national authorities with emergency situations (at the moment this report was under prepared there were emergency response in case of a nuclear accident or incident, pandemics and Ebola presented on the website) are also available on this site.

5 Capabilities

5.1 Human resources

The Department of Radiological Protection which is under authority of the Ministry of Health is composed of 14 people. Following the nuclear accident in Fukushima, the department has increased the number of staff. HCPN is comprised of 11 employees⁵⁴.

The Rescue Service Agency consists of 94 permanent employees. The Agency is also responsible for training volunteers. In 2013 the pool of volunteers consisted of 8.184 people where some of the people have several functions. The number of volunteers differs per division/department of the ASS.

According to information provided by the National Federation of Firefighters (la Fédération Nationale des Corps de Sapeurs-Pompiers, FNSP), the fire department was comprised of 8.123 volunteers spread across 148 municipal bodies in 2013⁵⁵.

With regard to other organisations, there is no permanent disaster management staff available. Since some organisations are formed when a crisis occurs, people that also get involved in those organisations do have other tasks as well, which they carry out in time of no crisis or disaster. For some of the actors involved the tasks they carry out during a crisis are similar to their regular work like firefighters.

5.2 Materiel (non-financial) resources

Since most of the organisations that are involved in crisis management have also other responsibilities or are involved in resolution of local crises, their equipment is not only used in case of large disasters, but also during the daily execution of their tasks. Thus the fire brigade has in its position the fire trucks and ambulance services have ambulance cars, stretchers and medicines. The Rescue Service Agency also has medicines necessary to be protected from nuclear release. According to the expert interviews, it is expected that there is going to be a national crisis centre build which will be specifically dedicated to the crisis management.

In general, military is not involved in the crisis resolution (due to the fact that the number of disasters and crises in Luxembourg is rather limited), they might be involved. The CSPN decides upon this. Therefore it is possible that military assets might be involved in crisis resolution.

⁵⁴ This information is obtained via the expert interviews. According to them, the staff of the HCPN will be enlarged in the near future.

⁵⁵ Ministère de l'Intérieur (2013), Rapport d'activité 2013.

5.3 Training

In Luxembourg trainings are organised for volunteers, for trainers and for the staff involved in the crisis management. Besides this nationally available exercises, Luxembourg largely participates in the international exercises as well.

Trainings

There are two schools in Luxembourg that provide trainings for volunteers which are managed by the Rescue Service Agency: the National School of Civil Protection (l'Ecole Nationale de la Protection Civile, ENPC) and the National Civil Protection Support Base (l'Ecole Nationale du Service d'Incendie et de Sauvetage, ENSIS). The latter provides trainings for firefighters which is located in Niederfeulen. These training are given by foreign specialists as well. The National School of Civil Protection (l'Ecole Nationale de la Protection Civile, ENPC) exists since 1962 and provides courses in various centres across the country. There are courses that focus on basis skills essential for effective emergency services and courses with heavy equipment (that is available in relief centres and vehicles). The courses cover all the areas of civil protection (first aid, rescue services, nuclear, biological and chemical incidents and accidents). Trainings of paramedics are also held at ENPC.

The ASS also trains the trainers that themselves are able to give trainings to businesses and volunteers also at ENPC and ENSIS. The trainings are also offered to the workers of the relief centres.

Exercises: national and international

Given the fact the Luxembourg is not exposed to many risks and the number of disaster in the past years was rather limited, Luxembourg focuses its efforts on participating in international exercises. *'Such simulations of emergency situations have the advantage to face a higher degree of complexity and are thus more realistic'*⁵⁶. The international exercises are also used in practice afterwards and allow a mutual learning effect at all levels of participation.

With regard to nuclear incidents and accidents, the Rescue Service Agency together with the Department of Radiological Protection regularly organises national exercises or they participate in international exercises. For the past twenty years, they have organised twice per year small-scale national exercises in order to train the specialized intervention teams⁵⁷. Focused on a nuclear emergency at the Cattenom nuclear plant, the exercises are organized every three years between Germany (two German federal States: Sarreland and Rhineland-Palatinate), Luxembourg and France.

⁵⁶ Department of Radiation Protection (2014), National Report on the measures taken by Luxembourg to fulfill the obligations laid down in the "CONVENTION ON NUCLEAR SAFETY" to the Sixth review meeting of the contracting parties in 2014, on behalf of the Government of Luxembourg.

⁵⁷ Department of Radiation Protection (2014), National Report on the measures taken by Luxembourg to fulfill the obligations laid down in the "CONVENTION ON NUCLEAR SAFETY" to the Sixth review meeting of the contracting parties in 2014, on behalf of the Government of Luxembourg.

Luxembourg has participated in INEX exercises, organized by the NEA of the OECD, CONVEX exercises launched by the AIEA, as well as in JINEX 1.

The staff of the Rescue Service Agency regularly participates in international exercises. For example, in 2013 they partook in TRIPLEX 2013, OPEX Bravo, SIMEX “Count Down”, ARF DIREX 2013, Cold Conditions Exercise. BelModex (Modex1), Exercise OSOCC/RDC.

5.4 Procurement

5.4.1 Procurement regulation

European regulations

The procurement of public contracts needs to be in line with the principles of European treaties and especially with the free movement of goods services, capital and people. Furthermore the procurement needs to comply with the principles of equality, proportionality etc. For some types of procurement additional regulations are codified in directives. Within the European legislation, three different procurement directives apply. These directives are mutually exclusive meaning only one of the directives apply to the public procurement. Directive 2014/25/EU (on procurement of utilities) and Directive 2009/81/EC (on procurement in the defence and security industry) are topic specific. If these specific directives do not apply, Public Sector Directive 2014/24/EU is applicable, which is the replacement of Directive 2004/18/EC. The aim of the new Directive is to simplify the rules on public procurement; improve the participation of SMEs and stimulate cross border joint procurement.

Stimulation of cross border joint procurement is helpful in case of a major internal crisis or a cross border crisis. The Directive states in the preamble that contracting authorities should be able to choose to jointly provide their public services in cooperation with other authorities, without being obliged to use any legal form. These services don't have to be identical. The cooperation does not require all participating authorities to fulfil the obligations of the contract, as long as there is a commitment to contribute to the cooperative performance. The preamble points out that there are difficulties in cross border joint procurement. Therefore new rules have to be made. In these rules, the conditions for cross border procurement have to be clarified, as well as the applicable regulations. In addition, contracting authorities should be able to set up joint entities established under national or EU law. The new rules are specified in article 39 of the regulations.

If the procurement is executed by a centralised purchasing body located in another MS, the procurement shall be conducted in accordance with the national regulations of the MS where the purchasing body is located. In addition, several contracting authorities from different MS may jointly award a public contract, conclude a framework agreement or operate a dynamic purchasing system. Participating contracting authorities will then conclude an agreement that determines all responsibilities of the parties and the internal organisation of the procedure. As said before, the contracting authorities can set up a joint entity. The parties shall decide on the applicable rules on procurement. They can choose the rules of the MS where the entity has its registered office or where the entity carries out its activities.

This project evolves around the procurement related to crisis management, for example the procurement of ambulances, emergency packs or trainings. The Utilities Directive applies to gas and heat, electricity, water, transport services, ports and airports and postal services (article 8-13). The Directive on defence and security applies to supply of military equipment and sensitive supplies. The majority of procurement in crisis management will be procured by normal NCCs and local authorities like the fire department or police and will not be secret. So in most cases the Public Sector Directive (2014/24/EU) is applicable. This chapter will therefore focus on this directive. Other directives can also be applicable, for example if the army is used to solve a major crisis. The directive is addressed to Member States and has no direct effect on the national regulations. The directive needs to be implemented first.

Scope of the Public Sector Directive

The Public sector directive applies to procurement by contracting authorities with respect to public contracts as well as design contests whose value is estimated to be not less than (article 4):

- € 5.186.000 for public works contracts;
- € 134.000 for public supply and service contracts and design contests, awarded by central government;
- € 207.000 for public supply and service contracts or design contests awarded by sub-central contracting authorities.
- € 750.000 for public service contracts for social and other specific services listed in Annex XIV.

This directive should not apply to certain emergency services where they are performed by non-profit organisations or associations, since the particular nature of those organisations would be difficult to preserve if the service providers had to be chosen in accordance with the procedures of the directive. Furthermore the directive does not apply to public contracts with the purpose of providing public communication networks or electronic communication services; public contracts organised pursuant to international rules; several types of service contracts, e.g. rental, legal services and employment contracts and service contracts based on exclusive rights; and last, public contracts between entities within the public sector (articles 8-12).

Award procedures

On a European level, procurement is executed by the European Commission. The public sector directive contains several award procedures:

- open procedure,
- restricted procedure,
- competitive procedure with negotiation,
- competitive dialogue,
- negotiated procedure without prior publication.

The *open procedure* applies when no other procedure is chosen. In the open procedure, the contracting authority submits a call for tenders. Interested companies may submit a tender. The best offer is chosen, based on the selected award criteria (article 27).

The *restricted procedure* consist of two phases. In the first phase a call for expression of interests is set out. Interest candidates may submit an invitation to tender. The contracting authority will then invite the most suitable candidates to submit a tender. The contracting authority will award the contract to the best tender, based on the selected award criteria (article 28).

In the *competitive procedure* with negotiation any interested candidate may submit a request to participate in the negotiations, in response to a call for competition. In this call for competition, the contracting authority has provided a description of their needs and the characteristics of the works or services to be procured. Only the interested candidates that are invited may submit an initial tender, which will be the basis of the negotiations (article 29). In several cases the negotiation procedure can be used without prior publication, for example when the public contract contains a creative achievement; when there is no competition; when intellectual property rights need to be protected, or when there are reasons for extreme urgency (article 32).

In the *competitive dialogue* any interested candidate can submit a request to participate in response to a contract notice given by the contracting authority. The contract notice provides the information on and the needs and requirements of the contracting authority, as well as the chosen award criteria. The selected interested candidates will join the competitive dialogue, in which the means best suited for satisfying the contract will be defined (article 30).

A new procedure within this directive is the *innovation partnership*. In this procedure, any economic operator may submit a request to participate in response to a contract notice, by providing information for qualitative selection that is requested by the contracting authority. The innovation partnership can be set up with one partner or several partners. Only the economic operators invited by the contracting authority participate in the procedure. After each phase, the contracting authority may decide after each phase to terminate the partnership or reduce the number of partners within the partnership, based on the targets.

According to article 26, the open procedure and restricted procedure are the standard procedures to apply in case of procurement. The other procedures can be used in a limited number of situations, for example when the service is innovative, or when the technical specifications can't be determined (art. 26, sub 4.).

Contracting authorities can use framework agreements, provided that they apply the procedures in this directive. The agreement can not exceed four years. Contracts within the agreement will be awarded according to the rules in article 33.

In most procedures the candidates are chosen with the use of selection criteria. The selection criteria may relate to suitability to pursue the professional activity; economic and financial standing and technical and professional ability. All criteria need to be related and proportionate to the matter of the contract (article 58).

National regulations

Luxembourg still has to implement the public sector directive 2014/24/EU abrogating directive 2004/18/CE. In the Report on the transposition of European Directives and Application of EU Law 16 May 2014 (Rapport sur la Transposition des Directives Europeennes et L'application du Droit de l'Union), the Ministry of Sustainable Development and Infrastructure (Ministère du Développement durable et des Infrastructures (Travaux publics) warns that the transposition of this directive in the national law will engender deep changes in the present legislative framework due to extensive modification in or abrogation of the present law on Public Procurement, the Act of 25 June 2009 on public procurement (Loi du 25 juin 2009 sur les marchés publics). The Ministry also states that the process of transposition will need to take into account all the considerations made by the entities concerned (other ministries as well as the professional organisations (Chambres Professionnelles)).

5.4.1.1 Scope

Therefore, for the time being, the regulatory framework for the procurement procedures in the public sector is the Act of 25 June 2009 on public procurement. This law is structured in three parts (Livres), the last two of which are the transposition in the national law of the previous European directives on procurement (2004/18/CE and 2004/17/CE respectively).

The first part (Livre I) addresses the national specificities in terms of procurement. It starts by stating that “without prejudice to specific provisions of sections II and III , the provisions of this section apply to all contracts awarded by public contracting authorities”, so that at present the provisions do not fully comply with the present European legal framework.

The scope of the national legislation is defined as all those contracts awarded by public contracting authorities that are not reaching the thresholds for the amounts to be contracted that are specified by the European directives⁵⁸.

The law is applied under the specifications of the Grand Ducal Regulation of 3 August 2009 implementing the Law of 25 June 2009 on public procurement and amending the threshold provided for in Article 106 point 10 of the amended municipal law of 13 December 1988 (Règlement grand-ducal du 3 août 2009 portant exécution de la loi du 25 juin 2009 sur les marchés publics et portant modification du seuil prévu à l'article 106 point 10° de la loi communale modifiée du 13 décembre 1988).

5.4.2 Procurement procedures

The law

Before describing the typologies of procurement procedure, art. 4 states that the contracting authorities (*pouvoirs adjudicateurs*) shall apply the principles of equality, non discrimination and transparency. Also, they shall take into consideration the environmental and sustainability issues that

⁵⁸ Retrieved from the Portail des marchés publics du Luxembourg (<http://www.marches.public.lu/fr/principes-generaux/structuration/index.html>).

may arise, in line with what is stated in each contract specification (cahier des charges). Finally, in case of electronic procedure, further and specific modalities are explained in the a regulation.

As for the possible procedures, the law lists three typologies, the “open procedure”, the “restricted procedure” (with or without a tender notice) and the “negotiated procedure”, the first one being the norm and the others the exception.

The exceptions are determined by thresholds concerning the contracted amounts, the nature of the works or services to be contracted and of the contracted authority, as under art. 7-8.

For what Crisis Management is concerned, albeit there is no direct mention of it, under art.8 the negotiated procedure is made possible when the contracting authority is the Army, the Police, the Customs and Excise Administration or the Rescue Services (the terms used are the vague “services de secours”), in case of requirements for the standardization of the equipment and intervention material or of personal belongings necessary for the safety and protection of the members of the intervention unit.

The regulation

The regulation applies to all the Public Procurement Procedures and the contracting authorities listed in Section I of the Act of 25 June 2009 on public procurement. This regulation abides by the principles stated in the European directives 2004/18/EC and 2004/17/EC, thus it will have to be modified or abrogated according to the transposition and implementation procedure

5.4.2.1 Selection criteria

The law

Art. 11 of the Act of 25 June 2009 on public procurement lists the selection criteria to be used in case of Public Procurement Procedure. Those can be either the principle of the most economically advantageous regular offer or the regular offer at the lesser price, where a regular offer is every offer that after evaluation is deemed formally and technically compliant and that fulfils all of the qualitative selection criteria that may be listed in the terms of reference (cahiers spéciaux des charges – see below).

The article also lists the requirements that are to be used to evaluate if a proposal is or not economically advantageous. The contracting authority may decide to use one or more of the listed criteria.

Art. 18 lists the only exception to the aforementioned selection criteria in case of Public Procurement carried out by municipalities or analogous authorities. In detail, “notwithstanding the provisions of Article 11, the Board of Mayor and Aldermen or the body entitled to engage for the public institution placed under the supervision of the municipality may, where the total amount excluding the VAT does not exceed 20.000 euros (...) award the contract to a competitor residing in the municipality, provided that the price offered by the local competitor does not exceed by more than five percent the one of the economically most advantageous regular offer or that of regular offer at the lesser price”.

The regulation

As for the specifications, these are stemming from the regulation Grand Ducal Regulation of 24 March 2014 on the establishment of special sections of standardized charges for public procurement and the amendment of Article 103 of the Grand Ducal Regulation of 3 August 2009 implementing the Law of 25 June 2009 on the public markets (Règlement grand-ducal du 24 mars 2014 portant institution de cahiers spéciaux des charges standardisés en matière de marchés publics et portant modification de l'article 103 du règlement grand-ducal du 3 août 2009 portant exécution de la loi du 25 juin 2009 sur les marchés publics) that details the requirements to insert in all the terms of reference for the different possible procurement objects.

5.5 Niche capabilities

The niche capabilities are those in which a Member States or an associated country specialises and it is ready to provide them to other countries in case of a crisis or a disaster, while other countries recognise their quality and are or may be willing to use them. With regard to that, in the beginning of 2014 the revised legislation on the Civil Protection Mechanism of the European Union has come into force⁵⁹. As a result a European Emergency Response Capacity (EERC) has been set up, moving from the previous ad hoc arrangement to a more predictable and reliable system that allows for better planning and coordination. It takes the form of a voluntary pool of pre-committed response assets from the Member States. Therefore the European Union is aware of the niche capabilities of the Member States and can make use of those capacities as well as experts that are available for immediate deployment. This capacity will be covered with regard to “costs of obligatory training courses, exercises and workshops necessary for the certification of Member States' response capacities for the purposes of the EERC ("certification costs"). The certification costs may consist of unit costs or lump sums determined per type of capacity, covering up to 100 % of the eligible costs⁶⁰. Among the niche capabilities, the government of Luxembourg has mentioned in the voluntary pool Technical Assistance Support Team (together with International Humanitarian Partnership), Search and Rescue team's, water purification unit and wild water rescue unit and MEDEVAC (transport ambulances and repatriation by air).

MEDEVAC unit of Luxembourg has been in the European Civil Protection Mechanism since 2012. From December the MEDEVAC unit will ensure the repatriation of patients and stakeholders involved in aid missions in countries affected by Ebola. Before MEDEVAC can be deployed the Luxembourg Air Rescue (LAR) will perform risk analysis. Thus the decision is taken on case-by-case basis.

The MEDEVAC module will be available as long as the Grand Duchy of Luxembourg may reserve the right to refuse an assignment in specific cases and after consultation with the European Commission:

- If a national emergency when the Luxembourg should repatriate a person, resident or border infected by Ebola, a collaborator of NGOs under contract with the Department of Cooperation and Humanitarian Action;
- in cases of force majeure such as technical problems of the plane, unstable weather conditions, etc.;

⁵⁹ The decision has been taken in the end of 2013 regarding the new Civil Protection Mechanism in the EU (Decision of the European Parliament and of the Council, 9 December 2013, PE-CONS 97/13).

⁶⁰ Decision of the European Parliament and of the Council, 9 December 2013, PE-CONS 97/13, p.54.

- in case of any serious situation, especially when the risk analysis on a case by case basis by the LAR would prove detrimental to an evacuation⁶¹.

On 27 November 2014 Luxembourg also held a large-scale exercise for all the stakeholders that will intervene in case of an Ebola alert. The exercise was lead by the High Commission for National Protection, the Rescue Service Agency, the Health Directorate, the Government Information and Press Service, the Ville de Luxembourg Fire and Ambulance Service, the Luxembourg Hospital Centre, as well as Luxair and Lux-Airport.



Figure 12: Ebola Emergency Simulation Exercise

Source: SIP, Government of Luxembourg

Among other capabilities, it is worth mentioning the integrated platform, emergency.lu. It includes applications, end devices and communication technologies and consists of satellite infrastructure and capacity; communication and coordination services; satellite ground terminals for long term as well as rapid deployment; and transportation of equipment to the disaster area within the first 12 to 20 hours. The main supporters of the platform are the World Food Programme, the Emergency Telecommunication Cluster and the Rescue Service Administration.

⁶¹ Information is adopted from the website

(<http://www.infocrise.public.lu/fr/actualites/ebola/2014/11/20141106-ebola-cp/index.html>).

Resources

Legislative acts

- Directive 2009/81/EC of the European Parliament and of the Council of 13 July 2009 on the coordination of procedures for the award of certain works contracts, supply contracts and service contracts by contracting authorities or entities in the fields of defence and security, and amending Directives 2004/17/EC and 2004/18/EC.
- Directive 2014/24/EU of the European Parliament and of the council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC.
- Directive 2014/25/EU of the European Parliament and of the Council of 26 February 2014 on procurement by entities operating in the water, energy, transport and postal services sectors and repealing Directive 2004/17/EC.
- Directive 2008/114/CE du Conseil du 8 décembre 2008 concernant le recensement et la désignation des infrastructures critiques européennes ainsi que l'évaluation de la nécessité d'améliorer leur protection.
- Loi du 12 juin 2004 portant création d'une Administration des services de secours.
- Projet de loi (no. 6475) relative à la Protection nationale.
- Loi du 16 décembre 2011 portant approbation du Mémorandum d'accord concernant la coopération dans le domaine de la gestion de crises pouvant avoir des conséquences transfrontalières entre le Royaume de Belgique, le Royaume des Pays-Bas et le Grand-Duché de Luxembourg, signé à Luxembourg, le 1er juin 2006.
- Loi modifiée du 30 mai 2005 relative aux dispositions spécifiques de protection de la personne à l'égard du traitement des données à caractère personnel dans le secteur des communications électroniques et; portant modification des articles 88-2 et 88-4 du Code d'instruction criminelle.
- Loi du 2 août 2002 relative à la protection des personnes à l'égard du traitement des données à caractère personnel.
- Loi du 8 décembre 1981 sur les réquisitions en cas de conflit armé, de crise internationale grave ou de catastrophe
- Titre V de la loi du 31 mai 1999 portant création d'un corps de police grand-ducale et d'une inspection générale de la police
- Loi communale modifiée du 13 décembre 1988
- Texte coordonné de la loi communale du 13 décembre 1988 (art.100-102).
- Loi du 27 février 1986 concernant l'aide médicale urgente.
- Loi du 1er mars 2013 portant modification
 - de la loi modifiée du 31 juillet 2006 portant introduction d'un Code du Travail;
 - de la loi modifiée du 12 juin 2004 portant création d'une Administration des services de secours.
- Loi modifiée du 18 novembre 1976 portant organisation de la protection civile.
- Règlement grand-ducal du 25 octobre 1963 concernant l'organisation générale de la protection nationale.

- Arrêté grand-ducal du 31 décembre 1959 concernant l'organisation générale de la protection nationale.
- Loi du 22 août 1936, autorisant le Gouvernement à prendre les mesures propres à protéger la population contre les dangers résultant d'un conflit armé international et notamment des dangers dus aux attaques aériennes.

Other normative acts

- Règlement grand-ducal du 12 mars 2012 portant application de la directive 2008/114/CE du Conseil du 8 décembre 2008 concernant le recensement et la désignation des infrastructures critiques européennes ainsi que l'évaluation de la nécessité d'améliorer leur protection.
- Règlement grand-ducal du 21 mars 2012 déterminant les modalités de permanence et de garde et d'indemnisation des volontaires des unités de secours de la division de la protection civile de l'Administration des services de secours.
- Règlement grand-ducal du 1er juillet 2011 modifiant
 - l'arrêté grand-ducal modifié du 23 novembre 1955 portant règlement de la circulation sur toutes les voies publiques.
 - l'arrêté grand-ducal du 6 mai 2010 portant organisation
 - de la division d'incendie et de sauvetage de l'Administration des services de secours,
 - des services d'incendie et de sauvetage des communes.
- Règlement grand-ducal du 6 mai 2010 déterminant les missions spécifiques, la composition, l'organisation et le fonctionnement de la division de la protection civile de l'Administration des services de secours.
- Règlement grand-ducal du 6 mai 2010 portant organisation
 - de la division d'incendie et de sauvetage de l'Administration des services de secours,
 - des services d'incendie et de sauvetage des communes.
- Règlement grand-ducal du 6 mai 2010 fixant
 - l'organisation de la formation des agents des services de secours et de la population,
 - la composition, l'organisation et les missions de la Commission à la formation de l'Administration des services de secours.
- Règlement grand-ducal du 6 mai 2010 fixant les modalités du congé spécial des volontaires des services de secours.
- Règlement grand-ducal du 6 mai 2010 portant organisation du contrôle médical des agents des services de secours.
- Règlement grand-ducal du 6 mai 2010 fixant
 - l'organisation, le fonctionnement et les modalités de nomination et d'indemnisation des membres du Conseil supérieur des services de secours,
 - les indemnités revenant aux conseillers techniques de l'Administration des services de secours.
- Règlement grand-ducal du 14 décembre 2000 concernant la protection de la population contre les dangers résultant des rayonnements ionisants.

- Règlement grand-ducal du 11 août 1996 concernant l'information de la population sur les mesures de protection sanitaire applicables et sur le comportement à adopter en cas d'urgence radiologique.
- Arrêté grand-ducal du 4 décembre 1987 portant institution de la médaille de Mérite de la Protection Civile.
- Règlement grand-ducal du 13 octobre 1983 portant extension de l'assurance obligatoire contre les accidents aux activités de secours et de sauvetage.
- Règlement grand-ducal du 19 mars 1979 instituant près du lac de barrage d'Esch-sur-Sûre un poste de premiers secours qui fonctionne pendant la saison touristique allant du 15 mai au 15 septembre.
- Arrêté grand-ducal du 23 juillet 1945 concernant le recouvrement des impôts "Versicherungssteuer" "Feuerschutzsteuer" et "Beförderungssteuer" (6 Ko).
- Arrêté Grand-Ducal du 31 janvier 1907 concernant l'exécution de la loi du 22 avril 1905 sur l'établissement d'un impôt spécial dans l'intérêt du service d'incendie (50 Ko).
- Règlement grand-ducal du 24 mars 2014 portant institution de cahiers spéciaux des charges standardisés en matière de marchés publics et portant modification de l'article 103 du règlement grand-ducal du 3 août 2009 portant exécution de la loi du 25 juin 2009 sur les marchés publics.

Official documents (white papers, strategies, etc.)

- Rapport sur la Transposition des Directives Europeennes et L'application du Droit de l'Union

Online resources (e.g. websites of key CM organizations)

- http://ec.europa.eu/echo/files/civil_protection/vademecum/lu/2-lu.html
- www.hcpn.public.lu
- www.chd.lu
- www.gouvernement.lu
- www.112.public.lu
- www.infocrise.public.lu
- <http://www.ms.public.lu/fr/index.html>
- www.emergency.lu
- www.legilx.public.lu
- www.marches.lu
- www.etat.lu

Publications

- Alliance Developments Work (2014), 'World risk report 2014'

- Ministère de l'Intérieur (2013), Rapport d'activité 2013.
- Information and Press Service of the Luxembourg Government (2014), 'What to do in the event of a nuclear alert?'. Available at: www.infocrise.public.lu/fr/publications/urgence-nucleaire/brochure-cattenom/201410-brochure-cattenom-eng.pdf

Expert interviews

- the Rescue Service Agency (Administration des services de secours, ASS),
 - Interview held: October 2014
- the High Commission for National Protection (Haut-Commissariat à la Protection Nationale)
 - Interview held: November 2014



Driving Innovation in Crisis Management for **European Resilience**

MALTA

Capabilities, Organisations, Policies, and Legislation (COPL) in crisis management and disaster response

Responsible Partner: ECORYS (Laura Birkman, Linette de Swart)



Scope and limitations

This study serves as supporting information for further work within DRIVER.

Only limited time and budget has been available for this first general survey, which needs to be considered in terms of scope and completeness of the respective studies.

The author/s of this study is/are responsible for its content and quality.

Overview

Malta is assessed as being one of the safest places in the world according to the United Nations University World Risk Index where Malta scores 0.62, ranking as the second safest country in the world after Qatar. This very low risk ranking stems to a large extent from the very small exposure of the country to natural disasters rather than from the organisational capacity of the domestic risk management system that rarely has to step up to tackle major risks.

Malta is equipped with a rather centralised, one-level system for civil protection which is due to the small scale of the country that allows for no distinction between the local, regional and national levels of crisis management. The whole crisis management system is based on a single, higher-level legislative act, the Civil Protection Act, which describes the key functions of the system but does not go into detail regarding the organisation of the system. Although the Civil Protection Act of 1999 aimed at restructuring and consolidating the disaster management system is under the overview of a sole authority, the Civil Protection Department (CP Department); some fragmentation of processes and responsibilities still exist due to the appointment of alternative competent authorities such as the Armed Forces of Malta (AFM), the Transport Malta authority of the Ministry of Transport and the Ministry of Energy and Health for the specific risks areas such as maritime search and rescue (SAR), maritime pollution and health emergencies respectively.

The civil protection system is placed under the supervision of the Minister of Home Affairs and National Security, who is responsible for the strategic orientation of the system, closely consulted by the Civil Protection Council – consisting of representatives of the key actors of the crisis management system. A large part of the relevant functions and decisions of the involved stakeholders runs on informal procedures based on the institutional knowledge built over the years by the different stakeholders. This informal approach combined with the low base risk contribute to the relevant negligence of formally and regularly updating risk assessments and producing defining policy document. This in turn make the disaster management system more reactive than proactive.

The backbone of the disaster management mechanism consists of the CP Department that is tasked with coordinating the actions of the other governmental, non-profit, volunteer and private organisations and providing the relevant infrastructure during emergencies. It proposes legislation and policy adjustments, focuses on preparedness of the system by providing training courses and organising exercises and promotes international cooperation and knowledge exchange, activities taking place especially within the framework of the EU and limited bilateral agreements.

In any case, the Maltese system is highly dependent on the contribution of the volunteer sector, either as emergency units within the ranks of government bodies, or as independent organisations such as the Red Cross, or the St. John's Ambulance.

All together, the key limitations of the crisis management mechanism, such as the limited permanent personnel, the lack of specialised administration for specific types of emergencies and the lack of an updated institutional framework with document providing a clear policy orientation, indicate that the Maltese system might reach its limits in the event of a major crisis.

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List of Abbreviations

AFM	Armed Forces of Malta
CECIS	Common Emergency Communication and Information System (CECIS)
CP	Civil Protection
EFRU	Emergency Fire Rescue Unit
EVRF	Emergency Volunteer Reserve Force
HANS	Home Affairs and National Security
MARL	Malta Amateur Radio League
MIC	Monitoring Information Centre
NCC	National Crisis Centre
NGOs	Non-Government Organisations
PFRA	Preliminary Flood Risk Assessment
RA	Risk Assessment
RAF	Rescue and Assistance Force
SPIDER	Specialised Personnel In Disaster and Emergency Response
SAR	Search and Rescue
SOPs	Standing Operating Procedures
SWMP	Storm Water Master Plan
THW	German Federal Agency for Technical Relief

1 Policy

The definition used for disaster in Malta, in accordance to the Civil Protection Act of 1999, is:

“Disaster means an unforeseeable event which causes or threatens to cause damage to the lives and health of a significant number of people, or to property or to vital supply resources of the population or to the environment, and the urgency of the situation requires the co-operation of authorities, institutions, and organisations for prompt remedial action” (Civil Protection Act, 1999).

Until the establishment of the Civil Protection Department, crisis management and civil security were in the hands of the police force and the national security services. Since the Civil Protection Act of 1999, a Minister is appointed as head of the country’s civil protection services. Currently this responsibility falls with the Minister of Home Affairs and Security (HAS) and the Civil Protection Department of Malta, which takes up the lead role in civil protection services and the coordination of all relevant stakeholders, is part of the respective ministry. An exception to this rule are incidents related to maritime pollution, maritime search and rescue (SAR) and pandemics, where the lead role in the crisis response belongs to the Transport Malta authority, the Armed Forces of Malta (AFM) and the Ministry of Energy and Health respectively and the CP Department complements their efforts.

The Civil Protection Council, which resembles a crisis management task force (the members of which are appointed by the prime minister), acts as an advisory to the government body regarding civil protection issues, while it is also responsible for approving the national contingency plans.

Due to the small size of the country, there is no separation between local, regional and national level in matters of crises management. Crisis management is seen as a national effort to which the military is a major contributor. Amongst its secondary roles, the AFM are tasked with providing emergency protection support, while it maintains the lead role in research and rescue in the territorial waters of the country.

Continuing the long-standing tradition of Malta in social solidarity, the Maltese crisis management concept relays heavily on the participation of volunteer bodies. Volunteer organisations such as the Malta Red Cross, the St. John’s Ambulance and the SPIDER volunteer unit (Specialised Personnel In Disaster and Emergency Response) of the CP Department are substantial contributors to the preparedness, response and relief effort of the national disaster system, focusing especially in the provision of trainings to the public and first response services.

1.1 Risk Assessment

The **Civil Protection Department (CP Department)** is, according to Maltese legislation, responsible for the preparation of vulnerability and risk assessment studies. In principal, in Malta there is only an overall national-level Risk Assessment (RA) study with no separate, sector-specific RA developed. However, in areas where the lead responsibility does not lay by the CP Department, separate risk assessments may be drawn. The CP Department additionally checks and inspects the RA plans prepared by individual organisations and departments, while it is responsible for their coordination at a national level in case of incidents.

The current national RA plans of the CP Department date from just after its establishment in 1999 and are considered largely outdated. The CP Department is therefore now in the process of procuring the revision of the current Master Plan for natural disasters, including an update of the RA plans.

According to the ANVIL¹ project country report, the Maltese risk assessment approach is mainly incident-based with limited focus on performing further exercises of national risk assessments that would assist in preparing more efficient emergency plans. Nevertheless, Malta is assessed as being one of the safest places in the world according to the United Nations University World Risk Index where Malta scores 0.62, ranking as the second safest country in the world. Table 1-1 present the rating of Malta for each of the composing elements of this indicator.

Table 1-1: Malta World Risk Index Scoring

Malta World Risk Index	Exposition	Vulnerability	Susceptibility	Lack of coping capacities	Lack of adaptive capacities
0.62%	1.65%	37.67%	15.28%	59.58%	38.16%

Source: UNU-EHS, World Risk Report 2014

Malta is considered minimally exposed to natural disasters, making up for a very low exposition rating. Nevertheless, the Maltese civil protection system is steered towards countering the main areas of concern with high possibility and impact of incidents:

- Flash floods;
- Industrial and transport accidents; and
- Large scale pollution from hydrocarbon spill.

Flash floods are the most frequent disasters occurring in Malta. They take place usually in early autumn and cause mainly damage to infrastructure, while also human casualties have been reported in some cases. Under the EU Floods Directive 2007/60/EC, Malta has been committed to prepare a Preliminary Flood Risk Assessment (PFRA) study to feed a flood risk management plan.

Almost as frequent are transport and especially maritime accidents, occurring usually in summer months. Also during the last decade, a couple of industrial incidents related to firework factories accidents, have been classified as disasters. Finally, with the increasing naval traffic through and nearby the Maltese territorial waters, and especially after the Deep Horizon incident in the Mexican Gulf, the need to assess the risk of a large-scale hydrocarbon spill to prepare an efficient response has aroused.

Also classified as less likely, but bearing significant impacts are the risks deriving from the possibility of:

- A high intensity earthquake
- A terrorist attack
- Transport isolation due to an eruption of Mount Etna

Despite the main threats recognised in risk assessment as mentioned above, according to Malta's prime Minister Lawrence Gonzi, the most challenging incident regarding national security in recent Malta's history, did not come out of any of the areas above, but was rather the recent Libyan crisis of 2012. This crisis posed a challenge on multiple levels to Malta ranging from the management of civil war refugee flows, to the coordination of regular, emergency and military flights over the country's Airspace and to the evacuation of Maltese and other nationals from Libya. The Libyan crisis was the first time since its establishment that the national contingency centre was used.²

¹ ANVIL - Analysis of Civil Security Systems in Europe - <http://anvil-project.net/>

² <http://www.independent.com.mt/articles/2012-09-14/news/learning-from-the-libyan-crisis-315959/>

Analytically, Table 1-2 presents a list of incidents classified as civil security crises in Malta for the period 2000-2012 according to the ANVIL project and based on the *International Disaster Database*³ and publications on the Maltese press.

Table 1-2: Major civil security crisis in Malta for the period 2000-2012

Year/Month	Crisis Description	Crisis Category	Damage		
			Persons killed	Persons injured	Persons affected
Every autumn	Flash Floods	Natural disaster			Whole society
February 2004		Transport Accident	16		4
August 2005		Transport Accident	26		2
June 2006		Transport Accident	11		
July 2006		Transport Accident	17		
June 2007		Transport Accident	22		4
August 2007		Transport Accident	10		13
August 2008		Transport Accident	10		8
2009	Swine Flu	Pandemics/ infectious diseases	4		Whole society
September 2010	Farrugia Brothers Fireworks Factory Explosion	Industrial accident	6		
February 2012	Libya Crisis	External crisis			Whole society
November 2012	Gharb Fireworks Factory Explosion	Industrial accident	4		

Source: ANVIL, Malta country report, 2012

1.2 Policy and Governance

1.2.1 Strategy scope and focus

Crisis management in Malta is centralised as no clear distinction between local, regional and national level of civil protection is made. Due to the country's size, every type of crisis event unavoidably mobilises the national crisis management mechanism. The small size of the country and especially that of the disaster management system in combination with the absence of highly impactful disasters in the recent history of Malta has led to a large part of the processes in place to run on an informal basis relying on institutional memory and with limited documentation of processes made available.

The government is consulted by the **Civil Protection Council (CP Council)** of Malta, which comprises of high ranked government officials from relevant government authorities, regarding the civil protection policy direction and the approval of risk assessments and disaster management master plans as well as the disaster management policy direction. Moreover, the **Civil Protection Scientific Committee**, comprised from University and private sector representatives consults the government

³ <http://www.emdat.be>

regarding scientific issues of civil protection policy and especially when related to fields where state expertise is limited (e.g. water purification and waste management).

The CP Department of the Ministry of Home Affairs and National Security is the centrepiece of the disaster management system of Malta assuming responsibility for the coordination of all stages of disaster management, stretching from prevention and preparedness to response and recovery for all types of incidents with the exception of maritime SAR, maritime pollution and pandemics where it is tasked to support the assigned competent authorities in crisis management:

- The AFM of the Ministry of Home Affairs and National Security for maritime SAR;
- The Transport Malta authority of the Ministry of Transport for maritime pollution;
- The Health Department of the Ministry of Energy and Health for pandemics

All other relevant governmental authorities and organisations (i.e. the Police, the AFM, the Health Department etc.) can be summoned by the CP department to support the disaster management effort.

Alongside the central role of the state in crisis management, there is also a strong societal support to the disaster management cause. Volunteer organisations take up a significant role especially in disaster response and the relief, either under independent entities such as the Red Cross and the St. John's Ambulance or often contributing as emergency personnel of state organisations such as the CP Department and the AFM.

Altogether, given the very good overall safety assessment of Malta, the civil protection system is steered more towards the disaster management phases of preparedness and response adopting a rather reactive approach to disaster incidents. With the disaster management system stripped from an updated general or a sector specific risk assessment, preventive actions could be misdirected and areas of potential risk neglected.

Relatively more weight is placed towards the phase of preparedness where trainings and exercises occur regularly and relevant material and equipment is stockpiled. However, the coordination of the preparedness phase for crisis management could be more efficient at a central level as currently each potentially involved organisation defines its strategy to preparedness and retrospectively coordinates with the CP Department which is minimally if at all involved in the preparedness design.

The response phase is probably the one where the most attention is placed in the Maltese system. This is clearly coordinated by the CP Department or any other competent authority in accordance to the scope of the incident with clear roles and lines of communication for the parties involved. Finally, the absence of large and unmanageable disaster incidents in the recent Maltese history has led to less attention steered towards developing a detailed recovery and relief policy.

An exception to the disaggregated and incomplete general disaster management policy cycle, is the area of flash-floodings prevention. The frequency of the occurrence of this type of disaster, combined with the provision of the EU Flood Directive, dictated the need for a Storm Water Master Plan (SWMP) following a sector-specific, scoping PFRA (see Figure 1-1). The PRFA indicates the direction of flood-related disaster management policy identifying the focus areas while the SWMP

identified measures and projects that could be undertaken to mitigate the consequences of flash-floodings in the long run. These include: flooding prevention, protection, preparedness and early warning systems aiming in enhancing the resilience of the system.

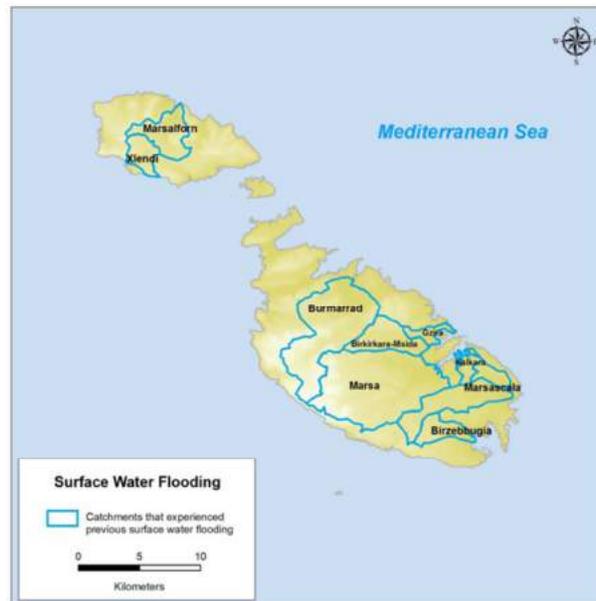


Figure 1-1: Past surface water flooding areas in Malta (Source: PFRA)

1.2.2 Monitoring and analytical support to policy making; R&D

The CP Department is tasked with performing the disaster risk assessments and providing views and suggestions on the direction of civil protection policy to the CP Council which consults the Minister on the options suggested. However the main institution linking scientific research with policy decisions is the CP Scientific Committee that consults the government and the CP Department on scientific issues, especially in knowledge areas where state knowledge is limited such as water purification and waste treatment and management.

Beyond the consultations with the CP Scientific Committee, there are limited research cooperation projects taking place, with the most significant government partner in this being the University of Malta. Currently the most significant research projects performed regard modelling potential hydrocarbon pollution dispersion in the sea. This research is performed in cooperation with the Oceanographic Department of the University of Malta under the SIMED⁴ project.

1.2.3 Policy for Prevention

The Civil Protection Department works with other governmental and non-governmental sectors in order to reduce and eliminate the risks of emergency situations occurring, thus protecting the population, the environment and the property of Malta. The CP Department is also responsible for awareness raising of the public regarding civil security crisis and risks.

⁴ SIMED: Modelling of circulation and marine ecosystems of the Mediterranean Sea with NEMO-MED12

However, the concept of prevention is not explicit in the Maltese civil protection system and the only sector-specific master plan with an explicit prevention orientation is that regarding water flooding. Under the EU Floods Directive 2007/60/EC, which Malta has adopted in its national regulation⁵, Malta has committed to prepare a Preliminary Flood Risk Assessment (PFRA) study and a subsequent flood risk management plan to manage and reduce risks in areas identified as running significant flood risks. The existing SWMP targets the economic, social and environmental consequences of floodings in Malta and puts forward a strategic, objective-driven approach to manage storm water in the long-term. This consists of:

- a) alternative engineering proposals for storm water management and reuse,
- b) a strategic approach for selecting the preferred alternatives
- c) a maintenance programme
- d) implementation measures including organisation, legislation, training, financing and monitoring

1.2.4 Policy for Preparedness

The Civil Protection Department is part of the Maltese network responsible for safeguarding safety and security of the general public. They take up the lead role in the country preparedness policy with its main objective being to organise civil protection services by coordinating the capabilities and resources available to other ministries and departments such as the Police, the AFM and the health authorities. Moreover, the CP Department aims in reducing the risks from man-made disasters and preparing the response to natural disasters that may occur. The CP Department is therefore required to prepare contingency plans to be put in action in case of crises. These plans are approved by the CP Council consulting body. Additionally, the CP Departments is responsible for arranging the infrastructure necessary to provide smooth interdepartmental coordination when tackling a civil security incident. Currently contingency plans exist for the events of earthquakes, floods and wars in the neighbourhood.

To secure high level of preparedness of its staff, the CP Department organises a number of training courses for both its permanent members and the volunteers of the CP Department. Furthermore, part of the CP Department contribution to the preparedness policy is its task to organise training courses for safety and exercises in fire-fighting, basic rescue and first aid for both the general population as well as for the civil forces expected to contribute in crises management (Police, Fire Brigade etc.). The volunteer organisations of Red Cross Malta and the St. John's Ambulance Malta contribute also to the preparedness aim by organising first aid training courses for the public, which are coordinated with the CP Department's training cycle. Finally, the CP department participates itself in EU level training programmes, while it also designs to offer a SAR module in Malta for its European counterparts. Additionally, bi-lateral cooperation in providing training to staff members is arranged with Italy through the Memorandum of Understanding signed by the Italian *Gruppo Operativo della Protezione Civile Edelweiss*. Also the SPIDER Unit has established a similar cooperation with the between the SPIDER Unit and the German Federal Agency for Technical Relief

⁵ Assessment and Management of Flood Risks Regulations, L.N. 264 of 2010

(THW) Under these agreement members of the Maltese Civil Protection provided training to the Italian civil protection team, while a number of volunteers and members of the Civil Protection Department had the opportunity to perform training in the region of Calabria.

Additionally, disaster management simulation exercises consist a fundamental part of the Maltese system policy for preparedness. These may be performed by the CP Department alone, or in combination with other state or volunteer organisations. Amongst the objectives of these training exercises is to test the interoperability techniques among agencies in events of disasters. Furthermore, the CP Department oversees the preparations of the contingency plans of all organisations and authorities in Malta. Then, based on an annual plan, inspections take place to test the preparedness of all organisations and authorities to execute their contingency plans.

1.2.5 Policy for Response

The CP Department takes in principal the leading role in emergencies, where the safety of the public is concerned. This The CP Department, under the headship of the Ministry for Home Affairs and National Security and supported by a group of experts from various governmental departments, is responsible for the effective response of the civil protection system to any disaster by coordinating all necessary and available resources in case of any major disaster.

During emergency situations, the Assistance and Rescue Force, which is set up under the umbrella of the CP Department, operates with the purpose of maintaining an adequate service for prompt intervention in case of an emergency, whether occurring on land or at sea. Throughout the whole disaster response duration, the CP Department assumes the leading role (except for the instances described in 1.2.1 where it supports other leading state authorities) and an **Incident Site Commander** is nominated by the Director of the CP Department. The Incident Site Commander is granted authority to request the assistance of other government departments as well as from the private sector, as he sees necessary, to stem possible dangers for civilians and to resume public safety.

The AFM hold a major role in the provision of emergency protection support especially responding to the emergencies related to explosives, marine pollution and floods, but also beyond these aspects providing with trained personnel and equipment to support the response effort of the CP Department by means of material or labour support. They also take the lead in incidents of marine SAR. In their effort, they are supplemented by the Emergency Volunteer Reserve Force (EVRF) of the AFM. Other organisations that may be summoned to support the CP Department are the Health Departments, the Police and volunteer NGOs.

The limited public sector response capacity is largely complemented by the all-society response culture in the event of major crisis events adopted by the Maltese society. This is mirrored by the important role enjoyed by volunteer organisations in cases of crises management. The EVRF are not the only volunteer organisation contributing to disaster management. Due to the limited resources and response capacity of the public sector, an important role in mobilising response capacity for emergency events is located among volunteer organisations and the private sector. Volunteer organisation such as the Malta Red Cross, the St. John's Ambulance and the Specialised Personnel In

Disaster and Emergency Response (SPIDER) take up a critical role in when response to emergency situations is required.

Additionally, the private sector can be recruited by public authorities to contribute to the emergency response effort. The cooperation between private enterprises and the public authorities is mainly based upon informal arrangements.

1.2.6 Policy for Relief and Recovery

Again, the leading role in the phase of recovery and relief lays in principal with the CP Department which, handles the humanitarian aid and mobilises the contribution of other government authorities and volunteer organisations if needed. Exceptions to this are the cases of maritime pollution, and pandemics where the lead is held by the Ministry of Transport and the Emergency Healthcare Department respectively. In case of maritime SAR that is performed by the AFM, the CP Departments, takes over as soon as the rescued people are onshore. Nevertheless, especially in cases where a large number of people are affected, the humanitarian aid cannot be handled by the CP Department exclusively, which has to rely considerably in the support it receives from the other governmental departments and the NGOs.

1.3 Financing

1.3.1 Investing in preparedness

The funding of the CP comes predominantly from the government budget, with only a small part of the budget coming from alternative money streams. These originate mostly from EU funds. An example of the utilisation of EU funds to invest in preparedness, is the co-funding of the SWMP by the EU Cohesion fund. Through the 2014 Budget, the Government of Malta announced its intention to further invest in preparedness by initiating an investment programme for emergency vehicles and examining the need and spread of fire fighting stations while planning to transfer the Departmental Headquarters to a new location.

The funding of volunteer units that operate within public authorities such as the SPIDER team of the CP Department and the EVRF of the AFM originates from public funding. On the other hand, independent volunteer organisations rely to a lesser extent to government financing and draw their financial resources through a variety of private means (such as contributions of the volunteers themselves), donations from the general public and private sector sponsors. Additionally, they apply for funding of specific events (such as international collaboration and training) and procuring necessary equipment to EU funds earmarked for such activities.

1.3.2 Investing in consequence management

In principal, the CP Department and consequently the Ministry of Home Affairs and National Security, should have budget available to cover the cost of recovery from disasters. However, in case extraordinary expenses are needed to offset the consequences of disasters, the central government

provides this additional funding. There are also EU action specific funds contributing to financing the system recovery for specific types of disasters. A relevant example is the application of the Asylum and Migration Fund and the Internal Security Fund of the EU which contribute to the better management of migration flows and border security, partly overlapping with scope of activities of the CP Department.

1.4 Policy review, Evaluation & Organisational Learning

Although there is no legal or policy document stipulating the process for lessons learning regarding civil security. The urge to exploit past events in order to improve the responsiveness of the disaster management system is implicit in a number of practices.

1.4.1 Post-Disaster Assessment and Lessons Learned

Due to the size of the Maltese disaster management system and the lack of different vertical layers of organisation, the post-disaster assessment is an undistinguishable part of the lessons learned process, which in turn largely coincides either the focus is on a national or departmental level. Thus, in this section, these elements of policy review are examined simultaneously.

While there is no formally established system for assessing lessons learned, probably also due to the less frequent occurrence of major challenges for the Maltese crises management mechanism, national authorities are opting for the improvement of the overall system. Following any large-scale incidents dealt by the CP Department, a de-briefing process takes place usually led by the CP Department to examine the facts leading to a crisis situation and the response of the agency. The involvement of additional organisations or authorities in the de-briefing process is arranged based on the type of incident addressed. Moreover when the incident type falls under the competence of other organisations (e.g. the AFM or the Ministry of Health), the leading role of the post-disaster assessment is transferred to the relevant actor and the CP department supports the activity.

The whole process is currently not a formalised one, nonetheless its findings feed the update of existing standing orders with changes to the procedures followed in case of emergencies, the issuing of new standing orders or the development of the guidelines used for the planning of future Civil Protection exercises and past experience is especially utilised for updating the design of possible scenarios. The updated as well as the new documents produced are available within the CP Department and shared with other relevant organisations but they do not consist however a public document.

An example of outcome of the system described is the aftermath of the *Libyan Civil War* crisis, and although Maltese authorities assessed the response to the crisis as successful, they attempted to derive some lessons for improving the overall disaster management system. One of the lessons

learned was that more flexibility to take action was required at the level of individual agencies which would result from transferring some responsibilities held by executive bodies.⁶

Thereafter, the CP Department is responsible for putting forward proposals for the regulations required to respond better to disasters or emergencies. This is in line with the CP Department's task to continuously assess past disaster events and cope for the continuous improvement of the disaster management system.

1.4.2 International exchange for Lessons Learned

Malta participates in a number of international exchange programs, especially in the context of the EU programmes. Additionally it participates at bilateral training exchanges with authorities from the southern regions of Italy in an attempt to exchange best practices, learn from one another and bring knowledge back to improve the domestic system. Specifically, the experience gained from the personnel (either permanent members of the CP Department or volunteers) deployed in EU and international exercises is exploited in accordance to the EU guidelines and the participants in such exercises are required to write reports proposing improvement in existing procedures.

Such bi-lateral collaborations contributing to international exchange of lessons learnt are those set up between the CP Department and the Italian *Gruppo Operativo della Protezione Civile Edelweiss* as well as the ones between the SPIDER Unit and the THW.

1.4.3 Regular policy reviews

A consequence of the very low risk assessment of the Maltese disaster management system is the absence of a regular process of policy review. The official policy to disaster management is described in the *Master Plan for Disaster Management*. With this document adopted more than 15 years ago it can be considered largely outdated. The CP Department is currently engaging into the preparation of its update to bring it in line with more recent developments with this process expected to end within 2015.

Apart from the CP Department that prepares the policy and the Minister of Home Affairs and National Security that is responsible for approving it, the participation of other governmental organisations and the NGOs and volunteers is guaranteed by their participation in the CP Council in the whole process by consulting the Minister over the policy directions as well as specific elements of the Master Plan. Additionally, the CP Scientific Committee, brings in the process the views of the industrial and scientific stakeholders, with emphasis in knowledge areas with limited governmental expertise.

⁶ <http://www.independent.com.mt/articles/2012-09-14/news/learning-from-the-libyan-crisis-315959/>

1.5 Resilience

Although the implementation of the concept of resilience is currently discussed within the CP Department in view of the upcoming update of the Master Plan for Natural Disasters, there is still no reference to the implementation of this concept within the policy framework of the Maltese civil protection system. The only exception to this is the SWMP which adopts a more systematic approach to tackling potential risks investing also into the resilience concept for flood protection.

1.6 Information sharing and data protection

The CP Department maintains a central database with the assessed as relevant information of the registered volunteers. This includes their contact information, address and phone number, occupation and trainings followed contact information and training followed with the CP Department in order to be able to more appropriately match them with the occurring needs. Based on these data, the volunteers are notified in cases of emergencies.

These data regarding volunteers are kept for internal use of the CP Department only as the Data Protection Act of 2001 makes it very difficult to justify transfer or sharing of personal data with other organisations. Similarly, the CP Department has no access the information collected by the AFM regarding the EVRF corps, or similar databases of other relevant stakeholders.

Currently there is no plan in place to utilise data collected by social media or other sources, probably also due to the low base risk factor of Malta.

2 Legislation

2.1 Crisis (emergency, disaster) management concept

The Civil Protection Act Chapter 411 (Act No. XV of 1999) is the sole official document arranging the main institutional aspects of civil protection and it provides for the establishment of a Civil Protection Department and an Assistance and Rescue Force Unit within it. There, “disaster” is described as:

“...an unforeseeable event which causes or threatens to cause damage to the lives and health of a significant number of people, or to property or to vital supply resources of the population or to the environment...”

This broad definitions blurs the boundaries of civil security and national security engagement which is not clear in all cases. Nevertheless, a working agreement, described by an internal document, has been achieved between the CP Department, the AFM, the Police and the other relevant governmental authorities, bringing a rather seamless cooperation and understanding of the division of responsibilities is in place.

Amongst other provisions, the Civil Protection Act (CP Act) defines the responsibilities of the Minister of Home Affairs and National Security regarding Civil Protection in the country and sets the foundations for the CP Council, the CP and the Rescue and Assistance Force while defining the scope of their activities.

According to the CP Act, the CP Council is composed of the following *ex officio* members:

- the Minister for Home Affairs and National Security (Council Chairman),
- the Permanent Secretary of the Ministry for Home Affairs and National Security (Council Deputy Chairman),
- the Director of Civil Protection,
- the Commissioner of the Police,
- the Armed Forces Commander,
-

and up 7 members appointed by the Prime Minister, which are:

- up to 5 senior officers from the ministries responsible for issues relevant to civil protection (public works, environment, telecommunication and transport, health, economic affairs, energy and Gozo affairs)
- a member chosen after consultation with NGO representatives
- a member nominated from the Local Councils Association

The CP Council comes together in regular meetings every 3 calendar months and can be considered as the main consultative body to the competent Minister, both in times of emergency as well as during its regular consultation sessions. The CP Council is responsible for:

- formulating, directing and coordinating national civil protection policies and practices;
- directing and coordinating preparations of civil protection tasks required in case of disasters or emergencies;
- advising the Minister on the selection of the national overall Incident Site Commander to deal with particular emergency events or disasters;
- approving emergency and disaster contingency plans, guidelines and codes;
- monitoring the CP Department operation;
- advising the Minister on measures for the protection of the public;
- encouraging and supporting emergency preparedness; and
- coordinating the development of civil protection volunteer organisations.

Complementary to the role of the CP Council, is that of the CP Scientific Committee. This Committee is formed by representatives of the industry and academics and its role is to consult the Minister and the CP Department on scientific aspects and especially in the areas where limited government capacity is to be found.

However, the organisation that comprises the backbone of the disaster management system is the CP Department. The CP Department was established with the Civil Protection Act of 1999 as the evolution of the Fire Brigade service. Upon its creation it got staffed with experts from various governmental departments in order to be able to prepare for and coordinate the response to any major disaster. The CP Department is placed under the headship of the Ministry for Home Affairs and National Security of Malta and according to the Civil Protection Act, it retains responsibility for the:

- preparation of contingency plans to respond to natural or man-made disasters;
- organisation and co-ordination of training facilities and courses for the personnel that is required to respond to disasters;
- establishment of the necessary infrastructure for the coordination of the organisations involved in emergency response;
- preparation of risk and vulnerability assessment studies;
- promotion of public awareness in civil protection issues;
- maintenance of an assistance and rescue force;
- preparation of regulations required to respond to disasters or emergencies under the Civil Protection Act and the Emergency Powers Act;
- perform any other functions related to civil protection assigned by the responsible Minister.

2.2 General crisis (emergency, disaster) management law

The CP Act is the legislative document that also defines the hierarchy of command during emergency events and disasters. According to the provisions of the Act; in case of an event, the Minister, after consulting with the CP Council can appoint an Incident Site Commander who acts as a national coordinator for the response effort. This Commander can consult, for the better performance of his tasks the CP Council and the CP Scientific Committee, while he coordinates the response efforts of

the CP Department and of any other state authority he has summoned for support in tackling the crisis events.

Other management procedures are arranged via the internal standing orders other administrative documents of the authorities involved.

Complementary to the provisions of the CP Act, and arranging specific aspects of the disaster management system are:

- the Emergency Powers Act in combination with the CP Act defines the aspects relevant to the declaration of Emergency rule (as explained in detail in the following section);
- the Voluntary Organisations Act defines the framework for the operation of volunteer organisations, allowing them to support of the government sector also in the field of civil protection;
- The Data Protection Act, sets the underlining conditions for the operation of the collection and management of personal data of the individuals involved in the disaster management system.

However, the two latter documents do not make explicit reference to the disaster management effort, but rather continue to apply also in this occasion.

2.3 Emergency rule

In case of emergency, the Civil Protection Act prescribes that the Site Commander, the Director of the CP Department or the highest ranking official of the Rescue and Assistance Force has, according to his judgement and if indispensably necessary for the operations relevant to emergency response the power, to:

- order immediate requisition of any property necessary for the operations,
- order the evacuation of persons from any premises,
- enter any premise without the need of a warrant,
- cause damage to any private property to prevent life threats and spreading of any event effects.

More radical are the provisions of the Emergency Powers Act which are applied when the President of Malta, acting in accordance with the advice of the Prime Minister, is satisfied that a public emergency exists. Then, the President of Malta, aiming to *“ensure public safety...and for maintaining supplies and services essential to the life of the community.”* may proclaim the entry into force of emergency powers. This wording makes possible the activation of the emergency powers also in response to disasters hitting Malta. Amongst others, the emergency powers bring limitations to individual rights and liberties. The emergency powers confer extended powers to the President of Malta, which amongst others concern:

- making provision for the detention of persons;
- authorizing on behalf of the Government the taking of possession or control of any undertaking or property or acquisition its acquisition with the exception of land property;

- authorizing the entering and search of any premises;
- providing for amending any or suspending the operation of any law, and for applying any law with or without modification;
- providing for payment of compensation and remuneration to persons affected by the regulations;

Any regulatory change brought into effect under emergency power provisions will cease to have any effect after 2 months from the day it comes into operation except in case it is in the meantime approved by the House of Representatives.

Additionally, Article 10 of the Malta Armed Forces Act of 1982, sets the framework for extending the service of soldiers in the event of a great emergency, while Article 32 of the Act foresees the callout of reserved forces (whether they belong to Malta's regular or territorial force): 'If it appears to the president of Malta that national danger is imminent or that a great emergency has arisen...'

2.4 Specific, department/agency-level legal arrangements and regulations on emergency and disaster management

Due to the size of Malta and its CP Department, no division between departmental and national government level legislation is effective. Regarding the involvement of local level actors, the only field that they form part of the disaster management system is in the field of environmental pollution. In this case, local councils form part of the surveillance system while they are responsible also for risk management at schools and the local industry.

2.5 Specific to the regional and local authorities legal arrangements and regulations on emergency and disaster management

In Malta there are no lower than national level legal arrangements and regulations in the Maltese civil protection system.

2.6 Legal regulations on the involvement of volunteers and specialised NGOs

As mentioned earlier, the civil protection system of Malta relies heavily on the involvement of volunteer organisations. For the involvement of volunteer units that operate within the organisations and authorities participating in crisis management, such as the CP Department SPIDER unit and the EVRF volunteer unit of the AFM, the same legal provisions apply as to the involvement of their regular staff members.

The legal act prescribing the functioning of independent volunteer organisations and NGOs in Malta is the Voluntary Organisations Act of 2007. However this sets only the legal status of volunteer organisations establishing civil protection amongst the possible purposes for their foundation. There

are no specific legal acts with provisions on the involvement of volunteers and specialised NGOs in disaster management. As the CP Act only prescribes the responsibility of the CP Council to coordinate and encourage the development of voluntary organisations.

On a strategic level, the representative of voluntary organisations on the CP Council consults the Minister on the capacity and possibilities of volunteer organisations to support the CP Department or other public institutions in crisis management. Their operational coordination is informally arranged with the CP Department.

2.7 Legal regulations for international engagements of first responders and crisis managers

EU regulations

As an EU Member State, Malta has implemented the EU regulations regarding crisis management. This legislation comes mainly in the form of European Council Decisions that set out the general rules and conditions for cooperation with the following 2 being the main legislative acts regulating first responders and crisis managers:

- Council Decision 2007/779/EC/Euratom of 8 November 2007 establishing a Community Civil Protection Mechanism; and
- Council Decision 2008/617/JHA of 23 June 2008 on the improvement of cooperation between the special intervention units of the Member States of the European Union in crisis situations.

The Council Decision 2007/779/EC/Euratom of 8 November 2007 was issued to set up an effective cooperation mechanism to coordinate rapid exchange of information and arrange assistance through a European network of civil protection resources. The Community Civil Protection Mechanism is based on establishing amongst others: an inventory of possible assistance and intervention teams at an EU level, a common training programme, a Monitoring and Information Centre (MIC) that forwards requests for assistance by affected Member States to a network of national contact points, a Common Emergency Communication and Information System (CECIS) and the provisions for facilitating the sharing of information on the resources available within the network.

The Council Decision 2008/617/JHA of 23 June 2008 aims to set a framework for the cooperation between Member States' special intervention units in crisis situations. The Decision establishes the general rules and conditions for the provision of assistance by special intervention units to any requesting Member State. According to the provisions of this Decision, the units from countries that provide assistance take up an assisting role and act only within the limits and powers as defined by their own national law. To ensure that experience, expertise and information on managing crisis situations are exchanged joint trainings and exercises between Member States are promoted and may be funded from Community financial programmes.

Bilateral agreements

Malta used to have bilateral agreements in place with its neighbouring countries for provision of assistance in crisis management. Namely; relevant agreements were signed with Italy and the Italian region of Sicily, Greece, Tunisia and Libya. The cooperation with Italy focuses on organising expert visits for exercises and their participation in training programmes on emergency response. The cooperation with Greece, covers a broader range of civil protection activities such as: exchange of technical information, cooperation in pre-empting natural disasters and in tackling cross-boundary crisis.

Additionally, the Malta CP Department had developed cooperation with Algeria and Tunisia within the framework of the Euromed project where joint seminars and exchanges of best practises were organised. With the exception of the cooperation with Italy and Greece, the other bilateral cooperation projects have, in the aftermath of the Arab Spring, been rendered inactive.

Currently, cross-border activities of the Maltese authorities is focused on activities within the EU framework and regard mainly cooperation with the southern regions of Italy, and especially Sicily. During cross border incidents, the crisis centre is established in the Prime Minister's office, and the Ministry of Foreign Affairs gets involved in the operational decisions.

3 Organisation

Malta has no administrative divisions, and it is administered directly from Valletta. The crisis management system of Malta is, in a similar way, centralised with only one, national, level of organisation. The main contributors to the disaster management effort are the state organisations, however the system relies to a great extent on the support of volunteers and volunteer organisations.

3.1 Organisational chart

3.1.1 Government organisations

Both national and regional policy-making and planning for civil protection in Malta takes place at a ministerial level and is at the hands of the Minister of Home Affairs and National Security. The **Civil Protection Council** (CP Council) is a consultative body to the Minister (and headed by himself) responsible of, amongst other, the formulation, direction and coordination of national policy issues, approval of contingency plans, guidelines and codes prepared by the CP Department, and providing advice to the Minister on measures for the protection of the public also during emergency incidents and to support emergency preparedness capabilities.

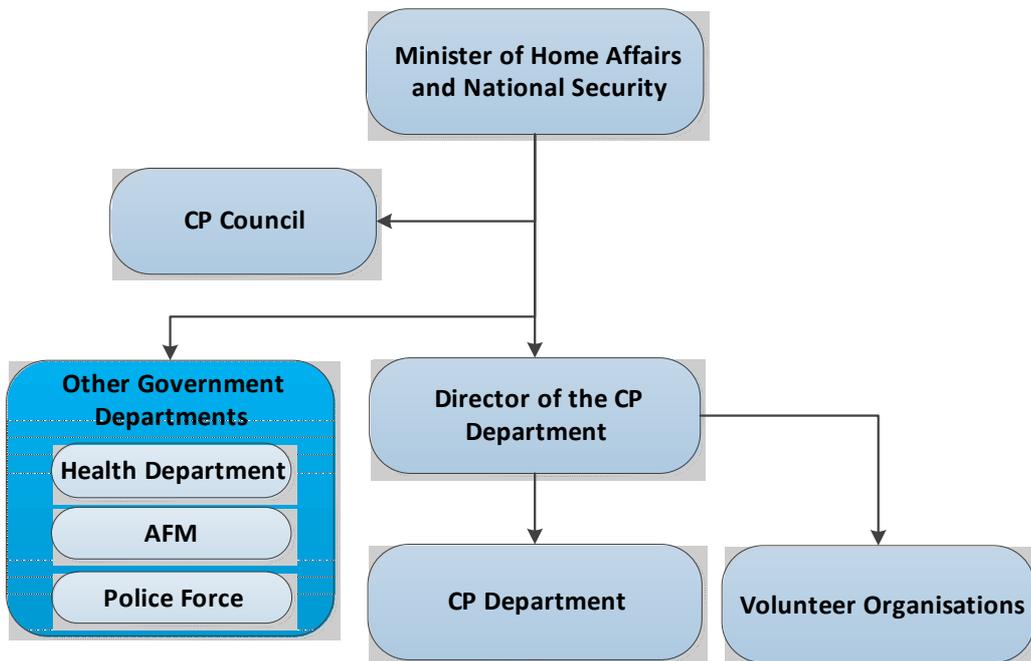


Figure 3-1: Organisational chart of the Maltese Civil Protection system

As presented in Figure 3-1, the cornerstone of the Maltese disaster management system, is the **Civil Protection Department** (CP Department). The CP Department is the national-level authority assuming the leading role in emergencies, where the safety of the public is concerned. This organisation evolved from the Fire Brigade authority after the CP Act of 1999 and is the government

body tasked with the preparation of the strategic, tactical and operational planning and its implementation. It is supervised by the CP Council which is headed by the Minister for Home Affairs and National Security. Most important, in accordance with the CP Act, the CP Department is responsible for the:

- preparation of contingency plans to respond to disasters and risk and vulnerability assessment studies;
- organisation and co-ordination of training facilities and courses for the personnel that is required to respond to disasters;
- preparation of regulations required to respond to disasters or emergencies;

Additionally, the CP Department takes the lead in the event of emergency incidents regarding the organisation of the response and the coordination of all other involved organisations under the guidance of the **Incident Site Commander** as appointed by the Minister.

The **Rescue and Assistance**, is set up under the umbrella of the Civil Protection Department and operates with the sole purpose of maintaining an adequate service for prompt intervention in case of an emergency, whether occurring on land or at sea. This Force, which is made up of about 110 staff members, operates from six different stations in Malta and one in Gozo. The members of this Force have to deal with everyday operations, ranging from domestic fires and rescue interventions to specialised tasks, such as hazardous substance control and technical diving operations.

Other key contributors to the Maltese disaster management system are government organisations that complement the competencies of the CP Department. The Police, the Armed Forces of Malta and the Health Department of the Ministry of Energy and Health are also significant parts of the system. These actors are all represented in the CP Council due to their role in crisis event management. Additionally, during crisis events, these organisations all appoint a representative each to coordinate with the Incident Site Commander, the same goes for the volunteer organisations that appoint a joint representative.

The **Department of Health** of the Ministry of Energy and Health, is responsible for health-related services during emergency events. The Department of Health also takes the lead role in tackling crises predominantly related to health issues such as pandemics.

The **Armed Forces of Malta (AFM)** are tasked with providing emergency protection support to the CP Department as one of its secondary roles. Additionally, the AFM is appointed as the competent national SAR agency in Malta, it maintains the lead role in SAR operations related to disaster management within the territorial waters of the country. In case of emergencies, the military cooperates with the CP Department under the supervision of the Ministry for Justice and Home Affairs. Following SAR operations and when the need to provide civil protection services is transferred onshore, the responsibility is passed over the CP Department or other competent authorities.

During emergencies, and while a representative of the AFM is in direct contact with the Incident Site Commander or other officials of the CP Department, should the need appear to use special military assets, the AFM representative explains what can be made available from the side of the AFM regarding machinery, equipment, AFM premises or human resources. Then the Incident Site Commander decides what is needed for the disaster management operations and requests it to be made available.

The **Police** force of Malta is part of the civil protection system of the country charged with maintaining order, in matters of containing rioting and performing crowd control when needed in case of emergencies. Up to date, the utilisation of the Police force in disaster management operations has been seldom due to the limited impact of disasters to date.

Other public authorities may also become involved in crisis management depending on the scope of the incident, their availability of resources necessary for organising an efficient response to the crisis. Most notable example is that of the involvement of the **Ports and Yachting Directorate** of the **Transport Malta Authority** in incidents involving marine pollution since Transport Malta is the competent authority regarding the prevention and control of maritime pollution and relevant incident response.

Another public authority that is often involved in the activities of the CP Department is the **Cleansing Directorate**, providing - when requested by the CP Department - emergency cleansing services by making available the machinery and human resources necessary to remove debris and other obstacles when needed.



Figure 3-2: Oil spill control exercise performed by Transport Malta

The CP Department mans the first responders unit in the formation of the **Rescue and Assistance Force (RAF)**. This unit intervenes in any emergency or disaster when public force or special equipment are required in the events of fire, flooding, sea salvage, rescue and anti-pollution support at sea, or any other natural or man-made disaster. The RAF unit comprises of 150 regular staff members.

3.1.2 Volunteer organisations

The role of **volunteer organisations** in the Maltese crisis management system is especially important since they are complementing the limited public authority capacity to provide response, recovery and relief during and after disaster events. The RAF unit and the CP Department are supplemented in their efforts to disaster management by the **SPIDER** volunteer unit that provide first response in cases of emergencies. The SPIDER unit counts around 115 fully trained volunteers, which given the size of the Malta disaster management system consist a considerable addition to the existing disaster management capacity.

Another volunteer group operating within the ranks of a public organisation is the **Emergency Volunteer Reserve Force (EVRF)** that supplement the AFM in cases of emergency situations, the EVRF soldiers will perform in the event of disasters, amongst other military tasks, civil emergency duties in support of the civil administration as well as key point security guarding duties.



Figure 3-3: Volunteers serving in the EVRF (left) and the SPIDER team (right)

Regarding independent volunteer organisations, a great variety of organisations operate in Malta and amongst their functions, support also the state authorities in disaster management. The main volunteer groups, mobilised in emergency events are: the Red Cross the St. John Association and the Emergency Fire Rescue Unit (EFRU).

The Malta branch of the **Red Cross** has been recognised by Act of Parliament as an autonomous voluntary Relief Society that acts auxiliary to the Public Authorities in accordance with the rules and principles of the International Red Cross movement. The mission of the organisation is to *“prevent and alleviate human suffering, improving the situation of the most vulnerable people with absolute impartiality and without discrimination as to race, nationality, gender, class, religious beliefs or political opinions”*. The Red Cross operates through a network of volunteers a small fleet of Ambulances in Malta to assist public authorities in providing first aid and humanitarian relief.

The **St. John** organisation assists the CP Department providing auxiliary services to during disasters by providing a rescue team as well as a first aid and ambulance service. Additionally, both the Red Cross and the St John Ambulance organisations provide trainings to the general public on first aid while a more complete training set is provided to their registered volunteers.

The **Emergency and Fire Rescue Unit (EFRU)** has been established by Maltese volunteers aiming to provide a unit of organised and fully trained rescuers to assist public authorities in the event of disasters such as earthquakes, airplane crashes, floods and similar occurrences or as otherwise requested.

Other volunteer organisations that are not totally focused on disaster management relevant activities also often contribute to the Maltese disaster management system. An example of that is the **Malta Amateur Radio League**, which starting from a representative body for Amateur Radio in Malta aiming in promoting a specific interest group, has developed an Emergency Communication Team that sets up back-up communication facilities during major events in cooperation with the CP Department, to be used in the event of a major system failure.

3.1.3 Private sector cooperation

The public authorities may rely on the private sector for support when dealing with emergencies. This is done in an informal basis and is mostly relevant for the areas where no or limited public sector capacity and knowledge exists, such is the case when water carrier vehicles are needed. Sometimes the CP Department engages in framework agreements on the terms of recruitment of relevant private sector entities, however, in most cases there appears to be no need to do so, since the small size of the country allows to deal with emergency incidents with the standing informal agreements.

In any case, as described by the CP Act, the Site Commander, the Director of the CP Department or the highest ranking official of the Rescue and Assistance Force has, according to his judgement, and if indispensably necessary for the operations relevant to emergency response, the power to order immediate requisition of any property necessary for the operations.

3.1.4 Lines of communication and command

The first line of contact in case of emergencies in Malta is the 112 system. This phone centre is operated by the Police who channels the requests to the relevant authorities depending on the characteristics of the reported emergency. In case of a crisis or should a threat of a crisis be reported, the call is diverted to the communication centre at the CP Department Headquarters. There is also located the civil protection operational control room that takes over the coordination of the actions in response to the incident.

The employees of the CP communication centre are trained to follow an undocumented yet strict routine when receiving an emergency call for each different type of incident. This routine dictates which organisations, officials and other government departments need to be mobilised to respond to the emergency incident. Respectively the CP Department mobilises first its personnel from the nearest out of the 7 regional stations in Malta and Gozo to handle the incident, followed by appropriate reinforcements from the rest of the CP Department force if deemed necessary.

In case of more serious events, the CP Department Director escalates the incident by informing the Minister of Home Affairs and National Security and the CP Council. The Minister in turn appoints, after consultation with the CP Council the Incident Site Commander, who assumes control of the response effort. In turn the Incident Site Commander coordinates with the representatives of relevant public and private entities, volunteer groups and local councils on the best available means and manners to deal with the incident. The coordination of the response effort is performed from the control room of the CP Department in the Civil Protection Ta' Kadja centre. The representatives of the organisations in contact with the Incident Site Commander indicate to him their capacity to assist the efforts of the CP Department, as well as consult him based on their expertise during the incident response effort.

Based on these information, the volunteers are notified if needed to contribute in the response to emergencies, although usually, and due to the small size of the Maltese islands, they might be mobilised and present to the spot of the incident even before being notified by the CP Department. IN the Maltese crisis management system, the AFM and the Police are the last to be called upon to support the response to the disaster.

Should the scale or type of the event call for bilateral cooperation, the Minister of Foreign Affairs gets involved and the bilateral coordination processes as set in international agreements are put in motion. On the other hand, if a domestic crisis escalates to the point that the Maltese disaster management system cannot handle it on its own capacity, then the Common Emergency Communication and Information System (CECIS)

European Civil Protection notification mechanism is activated as described in the following sub-section. In these cases the Minister of Foreign affairs is involved in the coordination with the partner and assisting countries. Figure 3-4 and Figure 3-5 depict the described lines of command and command respectively during emergencies.

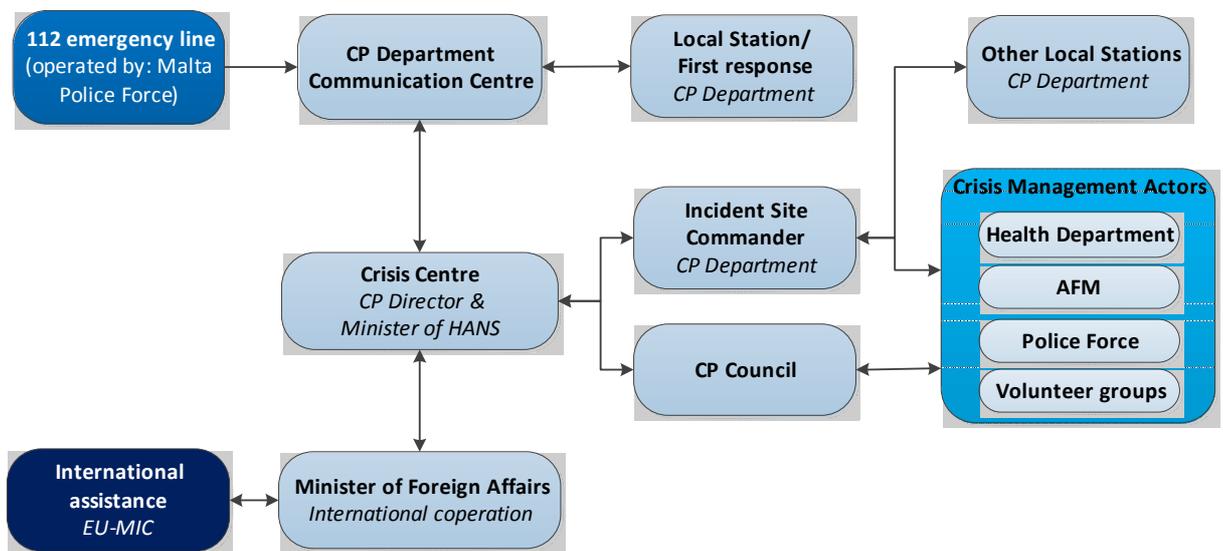


Figure 3-4: Lines of communication

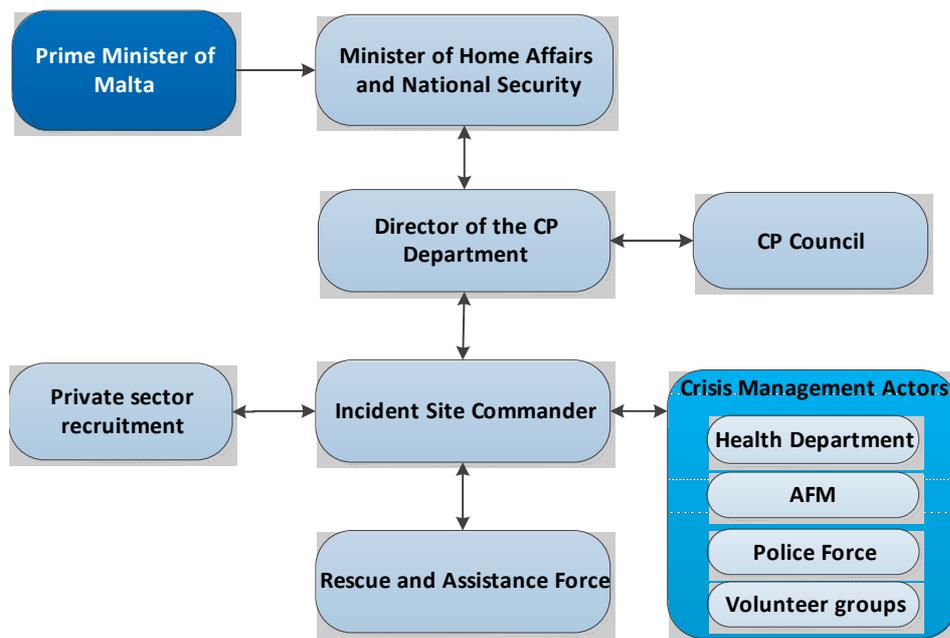


Figure 3-5: Lines of command

3.2 Organisational cooperation

3.2.1 Domestic organisational cooperation

The coordination of the crisis management response effort at a national level is at the hands of the **Incident Site Commander** who is placed in charge of tackling a specific emergency incident. Operational cooperation between the organisations involved is performed at a national level, the only level of crisis management in the Maltese system. The CP Council, where all involved organisations are represented, coordinates with the Incident Site Commander regarding the strategic and operational design of the emergency response and the role of the specific organisations in that.

A major aspect of the Maltese crisis management system influencing the efficiency of its performance is the fact that the availability of only one level of crisis management reduces the operational decision-making flexibility. Even in case of local only minor emergency incidents, a whole government mechanism needs to be mobilised. On the other hand, the small size of the crisis management system and the country overall, facilitates communication as most of the actors involved know each other and it is easy to establish and functionally maintain informal communication norms.

3.2.2 Cooperation with foreign countries

Forming part of a wider European network of civil protection, the CP Department is committed to provide assistance to other member states of the EU and third countries. This network facilitates the solidarity process that exists between member states to assist any particular EU country affected by a disaster. Moreover Malta participates in a number of regional arrangements for mutual crisis management support. Joining some of these regional cooperation arrangements as a result of its

participation in the EU, Malta is a member of the Regional Environmental Centre for Central and Eastern Europe (REC), of the Programme for the Prevention Preparedness and Response to Natural and Man-Made Disasters (PPRD-South), of the Euro-Mediterranean Partnership (EUROMED) and of the EUR-OPA Major Hazards Agreement.

However the country is more active in international support, through its participation in the EU's Civil Protection Mechanism, although it has requested no support itself during the last 10 years. When emergencies appear, the MIC is activated to forward to a European network of national contact points the request for assistance of the affected Member State.

In order to file a request for assistance on behalf of Malta, this decision is made at a minister level and the CP Director notifies the MIC system to inform the other Member States. The Monitoring and Information Centre (MIC) is one of the main means utilised to facilitate international humanitarian assistance to any struck countries.

4 Procedures

4.1 Standing Operating Procedures (SOPs) and Guidelines

The different organisations and departments involved in the provision of crisis management services in Malta make all use of their own internal guidelines and SOPs to regulate their work and responses to crisis events. SOPs exist for all organisations and for the incident types each organisation is involved at. The SOPs are perceived as a document describing the exact procedure of the developed practice of response to each type of disaster. Although the level of detail of these documents may vary between organisations, they are perceived by employees as being detailed enough to avoid confusion or misinterpretations.

Although these documents are not available to the public, there is an established practice of exchanging SOPs between the organisations of the crisis management system in order to exchange views and provide mutual suggestions for improvement while aligning them for better cooperation. A most elaborate cooperation in exchanging and co-developing SOPs has been the case between the CP Department and the Health Department. While the AFM and the Police are more reluctant to share their exact procedures. Similar to this approach of SOP exchange is what happens in case of cooperation with voluntary units. Overall, this is considered to enhance the robustness of the operational communications and understanding.

The SOPs are tested annually in the joint exercises performed between public and private sector organisations of the crisis management system

4.2 Operations planning

There are no operations strategic plans developed for Malta. Probably due to the very rare occurrence of high impact accidents, the CP Department relies mostly on the SOPs and the higher level master plan for civil protection.

4.3 Logistics support in crises

In principal the CP Department conducts the necessary logistic for it operations using its own means. Additionally the assisting NGOs provide their own vehicle and equipment. In case the existing equipment do not suffice for tackling the crisis event, the CP Department may request other government departments to provide with logistical support to the best of their capacity. Two of the most significant public-sector contributors to the CP Department logistical efforts are the AFM, for provision of transportation services. Also the Cleansing Directorate contributes significantly by removing of heavy obstacles like heavy plants that may fall on the roads surface and block traffic.

Support from the private sector is something also relevant and has happened some times in the past. But this is mainly restricted to specialised fields where the government has little or no background, or for the use of heavy vehicles and cranes that might not be available in sufficient quantities..

4.4 Crisis communication to general public; Alert system; Public Information and Warnings

In the past, the notification of public was done through specific announcements broadcasted by the television and the radio, additionally press releases where issued. Nowadays, the CP Department has been equipped with an automated platform that generates notifications to the public through normal media and national public and private TV and radio channels. Usually, the general public is informed fast enough regarding an existing threat.

A trial with an SMS platform for notifying the general public was abandoned as there were problems encountered with the proper functioning of the server used. Nevertheless, automated SMS notifications are the case for informing volunteers and staff out of duty at the moment.

Regarding international cooperation, the systems of the European Civil Protection Mechanism: ECURIE and MIC/CECIS systems are used to obtain early warnings and achieve situational awareness for operations. During an emergency, a mobile control unit from the civil protection is on site and all emergency entities are controlled from it. Additionally, a back-up communication system is set up during events and exercises by the MARL- emergency communication team – a volunteer group of radio amateurs.

5 Capabilities

5.1 Human resources

There is overall a very limited number of human resources devoted to civil protection by public authorities, with a few more than 110 permanent staff members, the Rescue and Assistance Force of the CP Department is expected to respond to a large variety of types of accidents whether occurring on land or at sea. At the same time, the CP Department with an overall headcount of 180 permanent personnel needs to also cope with providing training and exercises for preparedness and taking on also a large part of the relief effort and manage humanitarian aid. In their efforts they are supplemented by the permanent staff of the other governmental departments involved in the crisis management system, who however have a broader remit than just providing crisis management services.

At the same time, the limited size of both the system and the country make mobilisation of personnel a relatively easy task. Staff members are notified, when off service, via SMS if needed to participate in the crisis management effort and there have been no reported problems in that direction.

As the public sector capacity to provide sufficient preparedness, respond, recovery and relief capacity is limited, the contribution of the volunteer sector is of great significance for the crisis management system. With a total capacity of mobilising 300 of their own members (110 of which within the SPIDER team of the CP Department), the volunteer organisations provide additional capacity in activities such as first aid SAR (in urban areas, land or sea) and humanitarian aid. Additionally the NGOs are a major provider of emergency training to the general public as well as to their own personnel assisting in the preparedness of the system.

Finally, the contribution of the private sector to the human resources mobilised in emergency events is rather limited, and is restricted to the specialised machinery and vehicle users, when such resources are recruited from the private sector.

5.2 Materiel (non-financial) resources

Each of the involved organisations is responsible for maintaining their own material resources. The CP Department stores the specialised equipment used by its personnel in the 6 local stations and the headquarters of the organisation (see Figure 5-1). This includes specialised equipment for (urban) SAR as well as chemical suits, helmets and other protective cloths to deal with all kinds of emergency situations.

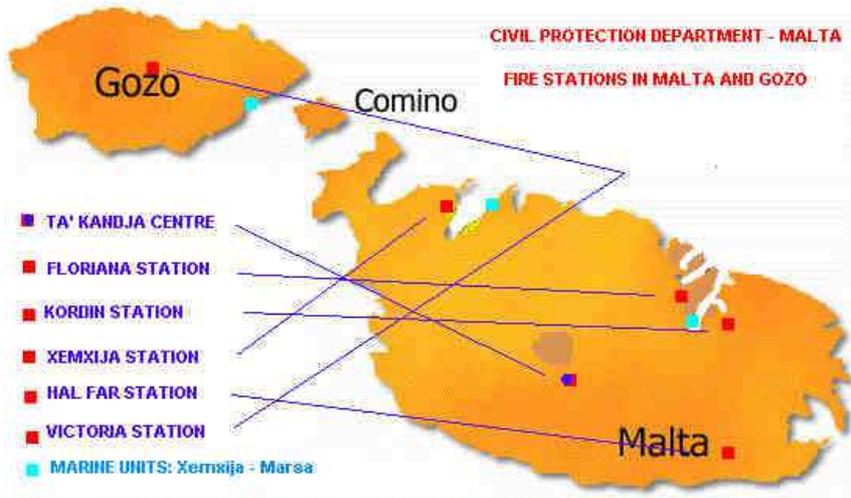


Figure 5-1: The Civil Protection Department local stations in Malta and Gozo

The other private and public organisations involved in the crisis management system are responsible of maintaining their own equipment for disaster response and the AFM as well as the Health Department and the Transport Malta authority hold the relevant specialised equipment for dealing with emergencies in their sphere of competence. Especially relevant are the sea SAR (Search and Rescue) equipment of the AFM comprising of two SAR launches (Melita I and Melita II – see Figure 5-2). These are equipped at the Maltese Government's request also with a small fire-fighting pump to extinguish fires on speed boats, cabin cruisers and small yachts. Additionally the Cleansing department provides specialised heavy machinery and heavy vehicles, when necessary to complement the crisis management effort and remove heavy obstacles (such as large plants from the road or debris) on request. While any additional specialised machinery that may be needed is recruited from the private sector in the case of an emergency.



Figure 5-2: SAR vessel of the AFM

Similar to the public authorities, the NGOs involved in crisis management procure and maintain their own necessary equipment consisting mainly of land and sea SAR and first aid equipment and personnel transport vehicles. The St. John Rescue team can also mobilise two Fire trucks while the Red Cross is currently converting an old bus into a mobile clinic, capable of hospitalising 6 patients at

the same time, after building up in 2012 a Water Life Saving section. Moreover, the MARL makes available emergency communication equipment in case the standard system fails.

However no central register of the combined available material resources exists and especially considering the equipment of the AFM, there is very limited information is provided to the other actors of the system before the outbreak of a disaster incident.

As far as humanitarian aid and other important stocks necessary for the post-disaster relief effort for the general population is concerned, the CP Department maintains the main reserve stock in its headquarters in Ta' Kandja. This stockpile consists of all basic provisions for humanitarian aid such fuel, food, tents, tents, blankets, etc. while medicine-related stocks are kept by the Health Department. Additional stockpiles are kept by the NGOs which contribute to the collection, maintenance and provision of humanitarian aid with their own resources.



Figure 5-3: humanitarian aid collection by EFRU volunteers

5.3 Training

One of the main objectives of the CP Department is to organise training courses and exercises in fire-fighting, basic rescue and first aid for its own personnel but also trainings for the civil forces in issues of crisis management and emergency response. For that reason, the CP Department maintains one training centre where, except training their own personnel, courses are provided to company and governmental personnel responsible for safety and security.

Once a year exercises take place involving all emergency-related entities. The guidelines used for planning the exercises are based on past experience and possible scenarios and training experience gained from personnel deployed to EU and international exercises according to EU guidelines. Table top exercises and field exercises are held before every full-scale exercise.

Additionally, the CP Department supervises the exercises held once every 2 years in industrial sites as part of their obligation. For these there an annual schedule prepared and enterprises are notified 3 months in advance of their obligation to prepare for the exercise.

The volunteer organisations and NGOs provide training to their own personnel in accordance to their competence building needs, while also providing first aid and emergency response trainings to the general public. Trainings for both the government and volunteer organisations also take place under the EU framework for civil protection as well as under the bilateral cooperation agreements with specific countries as mentioned in earlier examples. Within the EU, amongst the objectives of these training exercises is to test the interoperability techniques among agencies in events of disasters.

Moreover, the volunteer organisations mobilise their own networks to train their personnel in international best practices. An example of this is the training provided by the Bulgarian and Spanish Red Cross section to the Malta branch to assist it in the building of competence in the field of maritime research and rescue or the training of the SPIDER team in urban SAR by the German THW.



Figure 5-4: Malta Red Cross training in water rescue

5.4 Procurement

5.4.1 Procurement regulation

European regulations

The procurement of public contracts needs to be in line with the principles of European treaties and especially with the free movement of goods services, capital and people. Furthermore the procurement needs to comply with the principles of equality, proportionality etc. For some types of procurement additional regulations are codified in directives. Within the European legislation, three different procurement directives apply. These directives are mutually exclusive meaning only one of the directives apply to the public procurement. Directive 2014/25/EU (on procurement of utilities) and directive 2009/81/EC (on procurement in the defence and security industry) are topic specific. If these specific directives do not apply, public sector directive 2014/24/EU is applicable, which is the replacement of directive 2004/18/EC. The aim of the new directive is to simplify the rules on public procurement; improve the participation of SMEs and stimulate cross border joint procurement.

Stimulation of cross border joint procurement is helpful in case of a major internal crisis or a cross border crisis. The directive states in the preamble that contracting authorities should be able to choose to jointly provide their public services in cooperation with other authorities, without being

obliged to use any legal form. These services don't have to be identical. The cooperation does not require all participating authorities to fulfil the obligations of the contract, as long as there is a commitment to contribute to the cooperative performance. The preamble points out that there are difficulties in cross border joint procurement. Therefore new rules have to be made. In these rules, the conditions for cross border procurement have to be clarified, as well as the applicable regulations. In addition, contracting authorities should be able to set up joint entities established under national or EU law. The new rules are specified in article 39 of the regulations.

If the procurement is executed by a centralised purchasing body located in another MS, the procurement shall be conducted in accordance with the national regulations of the MS where the purchasing body is located. In addition, several contracting authorities from different MS may jointly award a public contract, conclude a framework agreement or operate a dynamic purchasing system. Participating contracting authorities will then conclude an agreement that determines all responsibilities of the parties and the internal organisation of the procedure. As said before, the contracting authorities can set up a joint entity. The parties shall decide on the applicable rules on procurement. They can choose the rules of the MS where the entity has its registered office or where the entity carries out its activities.

This project evolves around the procurement related to crisis management, for example the procurement of ambulances, emergency packs or trainings. The utilities directive applies to gas and heat, electricity, water, transport services, ports and airports and postal services (article 8-13). The directive on defence and security applies to supply of military equipment and sensitive supplies. The majority of procurement in crisis management will be procured by normal NCCs and local authorities like the fire department or police and will not be secret. So in most cases the Public Sector Directive (2014/24/EU) is applicable. This chapter will therefore focus on this directive. It is worth keeping in mind that the other directives can also be applicable, for example if the army is used to solve a major crisis. The directive is addressed to Member States and has no direct effect on the national regulations. The directive needs to be implemented first.

Scope of the Public Sector Directive

The Public Sector Directive applies to procurement by contracting authorities with respect to public contracts as well as design contests whose value is estimated to be not less than (article 4):

- € 5.186.000 for public works contracts;
- € 134.000 for public supply and service contracts and design contests, awarded by central government;
- € 207.000 for public supply and service contracts or design contests awarded by sub-central contracting authorities .
- € 750.000 for public service contracts for social and other specific services listed in Annex XIV.

This directive should not apply to certain emergency services where they are performed by non-profit organisations or associations, since the particular nature of those organisations would be difficult to preserve if the service providers had to be chosen in accordance with the procedures of the directive. Furthermore the directive does not apply to public contracts with the purpose of

providing public communication networks or electronic communication services; public contracts organised pursuant to international rules; several types of service contracts, e.g. rental, legal services and employment contracts and service contracts based on exclusive rights; and last, public contracts between entities within the public sector (articles 8-12).

Award procedures

On a European level, procurement is executed by the European Commission. The Public Sector Directive provides the provisions for several award procedures:

- open procedure,
- restricted procedure,
- competitive procedure with negotiation,
- competitive dialogue,
- negotiated procedure without prior publication.

The *open procedure* applies when no other procedure is chosen. In the open procedure, the contracting authority submits a call for tenders. Interested companies may submit a tender. The best offer is chosen, based on the selected award criteria (article 27).

The *restricted procedure* consist of two phases. In the first phase a call for expression of interests is set out. Interest candidates may submit an invitation to tender. The contracting authority will then invite the most suitable candidates to submit a tender. The contracting authority will award the contract to the best tender, based on the selected award criteria (article 28).

In the *competitive procedure* with negotiation any interested candidate may submit a request to participate in the negotiations, in response to a call for competition. In this call for competition, the contracting authority has provided a description of their needs and the characteristics of the works or services to be procured. Only the interested candidates that are invited may submit an initial tender, which will be the basis of the negotiations (article 29). In several cases the negotiation procedure can be used without prior publication, for example when the public contract contains a creative achievement; when there is no competition; when intellectual property rights need to be protected, or when there are reasons for extreme urgency (article 32).

In the *competitive dialogue* any interested candidate can submit a request to participate in response to a contract notice given by the contracting authority. The contract notice provides the information on and the needs and requirements of the contracting authority, as well as the chosen award criteria. The selected interested candidates will join the competitive dialogue, in which the means best suited for satisfying the contract will be defined (article 30).

A new procedure within this directive is the *innovation partnership*. In this procedure, any economic operator may submit a request to participate in response to a contract notice, by providing information for qualitative selection that is requested by the contracting authority. The innovation partnership can be set up with one partner or several partners. Only the economic operators invited by the contracting authority participate in the procedure. After each phase, the contracting authority

may decide after each phase to terminate the partnership or reduce the number of partners within the partnership, based on the targets.

According to article 26, the open procedure and restricted procedure are the standard procedures to apply in case of procurement. The other procedures can be used in a limited number of situations, for example when the service is innovative, or when the technical specifications cannot be determined (art. 26, sub 4.). Contracting authorities can use framework agreements, provided that they apply the procedures in this directive. The agreement can not exceed four years. Contracts within the agreement will be awarded according to the rules in article 33.

In most procedures the candidates are chosen with the use of selection criteria. The selection criteria may relate to suitability to pursue the professional activity; economic and financial standing and technical and professional ability. All criteria need to be related and proportionate to the matter of the contract (article 58).

National regulations

In Malta, there are two regulations regarding the procurement of goods and services: Public Procurement Regulations (Legal Notice 296 of 2010, as amended by Legal Notices 47, 104, 255 and 312 of 2012, 65 and 397 of 2013, and 55, 132, 293 of 2014) and the Public Procurement of Entities operating in the Water Energy, Transport and Postal services Sectors Regulation (Legal Notice 178 of 2005). Malta has not implemented the new directive of the EU yet. For the public procurement of goods and services related to crisis management, most the time, the first regulation applies.

Scope

The regulation applies to public contracts, which is defined as: ' any contract for pecuniary interest concluded in writing between one or more economic operators and one or more contracting authorities and having as their object the execution of works, the supply of products or the provision of services as defined in this regulation.

Some of these contracts are excluded from these regulations, for example public contracts awarded pursuant of an international agreement; public contracts which are secret, which are about telecommunication or arbitration and so on. The extensive list can be found in article 17. The regulation has no threshold value from which the regulations apply. However, different rules apply based on the value of the contract.

Procedures

In Malta, procurement is executed by the central government and all the ministries. Within the ministries, the different agencies are authorized for procurement. The extensive list of all authorized contracting authorities is published in Schedule I of the Public Procurement regulations.

In general, the contracting authority shall ensure that there is no discrimination between economic operators and that all operators are treated equally and transparently. The confidential nature of all information of economic operators needs to be respected. The specific award procedures depend on the value of the contract. When the contract has an estimated value less than € 120.000, the contract is subject to Part II of the regulation. If the estimated value exceeds € 120.000 but is below

the European threshold, Part III and Part IV of the regulations apply. Finally, if the estimated value exceeds the European threshold, Parts IV, V VI (A-C) and VII are applicable (article 15). These provision are further presented below.

5.4.1.1 Procurement of a public contract below € 120.000.

The procurement procedure depends on the value of the public contract. Public contracts with a value below € 2.500 may be procured at a department level either after obtaining quotations or directly from the open market. Contracts with a value between € 2.500 and € 6.500 may be procured departmentally after a call for tenders, after obtaining quotations or direct from the open market. The total estimated value of these two categories cannot exceed € 25.000 within six months. The last category within Part II is contracts with an estimated value between € 6.000 and €120.000. They may be procured after a departmental call for tenders, or after publishing a call for quotations in the Gazette (article 20). The restricted procedure can only be used with prior consent of the Director of Contracts and is open to international participation.

5.4.1.2 Procurement of a public contract with a value between € 120.000 and the European thresholds.

In case of a contract with a value between € 120.000 and the European threshold, Part III and IV apply to the procurement procedures. All public contracts with this value shall be subject to regulatory and other functions of the Department and Director of Contracts. In some cases the Department of contracts shall act on behalf of the contracting authority.

According to Part IV, the standard award procedures applicable to these public contracts are the open procure or the restricted procedure. Only in specific circumstances, stated in article 48, the competitive dialogue can be used. This procedure will be explained in the next paragraph. The negotiated procedure after prior publication can be used in case of irregular tenders, exceptional cases when the nature of the services or the risk involved do not permit prior overall pricing; when the nature of the procurement is such that contract specifications cannot be established (article 59, 66 & 72). The negotiated procedure without prior publication can be used: when no suitable tender is submitted; when the service can only be provided by a single operator; when the time-limits of the other procedures cannot be respected for reasons of extreme urgency etc. (article 60, 67 & 73). A last possibility for procurement is the use of the framework agreement (article 26), which is in line with the European directives.

Contracts will be awarded according the selection criteria codified in the regulations. These criteria are the most economically advantageous offer or the lowest price offered, compliant with the tender specifications (article 28). When the award is made to the economically most advantageous offer, the following criteria are taken into consideration: price, delivery date and period, running costs, costs effectiveness, quality etc. The criteria the contracting authority intends to apply in the determination of the award, including the relative weight of each criteria, need to be indicated.

5.4.1.3 *Procurement of public contracts with a value exceeding the European threshold*

The procedures explained in the previous paragraph also applies to procurement of public contracts with a value exceeding the European threshold. These contracts shall be awarded using the open procedure, the restricted procedure, or in the exceptional cases mentioned above, the negotiated procedure (article 37). In case of particularly complex contracts, where the use of open or restricted procedure will not allow the award of the contract, the competitive dialogue alternative can be used (article 48). The aim of the dialogue is to identify and define the means best suited to satisfy the needs of the contracting authority. The solution offered by participants other than the winning party as well as other confidential information cannot be revealed. The dialogue will continue until the contracting authority can identify the proposals capable of meeting their needs. The contracting authority shall indicate the objective and nondiscriminatory criteria they intend to apply. Then, the participants will submit their final tenders, based on the solutions presented. The contract will be awarded to most economically advantageous tender. The selection criteria for awarding the contract then are the same as in the previous section.

Procurement in practice

In practice, while the procurement is relatively easy when smaller amounts (up to €6.500) are concerned, for larger amounts there are strict protocols that apply and the procurement process might take very long to conclude.

Initially, the Director of the CP Department needs to indicate to the supervising Ministry of Home Affairs and National Security the need for procurement. Then depending on the Ministry's approval, a request for funding is sent to the Ministry of Finance, while the CP Department needs to notify the Ministry of Finance as well and reason the application. At this point the procedure is split into the two directions that might be followed.

Should the CP Department have sufficient funds for the procurement, then the approval is easy to get and a tender is prepared and issued. Otherwise, the process is dependent on the Ministry's decision to fund the procurement. Usually a request is filed for EU contribution through the Structural funds, when the request regards large amounts. In any case the application as prepared by the CP Department has to be approved from the Ministry of Finance. Practice shows that the EU procedure may be 2 months longer than when procurement is done based on national funds.

Finally, cross-border procurement is not a vehicle used often (or preferred) by the Maltese authorities. This need has seldom occurred to the CP Department.

5.5 Niche capabilities

Due to its small size and location at one of the safest countries, the Malta crisis management system has had little room to gain experience in major disaster events. Although it managed to cope without international help, with a profound influx of refugees (compared to the size of the country) during the Libyan crisis, that event strained the Maltese systems to its limits. The crisis was

eventually managed with the significant support of the volunteer sector. The size and significance of the volunteer contribution to the system, without which the public authorities would not have been able to manage a series of events is probably the most significant characteristic and strong point , of the Maltese system.

Resources

Legislative acts

- Civil Protection Act, Act XV of 1999 from 01.12.1999
- Data Protection Act, Act XXVI of 2001 as amended by Acts XXXI of 2002 and IX of 2003; Legal Notices 181 and 186 of 2006, 426 of 2007; Acts XVI of 2008 and XXV of 2012; and Legal Notice 426 of 2012
- Directive 2007/60/EC of the European Parliament and of the Council of 23 October 2007 on the assessment and management of flood risks Text with EEA relevance, Official Journal L 288, 06.11.2007, 27-34.
- Council Decision 2007/779/EC/Euratom of 8 November 2007 establishing a Community Civil Protection Mechanism; and
- Council Decision 2008/617/JHA of 23 June 2008 on the improvement of cooperation between the special intervention units of the Member States of the European Union in crisis situations.
- Directive 2009/81/EC of the European Parliament and of the Council of 13 July 2009 on the coordination of procedures for the award of certain works contracts, supply contracts and service contracts by contracting authorities or entities in the fields of defence and security, and amending Directives 2004/17/EC and 2004/18/EC.
- Directive 2014/24/EU of the European Parliament and of the council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC.
- Directive 2014/25/EU of the European Parliament and of the Council of 26 February 2014 on procurement by entities operating in the water, energy, transport and postal services sectors and repealing Directive 2004/17/EC.
- Public procurement regulations: LEGAL NOTICE 296 of 2010, as amended by Legal Notices 47, 104, 255 and 312 of 2012, 65 and 397 of 2013, and 55, 132, 293 of 2014.
- Voluntary Organisations Act, Act XXII of 2007, as amended by Legal Notices 427 of 2007 and 177 of 2012

Official documents (white papers, strategies, etc.)

Malta Resources Authority (MRA), Preliminary Flood Risk Assessment, Final report, 2013
Ministry of Finance of Malta, Budget Document 2014, 4th November 2013

Online resources (e.g. websites of key CM organizations)

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Publications

ANVIL – Analysis of Civil Security Systems in Europe, Case study Malta, Available at http://anvil-project.net/wp-content/uploads/2014/01/Malta_v1.0.pdf (accessed 28 October 2014).

European Commission, Humanitarian aid & civil protection (HA&CP), Vademecum-Civil protection, http://ec.europa.eu/echo/files/civil_protection/vademecum/index.html (accessed 28 October 2014).

Institute for Environmental and Human Security, United Nations University (UNU-EHS), World Risk Report 2014, available at http://www.worldriskreport.com/uploads/media/WorldRiskReport_2014_online-II_01.pdf (accessed 17 November 2014).

Malta Resources Authority, Assessment and Management of Flood Risks Regulations (CAP. 423), Act L.N. 264 of 2010

Expert interviews

Civil Protection Department of Malta, November 2014.



Driving Innovation in Crisis Management for *European Resilience*

MONTENEGRO

Capabilities, Organisations, Policies, and Legislation (COPL) in Crisis Management and Disaster Response



Responsible Partner: CSDM (Valeri Ratchev)

Scope and limitations

This study serves as supporting information for further work within DRIVER.

Only limited time and budget has been available for this first general survey, which needs to be considered in terms of scope and completeness of the respective studies.

The author/s of this study is/are responsible for its content and quality.

Overview

Despite its relatively small territory and size of population, Montenegro is highly exposed and vulnerable to natural hazards. The country has to address primarily earthquakes, wild fires and hydro-meteorological phenomena such as floods, droughts, heat waves, and heavy snowfall. Of particular concern are the frequent landslides and rock falls linked to the country's mountainous terrain.

As most of the other former Yugoslavia countries, Montenegro's authorities have been developing the national civil protection system since 2006 on what remained from the federal institutions, applying modern global and European practices and standards. Gradually, the civil protection mechanism has moved away from the former "civil defence." In result, the country's framework on civil protection and disaster relief is not contained in a single formal document. However, in terms of legal arrangements and policy statements, the harmonisation with international norms and standards is relatively successful.

At the policy level, the National Strategy for Emergency Situations defines the risks and responsibilities of different state, local, and private authorities to deal with such. Directorate for Emergency Management has been established to implement mechanisms for prevention, preparedness and response. The Law on Rescue and Protection is the core legal act, supplemented by the Environment Law (1996), Law on Waters of (1995), Law on Protection against Natural Disasters (1992), Law on Protection of Air against Pollution (1980), and others. The principal political-managerial body on civil protection is the National Coordination, headed by the Prime Minister and the ministers are remaining members. The core administration of civil protection is provided by the Ministry of Interior and Administration (Moi).

Introduction of emergency regime is a right and obligation of the Parliament.

The civil protection concept is comprehensive and relatively well balanced among the state, the municipalities (21 in numbers), business, and private citizens.

By way of comparison with best practices, the country's civil protection framework does not require development of hazard-specific contingency plans.

Montenegro is engaged in the Southeastern European international co-operation for risk reduction and disaster response.

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List of Abbreviations

(SES) DEM	(Old: Sector for Emergency Situations and Civil Protection) Directorate for Emergency Management
DPPI	Disaster Preparedness and Prevention Initiative
DRR	Disaster risk reduction
EC	European Commission
EMCT	Emergency Management Coordination Team
GIS	Geographical Information System
HFA	Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters
HMI	Hydro-meteorological Institute of Montenegro
MoD	Ministry of Defence
Mol	Ministry of Interior (In some documents: Ministry of Interior and Public Administration)
MRC	Montenegro Red Cross
NGO	Non-governmental organisation
OG	Official Gazette of Republic of Montenegro
SEE	South-East Europe (Southeastern Europe)
SFRY	Socialist Federal Republic of Yugoslavia
SZCG	Seismology Institute of Montenegro
UNHCR	United Nations High Commissioner on Refugees

1 Policy

Until independence, a national policy on risk reduction had not existed in Montenegro.¹ While in different state configurations,² all responsibilities for disaster risk management and civil protection had been assigned to various ministries, having neither a single political document nor legislation.

After obtaining independence³ in 2006, the new Government has adopted National Strategy for Emergency Situations, aimed to establish ground for building an adequate system of protection and rescue in emergency, and for policy on risk reduction based on prevention, mitigation and preparedness measures.

¹ However, Dr. Petar Miljanić has conducted the first systematic measuring in Montenegro on 1 September 1882 in Podgorica. The measuring included basic climate elements, atmospheric temperature, precipitation, and humidity, atmospheric pressure and wind direction.

² For details see <http://www.britannica.com/EBchecked/topic/1251949/history-of-Montenegro>

³ Montenegro has a population of 620,145 people. The country, with a total area 13,812 km², is divided into 23 municipalities. The capital city Podgorica, which has a population of 185,937 and the city of Niksic, with a population of 72,443, account for almost one third of the total national population. Populations of municipalities are small and the average is under 10,000 people.



Figure 1. Montenegro in the region of the Western Balkans

According to an international assessment (EU-UNDP, 2011), based of consultations with a wide range of stakeholders, the strengths and gaps for the disaster risk reduction, protection and relief policy of Montenegro include:

The key strengths of the country's policy on civil protection include:

- Experience with disasters;
- Documented damages;
- Easy and good communications flow;
- Relatively high level of autonomy of local governments in creating local development policies and measures;
- Existence of institutions such as the Hydro-meteorological Institute (HMI);
- Network of online stations that connect Seismology Institute of Montenegro (SZCG) with the neighbouring countries;
- A single system for developing assessments and plans at all levels;
- Good relationship with NGO's and international organisations;
- Experienced and knowledgeable management staff;
- Excellent informal relations and communication between the members of Directorate for Emergency Management with colleagues in the region and international community.

Weaknesses in country disaster risk reduction and relief capacity include:

- Montenegro's legal framework often lacks necessary disaster risk reduction (DRR) components. The country has no DRR National Action Plan and lacks the capacities to implement policies, strategies and mechanisms. To avoid overlaps and clarify responsibilities, standard operational procedures need to be developed for all stakeholders involved in disaster response;
- The absence of specific allocation mechanism for DRR in the national and local budgets leads to insufficient funding for many DRR-related areas. For instance, this prevents the HMI to operate a 24/7 analysing forecasting system;
- There is no post-disaster data collection and no database of hazards. A country-level Geographical Information System (GIS) database should be created;
- Risk assessments taking into account vulnerability and capacity considerations need to be strengthened at local level;
- Information management lacks established protocols and mechanisms. Little information has been exchanged; hydro-meteorological data for instance is not integrated into development plans, agriculture sectorial plans and the like. It is important to define ways for better utilisation of the seismic and hydro-meteorological data produced;
- The building codes are not properly enforced. Roles and responsibilities regarding the legalisation and approval of constructions should be clarified;
- Gender issues are currently not mainstreamed into the Montenegrin DRR planning. To tackle this problem, gender sensitive DRR training programmes should be offered to planners in ministries;
- Climate change adaptation mechanisms are hardly to find in the country's DRR approach, and no cross-border partnerships for production and utilisation of climate change related data exist.

1.1 Risk Assessment

Little information is available concerning specific disaster risks vulnerabilities. Much data is merged with data from Serbia. Average annual losses from major disasters comprise 1.6 per cent of GDP (according to Emergency Events Database, EM-DAT). Vulnerabilities include outdated building codes, unplanned land use and forest and mineral resource exploitation. Capacity needs identified in various studies include the establishment of a National Platform (NP) for: coordinating disaster risk reduction; developing a country-level GIS database for spatial planning activities; preparing a disaster management plan for the country; and improving and developing legislation on land-use planning and building codes.

Climate-related hazards and a large number of illegal and irregular constructions have seriously affected Montenegro's vulnerability. Official sources believe that there are over 100,000 illegal and irregular constructions in Montenegro, which if evenly distributed in a country with an average household size of 3.4 members, suggests every other household is illegal or irregular. (ECIS, 2012)

Furthermore, national authorities consider that a vast majority of these housing units, especially those built on the coast, carry a high level of seismic risk and, as the country recently found out, are highly vulnerable to floods (there is no disaggregate data on risk of either hazards). The communities are likely to experience severe negative externalities of unplanned and unregulated construction such as congestion, lack of access to many services and pollution – from a disaster risk perspective a possible domino effect of earthquakes and a host of other climate-related disasters, including floods, is likely. Montenegro represents a case where a rush for growth has triggered haphazard development including increased human settlements, investment in high-risk coastal areas and exposure of a greater number of people and assets in the path of floods. All of this generates vulnerability and increases the risk of large-scale damages and fatalities during a disaster.⁴

Risk identification, assessment and monitoring is mainly organised and implemented at the national level. Threat assessments are to be developed according to the Rulebook on the Methodology for the Development of Threat Assessment Studies of Natural, Technical-technological and Other Disasters,⁵ which serves as basis for the Directorate for Emergency Management (DEM) to produce the National Plan for protection of extreme meteorological occurrences. In this endeavour, the DEM is supported by line-ministries that provide specific data and mostly qualitative analysis of threats. The Rulebook prescribes that threat assessments should describe characteristics of threatened territory, assess potential impact, human and material potential to respond to the hazard (and thus vulnerability of the area to disasters) and identify where material and technical resources, knowledge, organisational structures could be improved. The Montenegro Red Cross (MRC) has conducted vulnerability and capacity assessments in ten pilot communities.

Globally, the DEM has made progress on making DRR and risk identification a priority for a broader group of governmental institutions. However, many documents such as the Directorate National Emergency Plans (National Plan for Protection from Earthquakes etc.) still show little evidence of comprehensive risk assessment including vulnerability, hazard and capacity considerations. An international study (EU-UNDP, 2011) has concluded that more financial, technical and qualified human resources need to be allocated to the area of risk identification in order to advance the DRR agenda. Cooperation between institutions should be improved as well, allowing information exchange.

The National security Strategy presumes that “Natural, ecological, technical and technological disasters, man-made accidents, and epidemics of human or contagious animal diseases may generate challenges, risks and threats against national security.”⁶

⁴ ECIS, 2012

⁵ Available at <https://www.google.bg/webhp?sourceid=chrome-instant&ion=1&espv=2&ie=UTF-8#q=Rulebook%20on%20the%20Methodology%20for%20the%20Development%20of%20Threat%20Assessment%20Studies%20of%20Natural>

⁶ National Security Strategy, Art. 3.2, www.gov.me/biblioteka/1154096856.doc

A) Natural hazards

Among the most significant natural hazards in Montenegro are listed:

- Earthquakes;
- Heavy rains that cause floods and erosion, including river flooding;
- Heat waves, forest fires and droughts;
- Heavy snow, snowstorms and frost;
- Wind storms;
- Airborne sand from deserts;
- Some epidemics, which could be directly or indirectly related to hydrology, meteorology and weather conditions.

Almost all of Montenegro is exposed to frequent seismic events, especially along the coast, the Zeta-Skadar depression and the Berane basin. Around 40 per cent of country's territory is within a zone of anticipated seismic intensity, greater or equal to magnitude 8 on the Richter scale. This affects around 60 per cent of the country's population. A devastating earthquake in April 1979 occurred on the coast and wider area of Skadar Lake – it caused damages amounting to USD 4 billion, affected 100,400 people and killed 136 people. There is a high probability that future earthquakes would activate large landslides and rockslides.

Meteorological hazards in Montenegro include floods and drought. Floods are the most frequent natural hazard (there have been six destructive floods in the last 20 years). Pazickopolje and the Lim River valley are most prone to flooding. The biggest floods were recorded in the upper flow of the Tara and the Lim rivers in 1963, 1979, 1999 and 2000. The analysis of the last five years shows the increasing trend of frequency and intensity of extreme meteorological events in Montenegro. These include unprecedented levels of precipitation and increase of temperature during the winter, which disables the rain to turn into the snow. Historic data on flooding in Montenegro shows that in the period 1979-1997 there were 5 major flooding events; but in the six years, 2004-2010, floods occurred 6 times. The biggest floods were recorded in the upper flow of the Tara and the Lim rivers in 1963 and 1979, and then at the end of 1999 and in the first half of 2000.

The December 2010 floods had unprecedented water levels, the extent of flooded areas and damage occurred in 12 out of 21 municipalities in Montenegro. Transport routes, electricity



Figure 2. Detailed map of Montenegro

supply and communication lines between the northern region and the rest of the country were obstructed for some time and 1.5% of the population had to be evacuated. The “Post-Disaster Needs Assessment following the November – December 2010 Flood Disaster” in Montenegro, estimated the total damages and losses at approximately EUR 44 million, or 1.49% of the 2009 GDP.

In January 2012, the country faced a cold freeze, with heavy snowfall blocking access to lifeline services and communications for many communities in the mountainous areas. The Government had to declare a state of emergency and national and international resources had to be mobilised to provide humanitarian relief to the stranded areas.

Strong droughts and increased summer temperatures were recorded in the periods 1981–1990 and 2000–2009.⁷ The most dangerous natural disasters in Montenegro for the period 1900–2014 are presented in the Table below:

Table 1. The most serious disasters in Montenegro 1900–2014⁸

⁷ Ulcinj Capacity Assessment Report. Third ECIS Disaster Risk Reduction Community of Practice Workshop, Montenegro, 4-6 June 2012.

⁸ Source: www.preventionweb.net

Disaster	Date	Number of total affected people	Number of deaths	Financial lost
Earthquake	April, 1979	100 400	136	US\$ 4 billion
Flood	3/12/2010	5000		EUR 44 million
Extreme low temperature with heavy snowfall	Jan.-Febr., 2012	4500		
Flood	12/11/2010	1350		
Flood	26/11/2007	1086		
Flood	25/12/2009	450		

Earthquakes

A thorough analysis on seismic risk was conducted in 1984 by the National Seismologic Institute of Montenegro in cooperation with the Institute for Geological Research of Montenegro and the Institute for Earthquake Engineering and the Engineering Seismology Institute of Skopje (now in FYROMacedonia), largely through research into the effects of the devastating earthquake of April 1979.⁹ This study serves as foundation for current vulnerability assessment of building stocks. The mentioned institutions constructed a first seismic zoning map of Montenegro and the whole region in 1982. From 1984 to 1988, the Institute for Geological Research of Montenegro realised seismic micro-zoning and maps showing the degree of suitability for constructions for urban areas within all municipalities in Montenegro.¹⁰

From 1987 on, the seismologic institutes of the former Yugoslavia has prepared a series of seismologic maps, which facilitated the establishment of building codes in seismic areas and the Regulations on Technical Norms for Building Construction in Seismic Areas¹¹ still in force in Montenegro. An isolated map for the seismogenic zone of Berane was also created. The last hazard map of 2005 is currently being updated, and as part of the NATO' Science for Peace Project it will be harmonised with the seismic hazard maps of other western Balkans countries. However, these are the only studies carried out in the field of hazard characterisation for Montenegro.

⁹ The Structure, Role and Mandate of Civil Protection in DRR for SEE, (UNISDR, 2008), available at http://www.unisdr.org/files/9346_Europe.pdf

¹⁰ Emergency and civil security Directorate of the Ministry of Interior, 2005, National Strategy for Emergencies

¹¹ Official Gazette of SFRY no. 31/81 with amendments no. 49/82, 29/83, 21/88 and 52/90

The DEM considers as a critical priority to enlarge seismic risk assessments to cover the whole national territory, especially for the most populated municipalities located in high-risk zones such as Budva, Herceg Novi, Bar, Ulcinj and Podgorica.

One of the biggest challenges is the large number of informal settlements; these complicate the development of risk analyses because it is difficult to ensure that the data corresponds with reality. (EU-UNDP, 2011) The entire area of Montenegro, and especially its coastal and central part (Zeta-Skadar depression and the Berane basin), is a seismically active area, exposed to low- and medium-intensity earthquakes, and occasionally to devastating earthquakes of large magnitude.

Modern research has confirmed the lasting existence of a high level of seismic activity and earthquake hazard in this part of the lithosphere, practically the entire region of Montenegro. The coastal area, the Zeta-Skadar depression and the Berane basin should be highlighted as significant seismically active areas of the country.

The earthquake of 15 April 1979 at the coast and wider area of Skadar Lake had a devastating effect. 101 people were killed in Montenegro and 35 more in Albania (in Shkodër and Lezhë counties), while the injured reached 1172 and 382, respectively. After the earthquake, 100,000 people were left homeless (of which 20% were in Albania).¹²

Damage surveys of circa 58,000 buildings in the affected areas of Montenegro (6 coastal and 6 inland municipalities) showed that worst affected was Ulcinj municipality with 47% of its building stock classified as collapsed or destroyed, followed by the municipality of Bar (37%). Severely affected were also the municipalities of Budvar, Kotor and Cetinje (all three lost circa 22% of their building stock). In total almost 15,000 buildings were destroyed (16% of which in Albania) and another 25,000 were damaged (49% of which in Albania and 4% in Croatia). Damage to historic buildings and other heritage sites of Montenegro was particularly serious, with over 1600 cultural monuments being affected as well 33,000 of works of art and valuable collections. The old towns of Ulcinj, Bar, Budva, Kotor, and Herceg-Novı were so badly damaged that their entire artistic contents had to be rescued and stored elsewhere, while the old towns of Budva, Ulcinj and most of Kotor were entirely evacuated as they were in a highly dangerous condition.

The cost of the earthquake according to the Yugoslav government's final estimate was 4 billion USD including 275 million USD indirect losses (7.5% of Yugoslavia's GDP in 1979).

The National Strategy of Emergency Situations (2006) evaluates the seismic risk through out the country in the following way:

¹² Damage was also significant in coastal areas of southern Croatia (particularly in the old city of Dubrovnik) and in Southwestern districts of Bosnia-Herzegovina.

Table 2. Seismic risk, area and potentially affected population in Montenegro¹³

Region	Maximum intensity	area		Population	
		Km ²	%	people	%
Coastal region	IX	1,900	13.8	151,000	24.4
Podgorica-Danilovgrad region	VIII	3,030	21.9	205,000	33.1
Central region of Montenegro	VII	7,600	55	229,000	36.9
Seismogenic zone of Berane	VIII	340	2.5	20,000	3.2
Northern region	VI	940	6.8	15,000	2.4

More recently, the seismic activities are concentrated along the seacoast and the Southeastern part of the country. According to the HMI, last three years the strongest earthquake has been on November 3, 2012 with 3.0 Richter magnitude in the area of Radanovića.

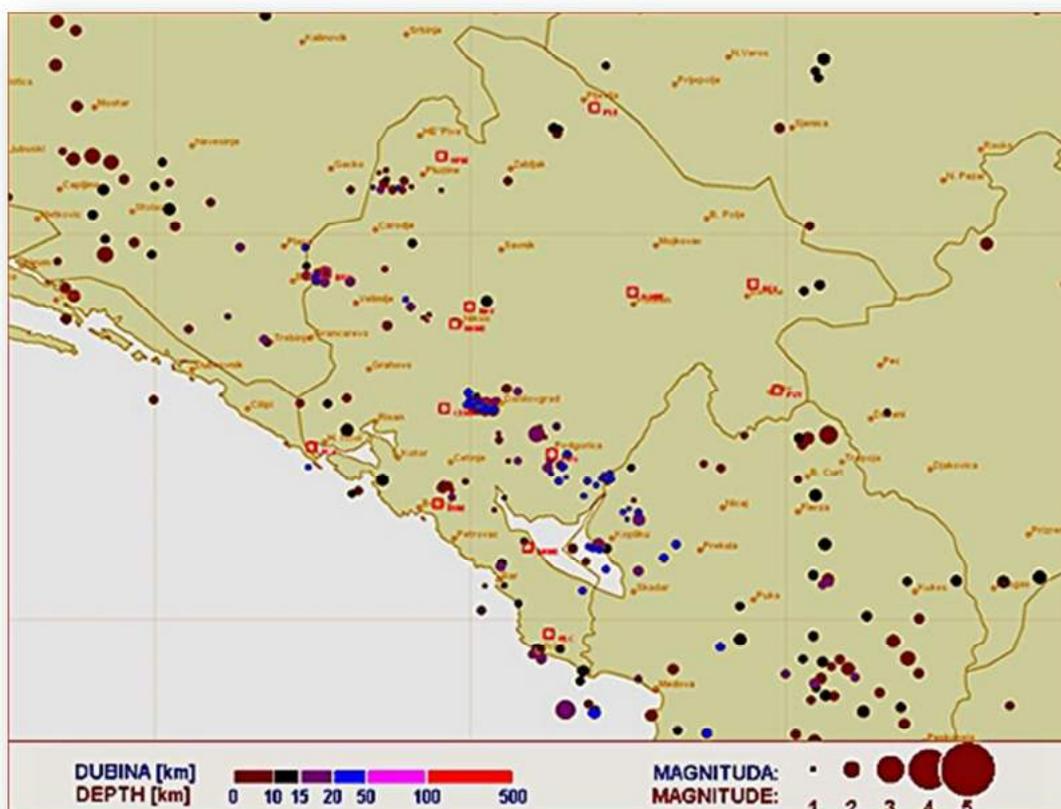


Figure 3. Seismic activities in Montenegro in 2012.¹⁴

¹³ Source: National Strategy of Emergency Situations (2006)

¹⁴ Source: <http://www.seismo.co.me/maps/jan2010.htm>

Heavy rains that cause floods and erosion, including river flooding

Floods are the most frequent natural hazard (there have been six destructive floods in the last 20 years). Pazickopolje and the Lim River valley are most prone to flooding. The biggest floods have been recorded in the upper flow of the Tara and the Lim rivers in 1963, 1979, 1999 and 2000.

The best and most fertile land in Montenegro is regularly flooded. The Pazicko polje is vulnerable to flooding, and flood events were reported there in 1980 and 2001. The valley of River Lim at the estuary of the River Moraca, and the Zeta plain are also susceptible to flood. Flooding occurs irregularly in other areas due to the karstic structure.

With average flowing off, which is 40 litres/s/km², and in cubic capacity it is about 19,5 km³/year, Montenegro is a part of 4% of the world territory with biggest average flowing off. Water is the country's biggest natural resources as 95,3% of watercourses are formed within the country (both source and drainage basin). (UNDP, 2011)

The December 2010 floods had unprecedented water levels, the extent of flooded areas and damage occurred in 12 out of 21 municipalities in Montenegro. Transport routes, electricity supply and communication lines between the northern region and the rest of the country were obstructed for some time and 1.5% of the population had to be evacuated. The "Post-Disaster Needs Assessment following the November – December 2010 Flood Disaster" in Montenegro, estimated the total damages and losses at approximately EUR 44 million, or 1.49% of the 2009 GDP. (ECIS, 2012)

Extreme heat and droughts

According to the available data, i.e. in a series of measurements since 1949, and at some stations and since 1958 until the present day, it is evident that since 1998 extreme heat has started appearing more often, and especially during August. In the Northeastern regions of Montenegro (confluence of the Tara and the Lim), maximum annual precipitation in mm/day has been on the rise since the 80's. However, there is no systematic increase and it has been strictly localised. Strong droughts and increased summer temperatures were recorded in the periods 1981–1990 and 2000–2011.

Cold weather

In January 2012, the country faced a cold freeze, with heavy snowfall blocking access to life-line services and communications for many communities in the mountainous areas. The Government had to declare a state of emergency and national and international resources had to be mobilised to provide humanitarian relief to the stranded areas.

B) Technological hazards

As well as natural hazards, Montenegro's ageing industrial base present major risks for the population. As UNISDIR study illustrates, in a train crash killed 45 people because of intrinsic problems in railway system.

Major technogenic hazards include oil storages along the seacoast, mines in the mountains, steel factories and several small chemical plants, transport and railroad infrastructure (including bridges and tunnels) and the electric grid.

In terms of its preparation for EU membership, Montenegro has indicated that the so-called Seveso II Directive, i.e. Directive 96/82/EC on the control of the major-accident hazards involving dangerous substances as amended by Directive 2003/105/EC, is at a very early stage of transposition. Full alignment to the Seveso II Directive is planned for 2015 by the adoption of a new Law on Environment in 2014, and a number of secondary legislative acts in 2015. The practical implementation of the Seveso II Directive has yet not started (as of 2013).¹⁵

1.2 Policy and Governance

As has been reported by the EU, Montenegro stated that it has completed important steps towards building and upgrading its emergency management system, in particular by the adoption of the 2007 Law on Protection and Rescue, the National Strategy for Emergency Situations and the 12 national plans on protection from fires, floods, extreme weather, earthquakes, accidents etc. According to Montenegro, the current revision of the 2007 Law on Protection and Rescue will bring it more in line with the EU civil protection acquis and disaster management policies. The competent authorities are in place. For protection from floods, the responsibility is shared between the Ministry of the Interior and MoARD. For industrial accidents, competences are shared between the Ministry of Interior and the MoSDT. The Ministry of the Interior has established a Directorate for Emergency Management responsible for the preparation and implementation of emergency management actions. Montenegro has acknowledged that the organisation is facing a lack of financial resources and insufficient administrative capacity.

Montenegro has stated that it plans to apply to join the EU Civil Protection Mechanism, established by Decision 2007/779/EC (recast) before the end of 2013 with the aim of completing the necessary preparations and becoming a participating state in 2014. A decision on accession of Montenegro to EU Civil Protection Mechanism has been adopted by the Government on 1 August 2013. The Department for Emergency Management has around the clock operational English-speaking contact points with the Emergency Response Centre of the European Commission. (EU, 2013)

¹⁵

Source:

http://ec.europa.eu/enlargement/pdf/montenegro/screening_reports/screening_report_montenegro_ch27.pdf

According to UNDP-Montenegro,¹⁶ the Law on Protection and Rescue (2007) defines the responsibilities, rights and obligation of citizens, legal entities, local self-government, and state administrative bodies pertaining to protection and rescue. The Government adopted National Strategy for Emergency Situations in 2006. The National and Local Plans for Protection and Rescue are adopted at the national and municipal levels and at the level of specific companies. The National Strategy of Sustainable Development (2007) and Spatial Plan of Montenegro (2006) are other instruments identifying risk mitigation measures. The Montenegrin National Forestry Policy and National Forest Inventory identify potential threats to the forests. The Law on Montenegrin Red Cross identifies the Red Cross role in emergencies; training, evacuation support, family unification, tracing and first aid. The 2010 Law on Hydro-meteorological Matters and Law on Hydrographic Activities gives mandate to the Hydro-meteorological Institute of Montenegro to issue warnings.

The Ministry of Interior is mandated for risk management, preparedness and response since 2004. The Directorate for Emergency Management (DEM) subordinate to the ministry has been established in 2004 and has started considering DRR since 2010.

1.1.1 Strategy scope and focus

The overwhelming national security document – the National Security Strategy of Montenegro, determines that the country should be ready to respond to variety of threats against national and international security by undertaking three missions:

- Prevention and management of vital threats,
- Crisis management for the purpose of promoting peace, and
- Defence.

The Strategy rules out that “Managing emergency situations caused by natural disasters, ecological, technical-technological (manmade), chemical, biological, nuclear and radiological disasters, epidemics, as well as consequences of terrorism and other hazards that might create risks and threats against the security of Montenegro and the region” is one of the core national security missions.¹⁷ Within the mission Prevention and management of vital threats, the document states that all instruments of security policy should be used (in particular) for “...helping to relieve natural and man-made disasters in Montenegro and abroad; protecting people, critical national infrastructure and vital facilities...”¹⁸

The Government, for achieving this aim, will pay special attention to “strengthening the capacities and institutions responsible for management in emergency situations caused by natural, technical-technological (manmade), biological, chemical, nuclear, radiological and other accidents, ...”¹⁹

¹⁶ Source: <http://www.me.undp.org/content/montenegro/en/home.html>

¹⁷ Ibid, p. 9, point 4.2.3

¹⁸ National security Strategy, Art. 3.4, www.gov.me/biblioteka/1154096856.doc

¹⁹ Ibid, p. 6.

Based on these propositions, the scope of disaster management strategy and policy of Montenegro include natural and man-made disasters at national, local, business and private levels. As the capacities of municipalities are relatively limited, the focal point of all preparations is at the Government and the governmental agencies.

At the documental level (National Security Strategy, National Strategy for Emergency Situations and Law on Protection and Rescue), strategy and policy apply an integrated approach to disaster management that includes preventive and operational plans and operations. Disaster risk reduction and resilience have not been introduced yet, despite that some elements have been implemented through the recent international programmes (UN, World Bank, EC).

However, Montenegro does not use the concept of 'civil protection' as one of the core Government functions. Instead, the Law on Protection and Rescue stipulates that 'Civil protection shall consist of civil protection units, protective and rescue equipment, buildings and devices.' (Art. 56)

1.1.2 Monitoring and analytical support to policy making; R&D

Disaster data is poorly integrated in Montenegro. Because of its relatively short history as an independent sovereign state, much data is still merged with data from Serbia and former Yugoslavia. Institutionally, a DEM division – Department for Risk Assessment, is responsible for the repository and management of the national database on risks.

In order to create the necessary preconditions for the successful and efficient management in protecting and saving, it exercised a system of continuous monitoring of all possible causes of emergencies, as well as re-evaluation of the elements of the relevant hazards, in particular:

The National Strategy for Emergency Situations prescribes the following set of monitoring and evaluation requirements:

- Creation of new and improvement of existing technical capacity for reliable continuous monitoring of all natural phenomena and technological processes, as well as biological hazards, which can result in disasters such as: seismological, hydrological and meteorological phenomena, as well as radiological, environmental and health conditions and parameters;
- Equip existing laboratories and establishment of new laboratories necessary for an efficient detection technology and radiological accidents, in order to effectively prevent and reduce accidents,
- Develop modern integrated information systems (GIS) for automated monitoring of all important processes as the basis for system management in emergency situations;
- Periodically re-evaluate all types of important hazards in Montenegro, in order to provide valid data for reliable preventive action and emergency management;

- Provision of the institutions engaged in monitoring natural phenomena and technological accidents with relevant equipment and training.²⁰

The Rulebook on the Methodology for the Development of Threat Assessment Studies of Natural, Technical-technological and Other Disasters stipulates that threat assessments should constantly stay up-to-date. Therefore, they are subject to compulsory analysis at least once a year.²¹ To enable the harmonisation of contents between different levels, the Ministry of Interior/municipalities submit their reports to municipalities/companies. The Assessments are to be stored in print and electronic version within the Ministry of Interior, the competent self-government body at local level and legal persons or entrepreneurs within companies.²²

However, it seems that the Rulebook's methodology is not widely acknowledged or practiced, particularly at municipal level, notably because of limited capacities. According to an international study (EU-UNDP, 2011), the Montenegro Red Cross, for example, does not use the existing risk identification methodology either, and receives risk information only in emergency cases and through the DEM rather than on a regular basis.

The hydrological, meteorological, oceanographic, air quality, and water quality data, collected by the Hydro-meteorological Institute through its networks, is stored in the digital Oracle database.²³ The HMI maintains two types of databases – meteorological and environmental – and there is a linkage with systems measuring various parameters (radiological, weather, seismologic, air quality), as well as operating procedures for providing data to relevant services. The HMI does not collect or keep any separate hazards statistics, but statistics for high wind, heavy precipitation and extreme temperatures can be produced for each synoptic observation station.

Local community units collect data on the impact of hazards on the population: police units report on the impact of landslides and rockslides on transport. However, they are rarely consulted regarding this data.

An international study concludes that currently no evidence of modern disaster risk reduction information management technology. Data is scattered amongst various players and no formal mechanism has been developed to store or access it. There is no central depository of hazard-related data, no data storage bank to facilitate data collection and dissemination. Although

²⁰ Exert from National Strategy for Emergency Situations, V.3. MONITORING I EVALUACIJA HAZARDA

²¹ Rulebook on the Methodology for the Development of Threat Assessment Studies of Natural, Technical-technological and Other Disasters Article 16

²² Rulebook on the Methodology for the Development of Threat Assessment Studies of Natural, Technical-technological and Other Disasters Article 17

²³ From the IHMS web-site <http://www.meteo.co.me/> The Institute's analyses on averages, variability and extremes are available on their website.

DRR-related data can be accessed informally on demand, many stakeholders are unaware of its mere existence because of its unsystematic collection and updating. Beyond hazard-related data, vulnerability and capacity maps are not existent. Information sharing needs to be improved and systematized. (EU-UNDP, 2011)

The Ministry of Environment conducts risk monitoring but issues limited early warning messages. The ministry has developed predictive hydrological models and is considering the development of similar models for other risks. Existing risks are reflected in the ministry's development plans through policy documents – however, it is not clear how this information is used in the development of programmes of other governmental institutions. In case of forest fires, there is no monitoring and prevention mechanism in place, even in protected areas. (UNDP, 2012)

Seismological Observatory in Montenegro is responsible for the monitoring of seismic hazards – probably the best-monitored hazard in the country. Other hazards are monitored to a lesser extend or not at all.

The Institute of Hydro-meteorology and Seismology (IHMS), by using its network of monitoring stations (10 automatic stations, 20 climatological stations, 60 precipitation stations and 51 hydrological stations, out of which 23 are automatic) provides data on a regular basis to the DEM and other government organisations. According to an UNDP study, the institute does not have a specific methodology for risk identification when monitoring floods, droughts and fires. The IHMS has counted on the support of the World Meteorological Organisation (WMO) for risk assessment and monitoring. The study also concludes that lack of funding and human capacity is a concern for the smooth functioning of the institute. (UNDP, 2012)

Montenegro has joined the ARGOS consortium²⁴ to enable better identification and monitoring of chemical, biological, radiological and nuclear threats.

1.1.3 Policy for Prevention

Prevention, within the disaster risk reduction strategy, has been considered and addressed by the Montenegrin authorities only since 2010. Montenegro is slowly getting aware of the possibilities existing regarding this issue, for instance through earthquake-resistant design, spatial-city planning and preparation against earthquakes to alleviate seismic risk.

The National Strategy for Emergency Situations prescribes the following set of prevention priorities:

²⁴ ARGOS is a Decision Support System for crisis and emergency management for incidents with chemical, biological, radiological, and nuclear releases. The current member countries of the ARGOS Consortium are (November 2014): Australia, Brazil, Bosnia-Herzegovina, Canada, Denmark, Estonia, Ireland, Lithuania, Macedonia, Montenegro, Norway, Poland, Serbia, and Sweden: <http://argosconsortium.org/members.html>

- It is necessary to build facilities and installations in accordance with the local risk of emergencies and with respect to technical norms;
- Microbiological laboratories must be certified and permanent supervision of their work shall be established;
- It is necessary to intensively implement monitoring of transportation of dangerous goods;
- The arms, military equipment and dual-use goods regimes should be strengthened;
- Appropriate plans for protection against all hazards must be developed; the plans shall be concrete and focus on prevention the occurrence of harmful effects from emergencies as well as on rehabilitation in case they happened;
- Conduct a periodical (at least once a year) review of the readiness of responsible personnel and mobile teams for all types of assumed potential disaster;
- Provide reserves of necessary materials for all anticipated disasters;
- Establish preventive measures to protect sources of drinking water supply of large urban areas;
- Develop national contingency plans in case of emergencies;
- In cases of accidents, interventions need to be coordinated between institutions and with the local authorities.²⁵

At community level, municipalities have the responsibility to build their own capacities. Thus, their development processes are mostly ad hoc and depend on their respective budgets.²⁶ In flood-prone areas like Berane, Ulcinj or Rozalje, local municipalities are building embankments as preventive measures, but processes like these vary according to municipalities.

Risk mitigation measures were integrated to a good extent into the spatial development plan, even though vulnerability due to different hazards has not been worked out.²⁷ The Vienna Declaration (2004) has recognised the construction of illegal settlements in the countries of South-East Europe as evident problem.²⁸ As a signatory state, Montenegro is now committed to undertake measures necessary for defining causes of illegal construction and initiating and implementing reforms in the field of sustainable urban development and housing policy through appropriate inspection and supervision. Illegal construction in some local self-governments has been significantly reduced, e.g. in the capital Podgorica. However, lack of professional personnel for execution of the works related to inspection supervision²⁹ and disrespect of regulations by legal entities and natural persons hamper the state's efforts to suppress illegal construction and to improve existing legislation in the area of spatial planning.³⁰ As one of the measures to reduce seismic risk, the municipalities have to define

²⁵ Based on Chapter V.4. PREVENTIVNE MJERE;

²⁶ Law on Protection and Rescue, Article 41

²⁷ <http://drace-project.org/index.php/map/montenegro>

²⁸ Vienna declaration is available at http://www.stabilitypact.org/housing/f%20-%20050415_Vienna%20Declaration.pdf

²⁹ Spatial Plan Status Report p.69

³⁰ Spatial Planning Support Project Revised Work Plan September 2010 – August 2011

procedures for seismic risk to be assessed and considered when elaborating local planning documents and urban development.

An environmental assessment taking into account seismic risk and climate change is compulsory for the construction of critical infrastructures such as bridges, schools and hospitals. However, whether the responsibility of approving construction lies at the municipal or central level is not always clear. (EU-UNDP, 2011)

1.1.4 Policy for Preparedness

At national level, the National Strategy for Emergency Situations (2005) provides a basis to respond quickly to technological and natural disasters. Simulation exercises to test the strategy in reaction to earthquakes have been carried out in collaboration with international experts in Danilovgrad. However, funding is an issue and these exercises highly depend on donor support.

The Rulebook on Methodology for the Development of Protection and Rescue Plans³¹ provides a more systematic guidance on the policy for preparedness. The Rulebook establishes how contingency plans for the a) prevention, b) crisis management and c) early recovery should be developed at national level, local level and within companies. To comprehensively address the three disaster management phases, the following aspects should be covered:

- Spatial planning issues,
- Regulate river flows,
- Control torrent,
- Protect from fire,
- Monitor,
- Build local early warning systems,
- Distribute protection and rescue tasks,
- Prepare water sanitation and install potable water sources, and
- Implement health measures.

Plans should also define which body is accountable for taking decisions, transmitting information to the 112 Centre, executing and managing mobilisation, making reports, and where funding and personal and material resources are to be found.

It requires also a layered map to be created at national level (1:200 000), identifying population density, threatened zones, and border crossings where international aid and rescuers could potentially arrive. At local level, 1: 25 000 maps should help locate temporary settlement areas, access roads for intervention, evacuation routes, zones where to place refugees, medical facilities. Similar map should be created for companies (places for administration of first aid, shelters).

³¹ Official Gazette of Montenegro 13/07, Rulebook on methodology for the development of protection and rescue plans, <http://www.questionnaire.gov.me/Annexes/Annex082.pdf>

1.1.5 Policy for Response

The Law on Protection and Rescue (Art. 11) regulates the policy for response in the following way:

“Activities and practices that are mandatory conducted in the time of risk, are especially:

- 1) activation of protection and rescue units;*
- 2) implementation of evacuation and care and support for the population and material goods;*
- 3) preventing the spread of risk and risk consequences and*
- 4) coordinating the activities of participants in protection and rescue.”*

At national level, the Emergency Operations Centre situated within the Emergency Management Coordination Team (EMCT) operates standby troops. At local level, Municipal Teams for the Management of Emergency Situations include members of the Montenegro Red Cross (MRC), who are volunteers, and a representative of the DEM (professional rescuers), and are lead by the mayors.³²

Protection and rescue operations are conducted by civil protection units of the government, fire fighting units, local government units, specialised protection units, business organisations, airborne (helicopter) and terrestrial fire units, trained volunteers, and employees of Ministry of Interior, which have passed the state licence exam for working on protection and rescue affairs. More than 4000 people not including the Army and Police units can be counted on to respond to any emergency.³³ From the 10,000 Red Cross volunteers, 1,000 are operational on a daily basis.

The DEM can additionally activate its local branches, local MRC units, as well as local Police Units and its operational helicopter unit. When needed, the MoD can deploy steady Civil Protection Units to complete resources and capacities of the DEM and municipalities.

The quality of protection services greatly depend of the municipality’s financial capacity. A UNDP study cites the response of the municipality of Berane to the 2010 flash floods: 700 persons could be accommodated in sport halls and provided „with food, mattresses, blankets, cooking sets, hygiene items, potable water, baby formula and diapers”. However, according to the report, this has been greatly due to external funding provided by the UNHCR, Caritas Luxemburg and UNDP (the MRC also provided some donations), and the funds were not sufficient to cover urgent repair of houses.³⁴

³² Law on Protection and Rescue Official Gazette of Montenegro 13/07, 2007.

³³ The numbers are provided by the Directorate for Emergency Situations.

³⁴ UNDP, 2010, Montenegro flash floods early recovery support for riverside Berane.

1.1.6 Policy for Relief and Recovery

The terms “relief” and “recovery” have not been used in the relevant legislation and documentation of Montenegro. However, the Law on Protection and Rescue (Art. 12) prescribes the policy of “elimination of risk consequences” in the following format:

“The activities and practices that mandatory conducted for the elimination of risk consequences are, especially:

- 1) Assessment of the damage and consequences;*
- 2) Remediation of risk affected areas;*
- 3) Ensuring and providing necessary assistance to vulnerable and affected population;*
- 4) Implementation of health and hygienic and epidemiological measures;*
- 5) Implementation of appropriate protection of animals and plants and animal and plant products and*
- 6) Organising supply with resources for assistance and provision of utility services for a fast normalisation of life.’*

There is no available information on the mechanism of post-disaster assessment and delivery of compensations at national level. It seems that the Government decides on case-by-case basis all consequence management issues.

According to the Law on Protection and Rescue (Art. 41), “The municipality shall, in exercising rights and obligations in the protection and rescue field: ... decide on the amount of budgetary funds for damages caused by risk.” Based on this regulation, local committees conduct damage assessments at the municipality level. A special budget for disaster response is allocated to municipalities and managed by the mayor. However, citizens are not compensated in full. The municipality authorities decide the amount to be compensated, but usually it does not go beyond 50 per cent of the total cost of the damage (regarding construction, this practice covers both legal and illegal construction).

As a result, richer municipalities may apply higher standards for damage and loss compensation. In case the available budget in the municipality is not sufficient to compensate the citizens, the central level provides a mechanism to access funds for this purpose. According to Art. 76 of the protection and rescue law “Cost of accommodation of evacuated population shall be provided in the budget of Montenegro.”

EU-UN sponsored study concludes that early recovery issues in Montenegro “... are only addressed as much as the budget allows it, which is very superficially, and not specifically incorporated into any strategies, legal acts, plans or institutional arrangements. Financial means are by far not sufficient to effectively allow communities to quickly recover in times of emergencies.” (EU-UNDP, 2011)

1.3 Financing

According to the Law on Protection and Rescue there are the following sources of disaster management funding:

“Protection and rescue shall be funded from:

- The budget of Montenegro;
- Municipal budget;
- Voluntary contributions;
- International assistance;
- Funds of business organisations, other legal persons and entrepreneurs;
- Other sources.”

According to the Government report (MoI, 2014), the Budget of the Ministry of Interior for 2013, for the purposes of the Directorate of Emergency Management is at the amount of 2,552,337 euros.

The structure of the funds spent by positions is:

- Gross wages and employer contributions -1,474,081 euros;
- Other personal payments - 280,567 euros;
- Expenses for materials – 117,045 euros;
- Expenses for services – 29,473 euros;
- Expenses for maintenance - 376,623.83 euro;
- Annuity – 90,000 euros;
- For other tasks – 184,545 euros.

1.3.1 Investing in preparedness

Neither that Law, nor any other document prescribes how the budget should be dedicated to risk reduction and crisis response. However, despite that the DEM has been working on DRR since 2010, at central level there is no budget to develop disaster risk reduction activities, as the existing budget is allocated to covering salaries. Furthermore, within other ministries, annual planning needs do not include specific programs oriented towards risk reduction so budgets cannot be allocated for them.

At the municipal level, spending on developing or implementing DRR measures is on ad hoc basis.

HMI is severely under-financed for essential parts concerning DRR and it does not have resources to operate a 24/7 analysing and forecasting system.

According to World Meteorological Organisation study, it can be expected that, if Ministries prepare adequate DRR programmes or projects, there could be possibility of funding from EC funds. UNDP has also channelled activities through the Bureau of Crisis Prevention and

Recovery, which could be directed at capacity development and improving risk assessment practices. (WMO, 2011)

Table 3 below provides information on the annual budget allocation in Montenegro and gives opportunity to compare national civil protection burden with the countries of SEE:

Table 3. Disaster management funding in Montenegro compared with the SEE countries.

Country	National Disaster Fund	Size (in millions of USD)	Annual appropriations (in millions of USD)	Local disaster funding
Albania	Civil emergency fund	0.4	0.4 annually if needed, plus additional budgetary appropriations in case of an emergency	Local government reserve funds
	Council of Ministers reserve fund (can be used for emergencies)	17		
	Ministries' reserve funds			
Croatia	Budget reserve	5.5	Annual allocations	Municipal budget funds
Bosnia and Herzegovina	Budget reserves	0.5	0.5 payroll tax	
	Fund for special reimbursement for protection and rescue		Annual appropriations	
Republika Srpska	Budgetary reserve			
Bulgaria	Republican fund*	31.25	Depends on annual budgetary appropriations	Municipal budgets
FYR Macedonia	State budget reserve		Annual appropriations	
	The Solidarity fund	6.0	Donations	
Moldova	Reserve fund	7.3	Annual budgetary replenishments	2% of local budgets
	Agencies' reserve funds			
Montenegro	Disaster assistance fund	0.62	0.62	
Romania	Intervention fund	5.0	Annual appropriations	5% of local budgets
	Reserve budgetary fund		Annual local budget appropriations	
Serbia	Disaster Emergency Fund	1	1	
	Reserve Fund	21	1	
Slovenia	Budget reserve fund	40	Annual budget appropriations	

1.3.2 Investing in consequence management

Concerning the size of emergency assistance, Montenegro does not regulate the maximum amount of aid per person or legal entity, in the case of large disasters. However, the emergency assistance typically covers only a small fraction of total damages, as the overall amount of aid is mainly limited to government budget reserves for emergencies. The amount, provided by the Government of Montenegro is up to 10 per cent (while in Slovenia compensation is 40-60 per cent of damages).

Municipalities in Montenegro dedicate to disaster management between one and three per cent of their budgets. Mayors manage this funds according recommendations from established committees. Presumption is that, if the disaster is significant and damages are above the local budgets capacity, than the Government to provide additional funding for reconstruction and compensation of people.

Concerned the specific requirements for pricing, reserving or reporting disaster risk underwritten by local insurers, Montenegro companies are allowed to form equalisation or other reserves, but only after a formal approval by the Insurance Regulator.

In terms of personal and family insurance culture, most of the population do not have (or are not aware of the need for) insurance against natural disasters – it barely exists in Montenegro. It is the responsibility of the citizens to activate the insurance, but since it is not mandatory by law, the population and companies don't see the need for it. In practice, citizens expect the State to somehow compensate them. Furthermore, it is not clear if the insurance system in the country is capable of issuing insurance products covering natural disasters, as there is no proper risk assessment that could be used by the insurance companies for costing their products.

1.4 Policy review, Evaluation & Organisational Learning

1.4.1 Post-Disaster Assessment

Art. 36 of the Law on Protection and Rescue requires the Government to “...submit a report to the Parliament of Montenegro and the President of Montenegro on the type, cause and scope of the resulting state of emergency, the measures and activities taken to protect and rescue and estimates regarding the possible future developments.”

However this requirement, the policy on civil protection, obviously, is a part of the Ministry of Interior's internal planning, implementation and accountability process. There are not publicly available plans or annual reports neither at Ministry of Interior, nor at Directorate for Emergency Management levels.

A collection of data and assessment has not been established yet in a formal manner that makes post-disaster policy review unavailable.

Recently, the post-disaster recovery is not introduced into disaster preparedness planning.

UNDP-Montenegro has organised 'Post-Disaster Needs Assessment following the November – December 2010 Flood Disaster in Montenegro' observing damages to households and livelihoods in Berane.

1.4.2 Departmental Lessons Learned systems

No available data.

1.4.3 Centralised (national) Lessons Learned system

The Department for Risk Assessment within the DEM is responsible for managing a national risk database,³⁵ but no formal mechanism for the collection, storage and accession of information exists at national level. There is little retrospective country-specific disaster data available and data collection is generally undergone ad hoc at different levels, mostly by local committees, and by organisations pertaining to hazards, which impacted them. There is an

³⁵ The Structure, Role and Mandate of Civil Protection in DRR for SEE, 2008

extensive belief expressed by the stakeholders that a standardised methodology for impact assessment is needed.

The DEM has an inventory of information about some past floods (local commissions made damage assessment reports in the aftermath of the 2009/2010 floods, some information is available concerning the 2000 droughts), but the data is neither organised nor harmonised. The same holds true for data from the Ministry of Agriculture, which prepares surveys on damages caused by floods at municipal level when farmers claim for indemnities. The only comprehensive post-disaster assessment was developed for building stocks after the 1979 earthquakes in order to serve as basis for a study assessing the vulnerability to seismic hazards. (EU-UNDP, 2011)

However, it is difficult this achievements to be qualified as lessons learning system.

1.4.4 International exchange for Lessons Learned

Obviously, the authorities in Montenegro are aware with the fact that the country has not sufficient resources and capabilities to protect, rescue and relief in a case of major natural or technological disasters. The National Strategy for Emergency Situations reflects this understanding, requiring to establish communication with relevant international institutions, which in the case of a major disaster could render appropriate assistance, such as the International Red Cross, WHO, FAO, UNEP, UNCOPS, UNIDO, IAEA, and others. The Strategy stipulates the importance of regional crisis management cooperation in SEE in order to gain new experiences and improving response capabilities.

1.4.5 Regular policy reviews

The Law on Protection and Rescue requires the Government to "... submit an annual activity report to the competent working body of the Parliament of Montenegro." (Art. 36)

1.5 Resilience

The Montenegrin authorities do not implement the concept of resilience. There are neither legal, nor policy regulations on the use sustainability standards by public institution or private business.

1.6 Information sharing and data protection

2 Legislation

Following the dissolution of the Socialist Federal Republic of Yugoslavia (SFRY) in 1992, Montenegro federated with Serbia, first within the Federal Republic of Yugoslavia and subsequently, after 2003, in a union of Serbia and Montenegro established by adoption of the Law on Implementation of the Constitutional Charter.

Since 2003, and following the declaration of its independence on 3 June 2006, the Parliament of Montenegro approved a number of laws and regulations with the aim of modernising the old jurisdiction of the SFRY, as well as introducing new State competences. However, the legislation in force is still based on a large number of laws, regulations and decrees approved and implemented by the parliament of SFRY both in the frameworks of geophysical risk, meteorological risks, and industrial and technological risk.

Within this framework, civil protection represents a critical issue for the country, since historically Montenegro has suffered the dramatic effects of natural and technological disasters that have caused huge damage and suffering.

Specific laws relevant to civil protection have been approved as follows: the Law on Protection and Rescue, Law on Transfer of Dangerous Goods, Law of Explosive Materials and Law of Flammable Liquids and Gases.

The National Strategy for Emergency Situations, adopted by the Government of Montenegro in December 2006, can be considered as a foundation document for the modern structure of civil protection in Montenegro.³⁶

2.1 Crisis (emergency, disaster) management concept

In circumstances of a certain destructive natural or technological hazard, the National Strategy for Emergency Situations represents one of the strategic documents concerning national security with the aim to secure the state's acting and the efficient acting of other institutions in states of emergencies caused by all kinds of large-scale natural accidents, technical and technological accidents and epidemic infectious diseases, in order to decrease number of accidents through prevention activities and mitigate their consequences.

³⁶ Source: Building Resilience to disaster in the western Balkans and Turkey, <http://seekms.dppi.info/countries/general-info-montenegrian/legal-institutional-framework/legal-framework/>

An “emergency” is a state caused by extraordinary circumstances’ effects of natural or man-made character, which directly endanger people’s lives and health, their property, environment, cultural-historical heritage in certain areas and it also represents a situation when a community is not capable of combating the consequences on its own but it needs help from the state and sometimes from the international community. Numerous victims, great damages and need for help are main features of catastrophes. Suddenly and drastically, the catastrophes create social and ecological misbalance causing worsening of hygiene-epidemic situation in the area.

Uncontrolled effects of few natural phenomena cause emergencies. In the geographic area that Montenegrin territory belongs to those events are most often earthquakes, huge rockslides (landslides), floods, long lasting extreme meteorological phenomenon, snow slides, fires on regional levels and other big natural catastrophes. Big technical-technological accidents may result in catastrophes and emergencies and those are accidents caused by damages on oil and oil derivate installations, transport accidents while storing chemical and toxic materials, explosive and radioactive substances, drinking water springs contamination, big traffic accidents, mining accidents, industrial accidents caused by explosions, radiological, biological, biological-epidemical and other technical-technological accidents. Epidemic infectious diseases (epizooty and epiphytotic disease) as mass infections of people, animals and herbs may cause emergency.

The constant existence of a considerable level of risks that can be caused by natural and technical factors is unarguably proven in Montenegro by numerous experiences accumulated for centuries. As it was mentioned earlier, during the last few decades Montenegrin territory has been affected by variety of destructive hazards. It is realistic to expect for such natural phenomena to manifest themselves in the forthcoming period, but also for technical hazards as the consequence of the region’s technological and industrial development of the region, not only on the territory of Montenegro but also of the influential neighbouring countries. From this point of view, the implementation of the Strategy has as the main goal defining considerable decrease of all kinds of losses, human, material, cultural and environmental – in circumstances of possible big catastrophes and technological accidents on short or long term basis. (WMO, 2011)

The National Strategy for Emergency Situations can be summarised in the following priority commitments:³⁷

- Normative regulation of salvage and preventive action in order to protect against natural disasters, technical and technological accidents and biological hazards;
- Establishment of national system of disaster management through the Directorate for Emergency Situations and Civil Security as an organisational unit of the Ministry of Internal Affairs of Montenegro, which will functionally integrate all relevant

³⁷ Source: Chapter V of the National Strategy for Emergency Situations (translation from <http://www.mup.gov.me/biblioteka/strategije>)

institutions involved in the process of monitoring of natural and technological hazards, protection and rescue;

- Initiate social processes to long-term development of scientific research in the field of phenomenology of natural disasters and their impact on society;
- Strengthen the overall preparedness of the community and awareness of the importance and need for organised and effective social action in the prevention and treatment of adverse effects and emergencies at regional and local level;
- Improve the system of continuous monitoring of all significant natural, technological and biological hazards, in order to provide reliable and efficient detection and notification;
- Provide relevant and sufficient equipment and training of specialised institutions and individuals for protection and rescue in emergency;
- Take all necessary measures to prevent the occurrence and reduce harmful effects of disasters;
- Create a formal basis and establish international cooperation with other organisations for protection and rescue in the region in order to create conditions for regional rescue and relief in cases of large-scale emergencies.

2.2 General crisis (emergency, disaster) management law

The legislative framework of civil protection from natural and technological hazards derives from the National Strategy for Emergency Situations and includes:

- The Law on Protection and Rescue (Official Gazette of Republic of Montenegro no 13/2007);
- The Law on Water (OG RM, no. 27/07);
- The Law on Hydro-meteorological Services (OG RM, no. 26/10);
- The Law on Hydrographic Services (OG RM, no. 26/10).

The Law on Protection and Rescue provides the legal background for response to all disasters caused by natural and man-made hazards. In order to protect effectively the population and the material heritage against possible disasters and preventing the spreading of risk, the Law prescribes to conduct activities related to collection and processing of data on potential risks, establish information and early warning systems.

The Law mandates that these preventive activities include assessment of vulnerabilities³⁸ as well as development of plans for protection and rescue, spatial development and building buildings, establishment of a protection and rescue system and provision of material resources, personnel and other resources necessary to carry out the planned activities. The

³⁸ Defined as “a qualitative and quantitative analysis of data on the possible hazards of the occurrence of natural disasters” “with predictions of their possible future course and consequences, the proposal of the level of protection against risk and proposal of preventive and other measures for protection and rescue.”

Law enables the overall adequate functioning and gives to municipalities' competencies to act in cases of disasters.

Pursuant to Article 34 of the Law on Protection and Rescue, the Ministry adopted two documents: the Rulebook on the Methodology for the Development of Threat Assessment Studies of Natural, Technical-technological and Other Disasters and the Rulebook on Methodology for the Development of Protection and Rescue Plans.

The Law stipulates that the Directorate for Emergency Management coordinates the development of National Plans of Protection and Rescue. The National Plan for Protection of Extreme Meteorological Occurrences and the National Plan for Flood Protection derive from the National Plan.

2.3 Emergency rule

The Law on Protection and Rescue introduces the emergency rule as “state of emergency.” It is stipulated, that state of emergency shall be proclaimed by the Parliament of Montenegro, based on Government proposal. Such a proposal should be made at the occurrence of a hazardous event, or after it occurred, if the hazard could not have been foreseen. The emergency rule might be proclaimed for the territory of Montenegro if there is imminent hazard that would affect or has already affected at least two municipalities.

State of emergency shall be introduced for a municipality if there is an imminent hazard that would affect or has already affected part or the entire municipality. In case of introduction of an emergency rule, the key role is of the Ministry of Interior. It is responsible to:

- Deliver the official communications about the hazard;
- Inform about the introduction of state of emergency and its scope, activities and measures to protect and rescue to be taken;
- Coordinate and command the task forces, implementation of mobilisation, timely notification and control of implementation of required measures and activities to protect and rescue, with the exception of search and rescue at sea;
- Keep records of task forces, resources and measures taken to protect and rescue in states of emergency.

However, the Law on Protection and Rescue and the other normative acts do not regulate what human rights and civil freedoms could be limited or dismantled by introducing “state of emergency” and for how long. Obviously, the presumption is that the parliament will be responsible enough to introduce only the necessary restrictions, on a concrete territory for as shorter as possible period.

2.4 Specific, department/agency-level legal arrangements and regulations on emergency and disaster management

Pursuant to Article 34 of the Law on Protection and Rescue, the Ministry of Interior has adopted two documents: the Rulebook on the Methodology for the Development of Threat Assessment Studies of Natural, Technical-technological and Other Disasters and the Rulebook on Methodology for the Development of Protection and Rescue Plans.

The Rulebook on the Methodology for the Development of Threat Assessment Studies of Natural, Technical-technological and Other Disasters delegates responsibility:

- To the Directorate for Emergency Management and other ministries for risk assessment on the territory of Montenegro;
- To the local governments in coordination with the Directorate for Emergency Management for the vulnerability assessment of municipalities and
- To companies with more than ten employees, again in coordination with the Directorate for the vulnerability assessment of companies activities and infrastructure.

The threat assessment shall include:

- An assessment of hazards or causes that may lead to the occurrence of disasters and the consequences that may arise for people, material and cultural goods and the environment;
- Determining the appropriate organisation of protection and rescue in order to prevent the occurrence of disasters or for purposes of rescue of people; and
- An assessment of needs and possibilities in the provision of human and material potentials necessary for achieving the estimated protection and rescue organisation.

Military

There is no legal basis on the role of the army in disaster management and disaster response. There are, however, a National Security Strategy and a National Defence Strategy. There are no by-laws and standard operational procedures (SOPs) on the role of the army on disaster management. The Ministry of Defence (MoD) has not been involved in the development of any of the legal documents related to disasters. This, however, does not exclude the co-operation between the MoD and the DEM, which have been working together during the floods in December 2010. The MoD is considering the development of internal SOPs for disaster response.

Construction

The Law on Construction establishes construction practice and construction codes. However, in reality new codes and practices are better applied to new constructions and to a lesser extend to older and illegal constructions. Although this particular law has a provision for disaster situations, most of the sectorial legislative documents do not mention DRR.

Water

The Law on Water defines the obligation of preparation of a General Plan for Protection from the Harmful Effects of Water (The current plan covers the period 2010-2016). It especially contains: works and measures, which are undertaken preventively and in the period of high

waters for protection from floods and erosion; method of institutional organisation of defence; duties and responsibilities of the manager for protection; method for monitoring and recording data; method for early warning.

The law foresees the preparation of an annual Operational Plan for the Protection from the Harmful Effects of Floods. At national level, it should be prepared by the Water Department and the Ministry of Rural development and Agriculture (MoRA), while at local level it should be prepared by competent local authority, with the approval of the MoRA's Water Department. The Operational Plans determine the names of managers of protection against the harmful effects of water, headquarters, bodies and names of companies and other entities that conduct legal protection against the harmful effects of water and means for operational implementation of protection.

Hydro-meteorological service

The laws on “hydro-meteorological services” and on “hydrographical services” (2010), define the tasks of the Hydro-meteorological Institute of Montenegro (HMI). It states that the HMI has duty to:

- Produce non-scheduled meteorological and hydrological information and warnings in situation before atmospheric and hydro-sphere emergency situation;
- Organise emergency observation and measurement of the hydrological stations profiles
- Submit emergency information;
- Monitor weather and waters;
- Collect and analyse data;
- Prepare forecast;
- Inform and alert responsible agencies.

Air

There is also a Law on Environment and Air Quality. In 2007, the Government has adopted the National Strategy of Sustainable Development, which recognises climate changes and protection of ozone layer as a priority.

2.5 Specific to the regional and local authorities legal arrangements and regulations on emergency and disaster management

In the event of a disaster, the first responding level to protect and rescue the local population from natural and man-made disaster is the local level, as stated in the Law on Local Self-Government. In the event of a disaster, an emergency management team led by the mayor (which includes a representative of the DEM in a deputy position) is created, and it comprises all relevant authorities and stakeholders (including the Red Cross).

The protection services are managed locally and their equipment and training is provided with municipal funds. International studies report that few richer municipalities have an adequate mechanism to respond to emergencies, while most of them have very scarce means.

In case the municipality does not have enough means to respond to the disaster, it can request the Ministry of Interior for support. The DEM, based in the Ministry of Interior, has local branches, however its capacities at the local level are modest.

2.6 Legal regulations on the involvement of volunteers and specialised NGOs

The Law on Protection and Rescue determines that “Civil protection shall be part of a single protection and rescue system in states of emergency. Civil protection shall consist of civil protection units, protective and rescue equipment, buildings and devices.” (Art. 56)

Citizens that reached 18 years of age shall be entities under obligation to participate in Civil Protection until 63 years of age (men) or 55 years (women). At the same time, all men and women older than 15 years may voluntarily participate in civil protection, with rights and duties of civil protection members. (Art. 59)

Under these circumstances, the citizens who voluntarily perform protection and rescue activities shall be organised in “specialised units.” They have to be registered, certified and managed (during emergencies) by the Ministry of Interior. In case of engagement of crisis response operations the volunteers have to be compensated by the Ministry.

The Law determines that the Red Cross of Montenegro, as a volunteer organisation, shall especially do the following:

- “Perform search service tasks in view of collection and recording of data on evacuated persons, refugees, displaced and missing persons;
- Participate in giving shelter and accommodation of evacuated population, refugees and displaced persons, provision of assistance in the implementation of other measures that may contribute to the care and support for afflicted and vulnerable population, refugees and displaced persons;
- Run, organise, conduct or participate in solidarity actions for assisting vulnerable persons;
- Organise and train teams for activities in the field of social security, hygienic and epidemiological protection, care of the wounded and sick, rescuing on water and mountains and psychosocial support to the population and
- Advertise and organise voluntary blood donation actions, in cooperation with medical institutions for blood transfusion, keep records of voluntary blood donors, establish conditions for granting awards to voluntary blood donors and grant awards.” (Art. 66)

The Law also provide opportunity business organisations, entrepreneurs, and other legal and physical persons to organise voluntary units. (Art. 67) These units shall be completely provided

with resources and training by the establishment bodies, which are also obliged to submit annual and monthly activity reports to the Ministry of Interior and the mayor of municipality.

2.7 Legal regulations for international engagements of first responders and crisis managers

The Directorate for Emergency Management has signed on behalf of the country a number of bilateral partnership agreements, mostly related to cooperation in emergency response, with countries such as Bosnia and Herzegovina, Slovenia, Croatia, Macedonia, Greece, Serbia and the Russian Federation.

Montenegro also participates in regional and international frameworks in the area of disaster management such as Disaster Preparedness and Prevention Initiative, Programme for the Prevention Preparedness and Response to Natural and Man-Made Disasters (PPRD South), Civil-Military Emergency Preparedness, and the Organisation for the Prohibition of Chemical Weapons, among others.

However, the Law on Protection and Rescue does not provide any special regulations concerned the engagement of foreign first responders in emergencies on the Montenegrin territory and for sending Montenegro rescuers abroad. It only states that the Ministry of Interior shall "...cooperate with the competent authorities of other countries and with international organisations and institutions." (Art. 37)

3 Organisation

3.1 Organisational chart

In 2004, the Government of Montenegro has adopted changes and amendments to the regulations on the state administration. Under the terms of the new regulation, the Ministry of Interior and Public Administration has been made responsible for managing risks, managing civil protection and rescuing in emergency situations and managing relieving of consequences in the extraordinary situations (earthquakes, fires and other natural and technical/technological catastrophes).

The regulation also has established a Directorate for Emergency Situations and Civil Security as a unique body to coordinate Civil Protection in Montenegro. The Directorate has changes name in 2013 in Directorate for Emergency Management (DEM) and the ministry has been titled Ministry of Interior (MoI).

Ministries and state agencies, engaged in disaster management with different responsibilities and resources, include the Ministry of Interior (the DEM), Ministry of Defence, Ministry of Health, Ministry of Foreign Affairs and European Integration, Ministry of Transport and Maritime Affairs, MoRA, Ministry of Sustainable Development and Tourism, Army of Montenegro, Police Directorate, Agency for Environment Protection, Institute for Hydrometeorology and Seismology, Centre for Ecotoxicological Researches, Medical Emergency Service, Montenegro red Cross, other.

Within the current legal and organisational framework, there are three levels of disaster protection and rescue: political, administrative and local (municipalities).

A) Political level

The key political leadership, guidance, coordination and control are provided by:

- Emergency Management Coordination Team (The Prime Minister heads the team and all ministers are members);
- Ministry of Interior (Directorate for Emergency Management is core national administrative authority on protection and rescue from natural and other disasters);
- Ministry of Sustainable Development and Tourism (Institute of Hydrometeorology and Seismology Service of Montenegro controls the waters, air, sea, and seismic activities).

B) Administrative level

The Directorate for Emergency Management (DEM) is the leading national agency responsible for issues related to disaster management, which is well established and recognised by other national and international organisations. DEM is responsible for:

- Development of strategies, projects, programs and monitoring their implementation;

- Implementation of the process of harmonisation of legislation on civil protection with the EU legal system;
- Drafting of laws and regulations;
- Analysis and monitoring of the situation in the area of protection and rescue;
- Establishing programmes to equip and develop the system of protection and rescue;
- Preparing draft decisions on the provision of material reserves for the protection and rescue;
- Giving directions for the management of the protection and rescue and proposing measures to protect participants and rescue;
- Collecting data on threats, causes and consequences of emergency situations;
- Assisting in eliminating the consequences of emergencies;
- Applying control on the preparedness of emergency operational units;
- Preparing and monitoring the execution of the contract on the use and operation of specialised units;
- Prescribing technical standards of protection and rescue system in accordance with international standards;
- Planning and development of civil protection and alignment of its activities with the operational units of protection and rescue;
- Preparing proposals for decisions on sending overseas operating units for training exercises and humanitarian activities;
- Seeking and accepting help from other countries in the event of emergencies;
- Receive calls and information in emergency situations through a single Operational Communications Centre 112;
- Inspection within the jurisdiction and power established by law in the areas of:
 - Protection and rescue, transportation of dangerous goods, manufacturing, transportation, procurement, storage and use of explosive materials, storage, possession, transport, handling and use of flammable liquids and gases;
 - Review of technical documentation;
 - Transport and transit of arms, military equipment and dual-use goods;
 - Technical protection of people, space and facilities;
 - Preparation, organisation and implementation of programmes for professional development and training of the operational units members;
 - Organising and implementing preventive, operational and remedial measures for the protection and rescue; carrying out rescue activities in the event of emergencies;
 - Preparing and informing citizens in the event of emergencies;
 - Elimination of unexploded explosive devices;
 - Organisation and operation of the unit for extinguishing fires from the air;
 - Search and rescue operations from the air;
 - Pilot training, pilot simulator and mandatory technical rehearsal; implementation of the program of cooperation with international and regional organisations, institutions and other entities involved in the protection and rescue;
 - Preparation and monitoring of the implementation of international agreements in the field of protection and rescue.

The Directorate³⁹ for Emergency Management is divided into five divisions (“direkcija”), four departments and seven territorial units:

1. Division for Civil Protection and Humanitarian Aid
2. Division for Prevention
 - 2.1. Department for Risk Management
 - 2.2. Section for Management of Hazardous Substances
3. Crisis Management Division
 - 3.1. Department for Training and Operations
 - 3.2. Emergency Calling Centre 112
4. Helicopter Unit
5. Inspections and Prevention Division
6. Regional Emergency Units:
 - 6.1. Podgorica Regional Unit for the Capital City of Podgorica, capital of Cetinje, and Funtana and municipality of Kolasin
 - 6.2. Regional Unit for the municipalities of Niksic Niksic, Šavnik and Plužine
 - 6.3. Branch Office Bijelo Polje for the municipalities of Bijelo Polje and Mojkovac
 - 6.4. Regional Unit for the municipalities of Berane Berane, Rožaje, Andrejevica and blue
 - 6.5. Regional Unit for the municipalities of Pljevlja Pljevlja and Zabljak
 - 6.6. Branch Office Bar in the municipalities of Bar and Ulcinj Budva
 - 6.7. Regional Unit Herceg Novi for the municipalities of Herceg Novi, Kotor and Tivat

Division for Civil Protection and Humanitarian Aid. Its main duty is the identification and evaluation of the risks at national and local level, and the implementation of standard operational procedures for protection and rescue, usually based on the establishment of specific local Civil Protection Units. This Division has jurisdiction over the monitoring of the adoption of legislation, public education and awareness, the training of civil defence personnel as well as coordination sending and receiving humanitarian aid. This Division is also responsible for guidelines, strategies and programmes, and proposes draft laws relevant to the organisation and the functioning of the Civil Protection (institution) and monitors their realisation. The Division is responsible for the harmonisation of the regulations and laws in force in Montenegro with reference to EU regulations and international standards in civil protection.

As noted above, the *Division for Prevention* is divided into two departments:

- Department for Risk Management: It is responsible for the management of the national database of the risks as reported by the National Strategy for Emergency Situations. The duties of the Department encompass the drafting and development of strategic documents and plans at national or inter-municipal levels, cooperation with scientific bodies (universities), laboratories and other research institutions.

³⁹ For the purposes of this study the rank of Montenegro’s administrative units is presented within the hierarchy of “Directorate” that consists of several “divisions”, each of which includes several “departments”, while they are organised in sectors or sections.

- Section for Management of Hazardous Substances (HAZMAT): It has jurisdiction over the activities defined by the Law on Protection and Rescue and other regulations related to this area, including the construction of new buildings, the surveillance of warehouses containing dangerous substances, the transport of dangerous goods and military equipment, and the management of weapons.

The *Crisis Management Division* is also divided into two departments:

- Department for Training and Operations. It is in charge of the coordination of all organisations, companies, and State or local authority institutions in emergencies. The department provides municipal departments for protection and rescue and Civil Protection units with the equipment and training needed to cope with all types of risk.
- Emergency Calling Centre-112. The Centre uses the European emergency number 112 and is designed to be a unique communication hub for all types of emergency. Once operational, it will process all the data and information relevant to emergencies, including protection and rescue activities and measures. The Centre will be responsible for broadcasting the information to the public, state institutions, legal entities, rescue units and other competent bodies and subjects for protection and rescue (including the ERCC).

Helicopter Unit (with the rank of division). The unit operates four helicopters - „Abell-412“, „Abell-212“, „Abell-206“ and „Gazella“, two planes type „Dromader“ and two aircraft for fire extinguishing type „AT-802A Fire Boss“. It is also responsible for search and rescue operations in Montenegro. The helicopters are also used for tactical transport of equipment and personnel in case of emergencies.

Inspections and Prevention Division. This Division controls functions and operations for protection and rescue; transportation of dangerous goods; manufacturing, transportation, procurement, storage and use of explosives; storage, possession, transport, handling and use of flammable liquids and gases; transport and transit of weapons, military equipment and dual-use goods. For facilities, in which are stored or used in technological process hazardous substances, the Division determines the zone of danger, security systems and other measures to increase security and reduce the risk of various fire-accidents, accidents, incidents, etc.⁴⁰

Regional emergency units. They perform the following tasks: monitoring and enforcement of laws and other regulations for protection and rescue; assess the risk and protection and rescue plans; implementation of measures for the protection and rescue; formation and organisation units and teams of civil protection; coordinating the actions of participants in protection and rescue units of local self-government; training and exercises members of civil protection units; raising public awareness for emergency response; implementation of the mobilisation of civil

⁴⁰ Source: Building Resilience to disaster in the Western Balkans and Turkey, <http://seekms.dppi.info/countries/general-info-montenegrian/legal-institutional-framework/legal-framework/>

protection; collection, information processing and information; rescue activities in the formation of emergencies; proposing a system of measures for the implementation of established policy and forecasting consequences of legal decisions; perform other duties within the scope of the regional unit.

Protection and Rescue Task Forces perform all measures and operations for disaster management and include the following formations:⁴¹

- Civil protection units;
- Units for protection and rescue of municipalities (fire fighting units, units for providing assistance to vulnerable and affected population and other protection and rescue units), organised as municipal protection and rescue services;
- Specialised protection and rescue units;
- Volunteer protection and rescue units;
- Units for protection and rescue of business organisations and other legal subjects and entrepreneurs; and
- Airborne fire fighting unit.

According to an UNDP report as of 2011, the majority of municipalities do not have enough capacity to prepare and protect themselves from existing risks and hazards. The level of capacity is much lower compared to the central level. At the same time, it is the responsibility of the municipalities to fund the municipal protection service (local rescuers). However, in most of the cases, funding is limited to salaries only. Some municipalities, however, have established reserve funds for first immediate response and some have mid- and long-term development plans (as in the municipality of Bar). Nevertheless, plans do not, in most cases, include the existing risks and hazards. Information flow from institutions such as the Hydro-meteorological Institute of Montenegro to municipal level is not regular and is not clearly framed. Municipalities are also not mandated to have cross-border cooperation with municipalities from neighbouring countries. (UNDP, 2011)

Institute for Hydrometeorological and Seismological Service of Montenegro (IHMS) is another organisation with important role in disaster risk reduction, mitigation and protection. The institute is under the Ministry of Sustainable Development and Tourism. The laws on “hydrometeorological services”⁴² and on “hydrographic services”⁴³, approved in April 2010, define the tasks as to:

- Produce non-scheduled meteorological and hydrological information and warnings in situations before atmospheric and hydrospheric emergency situations;
- Monitor weather and waters;
- Collect and analyse data;

⁴¹ Law on Protection and Rescue, Art. 14.

⁴² Available in the local language at <http://www.meteo.co.me/publikacije/Zakon%20o%20hidrometeoroloskim%20poslovima.pdf>

⁴³ Available in the local language at <http://www.meteo.co.me/publikacije/Zakon%20o%20hidrografskoj%20djelatnosti.pdf>

- Prepare forecast;
- Inform and alert responsible agencies

The IHMS has 112 staff, of which 59 are based in Podgorica. It is organised in the following way:⁴⁴

Table 4. Organisational chart of the Institute for Hydrometeorological and Seismological Service of Montenegro

Department	Sector	Section (group)
Weather forecast and monitoring	Analysis and weather forecast; Meteorological monitoring	Weather forecast and modelling; Regional units; Satellite and radar meteorology
Meteorology	Climatology; Applied meteorology	
Hydrography and oceanography	Hydrology network stations; Hydrology analysis	Hydrography data and analysis
Water, air quality control	Water quality control; Air quality control	
Seismology	Instrumental and engineering seismology; Seismic data analysis and processing	
	Hydrometeorological Information systems	
	Administration and finance	
	PR and international cooperation	

The Department of Seismology in IHMS is in practice the Seismological Observatory of Montenegro. It exists since 1979 and is currently being transferred to the Ministry of Sustainable Development and Tourism and IHMS. The Observatory operates the seismic observation network, prepares regional and micro-local maps, and conducts research on earthquake effects on building structures, ground, water courses, and many more. The Observatory is organised in two departments within IHMS:

- Department for instrumental and engineering seismology responsible for recording of seismic data for earthquakes in Montenegro and its surroundings, technical maintenance of seismic and GPS instruments on all stations in seismological network, calibrating of seismographs and accelerographs, upgrading of equipment for acquisition of seismic data, processing and maintenance of database of digital accelerograms, processing of macro-seismic data for strong and catastrophic earthquakes, determination of seismic hazard elements etc.

⁴⁴ Source: <http://www.meteo.co.me/misc.php?text=about>

- Department for seismic data analysis and processing in charge for couple levels of automatic acquisition of seismic signals generated by earthquakes and explosions, modern numerical and graphical analysis and processing of seismic and GPS data, quantification of parameters for actual and historical seismicity in Montenegro, seismo-tectonic interpretation of seismic data, focal mechanism solutions for stronger earthquakes in region, seismological database maintenance, modernisation of methods and computer programs for seismic and geodynamic analysis, publishing and exchange of seismic data etc.

The Ministry of Defence (MoD) controls the army. The National Security Strategy determines as one of the internal tasks of the Montenegro Security Forces: “Providing support to state institutions and authorities in cases of environmental, natural or man-made disasters of greater scale, as well as in cases of human or animal epidemics, where human life, environment and material goods are under considerable threat ...”⁴⁵

However, according to an international study, the role of the MoD in disasters is not clear and has not been identified at national level or indeed within the ministry itself. In practice, during the floods of December 2010, the MoD’s Operations Centre reported to the operations centre of the DEM, and based on an informal and personal level the cooperation worked well. (UNDP, 2011)

C) Local level

At local level, municipal teams are only responsible for the management of emergencies. These teams are led by the president/governor of each municipality. A deputy of SEM is present in each municipality to coordinate sectorial activities and serve as link between the government body and municipalities. The fire-fighting service, with its Municipal Rescue and Protection Units, plays an important role. Currently, 450 people are attached to these units. (EU-UNDP, 2011)

3.2 Organisational cooperation

Within the current legal and institutional framework, the organisational cooperation is mostly operational. Generally, the system works the following way in the most dangerous situations – of seismic and flooding emergencies:

Table 5. Functional scheme of Montenegro disaster (floods and seismic) response system

Function	Head body	Sources; forces
Early warning	IHMS	Other entities

⁴⁵ National Security Strategy, Art. 5.

		International sources Citizen
Notification and alerting	DEM: Operational Communications Centre 112	Local authorities; Enterprises Specialised NGO organisations
Coordination 1 (Operational)	DEM	Inter-institutional and central-local coordination at administrative level
Coordination 2 (Political)	Emergency Management Coordination Team	Government level coordination (in cases of serious emergencies)
Operations	Task force(s)	Civil protection units; Units for protection and rescue of municipalities (fire fighting units, units for providing assistance to vulnerable and affected population and other protection and rescue units), organised as municipal protection and rescue services; Specialised protection and rescue units; Voluntary protection and rescue units; Units for protection and rescue of business organisations and other legal subjects and entrepreneurs; and Airborne fire fighting unit.
		International support

Considering the size of the country and its geological setting, trans-boundary initiatives play a crucial role in disaster mitigation and preparedness.⁴⁶

DEM has signed bilateral partnership agreements with Albania, Bosnia and Herzegovina, Slovenia, Croatia, Macedonia, Greece, Serbia and the Russian Federation, which define a common protocol for cross-border cooperation in the event of natural disasters. The latest flood emergencies have proved that these agreements are efficient, especially regarding provision of support, custom lifting and fast entry for rescue teams.

⁴⁶ <http://drace-project.org/index.php/map/montenegro>

Montenegro participates in the following regional activities:

- The Disaster Preparedness and Prevention Initiative for South Eastern Europe and the EU-funded PPRD South Programme, to implement HFA objectives and priorities;
- The Civil Military Emergency Planning for South Eastern Europe, in cooperation with the U.S. Army Engineering Corps, to improve of civil-military coordination of disaster preparedness and response;
- The Drought Monitoring Centre for South East Europe, the European Centre for Medium Range Weather Forecasts and the Accident Reporting Guidance Operational System (ARGOS) to upgrade its hydro-meteorological services, weather forecasting products and early warning system;
- The Project SHARE (Seismic Hazard Harmonisation in Europe, 2009–2012), within the Seventh Framework Program of the European Commission, to provide an updated, living seismic hazard model for the Euro-Mediterranean region⁴⁷ and NATO's Science for Peace project „Harmonisation of Seismic Hazard Maps for the Western Balkan Countries“, whose end product will be an integrated database organized in GIS applications for the whole region with a regional earthquake catalogue and seismic hazard maps.

Specific memorandums of understanding in the field of education, technical training, preparedness and prevention are being considered with Turkey and Italy.⁴⁸

While a number of regional agreements are signed at the central level, municipalities do not have the mandate to replicate this process at local level. Regarding the capacity of Montenegro's crisis response institutions to benefit from regional coordination and cooperation, leveraging expertise, capacities, resources and information across the region among SEE countries and with various regional centres in Europe the assessment of the EU – UNDP from 2011 is that the effectiveness of international cooperation is quite low, "...partially because of lack of experts and academic staff with good skills in European languages, especially English. This aspect is often under considered, but it dramatically hampers the participation of personnel to international workshops or trainings."⁴⁹ (EU-UNDP, 2011)

⁴⁷ <http://www.share-eu.org/>

⁴⁸ The Structure, Role and Mandate of Civil Protection in DRR for SEE, 2008

⁴⁹ International organisations also contribute to the strengthening of DRR through the UN's Regional Disaster Risk Reduction Overview Course, UNDP projects such as the Spatial Planning Support Project, or the German Gessellschaft für Technische Zusammenarbeit and World Bank Land Administration and Management Project.

4 Procedures

4.1 Standing Operating Procedures (SOPs) and Guidelines

Recently, there are no by-laws and standard operational procedures (SOPs) for civil protection operations in Montenegro.

However, in 2013, the Department for Emergency Management has sent for coordination the final version of the Standard Operating Procedures (SOP) for crossing the border in the event of natural disasters involving the Ministry of Internal Affairs of Montenegro and the Ministry of Internal Affairs of the Republic of Serbia.⁵⁰

According to (UNDP, 2011), the MoD is considering the development of internal SOPs for army participation in disaster response operations.

4.2 Operations planning

MoI has "... provided two rulebooks⁵¹ that regulate the content, development, adoption, update and storage of assessment studies as well as protection and rescue plans in Montenegro." Ministries and state agencies, municipalities, business and other legal subjects have been mandated to comply with the rulebooks in order to guarantee nationwide harmonisation of plans. (UNDP, 2011)

The overall national-level planning document on disaster management is the National Plan for Rescue and Protection. The plan is based on the vulnerability assessments for all major hazards, as they have been outlined by the National Strategy for Emergency Situations. The set of hazard-based national plans includes:⁵²

- National Plan for Protection from Earthquakes;
- National Plan for Fire Protection;
- National Plan for Protection Against Chemical Accidents;
- National Plan for Protection Against Biological Accidents;

⁵⁰ Source: Izvještaj o stanju sistema zaštite i spašavanja u Crnoj Gori u 2013 godini.

⁵¹ Rulebook on the Methodology for the Development of Threat Assessment Studies of Natural, Technical-technological and Other Disasters and the Rulebook on Methodology for the Development of Protection and Rescue Plans.

⁵² Cross-referenced from Disaster Risk Reduction Capacity Assessment Report For Montenegro, (UNDP: April 2011) and the United Nations Office for Coordination of Humanitarian Affairs (UNOCHA) mission report to Montenegro in November 2010.

- National Plan for Protection Against Radiation Accidents;
- National Plan for Search and Rescue in Civil Aviation Incidents and Accidents;
- National Plan for Protection Against Floods;
 - National Plan for Protection Against Landslides and Avalanches;
- National Plan for Protection from Extreme Weather Phenomena;
- National Plan for Protection from Traffic Accidents on Road and Rail;
- National Plan for Protection from Technical and Technological Hazards;
- National Plan for Protection from Destruction of Power Plants.

As the floods are the current most serious source of risk, the authorities in Montenegro pay special attention to prevention, rescue and relief measures in cases of heavy rains and flooding. The Law on Water defines the obligation of preparation of a General Plan for the Protection of the Harmful Effects of Water. The current plan covers the period 2010-2016. It especially contains: works and measures, which are undertaken preventively and in the period of high waters for protection from floods and erosion; method of institutional organisation of defence; duties and responsibilities of the manager for protection; method for monitoring and recording data; method for early warning.

The Law foresees the preparation also of annual Operational Plan for the Protection of the Harmful Effects of Water. At national level it should be prepared by the Water Department and the Ministry, while at local level it should be prepared by competent local authority and approved by the Ministry. The Operational Plans determine the names of managers of protection against the harmful effects of water, headquarters, bodies and names of companies and other entities that conduct legal protection against the harmful effects of water and means for operational implementation of protection.

The overall protection plan provides that in case a major flood hazards (declaration of the highest degree of danger of flooding), the management of protection and rescue of people, material and cultural goods is to be ensured by the Emergency Management Coordination Team. In this case, further action regarding the protection and rescue operations are undertaken regulated by the National Plan for the Protection and Rescue of Flood, prepared by the Ministry of Interior in accordance with the Law on Protection and Rescue. MoI, through Department for Emergency Management coordinates the work of all segments of the system of protection and rescue, which include ministries, Police, the military, economic entities, operative units for protection and rescue, Agency for environmental protection, IHMS, the Centre for Eco-toxicological Researches, and others.

4.3 Logistics support in crises

The Law on Protection and Rescue prescribes that, in the case of imminent threat or in time of emergency on the territory of municipality, the president of municipality have the right and obligation to mobilise all human and material resources from the territory of that municipality, in accordance with the municipal plan. Mobilised persons and material resources shall be

entitled to reimbursement of expenses from the municipal budget, in accordance with the regulation of the municipality.

Concerned the citizen, the Law (Art. 61) stipulates that they have to make available to civil protection units the use of vehicles, machines, equipment and other material resources, land, facilities, devices and energy sources, necessary for protection and rescue in case of introduction of “state of emergency”.

Material obligation is also considered to be the placing of instruments and devices for observing, notifying and informing on commercial and other buildings, and as an exception, on residential buildings as well, if the instruments and devices can not be placed on other buildings. The material obligation may be ordered to legal persons and entrepreneurs as well.

Military logistic support has been and could be provide based on decision of the Emergency Management Coordination Team.

4.4 Crisis communication to general public; Alert system; Public Information and Warnings

The Emergency Management Coordination Team (EMCT) is tasked with management of the national early warning system.⁵³

The Law on Protection and Rescue prescribes a set of measures and activities to prevent danger of natural disasters, technological accidents and other disasters. In order to protect effectively the population and the material heritage against possible disasters and preventing the spreading of risk, the Law prescribes to conduct activities related to collection and processing of data on potential risks, establish information and early warning systems.

The Law on Water defines the obligation of preparation of a General plan for protection from harmful effects of water. The current plan covers the period 2010-2016. It especially contains: works and measures which are undertaken preventively and in the period of high waters for protection from floods and erosion; method of institutional organisation of defence; duties

⁵³ Improving the System is one of Montenegro’s development priorities; however no fixed budget is allocated and progress is highly dependent on external funding. A major stride was the implementation of the large-scale fire detection system FIREWATCH by the DEM in collaboration with German partners. Considerable progress towards establishing real-time data exchange for hydro-meteorological, seismic and fire hazards at national and cross-border level was made with help of WMO following catastrophes such as the earthquakes and floods at the end of the last decade. Currently, the DEM is working to expand early warning systems and data exchange to a broader range of natural hazards.(EU-UNDP, 2011)

and responsibilities of the manager for protection; method for monitoring and recording data; method for early warning.

The early warning system (EWS) is currently in the process of being developed. The system is located with the DEM, and each relevant ministry and institution has place within it.

The IHMS provides the DEM and other governmental bodies with hydro-meteorological data. However, the Institute has not a focal point on the early warning system: data is only released by request, the cooperation with DRR management is mainly ad-hoc and Standard Operating Procedures and Quality Management Systems between the IHMS and the DEM have not been developed. Moreover, data is not always made available to municipalities, and customised reports and non-governmental users are charged. Hazards are monitored through a network consisting of 20 climatologic stations, 60 precipitation stations and 51 hydrological stations, out of which 23 are automatic. IHMS weather and hazard forecasts are based on global numerical weather predictions, produced by international centres. The IHMS is mandated with producing and disseminating warnings through media, internet pages and directly to relevant authorities: the DEM, relevant ministries, the 112 system, several agents within industrial Directorates and the public to a lesser extent via the media and internet pages. Warnings are issued for all hydro-meteorological and climate-related hazards and hazards taking their origins in climate extremes. This includes warnings when water level thresholds of rivers are crossed, and when heavy rainfall is forecasted in areas where it could trigger flash floods. While IHMS employees are usually well-trained, their number is insufficient, especially regarding the fact that most of them are tasked with running observation stations. There is practically no staff focusing on research and development, forecasting (only 2 of around 100 employees), climatology, agro-meteorology, or to cooperate with industry. According to international assessments, the IHMS lacks resources to purchase needed IT systems, automatic real-time hydro-meteorological observation stations, weather radars and lightning detection systems. This makes the operation of an effective 24/7 forecasting and warning system difficult.

Hydrometeorological Institute has 10 main meteorological stations (including aviation meteorological stations in Tivat and Golubovci). On large number of synoptic stations the work is organised constantly, and the data are sent to the centre on an hourly basis. On stations Bar and Kolašin, work is organised during the day from 03 up to 21 UTC (Universal Time Coordinated). The current climatological stations in Montenegro are the following:



Figure 4. Reference map on hydro and meteo data collection and early warning stations.

The Seismological Observatory operates three different types of networks monitoring seismic risks: 10 short period stations, 4 broadband stations, and 4 accelerometric stations recording ground motion parameters.

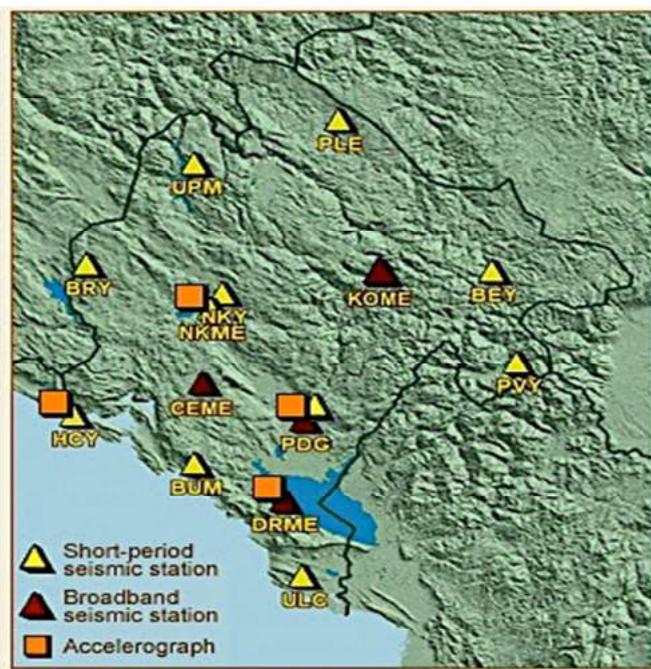


Figure 5: A network operated by the Seismological Observatory⁵⁴

Data produced by the observatory is very reliable, covers the entire territory and presents a high spatial and temporal resolution. However, it is not used most effectively though. Seismic data is only available free of charge over the Internet and specific information on seismic activity is not published regularly.

⁵⁴ Source: Seismological Observatory, http://www.seismo.co.me/Seismic_network.htm

Real-time data is exchanged via the seismological communication processor SeisComP3 with selected stations situated in Slovenia, Italy, the Republic of Srpska, Romania, Bulgaria, Kosovo, Croatia, Serbia, Greece, Albania and Macedonia.⁵⁵

The Observatory is developing micro-zoning hazard maps for Montenegro. Nevertheless, the link between available maps and the utilisation of this information for spatial planning is not clear. Most of the information produced by the Observatory is freely available on Internet, and there are a high number of hits registered. Nevertheless, no formal mechanism that facilitates the use of the information exists. (UNDP, 2012)

The Montenegro Red Cross is not using the existing risk identification methodology either and does not receive regular information on risks (only in emergencies and through the DEM). They have conducted vulnerability and capacity assessments in ten pilot communities.

A large number of municipalities do not have any early warning mechanisms or systems in place to reach the population.

When warned by the institutions named above or directly by local authorities (mechanisms exist at local level to identify risks of hazards and issue warnings up to the DEM), the Bureau for Public Relations, which has a seat on the EMCT, is responsible for the dissemination of all warnings to the public. Main communication channels are the media, 112 system, and mobile telephone operators who notify all prepaid customers.

Since 2013, Emergency Calling Centre 112 (ECC 112) has been included in all of the checks, monthly communication tests, communication with other RCC and MRCC (state centres for search and rescue in the event of a fallen aircraft) and real situations of danger or possible danger through standard operating procedure, which have been forwarded to these centres.

However, according to an official report, problems of a technical nature prevent completion of the project. The system is still not fully operational because the missing optical cables connections between ECC 112 in Podgorica, Bijelo Polje and Bar, and the hub at the Ministry of Interior and radio communications between all locations of EEC 112. (MoI, 2014)

As the system of 112 is still in the development phase and the television and radio is not always reliable in diffusing priority information, the current dissemination mechanism of warnings and advisories is not very efficient, especially to those situated in threatened areas. The warnings given directly to the public via the IHMS web pages are a very passive dissemination channel and do not actively meet people, authorities and public when needed.

While the DEM issues warnings and coordinates action with municipal representatives, the Parliament alone has the power to declare a national state of emergency. A major problem is

⁵⁵ http://www.seismo.co.me/Seismic_network.htm

the lack of clear guidelines as to how this decision is reached and how national emergencies should be announced to the public. Additional procedures concerning support of national and local authorities should be established, as well as a classification of emergencies and alerts. (EU-UNDP, 2011)

5 Capabilities

Human and material resources are considered as a very important component of the system of protection and rescue. It is essential that all subjects of protection and rescue operations at the state and municipal levels, are provided with resources to promptly undertake all planned and extraordinary measures for prevention of hazards and protection and rescue in case of disasters.

5.1 Human resources

According to the Government annual report (Mol, 2014), in 2013 the Directorate of Emergency Management has employed 106 employees: 55 officers with higher education (of whom seven masters of science), 3 positions with a college degree and 48 officers with a high school diploma. From a total of 106 employees of civil servants and employees, 32 of them or 30.19% are women, and 74 or 69.81% are men.

In all municipalities in Montenegro organisations (units) for protection and rescue services have been formed. 582 members, of which 530 members have been permanently employed, and 52 - hired on contract have served in these units.

Pursuant to Article 65 of the Law on Protection and Rescue, Ministry of Internal Affairs has concluded a contract with rescue specialists (organised also in units). At the end of 2013 there is a contract signed with Mountain Rescue Courier Service. It has been established full cooperation of the Mol with the Red Cross of Montenegro and numerous joint activities on improving the system of protection and rescue have been planned and undertaken.

As part of the protection and rescue system, the volunteer fire departments that operate with a long tradition in the municipalities of Tivat and Kotor are of particular importance. In addition, procedures have been initiated for the establishment of volunteer fire companies in the capital Podgorica and in Banjani (the municipality of Niksic).

Entrepreneurial units, as a kind of operating units, are considered as very important because of the willingness to provide an adequate first response to certain types of hazards (fire), which may happen in a company, other legal entity or an entrepreneur. Entrepreneurial units are organised in White Shipyard, airports Tivat and Podgorica, Bar Harbor, KAP, Źeljezara Niksic, Pljevlja thermal power plants and at "Monteput" Podgorica.

Units for extinguishing fires from the air (i.e. the helicopter unit of the DEM) is organised as a directorate within the Directorate for Emergency Situations. Total number of officers is 17, of whom 14 have been employed on full-time, while three have been engaged under a contract of work. In addition to the above, in the course of fire season, contractors engage the additional four executors.

5.2 Materiel (non-financial) resources

Ensuring equipment, instruments and materials is a precondition for the establishment of a system of protection and rescue services. Units have to be able to act immediately and as long as it is necessary to respond to disasters.

Facilities, accommodating service protection and rescue units in Podgorica, Bar, Budva and Niksic, Bijelo Polje, Mojkovac, Herceg Novi, Zabljak, Ulcinj, Rođaje, Berane and Cetinje, meet the accommodation requirements of professional members of the protection and rescue services. In Savnik, the unit shall move into a new facility, expected in the second quarter of 2014. In the municipality Andrijevci, by donation from the US Embassy in Podgorica, an object in the former barracks of the Army of Montenegro has been reconstructed, thereby creating conditions for normal operation and functioning of these units.

5.3 Training

Training of protection and rescue services

Trainings on floods and fire response have been organised in cooperation with the US Embassy, the Ministry of Defence, the Ministry of Interior, the Red Cross and NGOs. However, these trainings are not coordinated and do not always benefit of adequate facilities. Done on an ad hoc basis, they do not facilitate the understanding of the specific roles and responsibilities of the various actors, including the role of technical agencies such as the HMI. More in-depth training on understanding disasters and their impacts are needed to complement experience with technical knowledge.

Despite its limited number of forecasters, meteorological and hydrological experts, the HMI participates in UNISDR courses and is currently involved in the development of an international strategy for risk reduction, which consists of 22 workshops that will bring international expertise. The Institute should furthermore participate in trainings of emergency personnel and the news media to address risks associated hydro-meteorological hazards.

Training of the protection, search and rescue teams at the local level is provided and funded by the municipalities. However, it is not always offered in a systematic way nor does it always reach out to all the municipal staff, since the size of the budget for preparedness and response activities is left to the appreciation of the municipalities.

Police and NGOs have their own training programs. The MRC has been training its preparedness and response teams in first aid at local, national and regional level. Some elements of the regional disaster response teams have been trained to be deployed internationally. (EU-UNDP, 2011)

The flying experience of the Helicopter unit in 2013 is as follows (MoI, 2014):

Aircraft	Number of flights	Time
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Helicopter AB 206	152	65:12
Helicopter AB 212	267	87:06
Helicopter AB 412	278	72:06
Aircraft AT 802 A s/n 0281	31	5:30

Training centres

Training activities are mostly geared towards various rescue and recovery specialists. The DEM has currently one training centre within the Police Academy in Danilovgrad for the training and education of rescue units. However, it is very much oriented towards theory. There are plans to open three training centres across the country that will deal with the special training needs of rescue units in a more practical way. DRR training programmes in relation to specific hazards are delivered regularly by the DEM for personnel involved in civil protection activities such as central and municipal rescue teams, fire-fighters, operational units, but also decision-makers at central level and the public. Worthy of note is a training course for seismic hazards, organised with the support of the French Sécurité Civile.

Hazards and disasters awareness rising

There are limited resources for capacity development and no formal process of awareness raising is in place. Moreover, legislation does not specify which governmental body is responsible for implementing DRR awareness raising projects, and authorities still lack DRR knowledge in order to design campaigns, especially as the DEM only addresses DRR since 2010. According to the government, awareness-raising activities are especially limited at local level. This greatly increases the population's vulnerability. To name just one example, no awareness raising activity was done in the highly earthquake-prone region of Berane. Campaigns informing about safe building codes should also be created.

The Bureau of Public Relations, the Government of Montenegro and the DEM coordinate media plans oriented towards public awareness of hazards and prevention, but involvement of the media Directorate to advocate DRR needs to be developed. Among the population and the media, awareness of disaster-related issues or preparedness and response is often limited, which can lead to inaccurate or inadequate information broadcasts.

The DEM plans to issue an awareness campaign to successfully implement the 112 single emergency number, as well as a pre-school program for small children on what to do in case of an emergency, and an introduction to hazards and reaction in emergency situations for the elderly.

Although the Montenegro Red Cross did not conduct any awareness raising activities until now, it plans to do so in the future by joining the Red Cross DRR regional programme and further cooperating with DEM. Actions have already been targeted at schools and the MRC plans to organise a DRR campaign together with governmental and non-governmental organisations. Ad hoc awareness raising events have been undergone by „Green Home” and

the United States Agency for International Development, although the public service campaign did not specifically focus on DRR. The Fire Union of Montenegro has been educating the population about fire protection.⁵⁶

Apart from occasional events, like classes visiting fire brigade units, DRR is not yet integrated into school curricula. This is likely to change when the primary education system reforms of 2010 are implemented. One of the reform plans for 40 optional modules, out of which one should include DRR content. Also, weekly lessons focusing on protection and rescue, what action to take in emergency situations and containing an introduction to natural hazards on the territory of Montenegro should be offered by head teachers. On the other hand, the reform cut the budget allocated to teacher training, including the training targeting disaster response. Educating children will be a difficult task for teachers, if they do not have the knowledge themselves.

A EUR 40,000 awareness project, which is part of the EU-funded Programme on Prevention, Preparedness and Response to Natural and Man-made Disasters (PPRD South), is targeted at 5,000 6th grade students (aged 12) in 62 pilot primary schools in Montenegro. The project will inform children about actions they and their family should take before and after earthquakes. If the subject „Protection and Rescue from Natural Disasters and other Man-made Accidents” is effectively re-introduced in the curricula of 7-9 grade students, this first awareness project would constitute an ideal introduction to disasters.⁵⁷

No university program focuses on DRR only, but civil engineering, architectonic planning are taught at the Civil Engineering Faculty in Podgorica.⁵⁸

5.4 Procurement

5.4.1 Procurement regulation

The basic Montenegro legislation on procurement is the Law on Public Procurement (Official Gazette of MNE, no. 42/11). However, concerned the disaster management, the Law stipulate that its provisions do not apply to: “Procurement aimed at protection and recovery from catastrophes and major disasters – state of emergency.” (Art.3)⁵⁹

⁵⁶ Report of Montenegro Ministry of Internal Affairs, Report of Montenegro to the United Nations’ World Conference on Disasters Reduction (WCDR, Kobe-Hyogo, Japan, 2005)

⁵⁷<http://www.euromedcp.eu/en/countries/montenegro/724-awareness-campaign-under-the-slogan-starts-in-montenegro.html>

⁵⁸ Report of Montenegro Ministry of Internal Affairs, Report of Montenegro to the United Nations’ World Conference on Disasters Reduction (WCDR, Kobe-Hyogo, Japan, 2005)

⁵⁹ Downloaded from: <http://www.ujn.gov.me/en/novi-zakon-o-javnim-nabavkama-crne-gore/>

The Public Procurement Directorate, Ministry of Finance as a line ministry, and the Commission for Control of Public Procurement Procedure have competences and are responsible for the control of public procurement procedures. The Ministry of Finance supervises the legality and effectiveness of administration operations. Judicial control over legality of the public procurement procedures is ensured by the administrative dispute before the Administrative Court of Montenegro.

The Public Procurement Administration, in accordance with Article 19 of the Public Procurement Law and its scope of work established by Article 42 – a of the Decree on organisation and manner of work of the state administration, shall be entitled to perform the following tasks.⁶⁰

1. *“ To monitor implementation of the public procurement system;*
2. *To monitor the compliance of the legislation regulating the public procurement system with EU legislation, to prepare technical basis, to initiate and participate in preparation of the public procurement regulations;*
3. *To give approval to contracting authorities on fulfilment of conditions for conducting certain public procurement procedure in the cases envisaged by this Law;*
4. *To provide advisory assistance upon contracting authority’s request;*
5. *To organise and conduct professional development and advanced training of the human resources in charge of performing public procurement tasks;*
6. *To organise professional exam for performing tasks in the area of public procurement;*
7. *To establish and maintain the Public Procurement Portal for the purpose of ensuring transparency of public procurement;*
8. *To publish public procurement plans, contract notices, decisions on candidates’ qualifications, decisions on selection of the most favourable bid, decisions on suspension of public procurement procedure, decisions on annulment of public procurement procedure, public procurement contracts, changes or amendments of public procurement plans, contract notices, decisions and contracts, as well as of other acts in accordance with this Law;*
9. *To prepare and publish a List of contracting authorities on the Public Procurement Portal;*
10. *To encourage the conducting of public procurement in electronic form;*
11. *To pursue cooperation with international organisations, institutions and specialists in the field of public procurement;*
12. *To prepare and submit to the Government annual reports on the public procurement, carried out in the previous year;*

⁶⁰ From the web site of the Public Procurement Administration of Montenegro <http://www.ujn.gov.me/en/nadleznosti/>

13. *To prepare and publish a list of bidders on the basis of decisions on selection of the most favourable bid;*
14. *To prepare and publish a common public procurement vocabulary on the Public Procurement Portal;*
15. *To perform inspection control;*
16. *To issue publications and other technical literature;*
17. *To perform other tasks, in accordance with the Law.”*

Montenegro has adopted the following EU directives, relevant to procurement:

- Directive 2004/18/EC of the European Parliament and of the Council of 31 March 2004 on the coordination of procedures for the award of public works contracts, public supply contracts and public service contracts;
- Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014;
- Directive 2014/25/EU of the European Parliament and of the Council of 26 February 2014.

5.4.2 Procurement procedures

Types of Procedures

According to the Law on Public Procurement (Art. 20), “public procurement procedures for goods, services or works are as follows:

- Open procedure;
- Restricted procedure;
- Negotiated procedure with prior publication of a contract notice;
- Negotiated procedure without prior publication of a contract notice
- Framework agreement;
- Consulting services;
- Contest;
- Shopping method;
- Direct agreement.”

Value scales

The public procurement procedure shall be determined according to the estimated value of the public procurement, which is classified into the following value scales:

- I Value scale – in cases when the estimated value of the public procurement is up to EUR 5,000, the contracting authority shall perform the direct agreement;
- II Value scale – in cases when the estimated value of the public procurement exceeds EUR 5,000 up to EUR 25,000 for procurement of goods or services, or when the estimated contract value exceeds EUR 5,000 up to EUR 50,000 for procurement of works, the contracting authority shall perform the shopping method;
- III Value scale – in cases when the estimated value of the public procurement exceeds EUR 25,000 for procurement of goods or services, or when the estimated contract

value exceeds EUR 50,000 for procurement of works, the contracting authority shall perform some of the procedures listed in Article 20 items 1 to 7 of this Law.

Electronic Licence Registry

Registry is available at the Internet address www.licenca.me and includes 540 licenses, permits and approvals for performing the economic activities issued by 36 institutions. The Chamber of Commerce is responsible for maintenance of the Registry, in cooperation with the Ministry of Finance.

5.5 Niche capabilities

Montenegro suffers from insufficient disaster response capabilities due to limited funding and other resources. However, country's plans are focussed on building capacities for mostly for response to floods and heavy snows in the mountains emergencies.

However, as the EU monitoring mechanism has stated, Montenegro is satisfactorily aligned with the EU civil protection acquis. Nevertheless, the country will need to further improve its administrative capacity in order to align the system with standards and good practices of the Member States. Technical and material resources need to be enhanced, in particular by further equipping and training civil protection and other concerned staff to reach a sound basis for adequate support for risk prevention and preparedness as well as necessary response in case of emergencies. Given the frequency of disasters in the country, disaster risk reduction and disaster management should be treated as a matter of priority at national and local level.

Montenegro will need to further develop work on disaster prevention, with an increased focus on risk assessment and risk management planning. Montenegro needs to prepare for its obligations as a participating state to the EU Civil Protection Mechanism by building up the necessary capacity to carry out national risk assessment, conduct risk management planning and assessment of its risk management capabilities and to inform the Commission. (EU, 2013)

Resources

Legislative acts

Law on Public Procurement

Zakon o Hidrografskoj Djelatnosti

Zakon o Hidrometeorološkim Poslovima

Other normative acts

Official documents (white papers, strategies, etc.)

Ministry of Interior, The Rulebook on Methodology for the Development of Threat Assessment Studies of Natural, Technical-Technological and Other Disasters:
<https://www.google.bg/webhp?sourceid=chrome-instant&ion=1&espv=2&ie=UTF-8#q=Rulebook%20on%20the%20Methodology%20for%20the%20Development%20of%20Threat%20Assessment%20Studies%20of%20Natural>

Ministry of Interior, Directorate for Emergency Situations, National Strategy for Emergency Situations (in national language): <http://www.mup.gov.me/biblioteka/strategije>

Ministry of Spatial Planning and Environment, Initial National Communication on Climate Change of Montenegro to the United Nations Framework Convention on Climate Change (UNFCCC), (Podgorica, 2010): <http://unfccc.int/resource/docs/natc/mnenc1.pdf>

The Government, National Security Strategy: www.gov.me/biblioteka/1154096856.doc

Online resources (e.g. websites of key CM organisations)

Institute for Hydrometeorological and Seismological Service of Montenegro,
<http://www.meteo.co.me/index.php>

Ministry for Spatial Planning and Environment of Montenegro

Ministry of Interior, Izvještaj o Stanju Sistema Zaštite i Spašavanja u Crnoj Gori u 2013 Godini, (Mol: 2014),
<http://www.gov.me/ResourceManager/FileDownload.aspx?rId=164029&rType=2>

Ministry of Interior, <http://www.mup.gov.me/ministarstvo>

Ministry of Sustainable Development and Tourism,
<http://www.mrt.gov.me/en/news/100500/CALL-FOR-EXPRESSION-OF-INTEREST.html>

National Civil Protection Authorities: Ministry of Interior – Directorate (Directorate) for
 Emergency Situations, <http://www.mup.gov.me>

Public Procurement Administration of Montenegro, <http://www.ujn.gov.me/>

Publications

EU, UNDP, IPA Beneficiary Country Needs Assessment: Montenegro, (EU-UNDP: 2011),
 available at
www.gripweb.org/gripweb/sites/default/files/Montenegro%20IPA%20Beneficiary%20Country%20Needs%20Assessment%20-2011-10-11.docx

European Union, “Chapter 27 – Environment and climate change” in *Screening Report
 Montenegro* (EU: 2013), available at
[http://ec.europa.eu/enlargement/pdf/montenegro/screening_reports/
 screening_report_montenegro_ch27.pdf](http://ec.europa.eu/enlargement/pdf/montenegro/screening_reports/screening_report_montenegro_ch27.pdf)

Third ECIS Disaster Risk Reduction Community of Practice Workshop, Ulcinj Capacity
 Assessment Report (ECIS: 2012). Available at
[http://www.me.undp.org/content/dam/montenegro/docs/projectdocs
 /ee/DRR%20CoP_%20Assessment%20Report_Ulcinj.pdf](http://www.me.undp.org/content/dam/montenegro/docs/projectdocs/ee/DRR%20CoP_%20Assessment%20Report_Ulcinj.pdf)

UNDP: Grigoryan Armen, Becchi Geraldine, Santos Vanda, Disaster Risk Reduction Capacity
 Assessment Report For Montenegro, (UNDP: 2011), available at
[http://www.gripweb.org/gripweb/
 sites/default/files/Montenegro%20DRR%20Cap%20Ass%20Report.pdf](http://www.gripweb.org/gripweb/sites/default/files/Montenegro%20DRR%20Cap%20Ass%20Report.pdf)

UNISDR, World Bank and others The Structure, Role and Mandate of Civil Protection in
 Disaster Risk Reduction for South Eastern Europe. (UNISDR, 2008), available at
http://www.unisdr.org/files/9346_Europe.pdf

World Meteorological Organisation, “6. Chapter Six: Meteorological, Hydrological And Climate
 Services To Support Disaster Risk Reduction And Early Warning Systems In Montenegro”
 in *Strengthening Multi-Hazard Early Warning Systems and Risk Assessment in the
 Western Balkans and Turkey: Assessment of Capacities, Gaps and Needs*, (WMO: 2011),
 available at [www.wmo.int/
 pages/prog/drr/projects/SEE/documents/SEEPPhase%20I%20-
 %20MontenegroReport.pdf](http://www.wmo.int/pages/prog/drr/projects/SEE/documents/SEEPPhase%20I%20-%20MontenegroReport.pdf)

Expert interviews



Driving Innovation in Crisis Management for **European Resilience**

THE NETHERLANDS

Capabilities, Organisations, Policies, and
Legislation (COPL) in crisis management
and disaster response

Responsible Partner: ECORYS (Laura Birkman, Linette de Swart)



Scope and limitations

This study serves as supporting information for further work within DRIVER.

Only limited time and budget has been available for this first general survey, which needs to be considered in terms of scope and completeness of the respective studies.

The author/s of this study is/are responsible for its content and quality.

Overview

The **crisis management structure** in the Netherlands is complex. The operational side is organised locally and so the local fire brigade, police force and medical team are the first responders to a crisis. These emergency response services fall under the responsibility of the different Security Regions, which form the back bone of the Dutch crisis management system. The Security Regions establish the local crisis plan, are responsible for organising trainings and exercises and formulating adequate (response) policies.

On the national level a distinction between the general crisis management system (the so-called general chain) and the specific crisis management system (the so-called functional chain) can be made. For each crisis in the general chain (affecting the public order and safety) the Ministry of Security and Justice will be the main responsible ministry. If only the public order and safety are affected, the Ministry of Security and Justice is the sole responsible ministry. If the crisis affects more than the public order and safety, the functional chain(s) will become active as well. Depending on the type of crisis, the ministry responsible for this task becomes the main responsible ministry, supported by the Ministry of Security and Justice. Besides the official actors, **many other stakeholders** can play a role. The role of the Dutch Red Cross is explicitly laid down in the law, but also with the vital partners (e.g. energy companies, telecom and drinking water), covenants have been concluded laying down their part in crisis management.

If an **international disaster** happens, the main responsible ministry is the Ministry of Foreign Affairs. The Ministry will decide on the appropriate action to take. Decisions are made in cooperation with the National Coordination Centre (NCC), other Ministries, Embassies and international organisations. To file a request for **humanitarian aid** the NCC is the competent authority. To this end, the NCC will start the procedure, evaluating whether or not the Netherlands is able to provide the support needed and/or requested. Often, the NCC will also contact the Ministry of Foreign Affairs in order to jointly decide upon the request.

Financing in preparedness is mainly done by the Ministry of Security and Justice. Although it is difficult to find the exact amount spend on crisis management, it is estimated that this Ministry spends around € 238 million per year on crisis management. In addition to these contributions of the Ministry, the municipalities need to contribute to preparedness. In 2013 they spend around € 1 billion. **Financing in recovery** is done both by the governments and the private sector. The **main niche capability** of the Netherlands that could be of interest for EU crisis management, is the country's experience with flooding (and water management). Since the Dutch Watersnood flood in 1953, the Netherlands has developed an extensive prevention program which is applied on a global scale. Similarly, Dutch flood experts are active all around the world to provide guidance on flood prevention.

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List of Abbreviations

AT	Advisory Team (Adviesteam)
BDUR	Block grants disasters (Brede Doeluitkering Rampen)
CAR-UWO	College of Employment matters (College voor Arbeidszaken)
CdK	Commissioner of the King
CMBA	Covenant Civil-Military Administrative Agreements (Civiele-Militaire Bestuursafspraken)
CRED	Centre for Research of the Epidemiology of Disaster
DCC	Departmental (crisis) Coordination Centres
EC	European Commission
EOD	Explosive Ordeal Disposal teams
EU	European Union
EUDRCC	Euro-Atlantic Disaster Response Coordination Centre
EU-MIC	European Union Monitoring and Information Centre
GDP	Gross Domestic Product
GHOR	Organisation for medical assistance in the region (Geneeskundige Hulpverleningsorganisatie in de Regio)
GRIP	Coordinated Regional incident management procedure (Gecoördineerde Regionale Incidentbestrijdings Procedure)
GVA	Gross Value Added
ICCb	Interdepartmental Commission Crisis Management
ICMS	Improvement of the CivMil Cooperation (Intensivering van de Civiel-Militaire Samenwerking)
INSARAG	International Search and Rescue Advisory Group
LOCC	National Operational Coordination Centre (Landelijk Operationeel Coördinatiecentrum)
LOS	National Operational Staff (Landelijke Operationele Staf)
MCCb	Ministerial Commission Crisis
MOD	Ministry of Defence
MS	Member State
NAC	National Academy for Crisis management (Nationale Academie voor Crisisbeheersing)
NCC	National Coordination Centre
NCP	National Crisis Plan
NCTV	National Centre Terrorism and Security (Nationaal Coördinator Terrorismebestrijding en Veiligheid)
NKC	National Core team Crisis Communication (Nationaal kernteam Crisiscommunicatie)
NRB	National Risk Assessment (Nationale Risico Beoordeling)
OCHA	Office for the Coordination of Humanitarian Affairs

OTOTEL	Educate, Train, Practise, Test, Evaluate and Lesson's learned (Opleiden, Trainen, Oefenen, Teseten, Evalueren en Leren van less)
R&D	Research and Development
SBIR	Small Business Innovation Research Programme
SME	Small or Medium sized Enterprise
SOP	Standing Operating Procedure
UN	United Nations
UNDAC	United Nations Disaster Assessment and Coordination
USAR	Urban Search and Rescue

1 Policy

In the Netherlands three types of crises are distinguished: the national crisis, the regional crisis and the municipal crisis. Although Driver focuses on national crises it is difficult in the Dutch crisis management system to differentiate between the three types as they can easily turn from one form of crisis into another. For example, a municipal crisis can easily turn into a regional crisis, e.g. the smoke of a local fire drifts to surrounding municipalities and thereby affecting their citizens as well. The crises are defined as follows:

- National crisis is an event
 - Which affects the national security, and
 - Where regular structures and/or resources no longer are sufficient in order to maintain stability.
- Regional crisis is an event:
 - Which causes a severe disruption of public order and safety and which affects more than one Security Region, and
 - Where regular structures and/or resources no longer are sufficient in order to maintain stability.
- Municipal crisis is an event:
 - Which causes a severe disruption of public order and safety and which affects only a Security Region or a municipality, and
 - Where regular structures and/or resources no longer are sufficient in order to maintain stability.

Twice a year the Dutch population is asked about their perception of feeling safe. A randomly selected group is asked to participate in the Risk and Crisis barometer. The most recent one was carried out in June 2014. In this last barometer 816 Dutch people were asked if they feared certain crisis or disasters. All people asked were above 15 years old. The table below shows which incidents were most feared by Dutch people.

Table 1.1: Percentage of people fearing a certain incident between 2012-2014

	June 2014	November 2013	June 2013	November 2012	June 2012
Economic crisis	62%	64%	75%	76%	78%
International crisis	51%	43%	45%	50%	49%
Cyber attack ¹	49%	52%	58%	-	-
Terrorist attack	48%	43%	49%	38%	44%
Incident with dangerous goods	39%	40%	41%	47%	43%
Extreme weather conditions	39%	37%	33%	34%	33%

¹ This category was added since 2013.

	June 2014	November 2013	June 2013	November 2012	June 2012
Pandemic	36%	40%	42%	42%	41%
Disturbance in large crowd	35%	41%	47%	47%	45%
Traffic accident	35%	37%	36%	39%	40%
Large fire	30%	30%	31%	36%	37%
Nuclear incident	29%	30%	34%	31%	27%
Electricity, gas, water or phone failure	29%	32%	34%	31%	31%
Flooding	29%	32%	30%	30%	26%

Source: IPSOS (2014)

Dutch people fear an economic crisis the most (62%), followed by an international crisis (51%). Striking is that most Dutch citizens do not fear flooding. Only 29% of the people asked indicated that they fear (severe) flooding, although this is one of the largest risk the Netherlands is facing.

1.1 Risk Assessment

1.1.1 Key risks and former disasters

Based on its location the main natural risk identified for the Netherlands is a flood. The total area that is part of the Dutch jurisdiction is 41,543 km² of which 7,814 km² consists of sea. The total length of the coast line is 523 km. Of the remaining 33,729 km² (land use), 19% consists of internal waters, equalling 6,408 km². In total the country has 14,222 km² of water. On top of that 25% of the inhabited land lies below sea level. The largest parts of land below sea level are located in the West of the country, where also the four biggest cities are located. Especially, large parts of The Hague and Rotterdam are located below sea level. The total population of the Netherlands is estimated at 16,8 million of which 7,1 live in the densest populated area (Randstad), and are at a constant risk of flooding.

Besides flooding other threats have been identified. The main threats categorized by their probability and impact are:

- High probability, but low impact: several forms of extremism, large scale electricity black-out, extreme heat and dryness;
- High probability and substantial impact: Influenza pandemic, geopolitical oil crisis;
- Low probability, but high impact: flooding, targeted attack on electricity infrastructure.

A threat recently identified which has a considerable impact is a large-scale IT hazard.

In the World Risk Report 2014 The Netherlands has an index of 8.25% where risk is understood as the interaction between a natural disaster (earthquakes, floods, cyclones, droughts, sea level rise) and

the vulnerability of societies. The Netherlands is ranked on the 51st place out of 171 countries (nr. 171 is facing the lowest risk). For each of the countries not only the overall risk, but also the exposition, vulnerability, susceptibility, lack of coping capabilities and lack of adaptive capacities have been assessed. In the list only including exposition as an indicator The Netherlands is placed in the top-15 most exposed countries, ranked on the 12th place.

Table 1.2: Comparison of risk per category between the Netherlands and neighbouring countries

Rank	Country	World risk index	Exposition	Vulnerability	Susceptibility	Lack of coping capabilities	Lack of adaptive capacities
51	Netherlands	8.25%	30.57%	26.98%	14.84%	42.15%	23.96%
136	UK	3.54%	11.60%	30.49%	16.57%	47.08%	27.82%
139	Belgium	3.41%	11.66%	23.23%	15.59%	42.38%	29.70%
147	Germany	3.01%	11.41%	26.37%	15.41%	37.73%	25.97%
152	France	2.69%	9.25%	29.08%	16.13%	43.29%	27.83%

In the table above the position of the Netherlands is compared to the situation of its neighbours. The Netherlands has a much higher risk than Germany, Belgium, France and the UK. This higher risk is mainly caused by the high exposition the country faces. The report defines exposition as the exposition of a country towards natural hazards, such as earthquakes, cyclones, flooding, drought, and sea level rise. Especially flooding and sea level rise are major points of concern for the Netherlands.

During the last fourteen years the following crises happened in the Netherlands, which can be divided over four categories; I) natural disasters and infectious diseases, II) industrial/transport accidents, III) infrastructure failures and IV) terrorism. For each of the crises the number of persons, killed, injured or affected, is indicated where possible.

Table 1.3: Crisis in the Netherlands between 2000-2014²

Damage					
Year/month	Crisis description	Crisis category	# of persons killed	# of persons injured	# of people affected
2012 Apr	Train crash	II	1		117
2011 Apr	Shooting at a mall	IV	6	17	
2011 Jan	Fire at chemical plant	II			?
2009 Apr	Start influenza H1N1 pandemic	I	62		
2009 Apr	Attack Royal family	IV	8	10	

² It should be noted that attacks by Animal liberation front, unclaimed attacks that have been prevented and heat/cold waves are excluded from this list.

Damage					
2009 Feb	Airplane crash near Schiphol	II	9	86	
2007 Oct	Electricity breakdown (2 days) due to helicopter crash	III			100,000
2005 Nov	Electricity breakdown (2 Days)	III			25,000
2005 Apr	Fire at Schiphol Airport	I	11		15
2004 Oct	Assassination of Van Gogh	IV	1		
2001 May	Assignation of Fortuyn	IV	1		
2001 Jan	Café Fire on New Year's Eve	I	14		180
2000 May	Fireworks factory explosion in Enschede	II	22	1,000	3,000

Source: ANVIL, country study: The Netherlands (2013)

According to the Brussels based Centre for Research of the Epidemiology of Disasters (CRED), the most costly natural disaster in the Netherlands is a storm that caused a lot of damage in 1990. The number of damage by flooding in this list is limited, only two flooding have been reported, compared to 7 storms. The table below shows the top-10 disasters since 1900, measured in their financial impact.

Table 1.4: Largest natural disasters between 1900-2014, measured in economical impact

Type of disaster	Date	Damage (000US\$)
Storm	25 January 1990	1,200,000
Storm	21 January 1995	1,180,000
Storm	18 January 2007	550,000
Flood	12 September 1998	530,000
Flood	31 January 1953	300,000
Storm	26 October 2002	300,000
Storm	3 February 1990	180,000
Storm	25 February 1990	180,000
Extreme temperature	25 November 2005	100,000
Storm	7 February 1990	70,000

CRED also collected data on technological disasters. The following table presents the major technological disasters since 1900, measured in their economic impact. As the table shows the largest economic damage result from industrial accidents (4 in total) and miscellaneous accidents (3 in total). In number of people killed or affected transport accidents are mainly dominating the top-10 (9 out of 10 for people killed and 7 out of 10 for people affected).

Table 1.5: Largest technological disasters between 1900-2014, measured in economical impact

Type of disaster	Date	Damage (000US\$)
Miscellaneous accident	13 May 2000	256,000
Industrial accident	7 January 1993	39,000
Industrial accident	13 December 1991	38,000
Industrial accident	25 February 1990	33,800
Miscellaneous accident	30 August 1993	31,000
Industrial accident	23 August 1990	28,300
Miscellaneous accident	12 August 1992	27,600

1.1.2 Risk assessment methodology

The methodology for the Dutch risk assessment is laid down in the guide book 'Working with scenario's, risk assessment and capacities'. This guide book indicates how the national risk assessment (abbr. NRB) should be carried out and updated. The book also provides additional guidance for scenario development. The method is developed by a working group consisting of governmental experts, knowledge institutes and industry.

The risk assessment is updated once a year in order to have a good overview of possible threats and their respective impacts on Dutch society. The outcomes are laid down in the national risk assessment ('Nationale risicobeoordeling') which is published on the website of the Ministry of Security and Justice. In the risk assessment the following steps are followed:

- Starting point is the scenario development. Each scenario describes a specific threat, e.g. flooding, pandemics etc. The threats need to be described in a systematic way in order to increase the comparability between the threats.
- Secondly all descriptions are checked to see if the necessary information is included to ensure a good comparability between the threat scenarios on their impact and likeliness of occurrence.
- Based on the descriptions the impact of each scenario on Dutch society is assessed.
- After assessing the impact on Dutch society an assessment of the likeliness that a scenario will actually occur is carried out.
- Based on the impact and likeliness of a scenario the scenarios are brought together in a risk diagram (see description below). This diagram provides an overview of all risks, their impacts and likeliness as well as their mutual relationships.

In the risk assessment all scenarios developed are brought together in the risk assessment diagram. On the horizontal axis the scenarios are ranked by likeliness of occurrence. If a scenario is placed on the left hand side of the diagram it is quite unlikely that the scenario will occur, while scenarios placed on the right hand side will almost certainly arise. On the vertical axis the impact of the scenario on Dutch society is depicted. If a scenario is placed on the bottom the impact of the threat

on Dutch society is limited, while scenarios located at the top are catastrophic. It should be noted that each scenario is assessed, on impact and likeliness, relatively to the other scenarios.

Based on this diagram Dutch crisis prevention focuses on the scenarios placed in the right hand upper corner of the graph, as these scenarios have a huge impact on Dutch society and the change that they will happen is very high. In some diagrams published the threats of the coming as well as the past year are presented, to indicate if a change in the likeliness or impact of the threat has occurred. An example of the diagram made, without a yearly comparison, is shown in the figure below.

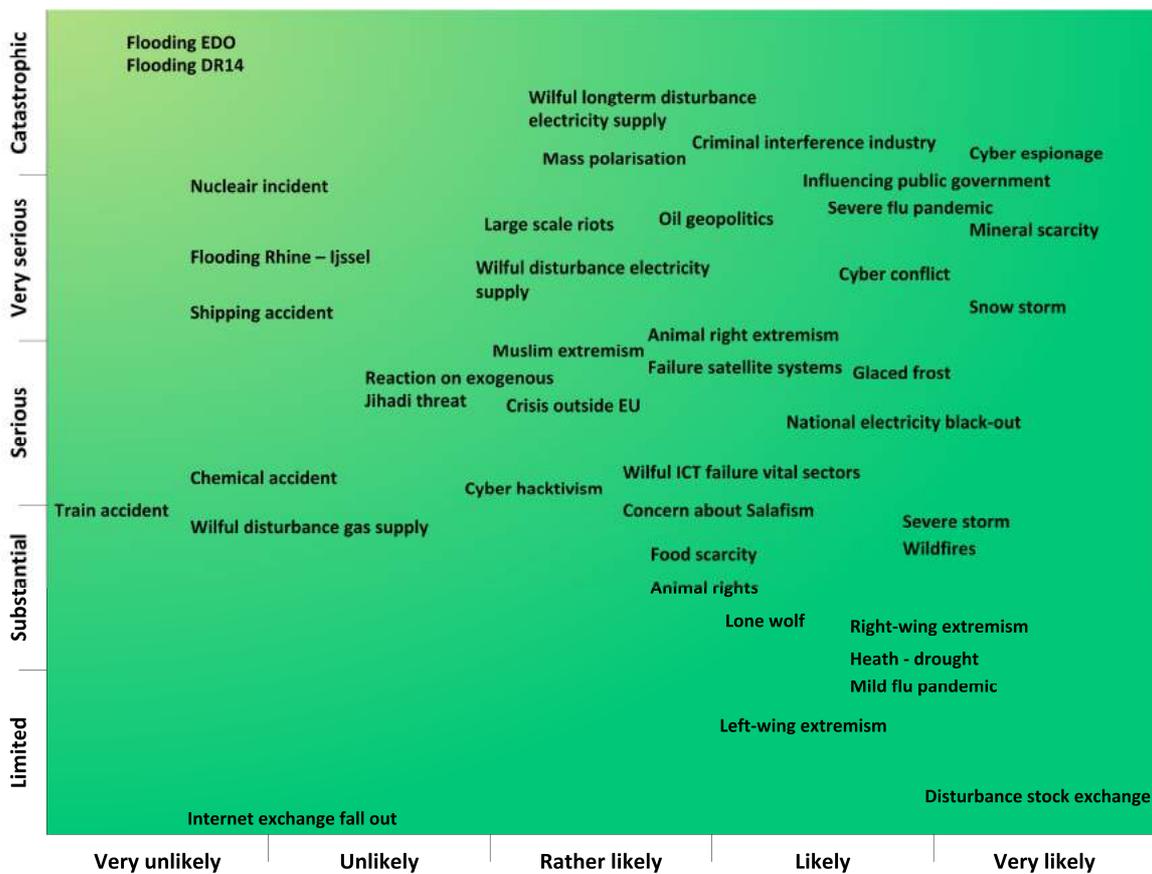


Figure 1.1: Risk assessment diagram 2012

Source: Nationale risicobeoordeling 2012, edited by authors

According to the figure above the main threats for the Netherlands are cyber espionage, mineral scarcity and a severe pandemic. For all threats identified in the risk diagram a so-called findings report (Bevindingenrapportage in Dutch) is made for each scenario individually. This report also contains an action plan to prevent this threat from really happening as well as a strategy to minimize the impacts once the threat becomes reality.

1.2 Policy and Governance

1.2.1 Strategy scope and focus

Dutch crisis management is organised locally and in case of an emergency the local level will be the starting point of the crisis management system. The system is divided in several GRIP (coordinated regional incident management procedure = gecoördineerde regionale incidentbestrijdings procedure) levels. For each of these levels a dedicated crisis management system has been developed with its own responsible team, as well as the competent authority(ies) and the coordination between the national crisis management system and the competent authorities.

The GRIP system is divided in six levels where the so-called GRIP 0 refers to the day-to-day situation where no special crisis management system is in place and the emergency services perform their usual tasks. GRIP 0 applies in cases of car accidents, small fires etc. Relevant levels for the DRIVER project are GRIP 5 and GRIP national. GRIP 5 refers to interregional emergencies. This can relate to different regions within the Netherlands as well as to cross border interregional emergencies. GRIP national relates to the largest crises where the coordination is done by the Ministry of Security and Justice, in case of emergencies affecting the public order and security, or another Ministry, in case it affects the responsibilities of this particular Ministry. It should be noted that the GRIP structure is not fixed and depending on the specific crisis GRIP system can differ. The mayor is free to choose to upgrade the system or not. Upgrading can also be regulated by the local crisis plan, which lays down the upgrading rules and responsibilities.

At national level therefore the crisis management framework is rather complicated as often more than one Ministry is involved. Depending on the crisis a specific crisis management system applies and often more than one Ministry is involved as the crisis affects different areas of competences (see chapter 3). From the perspective of the national government not all crisis management aspects are covered with the same level of detail. This is due to the locally organised response capacity. Main focus of the national government is on prevention/preparedness and recovery. Prevention and preparedness are mentioned jointly as no clear distinction is made between the two (see below).

1.2.2 Monitoring and analytical support to policy making; R&D

The National Centre Terrorism and Security (NCTV) is since 2012 responsible for the dedicated research programme 'Safe by innovation' (Veilig door Innovatie). This programme is broader in scope than crisis management and focuses on general safety issues in the Netherlands. Through this programme public bodies involved in security and safety issues can obtain financial support to develop innovative solutions to improve safety. The innovations do not only have to relate to state of the art technology development, but can also focus on organisational or social (aspects of) innovations.

To obtain financial support the public body needs to submit a proposal to the NCTV. Twice a year the NCTV will review the proposals received and proposals that best match the security goals set by the national government will be awarded the funding. Preferably the possible outcome of the research

should be usable for several bodies involved in security. For these bodies it should be important that their efficiency and/or effectiveness are improved. The public body does not have to be the only partner submitting the proposal, the body can decide to involve partners from the golden triangle (government, knowledge and industry) in their team. However, the two other partners of the golden triangle cannot submit a proposal on their own.

The NCTV also facilitates the R&D efforts of SMEs in the area of security/safety. The NCTV has two R&D programmes that are solely open for SMEs. The first one is the annual programme for the Safety Innovation Competition (Veiligheidsinnovatie competition). The competition was first held in 2014. The winner of the competition receives a financial contribution (€ 200,000.-) which allows him to develop a prototype that will be used in the crisis management system. The second programme already exists longer and is called the 'Small Business Innovation Research Programme (SBIR). This programme is organised every two years and small companies can submit their innovative research ideas. During several rounds the group of possible winners is diminished and finally one or two winners are awarded a financial 'prize' which should enable them to further develop their idea.

The NCTV also stimulates the cooperation between the partners in the golden triangle. In order to have a good overview of the research needs of public bodies involved in crisis management the NCTV makes an overview of those needs. The needs feed into the demand driven programme 'safe society' (veilige maatschappij) which is managed jointly by the NCTV and the Ministry of Economic Affairs. Content related coordination is done by TNO who needs to set up the research projects. TNO also carries out the so-called technology radar, that provides an overview of all technological related research carried out in a specific period of time.

1.2.3 Policy for Prevention and preparedness

The policy for prevention and the policy for preparedness in the Netherlands are closely linked and no clear distinction is made between the two. Therefore they are jointly described in this report. The main institution making policy for prevention and preparedness is the national government. Especially policies to prevent/prepare for the large scale events are made on this level. The general policy is made by the Ministry of Security of Justice as they act as national crisis coordinator through the NCTV, which consist of a part focusing on terrorism and a part focusing on crisis management through the national coordination centre (NCC). More specific policies are made by the Ministries responsible for the specific topic, e.g. the Ministry of infrastructure and Environment is the main Ministry developing policies related to flooding.

The Dutch government has introduced the Strategy National Security (2007) that aims to assess whether or not Dutch society is well prepared for a crisis. If the conclusion in this assessment is that the Netherlands is not well enough prepared, the government can take additional measures or develop new policies to improve the prevention and preparedness of the country.

Through national campaigns the government aims to make citizens and companies aware of what they can / need to do to be better prepared. Citizens are strongly encouraged through (previous)

campaigns such as ‘Think Ahead’ (Denk Vooruit) to prepare themselves. The government expects that citizens are able to save themselves for a while, so that they are not in need for immediate help. Companies can use tools, developed by the NCTV to become better prepared. The NCTV has developed several e-learning modules that aim to educate companies on how to improve their security systems. One of these modules focuses on espionage while another relates to making employees more aware of possible threats and encourage them to look out for possible disruptions.

To ensure that vital infrastructure can still be used during a crisis, the Ministry of Security and Justice encourages companies to develop continuity plans that are focused on a specific topic in the field of crisis management. For example, since the end of 2009 most hospitals, energy companies and governmental bodies have continuity plans in place that indicate what needs to be done when a pandemic occurs. Besides plans relating to pandemics, research done by the Dutch government showed that companies should also have plans in place relating to ICT and electricity. Developing continuity plans in these areas is compulsory. The Dutch vital infrastructure consists of 12 sectors covering 31 products.

Table 1.6: Overview of critical sectors and products in the Dutch vital infrastructure system

Sector	Products
Energy	Electricity, natural gas and (fossil) oil
Telecommunication & ICT	Mobile phones & land lines; radio, broadcasting and internet
Drinking water	Ability to supply drinking water
Food	Food provision and food security
Health	First aid services and other health care
Financial sector	Ensuring financial payments as well as payments to the government
Surface water management	Water quality and water quantity
Public order and safety	
Legal system	Justice, detention and law enforcement
Public governance	Diplomacy, information provision governments, armed forces and decision making
Transport	Schiphol Airport, Port of Rotterdam, main roads, main inland waterways and rail
Chemical and nuclear industry	Transport, storage, production and processing of substances

In order to ensure enough capacity in case something happens the civil authorities have improved the cooperation with the Army. In principle the capacity of the Army can be fully used during times of crisis, however the Army cannot agree on full availability, e.g. in case some of the troops are on a peace mission. The Army has guaranteed that at least 4,600 soldiers are permanently available to help in needed. The Army can assist by:

- Structural capacity → Coast guard, Royal military police, Special support units, Explosive Ordeal Disposal teams (EOD) and the emergency hospital.

- Random capacity → needs to be requested by the administrative powers, e.g. security and surveillance during evacuation, transport for evacuation, fire fighting helicopters, and decontamination capacity.

More detailed policies, which are additional to the national ones. can be developed by the Security Regions. These policy are laid down in the policy plans of the Security Regions, which need to be updated once every four years (see chapter 4).

1.2.4 Policy for Preparedness

See paragraph above.

1.2.5 Policy for Response

As response is organised locally, the main policies for response are made on a local level as well. Each Security Region is obliged to make a risk profile, a policy plan and a crisis management plan (see chapter 4). These documents together should provide all necessary guidance needed to properly respond to an incident. Especially the policy plans of the Security Regions provide information with regard to arrival times of emergency services, communication strategies between emergency services & communication to the public, and operational guidelines on how to act in certain situations.

The Inspection of Security and Justice, which is part of the Ministry of Security and Justice, is responsible for monitoring on a yearly basis if Security Regions have implemented these required plans and profiles. The results of this monitoring activities are laid down in the 'Staat van de rampenbestrijding', a report that extensively assesses the status quo of the crisis management for a three year period. The most recent one was published in 2013 and describes the status of the crisis management system for the years 2010, 2011 and 2012. Currently the Inspection is preparing the report for 2016, including the years 2013, 2014, 2015.

In the 2013 report the Inspection mainly assessed whether or not the required documents were in place and if each Security Region had followed the basic rules, e.g. if the plans where mutually adapted. The Inspection also assessed if the Security Region organised an exercise and if this exercise was evaluated. The 2013 assessment was the first assessment since the introduction of the Security Regions in 2010. In the upcoming report the assessment will be further extended and will contain more detail. Also some specific themes will be assessed, e.g. crisis communication and interregional exercises.

On a national level not many policies with regard to response have been formulated. Based on the assessment of the Inspection the Minister of Security and Justice can adapt the legislation in place or he can urge Security Regions to undertake certain actions, however this is rather uncommon. The main actors are the Security Regions themselves and they need to feel enough urgency to prepare and respond properly.

1.2.6 Policy for Relief and Recovery

The policy for relief and recovery is also mainly developed at a national level. Therefore after each crisis a similar set of options become available. These options can be non-financial (often permanently available) or financial (available on ad hoc basis).

Non-financial recovery

The national government has introduced several organisations and measures to provide relief to citizens. The main ones are:

- Impact (see below)
- Slachtofferhulp Nederland
 - Professional organisation that helps victims, sufferers and survivors after crises and severe incidents. The organisation does not charge for the help offered as they receive funding from the Ministry of Security and Justice, municipalities and the victims fund.
- Sensor
 - Professional organisation that allows people to tell their story and ask their questions. The organisation can be reach 24/7 and people can phone or send an email. It is a life line organisation.
- Korrelatie
 - Professional organisation that offers physiological help to people in general, but can also assist after a crisis. Advice can be asked by phone or online.
- Algemeen Maatschappelijk werk
 - General support institution that aims to offer support to all people that are not able to solve their own problems any more. This does not include financial compensation.

Impact does not only focus on the victims involved in a disaster, but also offers professional help to the professionals that were on the scene. The organisation is 24/7 available for professional (police officers, fire fighters and psychologists) and governmental bodies (municipalities and provinces) to offer advice on disasters and large incidents. The organisation also supports municipalities and health care institutions to improve their physiological care. they develop guidelines for decent care after disasters and they have a database on offer providing scientific knowledge on recovery.

Financial recovery

For citizen, companies, governments or associations that have suffered damages the national government offers two possibilities to get some (financial) compensation. It should be noted that not the entire damage will be compensated and for the remaining part citizens should to turn their insurance company.

In the Act on compensation of disasters (Wet tegemoetkoming bij rampen), is laid down that every person or company who has suffered damage can ask the government for a compensation. To receive compensation a crisis or other large event should have happened:

- Whereby the life and health of many people, the environment or major material interests have been seriously harmed or threatened, **and**
- where a coordinated deployment of services from different disciplines or organizations was required to eliminate the threat or reduce the harmful effects.

In order to be able to claim compensation both requirements need to be fulfilled. However it is not enough to claim compensation straightaway. The following conditions need to be fulfilled as well in order to get some compensation (the Act does not allow for full compensation):

- non-culpable: for example flooding caused by an exceptional storm.
- uninsurable: no contribution will be made if you could reasonably insured yourself against the damage.
- non-recoverable: there is no one else who pays the costs.

The government does not often pay compensations based on this act. Since its introduction in 1998, only 5 times the government has paid compensation.

The second act is the Security Regions Act which allows payments from the national government to the Security Regions or municipalities:

- Costs for a **municipality** resulting from actual combating a disaster and the consequences of that fight (emergency response costs). In addition, the costs for which reimbursement is requested need to be unforeseeable. Finally, only the emergency response costs incurred during the period of crisis, could be reimbursed. Only a municipality can apply for this type of compensation. The own contribution of the municipality is € 3 per capita (which is thus deducted from the compensation paid by the national government).
- Costs for a **Security Region** arising from the provision of (fire) assistance (assistance costs). This compensation does not only apply to disasters, but can also be requested for other incidents where assistance is provided by one or more Security Regions. Only Security Regions can apply for this this type of compensation. The own contribution for the region per incidents is € 4,500 (which is thus deducted from the compensation paid by the national government).

1.3 Financing

1.3.1 Investing in preparedness

Dutch crisis management and civil protection is changing rapidly and this influences the procedures for investing in preparedness. In the Netherlands the operational side of crisis management is organised locally. Based on the Security Regions Act each of the 25 Security Regions, combining the efforts of the fire brigade, police and public health institutions, is mainly responsible for the operational mitigation of a crisis. So the equipment of the actors can be used in all sorts of crisis. There is no national crisis equipment available. However in very severe crisis the military can be asked for assistance.

Investing in the fire brigade

As crisis management is organised through the Security Regions it means that investing in preparedness is investing in Security Regions. Each Security Region has a budget to finance general assistance and emergency response. The budget is partly received from the national government, i.e. the Ministry of Security and Justice, who contributes through the 'Brede Doeluitkering Rampen' (BDUR), a general contribution for crisis management. The largest part, however, is paid by the municipalities that contribute based on the Municipality Fund (Gemeentefonds).

Although the Security Regions combine the expertise of the fire brigade, police and public health institutions, the largest share of the budget goes to the fire brigade as the fire brigade has the largest role in the emergency response. Both the police and public health institutions receive their budgets through different channels (see below) and in the crisis management system they have a supportive role. Accounting wise the financing of the fire brigade and crisis management are always presented together. Following table shows the yearly contributions of the municipalities to the fire brigade and crisis management since 2005.

Table 1.7: Expenses of municipalities for fire brigades and crisis management (2005-2012)

		2005	2006	2007	2008	2009	2010	2011	2012
Total expenses	X ml€	724	819	913	1017	1094	1125	1102	1126
Expenses per inhabitant	X €	44	50	56	62	66	68	66	67

Source: CBS (2013), Brandweerstatistiek 2012

As said the Ministry of Security and Justice is contributing to the Security Region through the BDUR. In 2013 the Ministry contributed € 128,379 thousand to the Security regions (National Budget 2014, article 36). According to the same budget the contribution will rise to € 176,770 thousand in 2014 and from 2015 onwards around € 175 million is available on a yearly basis.

As indicated the municipalities contribute the largest share to the Security Regions' budgets, however during recent years both the contributions of municipalities and the national government have increased, as the following graph shows. The blue line indicates the payments made by the Municipality Fund (in connection with left axis) and the green line indicate the payments made by the national government (in connection with the right axis).

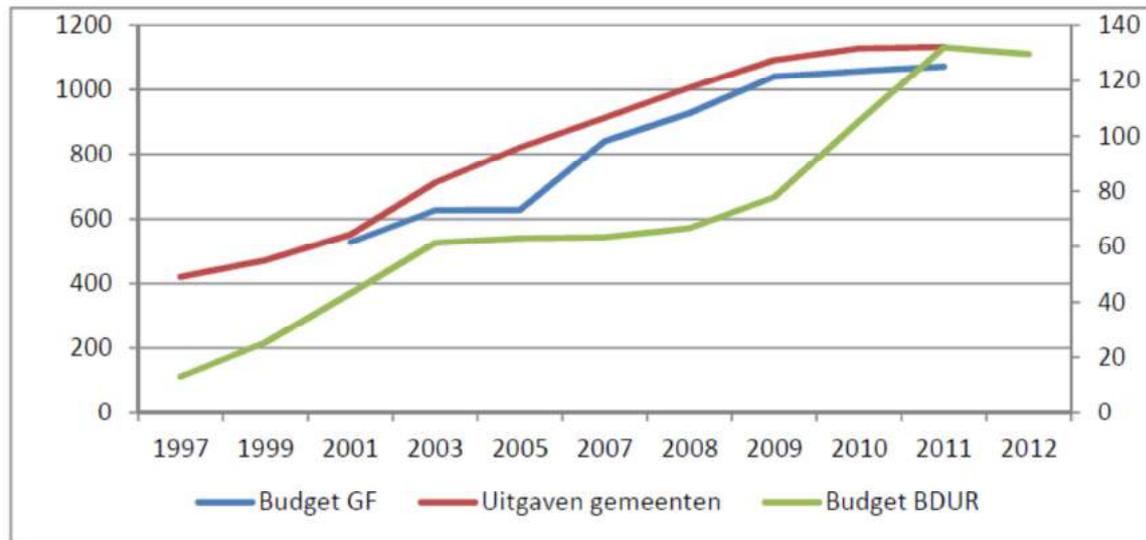


Figure 1.2: Developments crisis management and emergency response

Source: Anderssons Elferr's Felix (2013), Evaluatie Wet Veiligheidsregio's

Investing in the police

Since 2012 the Dutch police force is structured in a different way. Before 2012 18 different forces existed each with their own budgets and policies. Since 2012 there is only one force, consisting of 18 units. The National Police has to have one policy and receives one overall budget that needs to be divided over the 18 units. The Ministry of Security and Justice is responsible for this budget. According to the National budget (art. 31) the police force received € 4.980 million in 2013. It should be noted that this is the total budget for the police, and other tasks than crisis response need to be covered with this budget as well.

Table 1.8: Estimated budget for the National Police, x1000

	2013	2014	2015	2016	2017	2018
National Police	4,980,842	4,882,090	4,775,744	4,727,684	4,701,528	4,677,334

Besides investing in the Fire Brigade (through the BDUR) and the National police, the Ministry of Security and Justice invests in other parts of crisis management as well. The following contributions are made:

- Contributions:
 - Institute for Physical Security (Instituut Fysieke Veiligheid) → responsible for training and educational programmes related to crisis management
 - Other activities within national security and terrorism
- Subsidies
 - Dutch Red Cross → largest volunteers organisation involved in crisis management. To help them organise their emergency response (buying necessary supplies, e.g. blankets, water etc.) the Ministry subsidises them

- Education Security Region → to help developing educational programmes for fire fighters
- Other activities within national security and terrorism → Support for NCTV to carry out the yearly risk assessment analysis
- Projects:
 - NL-Alert → Development of crisis management communication tool (see chapter 4)
 - National Cyber Security Centre → institute focusing on policies for and impacts of cyber security
 - Other activities within national security and terrorism → Projects focusing on R&D in crisis management as well as OTOTEL (see chapter 5)

Taking into account all these posts as well as the contribution to the National Police and the BDUR the Ministry of Security and Justice invested around € 5 billion in security related activities in 2013. However, as is indicated in the table, the largest share consists of the police budget that also is used for many other activities than crisis management, e.g. crime investigation.

Table 1.9: Estimated budget for crisis management related activities, x1000

	2013	2014	2015	2016	2017	2018
National Police	4,980,842	4,882,090	4,775,744	4,727,684	4,701,528	4,677,334
BDUR	128,379	176,770	175,040	175,042	175,042	174,918
Contributions						
Instituut Fysieke Veiligheid	31,036	30,236	30,239	37,432	28,397	27,962
Other activities	3,319	2,999	3,000	2,894	2,758	2,702
Subsidies						
Dutch Red Cross	1,850	1,685	1,685	1,685	1,685	1,683
Education Security Region	1,930	1,930	1,930	1,930	1,930	1,928
Other activities	508	4,950	5,613	5,554	5,478	5,441
Projects						
NL-Alert	2,900	2,900	2,900	2,900	2,900	2,897
National Cyber Security Centre	4,463	8,343	8,337	8,336	8,331	8,326
Other activities	11,202	8,578	9,269	9,310	9,245	8,720
Total budget						
Total without Police	188,995	238,391	238,013	245,083	234,766	234,577
Total	5,169,837	5,120,481	5,013,757	4,972,767	4,937,294	4,911,911

Source: National Budget for the Ministry of Security and Justice (2014)

1.3.2 Investing in consequence management

Several actors are involved in investing in consequence management. If objects belonging to the public domain have been damaged, e.g. buildings and roads, the 'government' has to pay. If the object belongs to the national government it will be the responsible ministry that needs to pay. If the objects fall under the responsibility of the regional or local government, these governments will bear the costs. If budgets are tight, the national government can provide assistance. Each of the governments has a budget available for un-expected expenses and these budgets can be used to cover the costs to repair, for instance public roads and buildings if needed.

If a citizen is affected and his property or health is damaged, he can file an insurance claim. In the Netherlands it is compulsory to have a health insurance. Depending on the extensiveness of the insurance, citizens do need to contribute to treatment by spending their so-called own contribution (eigen bijdrage). However for all citizens, their own contributions are (legally) limited and once the limits have been exceeded, the insurer will pay the remainder of the costs.

Also most Dutch citizens have insurances that cover damages related to property. According to a Lloyd's report the insurance penetration in 2011 was 9.5% (premiums as a % of GDP). In the list of 42 reviewed countries the Netherlands was number one, followed by New Zealand (5.2%) and South Korea (4.6%). It should be noted that the penetration rate is not related to the relative risks people are likely to face. The report also calculated if a country is over or under insured by calculating the 'benchmark insurance coverage'. Also here the Netherlands is number 1, with a benchmark of 8.01, indicated that the country is very well insured. Citizens are even better insured than they strictly need to be.

Compared to citizens the different industries are relatively poor insured. The Lloyd's report calculated the insurance penetration rated per industrial sector compared to the Gross Value added (GVA) of this particular sector to the national Gross Domestic Product (GDP) (see table below). Taking all sectors into account the overall insurance penetration for Dutch industry is less than 0.3%, ranked the Netherlands 11th amongst 18 reviewed countries. Frontrunner is the US with a penetration rate of almost 1%, followed by Ireland (0.87%) and the UK (0.75%).

Table 1.10: Penetration rate and GVA contribution per sector (2011)

Sector	Insurance penetration	GVA contribution
Wholesale and retail	0.65%	13.19%
Transportation and Storage	0.64%	4.48%
Agriculture, forestry and fishing	0.51%	2.08%
Real estate activities	0.34%	8.27%
Professional and administrative services	0.32%	13.70%
Arts, entertainment and recreation	0.30%	1.35%
Accommodation and food service activities	0.26%	1.84%

Sector	Insurance penetration	GVA contribution
Financial and insurance activities	0.24%	3.78%
Manufacturing	0.20%	14.10%
Education	0.16%	4.24%
Human health and social work activities	0.14%	8.64%
Construction	0.12%	5.55%
Utilities	0.12%	1.95%
Information and communication	0.09%	2.46%
Public administration and defence	0.08%	6.81%
Mining and Quarrying	0.04%	3.08%

Source: Lloyd's (2012), Lloyd's underinsurance report

1.4 Policy review, Evaluation & Organisational Learning

1.4.1 Post-Disaster Assessment

Larger disasters are evaluated. Since 2005 a permanent body for evaluating crisis has been established, the so-called Research Council for Safety (Onderzoeksraad voor Veiligheid). The Council was introduced by the Act on the Research Council for Safety (Rijkswet Onderzoeksraad voor Veiligheid). And this act was accompanied by several Royal Decrees laying down the operational procedures followed by the Council. Before the introduction of the Council each crisis was evaluated by an ad-hoc commission, which often had not enough administrative powers to carry out a full research.

In comparison to the ad hoc commission the Research Council does have administrative powers that are laid down in the Act as well. Members of the Council are allowed to enter all buildings to gather information, they can collect radar images, recordings of interviews with possible suspects, and they are allowed to confiscate databases, audio & visual material, and wrecks. The act also regulates that everyone is obliged to cooperate with the Council in order to help the Council gathering all information to carry out a proper investigation.

The Council will investigate disasters in the following areas: inland shipping, construction and service, crisis management and assistance, defence, health care, industrial accidents, aviation, rail transport, water, road transport and maritime transport. In some case the Council is also authorized to carry out an investigation abroad, e.g. after the recent air crash in the Ukraine. Since its establishment in 2005 the Council has carried out 60 large investigations and dozens of smaller ones.

Everyone can ask the Council to start an investigation, however the Council will only carry out an investigation if they believe an incident is caused by a structural governmental failure. If the Council concludes that this might indeed be the case they will start collecting information as soon as possible and often they will visit the incident scene. They interview relevant stakeholders to find out what really happened. Based on the information gathered the Council will assess if there was a structural failure and then they can decide to further investigate the incident. In this investigation the Council is assisted by an advisory committee which exists of experts in that specific field. Jointly they draft a report which provides an overview of what has happened, what went wrong and what needs to be done to prevent a similar incident from happening.

The Council has three basic values:

- Independent: the judgement of the Council needs to be objective, impartial and independent. The Council needs to be critical with respect to all parties involved.
- Transparent: the council needs to be transparent about the choice they make and they need to underpin why they use certain methodologies.
- Professional: to ensure a decent report the Council needs to look for the right expertise and involve a sufficient number of external experts.

In case the conclusion is that the responsible authority has made severe mistakes it could lead to political consequences. For example, in case of a large pandemic with many fatal deaths, it could be concluded that the Minister responsible for public health made such severe mistakes that he should no longer carry out his function. He could be asked to resign his post.

Examples of recently performed evaluations are:

- The crash of an aircraft of Turkish Airlines,
- The fire at Chemie-Pack, a Dutch chemical factory
- The shooting in Alphen a/d Rijn.

1.4.2 Departmental Lessons Learned systems

In the Netherlands the main actors involved in operational crisis management are the Security Regions. According to the Royal Decree on Security Regions (art. 2.5.1) each region should organise at least one exercise per year and they are obliged to evaluate the strengths and weaknesses of their own performance. Once a year each region needs to send the information to the Inspection for Security and Justice (Part of the Ministry for Security and Justice). The Inspection combines the information and writes an overall report titled 'Status quo of the Dutch crisis management system'. This report contains the main lessons learned and Security Regions are encouraged to implement the lessons learned in their procedures. Based on article 57 of the Security Regions Act the Inspection is entitled to monitor the performances of the regions.

In order to help each Security Region to perform the exercise and ensure that the results of the different exercises are comparable the Inspection has drafted a handbook describing how the self assessment needs to be carried out. The handbook describes the different roles of the Security Regions and the Inspection in an exercise, the preparation steps to take, as well as the execution & evaluation steps. Every year the Inspection will evaluate whether or not the Security Region has implemented the lessons learned from the year before.

The self evaluation by the Security Regions is seen as a very important instrument for implementing lessons learned. According to an extensive research carried out by the Inspection it is shown that the effects of self evaluation have much more effect on the performance the Security Regions than reports made by third parties. Therefore the main lessons learned are based on the own experiences of the Security Regions during their daily operation as well as the exercises.

1.4.3 Centralised (national) Lessons Learned system

Incidents are evaluated on an individual basis and often only the actions taken by Security Regions are assessed as they are the main bodies involved in crisis management. Only a limited number of larger crisis involving the national government occurs and so experiences in evaluating very large disasters is limited. The incidents can be evaluated by the Research Council for Safety or the Inspection for Security and Justice. In principle the Research Council can investigate all incidents it would like to investigate, based on legislation. In case the Research Council indicates that it would

like to investigate an incident, no other body is allowed to conduct an investigation into the same incident. However in practise, the Research Council involves many other bodies during their investigations. These bodies can look into specific topics, e.g. victim identification or communication. They can also provide general support, e.g. by free up capacity.

During their investigations, the Research Council will always consider recommendations provided in earlier investigations carried out by themselves or others. The research Council will analyse whether or not the recommendations provided have been followed. In case they have not been followed the Research Council often concludes that no lessons were learned. The Inspection for Security and Justice on the other hand does not very often consider earlier provided recommendations and for them it is more difficult to assess whether or not lessons have been learned. They intend to change this procedure and evaluate more often if recommendations have been implemented so that they are better able to assess if lessons have been learned. Both organisations focus their investigation on local incidents and their check on lessons learned there for is also often local. However it is possible that their recommendations are more general and therefore can be applied to other Security Regions as well.

1.4.4 International exchange for Lessons Learned

The Netherlands holds exercises with its neighbours, Belgium and Germany, on a regular basis. With both countries at least once a year a cross border exercise is done and each exercise is evaluated. The things learned during these exercises are included in the handbooks and guidelines used in the daily crisis management.

Between the Netherlands and Germany, the Netherlands and Belgium, and between the Benelux countries several treaties and agreements have been conducted relating to crisis management and the way each country should respond. These treaties and agreements also include provisions on mutual exchange of information and early warning in case of major disasters.

1.4.5 Regular policy reviews

To improve policies especially policy evaluations are important. On a national level recently the evaluation of the Security Region was carried out. This evaluation assessed if the Security Regions Act, which introduced this new administrative structure of Security Regions, had reached the desired effects. The evaluation was carried out on behalf of the Ministry of Security and Justice by an independent consultancy firm. Based on the recommendations done it is possible that the Minister decides to change the policies taken so far. If really necessary the Minister can decide to change the law or accompanying Royal Decrees as well.

Also the policy plans made by the Security Regions are evaluated. These plans are evaluated by the Inspection of Security and Justice. The Inspections does not only evaluate the policy plans, but will also consider the risk profile and the crisis plan. In addition the Security Regions need to carry out exercises which need to be evaluated. Based on all the evaluations done the Inspection can advise a

certain Security Region to change its policy plan. The Inspection does not have any powers and so cannot force a Security Region to change its policy plan or procedures. In case the Inspection establishes that severe points are falling behind they can try to conclude an improvement agreement with the Security Region in question. In this agreement the Security Region promises to improve their performance and plans. However, also in this case the Inspection cannot give the Security Region penalties in case they do not stick to the agreement. If a situation is really improper the Inspection can try to ask the Minister to urge the Security Regions to improve their performance. Up till now this never was an issue and it is unclear which procedures will be followed.

National policies are mainly tested and therefore reviewed, during a national exercise. Disadvantage of the national exercise is that it has a long preparation time and often turns into a demonstration showing the public that the system works and what it can do. Some stakeholders fear that the national exercises do not fully reflect the day-to-day situation and they place question marks whether or not the system is actually working that way. It remains a question if the system would work in the same way when something unexpected happens.

1.5 Resilience

The concept of resilience in civil protection, in terms of country's capacity to withstand shocks due to natural and other disasters, to rebuild itself with efficiency, and to improve on the pre-existing state wherever, has not been explicitly established by law or another normative act. However in the Netherlands several large awareness campaign were set up in order to increase societal resilience. The campaign called Think Ahead (Denk vooruit) encouraged citizens to prepare for possible disasters, by buying survival kits and be aware what they need to do in case a crisis happens. They also need to understand the need to ensure to save themselves first and should not solely rely on the emergency services. The campaign is finished, but the information can still be found on-line. Currently no plans are in place to launch a new awareness campaign.

Based on the Security Regions Act some companies are obliged to prepare a crisis management plan. The Act lays down that companies falling under the Royal Decree Risks severe accidents 1999 (Besluit Risico's Zware Ongevallen) and airports need to have crisis management plans in place. Mainly chemical plants are required to have a crisis management plan in place. These plans will increase the resilience of these companies in case a crisis happens.

1.6 Information sharing and data protection

Information sharing during times of crisis

The Royal Decree Information in connection to disasters and crisis (Besluit informatieve inzake rampen en crisis) provides an extensive overview who and when information needs to be exchanged in case of emergency. The Royal decree describes amongst others when information from the government should be transferred to the population and when another country should be informed of possible threats. The Decree does not explicitly refer to the sharing of sensitive information with

other states. If sensitive information is shared, will depend whether or not the Netherlands has concluded a treaty with the other state agreeing to share such information in case of a crisis.

With regard to personal data the public authority is, in principal, required to obtain explicit and unambiguous permission to use personal data (based on the Wet bescherming persoonsgegevens, article 8 sub a). However article 8 sub e of that act states that a public authority can use personal data (without consent) if the public authority needs the personal data in order to fulfil its public duty in a good and sufficient manner. According to the explanatory memorandum accompanying the act this applies in case of an emergency where medical care is required. The public authority is allowed to share personal information without the explicit consent of the people involved, because in an emergency situation it would be undoable to obtain consent of everyone. In that case providing medical care and combatting the emergency take precedence over individual consent to use personal information.

Availability of volunteers

In the Netherlands the level of voluntarism is high. The largest group of volunteers is working for the fire brigades, being 70-80% of all volunteers. The share of volunteers assisting the police is relatively low (only 4%). Both volunteers assisting the fire brigades and the police receive a monetary compensation for their work. Other volunteer groups are volunteers 'working' for the Dutch Rescue Service (patrolling the inland waterways and providing life guard services) and the Dutch Red Cross. All these 'official' volunteers are registered as they need to obtain certificates and are required to follow trainings in order to be able to execute their task. One of the compulsory trainings they all follow, each in their own organisation, is the First Aid Training.

In case of an emergency the assistance of these volunteers can be required by the competent authority. Normally volunteers fall under the authority of their fire brigade, policy force or dedicated department within the Red Cross, but if the crisis is large and one of the ministries is the competent authority, that Ministry can involve the volunteers itself. The official volunteers are available on a permanent basis and if something happens they can be quickly mobilised to assist.

Besides these groups of official volunteers, which have dedicated training and are registered, a group of unofficial volunteers, people that would like to assist because they feel socially responsible to do this, is available. These people are neither registered nor trained. Currently no clear policy is in place how to deal with these volunteers. However, such a policy is urgently required, as situations where untrained volunteers are involved occur more and more.

Using Social Media

The usage of social media to gather information in times of crisis is still limited in the Netherlands. Although public authorities have several fora at their disposal to communicate in case of a crisis, the usage of these fora to collect data is still limited. In a vision paper on social media and crisis communication published by the NCC it is stated that the public authorities should always listen to messages placed on social media. There is no clear strategy yet how to deal with message placed on Facebook, Twitter or Flickr. The main problem is to filter the correct information. Much information is posted on social media, but not all of the information is reflecting to the true situation. Therefore

communication employees need to filter the information found and verify whether or not the information is correct. The Dutch government is currently working on methods how to verify information collected via social media.

2 Legislation

2.1 Crisis (emergency, disaster) management concept

The framework for national crisis management is laid down in the national guide for crisis decision making (Nationaal Handboek voor Crisisbesluitvorming). The guide is established by the council of ministers and can therefore be qualified as a Royal Decree. The Handbook is legally binding and actors involved need to comply with the rules laid down in this guide. The guide is regularly updated. The current Handbook was adopted in 2013, replacing the previous version which was adopted in 2009. The procedures laid down in this national guide apply to all (possible) crisis situations that require broad intervention. Main coordinating Ministry is the Ministry of Security and Justice. This Ministry is the main responsible Ministry in case the crisis affects the public order and security. The Ministry has a more coordinating role in all other types of crises. In such cases the Ministry under whose responsibility the crisis normally falls is the main responsible Ministry. The Handbook covers the following topics:

- Crisis-related decision making on an official level (within a Ministry/department);
- Crisis-related decision making on a political-administrative level (between Ministries through their Ministers);
- The National Crisis Centre (NCC);
- The National operational coordination centre (LOCC) and the National Operational Staff (LOS);
- The National Core team Crisis Communication (NKC);
- Relevant legal aspects, focusing on emergency law;
- International crises, relating to how assistance is provided or asked for ;
- Recovery phase, once the crisis has happened;
- Evaluation, to come to lessons learned.

This Handbook applies to the largest crises possible that are inter regional or even cross border. In case a crisis relates to the competence of one specific Ministry or a specific topic, e.g. large pandemic, the national guide is extended and at some points replaced by a specific national crisis plan (NCP). In these plans the procedures to be followed are described as well as the specific competences of the different actors (see chapter 4).

If the crisis affects a Security Region, which is a smaller geographical part, the leading plan is the crisis plan of the Security Region. The provisions and actions laid down in this plan are based on the national handbook and guidelines given by the Minister of Security and Justice and need to be incorporated as well.

Additional policies relating to crisis management can be made by the Ministry of Security and Justice. The Minister needs to send the new policy to Parliament, which has the right to adopt, amend and eventually decide on the proposal of the Minister of Security and Justice.

2.2 General crisis (emergency, disaster) management law

Wet Veiligheidsregio's 2010

The main Act regulating crisis management is the Act on the Security Regions (Wet Veiligheidsregio's), which was adopted in 2010. This act has replaced the Fire Service Act of 1985, the Disaster Act and the Act on Medical Assistance in Times of Disaster. The Act on Security Regions has harmonised all disaster management and within the Netherlands the 25 Security Regions now are responsible for crisis management in their area. In case the crisis is larger than their own area, the regions are obliged to join efforts in order to mitigate the effects.

Dutch operational crisis management is in principle organised locally. Based on the Security Regions Act, article 2, the Mayor and Aldermen are still the main responsible body for the fire brigade, the disaster control and management as well as the medical assistance. Article 5 indicates that the mayor is the chief-in-commander in case of a crisis. Everyone that provides assistance needs to follow the commands given by the mayor. This also holds for the Army if they are asked to provide assistance during a crisis at local level. Further the mayor can give orders to the regional ambulance services if this is needed from a public order point of view (article 6). The mayor also needs to provide information to the population relating to the cause, size and consequences of the disaster (article 7).

Although the mayor is the chief-in-commander during a crisis certain tasks have been transferred from the individual municipalities to the Security Regions. According to article 10 the following responsibilities have been transferred to the Security Regions:

- Making an inventory of the risks on fire, disasters and accidents;
- Advising the competent authority on the risks of fire, disasters and accidents that have laid out in regulations or the policy plans;
- Advising the mayor and aldermen about how the fire brigade (which falls under their responsibility) could be best organised and operated;
- Prepare for fire fighting and organising the crisis control and management;
- Setting up and maintaining a fire brigade;
- Setting up and maintaining the GHOR (= emergency health care);
- Provide an emergency control room;
- Purchasing and managing the common equipment needed;
- Organize and maintain the information exchange between the Security regions, fire brigade, GHOR and the control room.

The Security Regions Act does not only provide an overview of the responsibilities of the mayor/aldermen and the Security Region, but also describes the tasks of the fire brigade and the GHOR in case of an emergency. The role of the police in case of a crisis is laid down in another Act, the Act on the police force (Politiewet).

The Minister of Security and Justice can determine national goals for the Dutch crisis management system (articles 37 and 38). Each Security Region needs to ensure that the national goals are transferred to their own policy plan. Not incorporating the national goals can lead to administrative

sanctions. If the goals are implemented is checked every year. National goals relate to crisis that are likely to affect large parts of the country, e.g. pandemic, flooding, or crisis that affect the national or international interests. Through the national goals priority can be given to certain aspects of preparedness, e.g. multi disciplinary practise.

The act also indicates how the responsibilities are transferred entirely to the head of the Security Region in case the disaster affects more than one municipality. As a crisis becomes more complex and more partners become involved it is more important to have simple structures. According to article 39 the Head of the Security Region can take over all responsibilities of the mayor. In the articles 40-44 some additional requirements are laid down. If the crisis concerns more than one Security Region or the national government finds that they should be in control of the crisis, they can take over the responsibilities of the head of the Security Region or the mayor, based on the articles 52 to 54. In this case the national structure will be in place (see chapter 3.1 for the organisational structure).

Besluit Veiligheidsregio's

The Act on Security Regions is a formal act established by Parliament, and therefore is difficult to adopt. The more practical rules, the specific details and clarifications, e.g. handling specifications for dangerous goods, are laid down in an accompanying Royal Decree (Besluit Veiligheidsregio's). This Decree was adopted in 2010 and can be easily updated when needed. The decree lays down quality measures that need to be adopted by the different organisations mentioned in the act.

A set of minimum criteria has been set out, including the estimated arrival time of the fire brigade at the incident scene. The measures aim, on the hand, to improve the uniformity and comparability both within and between the involved organisations and on the other hand they are used to make the performance of the Security Regions more transparent. In the end the assistance procedures between the regions and the supra regional/national should become more efficient and effective.

Besluit personeel veiligheidsregio's

Another Royal Decree based on the Security Regions Act is the Decree relating to the personnel of the Security Region (Besluit personeel veiligheidsregio's). In the decree the different functions within the fire brigade, GHOR, the multi disciplinary functions and industry fire brigade functions are mentioned. For all functions the maximum possible job levels are indicated and training possibilities are mentioned. All personnel need to keep up their experience by actually being involved in the crisis management, practise and training. Aim of the minimum requirements is to ensure uniformity between the different regions.

2.3 Emergency rule

2.3.1 Emergency powers on national level

In case of an emergency the starting point is the legislation and regulation currently in force. So each authority will have, in principle, the same competences as it has without a crisis. However legislation and regulation specifically applicable to the crisis takes precedence over other regulation. An extensive overview of the competences currently in place can be found in a handbook called 'Crisis en recht: schema's bevoegdheden en verplichtingen tijdens crises' (2008). The handbook describes for 27 specific areas who is the competent authority for taking certain measures and what the legal basis is for this competence.

For example the mayor of each city has the obligation to inform the citizens, emergency services, Commissioner of the King and Ministry of Interior Affairs on the current water levels, in case water levels are extremely low or high compared to usual water level. However the authorities responsible for the water quality (Waterschappen) provide specific information relating to water management. Rijkswaterstaat, the Dutch fairway authority, is responsible for the communication to inland vessels. Together these authorities need to prepare for a possible crisis and need to ensure that if the crisis emerges their response is appropriate.

Emergency law can only come into force, when the regular legal powers and competences are not sufficient to overcome the extraordinary event. In that case dedicated competences can come into force, however only in a well-balanced and flexible way. Several acts are in place providing the legal basis for these dedicated competences. These acts also indicate when and how these dedicated competences come in force. The acts are:

- Coordination Act extraordinary events (Coördinatiewet uitzonderingstoestanden);
- Act extraordinary powers civil authority (Wet buitengewone bevoegdheden burgerlijk gezag);
- War Act for the Netherlands (Oorlogswet voor Nederland).

Each of these three acts can ensure that emergency law will be used. Dedicated emergency laws will come into force, depending on the severity of the emergency. Examples are the Emergency Act on Rationing (Hamsterwet), Emergency Act on financial transactions (Noodwet financieel verkeer) and Emergency Act on transportation (Vervoersnoodwet)³.

The emergency law or parts of it can only take effect when the state of emergency ('noodtoestand') is proclaimed. The state of emergency has two phases; the limited state of emergency or the overall state of emergency. The proclamation of a state of emergency as well as the extraordinary competences is done by Royal Decree. The Royal Decree is issued by the Prime Minister, who is also

³ All emergency acts are: Noodwet rechtspleging, Wet verplaatsing bevolking, Wet militaire inundatiën, Kaderwet dienstplicht, Inkwartieringswet, Vervoersnoodwet, Havennoodwet, Hamsterwet, Distributiewet, Vorderingswet, Noodwet voedselvoorzieningen, Noodwet arbeidsvoorziening, Noodwet geneeskundigen, Noodwet financieel verkeer, Vaarplichtwet.

the Minister of General Affairs. Continuation of extraordinary competence needs to be approved by the Parliament, consisting for both Chambers.

Based on the acts mentioned above it is possible to limit the rights of civilians and institutions in a case of emergency. However civil rights can only be limited if a general state of emergency is proclaimed and the limitation should not last longer than strictly necessary. For example, in case of a possible dike breach the Waterschap (responsible for water management in its appointed area) can decide to strengthen the dyke and other relevant parts of the waterway without asking the consent or even informing the owners of the property on which actions they are going to take.

2.3.2 Emergency powers for mayors and heads of Security Regions

Also at a local level emergency law is in place. Based on the Municipality Act (Gemeentewet) the mayor of a city has the following emergency powers: the emergency command and the emergency regulation. The emergency demand can be used for specific persons or industries, e.g. a high risk chemical plant, while the emergency regulation applies to all, e.g. disaster tourists. In addition to the emergency command and emergency regulation the mayor is during crisis the commander-in-chief of the emergency services, including parts of the Army, if they provide support. It is important as these services normally do not fall under the responsibility of the mayor and no hierarchal cooperation relations are in place. Only exception is the police force, as the mayor has the responsibility of the police force in cases of public (dis) order. This is based on the Act on the Police force (Politiewet).

The Head of the Security Region can take over all the administrative powers of the mayor, including the responsibility for the police force, if the crisis exceeds the competences of one mayor only.

For both the mayor and the head of the Security Region holds that they cannot use their emergency powers under all circumstances. Emergency powers can only be used if they fulfil the two basic principles of proportionality and subsidiarity. Proportionality refers to the severity of the emergency powers in relation to the size of the crisis. Subsidiarity is only allowed if the usual competences are no longer sufficient to handle the crisis situation. Normally the mayor or the head of the Security Region are not allowed to interfere in the functional chain (see chapter 3). However they can interfere if the public order or safety is at stake, but it needs to be the last possible remedy. This is based on the principle of subsidiarity. In case of an emergency they can more easily interfere.

It should also be noted that in some cases even the emergency powers are no longer sufficient enough to handle the crisis, this holds both for the local as well as the national crisis management. In these cases the unwritten emergency powers can be used. These norms are not laid down in any act, but can be used based on common understanding. The Dutch judicial power has accepted this phenomenon. Once the crisis is remedied a democratic justification needs to be given.

2.4 Specific, department/agency-level legal arrangements and regulations on emergency and disaster management

In the Netherlands two types of crisis management systems are distinguished. On the one hand there is the general crisis management system related to public safety and national security. Competent Ministry to undertake action is the Ministry of Security and Justice and the relevant practises are laid down in the National guide for crisis decision making (see above). On the other hand there is specific crisis management, which can relate to a specific threat which was identified in the risk assessment. For a specific crisis the Ministry under who's competence the topic falls, is responsible and if needed a dedicated NCP is made, e.g. the NCP for high water levels and flooding. In case the Minister of Infrastructure and Environment will be responsible and needs to draw the plan.

For each crisis area a map (Bestuurlijke netwerkkaart) has been developed. These maps are legally binding and the indicated authorities need to follow the structures and responsibilities laid down in this document. The map provides information on the types of crises expected in this specific field, the competent authorities, the administrative powers available and guidance on how to act. The map also shows a diagram of the interrelations between the different actors and the general chain. The maps are regularly updated in order to ensure their effectiveness in crisis management. First an example of a summary table is presented, showing the main information, i.e. type of crisis, competent authorities and types of measures. Secondly, an example of the map used to show interrelations between the competent authorities and the emergency services is provided. Both examples presented relate to pandemics and apply to the Ministry of Health care, Welfare and Sport.

Table 2.1: Summary table is presented, showing the main information

Type of crisis	(threatening) diseases, including diseases transferable between humans and animals)
Competent authority	<ul style="list-style-type: none"> • Mayor • Chairman Security Region • Minister of Health • Minister of Infrastructure and Environment • Minister of Economic Affairs
Types of measures	<p>General:</p> <ul style="list-style-type: none"> • Measures with respect to individuals • Measures with respect to buildings, terrains and goods • Distribution of vaccines and therapeutic pharmaceutical products • Measures at EU inner and outer borders, vessels and aircrafts & airports • Measures with respect to vessels and aircrafts • Measures with respect to individuals and goods after arrival vessels and aircrafts • Measures with respect to port and airport operators • Measures to suppression, prevention and fighting zoonosis

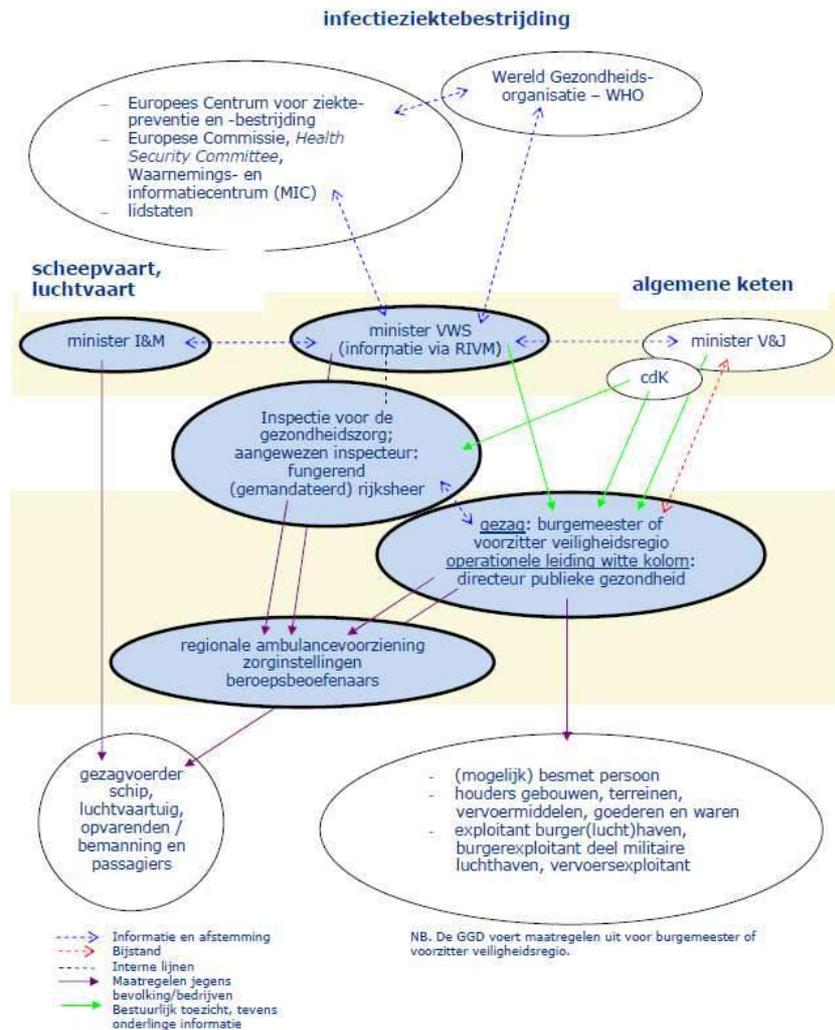


Figure 2.1: Overview map of relations between the different actors

2.5 Specific to the regional and local authorities legal arrangements and regulations on emergency and disaster management

As described in paragraph 2.2 the Dutch crisis management system is locally organised, hence through the Security Regions. For more information on the legal scope and status of local crisis management arrangements, please see paragraph 2.2.

With the introduction of the Wet Veiligheidsregio's each Security Region is required to draft a regional crisis plan (article 16), joint by a policy plan and a risk profile (see chapter 4). The Netherlands consist of 25 Security Region and therefore 25 separate regional crisis plans need to be in place. The regional crisis plan describes how the regional crisis management will be organised and what the role and responsibilities of the police, fire brigade, and medical assistance are. To help each Security Region to draft their regional crisis plan and to ensure similarity between the 25 different plans, the reference guide for a regional crisis plan was published in 2009 (Referentiekader Regionaal

Crisisplan 2009). The reference guide aims to structure the regional processes by using similar definitions and applying national standards⁴.

The regional crisis plans are not only guidance for the different actors involved in crisis management, but are legally binding. Deviation from the guidance given by these regional plans is seen as undesired behaviour and if a deviation is determined the mayor or the Head of the Security Region needs to explain why the deviation took place.

2.6 Legal regulations on the involvement of volunteers and specialised NGOs

The fire brigade

Most volunteers assist the fire brigade (see chapter 1). As these volunteers assisting the fire brigade, are entitled to a monetary compensation for their work, they have a contractual agreement with the fire brigade. Based on the Civil Servants Act (Ambtenarenwet) the volunteers have their own legal position and are partly covered by the CAR-UWO (College of Employment Matters). In case of an emergency the volunteers can be easily asked for help as they are available on a permanent basis. Each local fire brigade is insured for personal injuries or deaths and this insurance also apply to volunteers. It is reasoned that volunteers suffering damage during the execution of their job or suffering other damages, are insured by lump sums.

Table 2.2: Example of damages to be claimed by voluntary fire fighters in Rotterdam (2012)

Type of damage	Compensation
Death	Capital repayment → € 110,000 Widow repayment → € 17,500
Permanent disability	Capital repayment → € 200,000 Interest payment (wage labour) → € 17,500 Interest payment (self employed) → € 35,000
Medical expenses	Secondary payment with a maximum of € 18,2000
Predisposition	€ 23,000

The Dutch Red Cross

The role of the Red Cross has been laid down in the Royal Decree Red Cross 1988 (Besluit Rode Kruis 1988). The core tasks of the Red Cross are to provide medical assistance at the incident location by sending a Quick Response Medical Assistance Team, support the municipal government to provide shelter and relief for the evacuated population and to support the municipal government in registering and tracing missing persons. In addition the Red Cross provides services to supply bandages, mattresses, blankets and so on and to communicate with all their volunteers. In organisational structure the Red Cross volunteers align with the Security Region and they need to

⁴ <http://www.infopuntveiligheid.nl/Publicatie/Dossier/80/regionaal-crisisplan.html>

answer to the Regional Emergency coordinators. Each volunteer is risk insured, so in case the volunteer is injured during the execution of his tasks, the Red Cross will ensure compensation.

2.7 Legal regulations for international engagements of first responders and crisis managers

EU regulation for assistance

The Netherlands, as member of the EU, has implemented their regulation with respect to crisis management. Some of the legislation comes from the Council, and other procedure and forms of cooperation have been concluded in a treaty. The treaty of Prum mainly focuses on increased cooperation between the signing countries⁵ in the field of terrorism, illegal migration and cross border criminal activities, while the Council Decisions regulate some aspects of cross border assistance. The decisions focus on the procedural side of assistance indicated how requests should be filled, when countries need to respond and how the teams provided are coordinated. The following decisions and treaties have been implemented:

- Council Decision 2008/617/JHA of 23 June 2008 on the improvement of cooperation between the special intervention units of the Member States of the European Union in crisis situations.
- Council Decision of 8 November 2007 establishing a Community Civil Protection Mechanism
- Prum Convention of 27 May 2005 on the stepping up of cross-border cooperation, particularly in combating terrorism, cross border crime and illegal immigration.

Bilateral and regional agreements between the Netherlands and Germany

Beside the multilateral agreements, the Netherlands has concluded agreements and plans with Germany. The agreements and plans lay down how the Netherlands can provide assistance to accidents on German soils and vice versa. Also some more structural support is regulated. Especially the plans relating to the fire brigades provide the opportunity to help each other on a daily basis. So for a fire in the border region both the Dutch and German brigades are warned and often they jointly go to the incident scene to mitigate the effects. The main agreements and plans currently in place are:

- Agreement between the Netherlands and Germany on mutual assistance in combating disasters, including serious accidents of Bonn 1988
- Agreement between the Netherlands and Germany on cross border police action and the cooperation in criminal matters of Enschede 2006
- Euroregional disaster plan for the Euroregion Maas-Rhine-North
- Understanding on cross border support for health, fire brigade, technical and specific assistance in the Euroregion Maas-Rhine
- Cross border cooperation plan by disasters and severe accidents between the regions Noord and Oost Gelderland, Twente, Grafschaft Bentheim and the district Borken

⁵ Signing countries where: the Netherlands, Belgium, Luxembourg, Germany, France, Spain and Austria

- Cross border assistance plan of Technisches Hilfswerke, Landesverband Nordrhein-Westfalen, for support in the Netherlands at daily activities in the fire brigade regions Twente, Noord and Oost Gelderland, Gelderland Midden, Limburg Noord and Zuid Limburg

Bilateral and regional agreements between the Netherlands and Belgium

Also between the Netherlands and Belgium additional agreements have been made. Some of the agreements are more formal than the ones made with Germany as treaties have been concluded. Beside the treaty some additional agreements have been made that focus on cross border assistance and cooperation between the relevant regions. Also here the procedures of providing assistance on each others territory have been included. Main legislation is:

- Treaty between the Kingdom of the Netherlands and the Kingdom of Belgium on mutual assistance in combating disaster accidents of the Hague 1984
- Bilateral agreement between the Provinces of Luik (Belgium) and Limburg (the Netherlands)
- Bilateral assistance plan between the Provinces Noord-Brabant (the Netherlands) and Limburg (Belgium) of Den Bosch 1992
- Disaster protocol and handbook disaster protocol Euroregion Scheldemond

Multilateral agreements

Closely located to the Netherlands and Belgium is Luxembourg that is part of the Benelux. Within the Benelux main additional agreements have been and also for cross border assistance in case of disasters and accidents additional agreements are concluded:

- Memorandum of understanding between the Netherlands, Belgium and Luxembourg to cooperate in the area of emergencies with possible cross border effect of Senningen 1996
- Treaty between the Kingdom of Belgium, The Kingdom of the Netherlands and the Grand Duchy of Luxembourg on cross border police action
- Benelux 2009, Ordination of the Committee of the Benelux with respect to cross border first response ambulance services.

3 Organisation

3.1 Organisational chart

The operational crisis management is organised locally. On a national level there is hardly any operational capacity available. From an operational perspective the municipality or the Security Region (collection of several municipalities) is the main body to organise crisis management as they are also involved in daily incident management. The Netherlands consists of 403 municipalities, divided over 25 Security Regions. In the Dutch crisis management the general idea is that the organisation responsible for incident management is also the starting point in case of an emergency. When a small incident or crisis emerges the decisive power lies with the municipalities or the Security Region (depending on the size of the crisis). If the crisis affects more than one Security region the national government needs to be informed and if needed can take over the coordination of the crisis. In that case the national crisis management system is activated.



Figure 3.1: Location of the 25 Security Regions in the Netherlands

The national crisis management in the Netherlands is split in two. On the one hand there is general crisis management, which focuses on public order and safety. This procedure is called the general chain and in every larger crisis this chain plays a role, however the size of the involvement can differ.

On the other hand there is functional crisis management system, which concentrates on crisis in a specific functional area, e.g. electricity, pandemics or terrorist attacks. This procedure is called the functional chain.

3.1.1 General chain: violence of public order or safety

In case a crisis emerges that is larger than strictly local the general chain will be started. The responsible Minister is the Minister of Security and Justice, assisted by one or several of the King's Commissioner(s) (CdK), the highest public servant of a province⁶. Depending on the geographical location and the size of the crisis this group is extended by the relevant heads of the Security Regions and/or the mayors. These bodies can take measures that will affect the people and enterprises. The figure below shows the structure of the general chain.

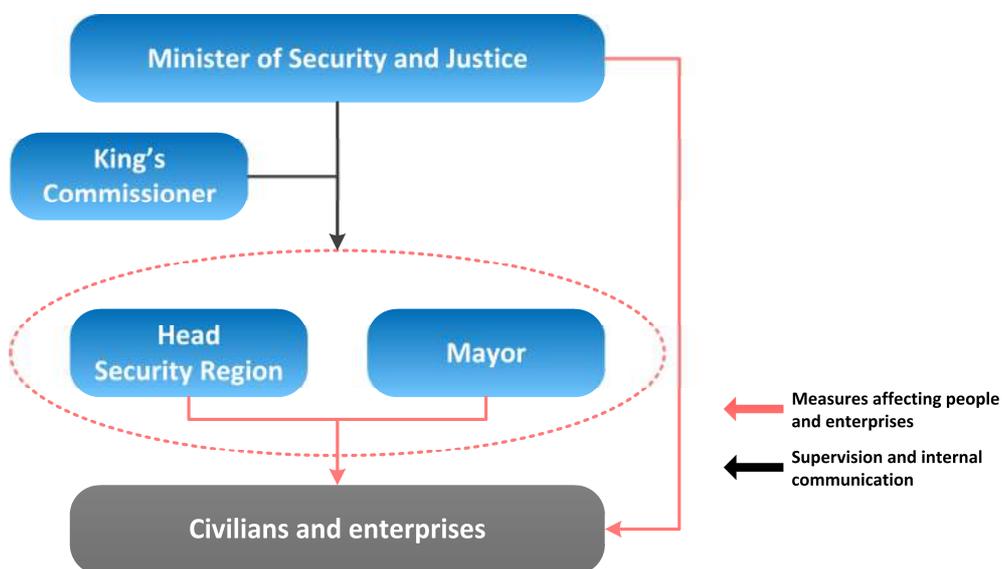


Figure 3.2: Organisation chart of general crisis management in the Netherlands

Source: Infopunt Veiligheid (2012). De bestuurlijke aansturing van de crisisbeheersing

In the general chain crisis management is often bottom up. If the public order is violated the mayor or the head of the Security Region is the first body to act and take (counter-) measures. Depending on the geographical scope of the crisis one or more mayors and / or heads of the Security Region are involved and jointly they need to mitigate the effects of the crisis. The CdK can provide guidance to heads of Security Regions and the mayors if needed.

If the crisis turns out to be larger and the impacts are more severe the competence to manage the crisis can be transferred the Minister of Security and Justice. This can be done in a two-step approach. The first step allows the Minister to provide guidance that preferably needs to be followed-up by the mayor or head of the Security Region. In the second step the Minister will take over the competence and is sole responsible public body. In this case the regional crisis becomes a

⁶ The Netherlands consist of 12 provinces, so in total there are 12 King's Commissioners. Depending in the location of the crisis, one or more commissioners will need to assist the Minister of Security and Justice.

national crisis. Example could be a large evacuation. The Minister is assisted by the National Crisis Centre (NCC) which is part of its Ministry.

The NCC has a permanent staff available that needs guide the crisis management process. The NCC prepares the input for the interdepartmental decision making on civil servant level (for the ICCb) as well as on ministerial level (for the MCCb). The tasks can be divided over four themes:

- Information: collecting the factual information to establish what actual happened
- Measures: translate the factual information in concrete actions that need to be undertaken
- Communication: decide which communication strategy will be followed to inform the public
- Scenario's: assess what might happen in the near future

In case the crisis exceeds the competences of the Ministry of Security and Justice, and other Ministries are involved, the NCC will ensure communication between the Ministry of Security and Justice and the other ministries. They will contact all relevant departmental (crisis) coordination centres (DCC). The NCC is the main point of contact for all governmental bodies, including the Security Regions as well. If an emergency has occurred the NCC receives the requests for support and expertise. It should be noted that the NCC is not an additional layer in the organisational structure, but aims to be the central point of contact to ensure quick response from the national government.

3.1.2 Functional chain: specific crisis

A crisis often relates to a specific functional area, e.g. flooding or a terrorist attack, and then the functional chain will act as well, next to the general chain. The public body that is able to take decisions is the Ministry responsible for that specific function. In case of a pandemic, the Ministry of Health, Welfare and Sport will be the main responsible Minister, beside the Ministry of Security and Justice that will handle the general crisis management. Mayors and the Heads of the Security Regions are only involved if they are part of that specific functional chain. If they are not, they do not become part of the crisis management system. The exact structure as well as the procedures followed can differ per functional chain. A set of functional chain maps (bestuurlijke netwerkkaarten) has been developed and is regularly updated. The complete set can be found at the Dutch website: <http://www.infopuntveiligheid.nl> which covers 22 specific maps.

Table 3.1: Overview of functional chain maps in the Netherlands

Functional chain maps crisis management			
1	Crisis management general and violation of public order	12	Emergency drinking water and emergency water
2	Medical assistance general	13	Food
3	Surface water and weirs	14	Electricity and gas
4	North Sea and maritime transport	15	Oil
5	Environment	16	Rail transport
6	Nuclear accident	17	Road transport

Functional chain maps crisis management			
7	Infectious disease	18	Inland shipping
8	Animal disease	19	Civil aviation
9	Justice general	20	Social security
10	Terrorist attacks	21	Telecommunication
11	Scarcity general	22	Media

Contrary to the general chain, crisis management in a functional chain is top-down. The responsible Minister needs to take mitigating measures and the activities are managed by the relevant Departmental (Crisis) Coordination Centre (DCC). In case of a disaster the relevant Minister can obtain emergency powers after consultation with the Minister of Security and Justice. In this case the role of the Minister of Security and Justice is more limited and he mainly needs to be informed about the size of the crisis and the procedures taken. He will inform the Heads of the Security Regions as well as the mayors. The Minister of Security and Justice will only undertake more action if the crisis cannot be handled by the responsible Ministry only or once more functional chains become involved.

3.1.3 Coordination between the chains

If complex crisis occur more chains can be involved. The coordination becomes more complex and in this case the role of the Ministry of Security and Justice becomes larger. The general chain will be activated as well as the relevant functional chains. In this case there will be coordination on two levels. First of all, on the national level, i.e. between the relevant Minister and the Minister of Security and Justice. Secondly, coordination on regional level is needed, i.e. between mayors, heads of the Security Regions and other relevant organisations. Who is involved depends on the specific functional chain(s).

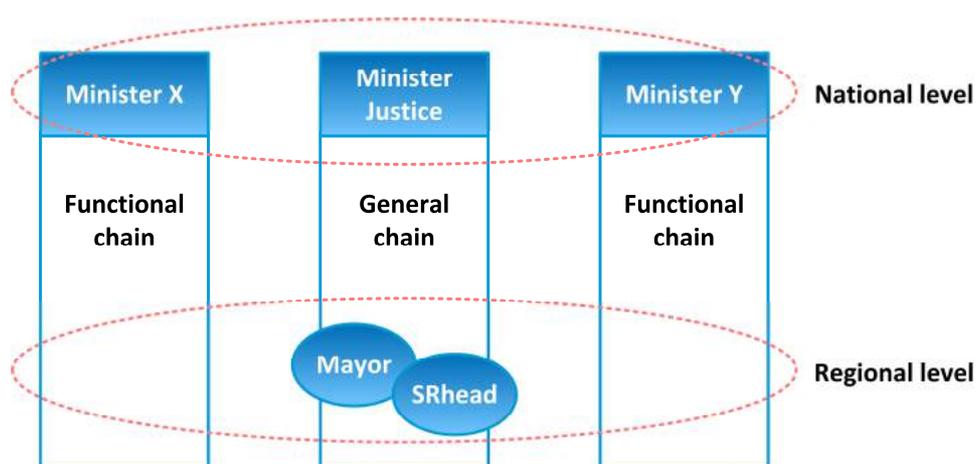


Figure 3.3: Organisational chart of complex crisis management in the Netherlands

The figure above shows the interaction between the two different types of chains and the coordination at both national and regional level. However this picture is not complete as it still mainly focuses on crisis coordination in one of the pillars, i.e. the functional chain for a specific crisis

and the general chain in case of violation of public order. If the crisis becomes bigger the different chains need to cooperate and actions need to be coordinated. This coordination is done by the Interdepartmental Commission Crisis Management (ICCb) which is supported by the NCC (coordination in the general chain). The involved Ministries are part of the ICCb and jointly they decide how to handle the crisis. In case the national security is at stake crisis management is done by the Ministerial Commission Crisis Management (MCCb) where the involved Ministers come together under the chairmanship of the Minister of Security Justice. If the impacts of the crisis are so large, the Prime Minister will take over the chairmanship of the MCCb. Examples could be terrorist attacks and cases of war.

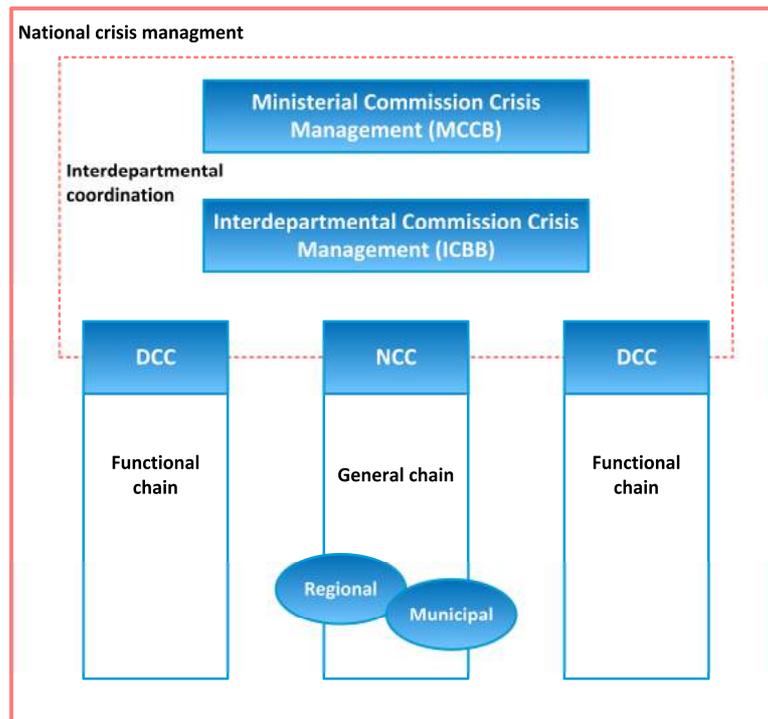


Figure 3.4: National crisis management and its actors in the Netherlands

The actual operational guidance will be provided by the National Operational Coordination Centre (LOCC). The LOCC is also part of the Ministry of Security and Justice and can carry out its tasks 24/7 in case of threats and actual incidents, emergencies, disasters and large scale events. Some tasks of the LOCC are, amongst others:

- During a national upscaling of coordination:
 - Develop the national multidisciplinary operational overview;
 - Evaluate operational feasibility for administrative dilemma's and actions;
 - Develop national operational advice.
- The coordination of national and international support requests.
- Form, prepare and maintain the National Operational Staff (LOS).

The National Operational Staff (LOS) is activated upon request of the chairman of the MCCb. The LOS is basically an up-scaled LOCC, including representatives of the police, fire brigade, health care, MOD and municipalities. The LOS needs to provide advice regarding the availability of people and equipment for national disaster and crisis management. The advice is based on the operational

feasibility and consequences. The chair of the LOS could become part of the ICCb and MCCb if needed to explain the given advice.

Volunteers

Under all circumstances, irrespective if the general chain or the functional chain applies, the assistance of the volunteers can be requested. This holds especially for the volunteers of the Dutch Red Cross. They can provide first aid or supplies needed, e.g. blankets, clothes etc. It should be mentioned that the professional aid workers have the main responsibilities and should be able, under all circumstances to carry out their tasks. The support of the Dutch Red Cross is additional and if the emergency services indicate that the assistance of the volunteers is not needed, the volunteers need to comply with this request.

3.2 Organisational cooperation

Dutch crisis management in a foreign crisis, with Dutch victims

If a crisis abroad occurs which affects Dutch citizens and requires measures to be taken **in the Netherlands** the Dutch crisis management system as described above is activated. So the Dutch Ministry of Security and Justice is the main responsible Ministry to take measures that will apply in the Netherlands. The Ministry is supported by the relevant Ministries depending on the specific sectors where measures need to be taken.

If a foreign crisis affects Dutch citizens **outside the Netherlands** and action in that foreign country is needed, the responsible Ministry is the Ministry of Foreign Affairs. They can offer local support to Dutch citizens or evacuate them if needed. In case of a large evacuation of Dutch citizens, the Ministry of Foreign Affairs is assisted by the NCC and competent Ministers, depending on the topic and crisis at hand. The Minister of Foreign Affairs is responsible for the evacuation process and bringing back citizens to the Netherlands. Once the citizens are back, the responsibility of the Ministry of Foreign Affairs is transferred. The Ministry of Security and Justice becomes responsible for generally managing the crisis, while specific ministries become responsible for everything that needs to be managed that is part of their policy area. For instance victims of a pandemic will be brought back to Dutch soil by the Ministry of Foreign Affairs. Once in the Netherlands, the Ministry of Health, Welfare and Sport needs to take appropriate measures ensuring that the victims are cured and the diseases not spread. The Ministry of Security and Justice has needs to keep the general overview. In all operations the leading criterion to assess the size of the support needed is not determined by the number of victims, but the societal impact the crisis has on Dutch society.

Humanitarian support in foreign crisis, no Dutch victims

Not in every crisis Dutch people become a victim. In case a crisis in a foreign country requires Dutch assistance, and humanitarian aid is required, the main responsible Minister is the Minister of Foreign Affairs. In joint cooperation with the NCC, other Ministers, the Embassies, the international organisations concerned and the authorities in the affected country, the Minister of Foreign Affairs decides on the type, amount and process of the offered humanitarian support. In the whole process

the Minister of Foreign Affairs has the lead and is responsible for the coordination and communication.

General crisis support in foreign crisis

The Netherlands can also assist in general crisis management, without offering direct humanitarian support. In case the emergency occurred in the European Union the Minister of Security and Justice is responsible to organise international support, while the Ministry of Foreign Affairs is responsible for intervention in all non-EU countries.

If the request for help relates to civil protection it needs to be send to the NCC, which in this cases is the single point of contact. Both the request of the European Union Monitoring and Information Centre (EU-MIC) and the Euro-Atlantic Disaster Response Coordination Centre (EUDRCC) need to be addressed to the NCC. The NCC will inform the Ministry of Foreign Affairs as well as the LOCC (the national operational coordination centre). Also the requests of the United Nations (UN) need to be addressed to the NCC, however only the Ministry of Foreign Affairs will be informed. The NCC will indicate the period of time available for the Ministry and the LOCC to prepare the Dutch answer. The process followed to provide an answer is depicted in the figure below.

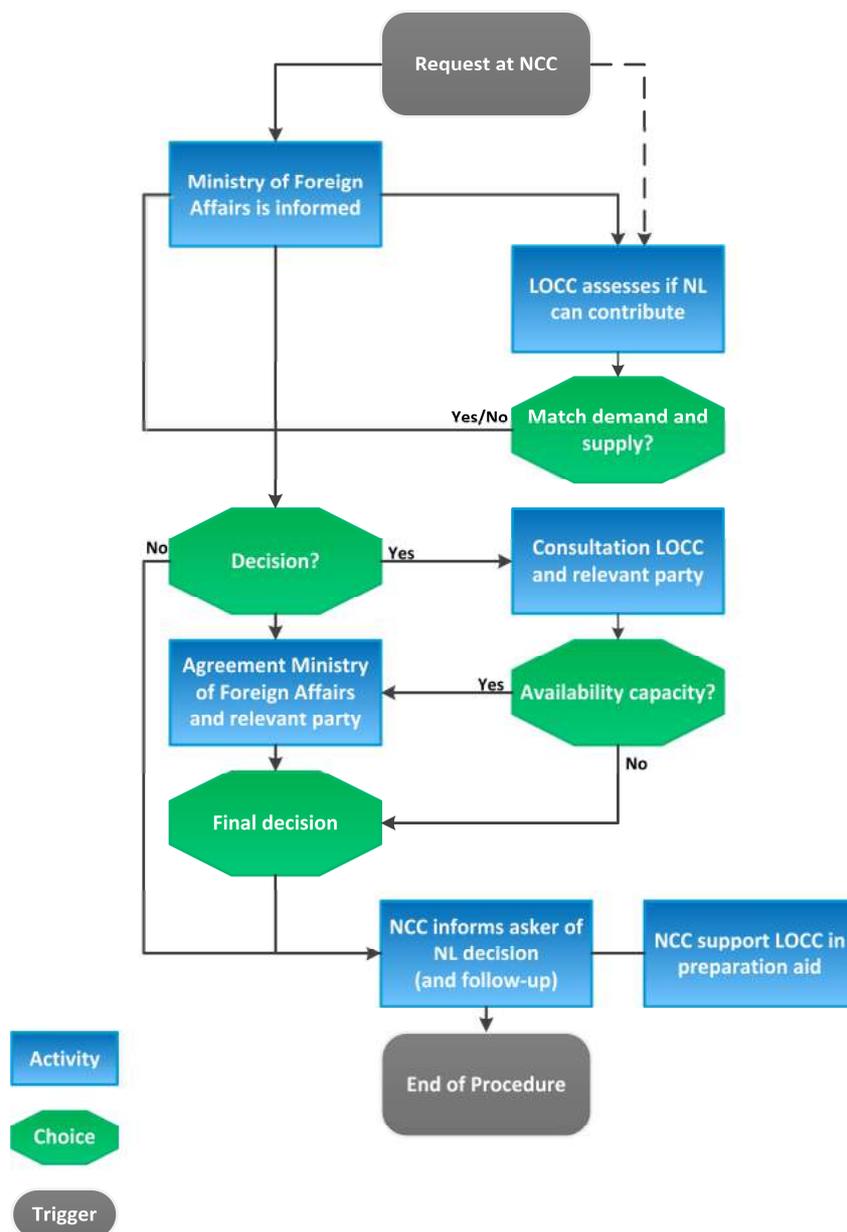


Figure 3.5: Decision making process to offer international support if requested

Source: Nationaal Handboek Crisisbesluitvorming (2013)

Dedicated support to the United Nations

The UN can request support from the Netherlands in case of disasters happening in other countries. To activate the support the request needs to be addressed to the NCC and the framework presented above is followed. The main types of support that can be requested are UNDAC and USAR.

UNDAC

The Netherlands is Member to UNDAC – United Nations Disaster Assessment and Coordination - since 1993. Experienced emergency managers are available for UNDAC to assist during a crisis. Depending on the type of crisis a manager is appointed. Since 2000 the Netherlands has provided assistance 18 times, for example in the 2010 flooding in Pakistan, the 2009 earthquake in Indonesia and 2008 flooding in Nepal.

USAR

The Netherlands also has an urban search and rescue team available. The team was added to the USAR list in 2003 and since 2007 the team is qualified as heavy. This means that at least 55 experts are available (the Dutch team consists of 60 people) and the team can carry out complex technical search and rescue operations in collapsed or failed structures, with special attention for top steel structures. The team can assist in five fields: management, search, rescue, medical and logistic. The heavy team can assist during national crises, but on request can be deployed abroad as well. Requirements for the team are (based on OCHA – INSARAG External classification / reclassification manual 2014):

A Heavy USAR Team:

- *Is required to have the equipment and manpower to work at a Heavy technical capability at two separate work-sites simultaneously. A separate work-site is defined as: any area of work that requires a USAR team to re-assign staff and equipment to a different location all of which will require separate logistical support. Generally an assignment of this sort would last greater than 24hrs.*
- *Is required to have both a search dog and technical search capability;*
- *Is required to have the technical capability to cut structural steel typically used for construction and reinforcement in multi-story structures;*
- *Must be able to conduct heavy rigging and lifting operations; and*
- *Must be adequately staffed and logistically sufficient to allow for 24 hour operations at 2 independent sites (not necessarily at the same two sites; the sites may change) for up to 10 days.*

4 Procedures

4.1 Standing Operating Procedures (SOPs) and Guidelines

In the Netherlands the Handbook Support ('Handboek bijstand') has been published. Aim of the Handbook is twofold; to provide insight in the national crisis management system and to stimulate unambiguous handling of requests for support and assistance. The Handbook is managed by the National Operational Coordination Centre (LOCC), which has the obligation to check if the Handbook still complies with the current legislation and regulation and if the procedures described still reflect the current crisis management operations. The Handbook consists for four volumes each with its own scope:

1. Volume I: National support
2. Volume II: Support in cross-border crisis
3. Volume III: Incoming foreign support
4. Volume IV: Support in the Caribbean part of the Netherlands⁷

The content of the Handbook is evaluated on a yearly basis and during this evaluation it is checked whether or not the procedures, the legislation or other issues are still up-to-date. In case the Handbook no longer suffices, the Handbook needs to be revised. The head of the LOCC needs to monitor the evaluation process and needs to decide if a new version of the Handbook has to be published. The advisory board is responsible for the content and its revision. The Minister of Security and Justice needs to approve the new version. Once the revision is approved the LOCC needs to distribute the new version to as many different stakeholders as possible.

Volume I: National support

After a general introduction in the first chapter, the second chapter of this volume defines the main terms (e.g. support and assistance) and indicates the main stakeholders, both on an administrative as well as an operational level. Also some general aspects, which apply to all assistance and support procedures, are explained. One of them is the division of the costs. General rule is that the stakeholder asking for assistance needs to pay for the costs made by the aid provider. However based on article 55 of the Security Regions Act the national government can also pay part of the costs if the Security Region files the request.

After Chapter 2 the different procedures are described in detail. Each chapter relates to a specific kind of support, often based on a specific act, e.g. support based on the Act for the police force or military support in case of the public interest. Each chapter follows the same structure, starting with an introduction, which is followed by an overview of the current legal framework. Then the request procedures are described on a very detailed level, including an organogram, examples and an overview of the possible exceptions in the request procedures. If more than procedure is possible each procedure is described in this detailed manner. The descriptions are followed by an explanation

⁷ Not adopted yet, so no further information is provided.

that motivates certain procedures. Each chapter is ending by some dedicated rules with regard to the cost allocation of the assistance.

In the Annexes the different Acts are included as well as the request forms and a list of products that could be used to file a better request.

 Ministerie van Veiligheid en Justitie	
Aanvraagformulier militaire steunverlening in het openbaar belang	
In te vullen door aanvrager	
Datum aanvraag	
Aanvragend bestuursorgaan (kiezen uit Minister / CdK / Burgemeester of Dijkgraaf)	
Titel van de aanvraag	
Regeling militaire steunverlening in het openbaar belang (stcrt. 2008,3)	
Reden van de aanvraag	
Aanvrager kan zelf niet (tijdig) of afdoende in noodzakelijke steun (laten) voorzien omdat:	
Aanvraag kan niet aan civiele marktpartij worden gegund omdat:	
Of	
Verklaring van geen bezwaar van betreffende branchevereniging toevoegen (n.v.t. indien aanvraag van minister komt)	
Te verwachten taak / opdracht	
Gewenste steunverlening (incl. aantallen) Indien geen bekendheid met aantallen; welk effect wordt beoogd te bereiken met de steunverlening	
Datum en tijd dat de steunverlening nodig is	
Van:	Tijdstip:
Tot:	Tijdstip:
Mate van zelfvoorziening aangevraagde steunverlening (brandstof, voeding etc.)	
Overige bijzonderheden	
Plaats van opkomst:	Tijdstip:
Plaats van inzet:	
Overig:	
In te vullen door aanvrager	
Naam en telefoonnummer van regionaal contactpersoon voor LOCC	
Naam:	
Telefoonnummer:	
Naam en telefoonnummer van regionaal contactpersoon voor de steunverlenende defensie-eenheid	
Naam:	
Telefoonnummer:	
Plaats en datum	
Plaats:	
Datum:	
Naam aanvrager	
Functie	
Handtekening aanvrager (Minister / CdK / Burgemeester of Dijkgraaf)	
De aanvraag wordt ingediend bij: Het Landelijk Operationeel Coördinatie Centrum locc@nctv.minvenj.nl Tel: 0343 - 53 69 53 (Piket) Hoofdstraat 54, 3972 LB Driebergen, Postbus 100, 3970 AC Driebergen	

Figure 4.1: Example of a request form got military assistance

Volume II: Support in cross border Crisis

Also volume II starts with two more theoretical chapters. Chapter 2 and 3 provide an overview of the applicable treaties between the Netherlands, Belgium and Germany as well as agreements and legal provisions that form the basis of the cross border assistance procedures between the countries. These chapters describe the administrative organisations and the relevant border regions in the three different countries.

Chapters 4 and 5 describe the operational side of the assistance. The chapters focus on the crisis management between the Netherlands and Germany. The chapter both relates to the situation where Germany is asking the Netherlands for assistance and vice versa. Chapters 6 and 7 describe the same for the situation between the Netherlands and Belgium. Also here both situations are described separately. Both chapters provide detailed information for the police, fire brigades, and emergency health care. Schematic overviews are presented.

In the Annexes to the volume some examples of request forms are presented as well as the texts of the main treaties between the Netherlands & Germany and the Netherlands & Belgium.

Volume III: Incoming foreign support

This volume is the shortest one of the three volumes currently in force. This volume describes under which conditions foreign emergency services can provide assistance in the Netherlands. It describes how the different Dutch actors in crisis management should request assistance, how the coordination and communication with the foreign units should be organised, what happens to the responsibilities of the Dutch actors in the crisis management system and how the details, e.g. cost allocation, need to be arranged.

4.2 Operations planning

4.2.1 National crisis plans

In the Netherlands several specific national crisis plans are in place. Each national crisis plan (NCP) is based on the national guide for decision making (see chapter 2) and incorporates at least the structures set out in the Security Regions Act and the Act on the police force. Each NCP relates to a specific topic that requires additional planning. Examples are the NCP for ICT, the NCP for high water levels & flooding, the NCP for Electricity and the NCP for radiation incidents.

Not for all specific topics a NCP is made. NCPs are often written when the general structures described in the national guidance and the 'bestuurlijke netwerken' are not detailed enough. All plans written follow more or less the same structure. They start with defining the exact scope of the document to indicate which emergencies do fall under the scope of the plan and which do not. The document also defines for whom the document is written. This description is followed by an overview of the applicable legislation (other than the Security Regions Act and the Act on the police force) or an overview of the authorities and actors involved. For each of the actors their roles in the crisis preparedness, response and recovery are described as well as a detailed description of their relationships. For each of the actors also their legal justification, why are they allowed to take certain measures, is given.

After this description an overview of the crisis management structure is provided. This description often only mentions the additional actors in the crisis management process. The general actors, as described in chapter 3 of this report, are often not mentioned in detail. The NCP really focuses on the additional actors and their tasks. The additional structure of crisis management is also visualised. In the description not only attention is paid to the operational responsibilities, but also the decision making process is elaborated on.

In the more recent versions also guidelines with regard to communication, both risk communication (before a crisis has happened) and crisis communication, are provided. These plans also provide

guidance on quality management, focusing on the updating of the current plans and they provide guidance for training and educational programmes.

4.2.2 Departmental crisis plans

During the desk research and interviews no link to the existence of departmental crisis management plans has been found. This is not very surprising, considering the structure of the Dutch crisis management system. As explained in several other parts of this country study, the main operational crisis management is organised on a local level, through the Security Regions. These regions to have crisis plans in place (see next paragraph).

If a crisis concerns more than one Security Region the national system is activated. Depending on the type of crisis the general chain only or both the general chain and specific chain(s) become operative. As described in the paragraph above the specific chains to have their own NCPs in place, which give a detailed account of the procedures to be followed. There is no need to further develop plans on a departmental level, as they would more or less copy the content of the NCPs.

4.2.3 Regional / Local crisis plans

Based on the Security Regions Act each Security Region needs to have three documents in place that are used in their crisis management system:

1. Their risk profile (art. 15)
2. Their policy plan (art. 14)
3. Their crisis plan (art. 16)

In the risk profile the management of the Security Region, led by the Head of the Security Region, an overview of the most risky situations is made. It provides an overview of all possible fires, disasters and crisis that can occur in the region and an assessment is made of the possible risks. The final profile is made after discussion of the profile in the individual municipal councils. Also the head of the police force, representatives of the Waterschappen and other relevant crisis partners are asked to provide their insights. The risk profile is the basis for the policy plan and needs to be made at least every for years.

Secondly, the management of the Security Region needs to establish a policy plan based on the above mentioned risk profile. The policy plan needs to be updated at least once every four years (article 14.1) and the plan needs to describe to proposed operational performance of all actors involved, including fire brigade, police force, health care and municipalities, in case a disaster or emergency occurs (article 14.2a). The performance relates to the number of people, equipment and time available. The plan should also indicate if national guidelines are followed and how this is done as well as an informative paragraph for all operational actors involved. The plan should contain an exercise/training plan describing how the yearly, compulsory exercises look like and how they will be evaluated. A last point that needs to be included is a description of the non-legal advice function and coverage plan for arrival times of the fire brigade. The policy plan needs to be tuned with neighbouring Security Regions, the police force and the relevant Waterschappen.

The third document that needs to be established by the management of the Security Region is the actual crisis plan. Also this plan needs to be established at least every four years. The plan needs to contain a description of the organisation, the tasks, the responsibilities and the powers which apply in disaster mitigation and crisis management. Also the additional agreements made with the relevant municipalities are included in the plan. Agreements with neighbouring Security Regions with regard to support, cooperation and adjustment with crisis management actors are included. Finally the agreement with neighbouring countries, if applicable, needs to be added to the plan as well.

During the last evaluation of the Security Regions, in 2013, it was concluded that all 25 regions have risk profiles, policy plans and crisis plans in place. All policy plans are based on the risk profiles made. Although all Security Regions have these documents in place, the content of the documents is not always of the required level. Most risk profiles are not yet fine tuned with neighbouring regions and some are not actual enough. Overall the policy plans more or less comply with all requirements laid down in the Security Region Act, however only four comply fully. The requirements for the crisis plans are more or less fulfilled by all.

4.3 Logistics support in crises

During the desk research as well as the interviews no clear indications have been found that private logistical providers are often used in crisis management. They do not form a clear part of the crisis management chain.

Military logistical support

Traditionally the Dutch Army was the back-up option in the Dutch crisis management system. However this has changes since the signing of a Covenant between the Army and the government in 2005, which was rapidly extended in 2006. The Covenant Civil-Military Administrative Agreements (CMBA) has been concluded between the Ministry of Interior, the Ministry of Defence and the Ministry of Security and Justice.

One of the outcomes of the Covenant is, is that in principle the capacity of the Army can be fully used during times of crisis, however the Army cannot agree on full availability, e.g. some of the troops are on a peace mission. The Army has guaranteed that at least 4,600 soldiers are permanently available to help in needed. The Army can assist by:

- Structural capacity → Coast guard, Royal military police, Special support units, Explosive Ordeal Disposal teams (EOD) and the emergency hospital.
- Random capacity → need to be requested by the administrative powers, e.g. security and surveillance during evacuation, transport for evacuation, fire fighting helicopters, and decontamination capacity.

The Army can assist in transport during crisis. They have different modes on offer, e.g. boats, planes and trucks, which can be used to transport people, but also animals. In case of an evacuation of

citizens the Army can, within 48 hours, provide 350 tracked and wheeled vehicles. With this capacity the army is able to move 3,000 evacuees together with their luggage, move 40 tonnes of cargo and 200 evacuees at the same time through inaccessible areas.

As stated earlier the government needs to request these transport services from the Army. In the Handbook Support, Volume I is laid down how this procedure works.

4.4 Crisis communication to general public; Alert system; Public Information and Warnings

4.4.1 Crisis communication

In case of a national crisis concerning public safety the National Core team Crisis Communication (Nationaal Kernteam Crisiscommunicatie = NKC) is responsible for the communication, both to the press and public. The NKC decides what the communication strategy will be for the specific crisis at hand. The NKC is led by the Director Communication of the Ministry of Security and Justice, who is assisted by the Director of the Communication unit of the NCC and the press & public communication team, led by an appointed coordinator. The press & public communication team consists of speech writers working for the Ministry of Security and Justice (for content related information) as well as dedicated crisis communication experts working for the NCC (for knowledge on how to communicate in times of crisis).

If the crisis does not only concern public safety and so other Ministries are involved in the crisis management as well, the press & public communication team is extended with speech writers of the other involved Ministries for additional content related information. The Communication Directors of the other Ministries will assist the Communication Director of the Ministry of Security and Justice to ensure that the relevant and correct information is communicated.

It can happen that a crisis not only affects the Netherlands, but also other Member States. In that case the NKC will be extended with civil servants of the Ministry of Foreign Affairs, as the Ministry of Foreign Affairs is the competent Ministry for cross-border crisis. In that case the press & public communication team will consist of speech writers of the Ministry of Foreign Affairs and their Director of Communication will be involved as well. Jointly the NKC will inform the Dutch public and will ensure communication with foreign authorities.

Tasks executed by the NKC in case of a crisis are:

- Determine the communication strategy on a national level;
- Advising the AT, ICCB and the MCCB on the consequences of the chosen communication strategy as well as the communicative consequences of decisions;
- Develop, coordinate and (partly) executing the communication towards the press and public;
- Inform other public bodies about the communication activities of the Central Government and to coordinate the communication between the Central and regional/local government;

- Monitor and analyse media, internet and public perception.

The NKC is only active once a crisis emerges. NKC start activities if the National Centre Terrorism and Security (Nationaal Coördinator Terrorismebestrijding en Veiligheid = NCTV) request the NKC to take up activities again, or the Communication Director of the Ministry of Security and Justice deems it necessary to do so. The NKC can also be activated if a competent Minister requests the re-activation, taking into account the scope of the crisis. The actual decision to reactivate the NKC is made by at least the Head of the Coordination unit of the NCC and the Communication Director of the relevant Ministry.

4.4.2 Public information and warnings

Incidents related to national security are monitored continuously. On the website of the NCTV the actual level of threat can be found. The NCTV is constantly updating the status and explaining why the status has been changed. Additional information on that current status and the implications for the individual can be found on their website, as only for that level of threat additional information is available in order to reduce confusion.

For other types of emergencies no continuous communication is used. However if the responsible Ministry feels the need to start communicating on a specific topic they can do this by a press release.

Risk and crisis barometer

A more general instrument to inform the public on crisis situations is the risk and crisis barometer. To fill the barometer interviews with Dutch citizens are held to ask them if they feel safe, what type of threats they fear and so on. The outcomes are published on the website of the NCTV. The barometer is held twice a year on a national level, but it is possible to create a barometer for another level as well. A request should be submitted to the NCC.

4.4.3 Alert systems

Several instruments can be used to inform the public in case of a crisis. The main instruments are:

- The air raid
- The website www.crisis.nl
- The phone number: 0800-1351
- NL-Alert

Air raid

The instrument is used to warn the public directly of any disaster or emergency is the air raid. Once something has happened the competent authority can request that the air raid is used and citizens are requested to go inside as soon as possible, and to close all doors and windows in their building. They are also advised to turn on radio or TV, to receive further instructions and be updated on the current situation. The air raid was, for example used, during a large fire in a chemical plant in Moerdijk in January 2013. People in the direct surrounding of the plant were warned that

something was wrong. To ensure that people know what to do when the air raid goes of the national government held an extensive campaign informing people and the procedures and the aims of the air raid. To make sure that the system works in case of an emergency the system is monthly checked by sounding the air raid throughout the country. During the public campaign it was announced that every first Monday of the month at 12.00 am the air raid is tested.

www.crisis.nl

The website is only active if there is a severe risk that the crisis will occur or once a crisis has emerged. To start the website the authority responsible for managing the crisis, i.e. local, regional, ministerial or national, should request the usage of the website by the NCC. The launching of the website in case of a specific crisis depends on the time the requesting authority needs to provide the web editor with the specific content. The website can only be used to inform the public during times of crisis and cannot be used as a permanent tool to inform the public on crisis related topics. This information needs to be published on other websites.

The website is linked to social media and updates on the website can be transferred to the dedicated Twitter account (@crisisupdate_NL) or Facebook page (www.facebook.com/crisis.nl). The website can also show Twitter messages which are preselected. For example messages from the Twitter account of the mayor of the town in which a large emergency takes place can be shown on the website.

0800-1351

The NCC can also open, upon request, the dedicated phone number in case of an emergency. The phone number aims to relief the pressure of municipalities, regions and Ministries by answering the general questions on their behalf. The number can be reached 24/7. During office hours it is possible to activate the number within an hour; outside office hours it will take two hours before the phone number is activated. Before opening the lines the requester needs to submit standard answers to the personnel answering the questions, in order to ensure harmonized answers and one signal to the public. Although the NCC does not write the standard answers they can provide advice and examples. They also advise on the number of staff needed to answer the phones.

NL Alert

NL-Alert is a text messaging service which can be used once a disaster has occurred. All mobile phones located in a certain area around the place where the emergency has happen and which have installed the NL-Alert app will be contacted. The owner of the phone receives a text message telling him/her what has happened and what he/she can do best, for instance going inside a building and close all doors and windows. The system always works, even when the network is over compensated. The service provided is free of charges. The app is installed automatically at more and more phones, however on some phones the owner still needs to install it. This can be done through the website nl-alert.nl



Figure 4.2: Screen shot of the NL-alert website

5 Capabilities

5.1 Human resources

The Netherlands does not have any permanent disaster management staff available. All people involved in crisis management do have other tasks as well, which they carry out in case no emergency occurs. For some of the actors involved the tasks they carry out during a crisis are more or less similar to their regular work. This holds for police officers, firemen and people working in health care. For others, especially civil servants, their regular activities differ from activities they need to carry out during a crisis.

The only institute with permanent staff is the NCTV, which is lead by the national coordinator Terrorism prevention. The NCTV has a small staff available that daily monitor the level of threat and that could easily respond in case a threat is identified. Apart from the NCTV no other organisation is permanently focused on crisis management.

Although no permanent emergency staff is available, people can be easily mobilized as the operational actors do have staff permanently available to execute the tasks assigned to these actors, irrespective crisis management activities. Fire brigades, police forces and health care institutions, have divided their employees in day and night shifts and these employees can be called-up when if necessary.

The Dutch Rescue Brigade consists of around 5,000 volunteers⁸, which can be easily mobilized. The Dutch fire brigade consisted of 25,983 fire fighters in 2012 of which 20,804 are volunteers. Also the Dutch Red Cross has many volunteers available, around 35,000. If these three categories are added up around 61,000 volunteers are presented in the Netherlands. Besides those registered volunteers, many more citizens want to be involved, the so-called civilian aid (in Dutch: burgerhulp). Depending on the disaster and its size many people are willing to help.

Besides the professional actors and volunteers also the private sector could be involved in crisis management. The actors in the private sector are very diverse and range from electricity companies to telecom providers as well as from transportation companies and chemical industry. According to the Vademecum DG ECHO the following private actors could be involved:

Table 5.1: Large private industry players to involve in crisis

Sectors	Industry players
Energy	Nuon, Liander, Essent, Oxxio, Eneco, Electrabel, RWE
Telecom / ICT	UPC, KPN, Ziggo, Orange, Ben, T-mobile, Getronics, Koning & Hartman
Drinking water	Dunea, Evides, Oasen, Vitens, PWN, WML, Waternet

⁸ <https://www.reddingsbrigade.nl/wie-zijn-wij/>

Sectors	Industry players
Food	Friesland Campina, Univeq, Puratos, Pepsico, Alpro, CSM, Makro
Health care	Hospitals, care home, alternative practitioners
Finance	ABN-AMRO, Rabobank, SNS, ING
Legal	Lawyers
Transportation	Connexion, NS, Veolia, HTM, GVB, RET
Chemical industry	Shell, AKZO-Nobel, MSD, Solvay, VSM

Source: Vademecum, DG ECHO, country profile: the Netherlands

5.2 Materiel (non-financial) resources

Non-financial resources

Crisis management is in principal organised at a local level. As the operational responsibilities lie with the Security Regions they have the equipment needed in place. According to the Security Region Act, article 10, each Security Region needs to purchase and manage the common equipment needed. However the emergency services themselves will purchase the equipment they need. The equipment they use are not only used in case of large disasters, but are also used during their daily execution of their tasks. So the fire brigade needs to buy, e.g. the ladder trucks and the fire hoses, while the medical health care needs to purchase the ambulances, stretchers and medicines.

The national government does not have specific resources available as they have hardly any operational responsibility. During larger crisis the national government can take over the coordination and decision making role, however they will not provide the actual help. This will still be done by the emergency services and if necessary accompanied by the Army.

Permanent reserve stock

The permanent reserve is also not managed by the national government. Some of the reserve stock needed, belongs to the Army, e.g. tents. Main actor in the crisis management system that has permanent reserves available is the Dutch Red Cross. In the Royal Decree Red Cross 1988 it is fixed that the Dutch Red Cross has emergency supplies available and in case of an emergency they can provide tents, blankets and medicines.

Besides professional organisations, citizens are also advised to have their own reserve stock available. On the website www.denkvooruit.nl each citizens can find the relevant information on reserve stock. The websites advises to have at least the following products at hand: radio with batteries, additional batteries, torch, first aid kit with handbook, matches, tea lights, warming blanket, emergency whistle and a toolbox. Also fresh water and canned food should be in the house. Citizens can choose to buy the individual parts of the advice permanent stock, but they can also order packages on line. The national government has certified one website (www.hetnoodpakket.nl) where each citizen can buy an approved emergence package. The site offers pre-selected small, basic

and extra large emergency packages, but it is also possible to select the items that you want to have included.

Involvement of military assets

Traditionally the Dutch Army was the back-up option in the Dutch crisis management system. If the civilian emergency services were no longer able to provide the aid needed, the Army could be involved. Since the century this has been changing and the Army has become more and more one of the partners that always responds to a national or large crisis. In 2005 Covenant Civil-Military Administrative Agreements (CMBA) has been concluded between the Ministry of Interior, the Ministry of Defence and the Ministry of Security and Justice.

In 2006 the Covenant was extended with the additional agreements with regard to specialist defence capabilities. After extensive research the CivMil cooperation (ICMS) has been established. In the ICMS the Army guarantees the support of at least 4,600 soldiers in case of emergency as well as the availability of goods. In the catalogue Civil Military Agreements (2007) an extensive overview is provided of all support the Army can provide during a crisis as well as which assets can be used. The catalogue is jointly published by the Ministry of Interior and the Ministry of Defence.

Possibility to commandeer private goods

Under 'normal' conditions the national government has not the ability to commandeer or use private goods and the national government should make use of the goods currently owned by the emergency services. However if the state of emergency is proclaimed the national government might have the ability to commandeer the goods. The government can choose to only use the goods or become the owner.

In the state of emergency some of the dedicated emergency laws become active. For the commandeering private goods the Claim Act (Vorderingswet) needs to come into force. After the proclamation of the state of emergency, the Prime Minister needs to issue a Royal Decree stating that this specific act is re-activated. After adopting the Royal Decree he needs to inform the Parliament about the expected duration and he needs to send them a law in which this is included. The Parliament needs to adopt this law. If they reject the Royal Decree is annulled. If the law is adopted private goods could be commandeered (article 3).

The Claim Act only allows Ministers to claim goods. All other public bodies do not have the competence to claim any goods. If they need private goods they need to ask the responsible Minister, depending on the type of goods and for what they are needed, to claim the goods for them (article 3a). Based on the Claim act both physical goods, e.g. cars, houses etc., as well as property rights, as long as they do not belong to foreigners (article 1).

5.3 Training

5.3.1 Exercises for crisis management

Local, departmental and national

Main reason to practise every year is based on the fact that the people involved in crisis management are carrying out other activities during their 'normal' work. They are not dedicated to crisis management only. For some of the organisations and persons involved the tasks carried out during a crisis are connected to the activities carried out during their day-to-day work, e.g. police, fire brigade and health care. This does not hold for all, e.g. civil servants perform other activities that are not directly linked to crisis management. They need to be well prepared to respond adequately in case of a crisis. Based on the Act establishing the Security Regions each Security region is obliged to practise once every year. The exercise should focus on the entire disaster management chain and after each exercise should be extensively evaluated. Beside this legal obligation to practise, especially between the main crisis partners, covenants have been closed between the Security Regions and vital actors that might play a crucial role in crisis management. These covenants also introduce the obligation to practise with each vital private partner as well. Depending on the number of covenants and partners the number of exercises can increase considerable.

Based on an agreement between the Security Regions and the national government each two years a training exercise is organised involving several Security Regions and the national government. Aim of these trainings is to develop the relevant skill set for larger crises and disasters. Overall the number of exercises carried out by Security Regions is quite intense.

Also each department is obliged to have a yearly exercise. The exercise needs to fall with the scope of the relevant department and needs to follow the so-called 'netwerkkarten' (see Chapter 1). So each of the 22 functional chains is practising once a year. Also once a year a dedicated exercise is organised aiming to test the procedures within several departments. The exercise has a specific theme and the whole scenario is acted out.

Cross-border exercises

The Netherlands also partakes in cross-border training exercises. Most frequently potential disasters and crisis are practiced with neighbouring countries; Belgium and Germany. Between the Netherlands and Belgium an agreement has been made to hold an exercise every year. The entire training cycle is three years and consists of three different exercises: a table top exercise, an alerting exercise and an operational exercise. Before the actual exercise is held a crisis scenario is written and the different stakeholders are informed that an exercise will take place. The main outlines of the fictive disaster are communicated, however the details remain secret. The exercises focus both on the operational and administrative level. After each exercise the exercise is evaluated and the SOPs are updated if needed.

5.3.2 Centralised training in crisis management

National crisis management falls under the responsibility of the Ministry Security and Justice. The Minister needs to ensure that the right people are appointed to the crisis where they can assist best and everyone needs to be aware what to do and when. This assumes that civil servants working for the NCC, the several departments, but also other important public organisations and private parties are adequately trained. The National Academy for Crisis management (NAC), which is part of the NCTV, is the responsible actor to ensure sufficient education and training of all the people and parties involved in national crisis management. The program has been intensified during recent years, as crises become more complex and diverse.

In all trainings provided by the NAC the main thought is that all people involved in crisis management need to be educated, trained and have to practise in the same way. They also need to think in similar ways, adopted the same principles and apply the same rules in order to understand each other and minimise possible misunderstanding between actors involved in preventing or mitigation a disaster. The common understanding will enable the Dutch crisis management system to operate as a flexible system, where all actors can perform other tasks as well (outside the crisis situation), but are familiar enough with each other and each other's working procedures to be able to respond to a crisis effectively.

The training program offered by the NAC is provided at different levels:

- **Individual:** educational programmes to obtain knowledge of and develop competences for different roles within the crisis management system.
- **Team:** educational programmes and training for a specific team aiming to improve cooperation, processes and methods.
- **Teams within internal chain:** exercises and training within the internal chain (i.e. functional chain), focused on cooperation, substantive connection and the usage of each other's output and products.
- **The external chain:** exercises with vital public and private partners both home and abroad.

All four training types follow the so-called OTOTEL-cycle⁹ (Educate, train, practise, test, evaluate and lesson's learned) as depicted in the figure below. The goals of each training are focused on information exchange (between the national government, departments and vital public and private partners), crisis communication, providing advice and decision making. Each training is formed around a specific theme that is important at that specific moment. Recent trainings relate to the change of rule in 2013 or the Nuclear Security Summit in 2014 to be held in The Hague.

⁹ opleiding, trainen, oefenen, testen, evaluaeren en leren van lessen

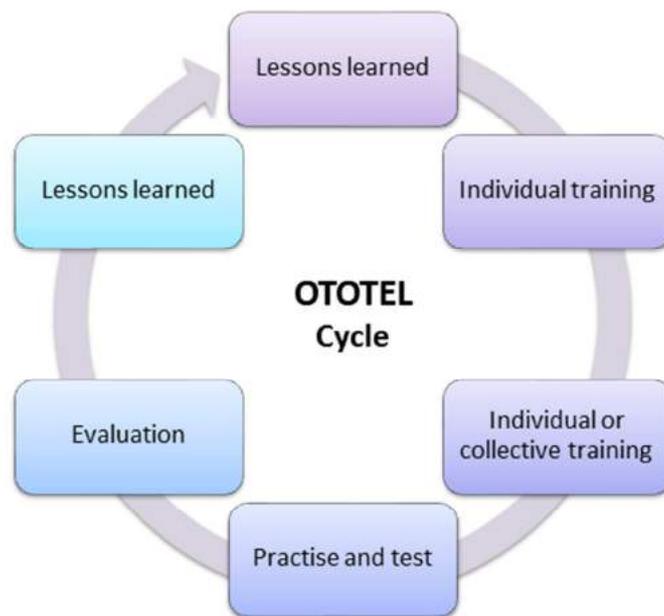


Figure 5.1: Steps in the OTOTEL cycle

Source: Nationaal Coördinator Terrorisme bestrijding en Veiligheid (2014 #3)

5.3.3 Training of volunteers

The registered volunteers receive their basic training from the organisation they are assisting. Depending on the organisation the numbers of trainings differ. Volunteers registered at the Dutch Red Cross often only have to follow the compulsory first aid training, for which they obtain a certificate of completion. Red Cross volunteers are obliged to renew their certificate every 2 years in order to be aware of the most relevant and newest knowledge available.

Volunteers at the Dutch rescue service get training through the Dutch Rescuing Brigade (Reddingsbrigade Nederland). The organisation has dedicated trainings in place and depending on the position for which the volunteer has signed up he will receive a package of trainings. Also the knowledge needs to be regularly renewed. For example, the organisation offers one-week training to become a life saving beach guard. During the trainings the most common situations are practised and swimming trainings are delivered. Most volunteers need to partake regularly in condition and swimming trainings.

The training requirements for volunteers joining the fire brigade are more extensive and strict. Besides a first aid training volunteers need to following trainings to get acquaintance with the usual procedures within the fire brigade. Also several tests need to be carried out and by failing these tests the person cannot become a volunteer. Examples are a swimming test, a psychological test and medical assessment. The performance of the volunteers is evaluated on a yearly basis. In order to get promoted the volunteers need to succeed for national exams, e.g. a more extended swimming certificate and obtaining additional skills. The requirements are quite severe as the volunteers get a compensation for their work done.

5.4 Procurement

5.4.1 European regulations

The procurement of public contracts needs to be in line with the principles of European treaties and especially with the free movement of goods services, capital and people. Furthermore the procurement needs to comply with the principles of equality, proportionality etc. For some types of procurement additional regulations are codified in directives. Within the European legislation, three different procurement directives apply. These directives are mutually exclusive meaning only one of the directives applies to the public procurement. Directive 2014/25/EU (on procurement of utilities) and directive 2009/81/EC (on procurement in the defence and security industry) are topic specific. If these specific directives do not apply, public sector directive 2014/24/EU is applicable, which is the replacement of directive 2004/18/EC. The aim of the new directive is to simplify the rules on public procurement; improve the participation of SMEs and stimulate cross border joint procurement.

Stimulation of cross border joint procurement is helpful in case of a major internal crisis or a cross border crisis. The directive states in the preamble that contracting authorities should be able to choose to jointly provide their public services in cooperation with other authorities, without being obliged to use any legal form. These services don't have to be identical. The cooperation does not require all participating authorities to fulfil the obligations of the contract, as long as there is a commitment to contribute to the cooperative performance. The preamble points out that there are difficulties in cross border joint procurement. Therefore new rules have to be made. In these rules, the conditions for cross border procurement have to be clarified, as well as the applicable regulations. In addition, contracting authorities should be able to set up joint entities established under national or EU law. The new rules are specified in article 39 of the regulations.

If the procurement is executed by a centralised purchasing body located in another MS, the procurement shall be conducted in accordance with the national regulations of the MS where the purchasing body is located. In addition, several contracting authorities from different MS may jointly award a public contract, conclude a framework agreement or operate a dynamic purchasing system. Participating contracting authorities will then conclude an agreement that determines all responsibilities of the parties and the internal organisation of the procedure. As said before, the contracting authorities can set up a joint entity. The parties shall decide on the applicable rules on procurement. They can choose the rules of the MS where the entity has its registered office or where the entity carries out its activities.

This project evolves around the procurement related to crisis management, for example the procurement of ambulances, emergency packs or trainings. The utilities directive applies to gas and heat, electricity, water, transport services, ports and airports and postal services (article 8-13). The directive on defence and security applies to supply of military equipment and sensitive supplies. The majority of procurement in crisis management will be procured by normal NCCs and local authorities like the fire department or police and will not be secret. So in most cases the public sector directive (2014/24/EU) is applicable. This chapter will therefore focus on this directive. Keep in mind that the other directives can also be applicable, for example if the army is used to solve a major crisis. The

directive is addressed to Member States and has no direct effect on the national regulations. The directive needs to be implemented first.

Scope of the public sector directive

The public sector directive applies to procurement by contracting authorities with respect to public contracts as well as design contests whose value is estimated to be not less than (article 4):

- € 5.186.000 for public works contracts;
- € 134.000 for public supply and service contracts and design contests, awarded by central government;
- € 207.000 for public supply and service contracts or design contests awarded by sub-central contracting authorities.
- € 750.000 for public service contracts for social and other specific services listed in Annex XIV.

This directive should not apply to certain emergency services where they are performed by non-profit organisations or associations, since the particular nature of those organisations would be difficult to preserve if the service providers had to be chosen in accordance with the procedures of the directive. Furthermore the directive does not apply to public contracts with the purpose of providing public communication networks or electronic communication services; public contracts organised pursuant to international rules; several types of service contracts, e.g. rental, legal services and employment contracts and service contracts based on exclusive rights; and last, public contracts between entities within the public sector (articles 8-12).

Award procedures

On a European level, procurement is executed by the European Commission. The public sector directive contains several award procedures:

- open procedure,
- restricted procedure,
- competitive procedure with negotiation,
- competitive dialogue,
- negotiated procedure without prior publication.

The *open procedure* applies when no other procedure is chosen. In the open procedure, the contracting authority submits a call for tenders. Interested companies may submit a tender. The best offer is chosen, based on the selected award criteria (article 27).

The *restricted procedure* consists of two phases. In the first phase a call for expression of interests is set out. Interest candidates may submit an invitation to tender. The contracting authority will then invite the most suitable candidates to submit a tender. The contracting authority will award the contract to the best tender, based on the selected award criteria (article 28).

In the *competitive procedure* with negotiation any interested candidate may submit a request to participate in the negotiations, in response to a call for competition. In this call for competition, the contracting authority has provided a description of their needs and the characteristics of the works or services to be procured. Only the interested candidates that are invited may submit an initial tender, which will be the basis of the negotiations (article 29). In several cases the negotiation procedure can be used without prior publication, for example when the public contract contains a creative achievement; when there is no competition; when intellectual property rights need to be protected, or when there are reasons for extreme urgency (article 32).

In the *competitive dialogue* any interested candidate can submit a request to participate in response to a contract notice given by the contracting authority. The contract notice provides the information on and the needs and requirements of the contracting authority, as well as the chosen award criteria. The selected interested candidates will join the competitive dialogue, in which the means best suited for satisfying the contract will be defined (article 30).

A new procedure within this directive is the *innovation partnership*. In this procedure, any economic operator may submit a request to participate in response to a contract notice, by providing information for qualitative selection that is requested by the contracting authority. The innovation partnership can be set up with one partner or several partners. Only the economic operators invited by the contracting authority participate in the procedure. After each phase, the contracting authority may decide after each phase to terminate the partnership or reduce the number of partners within the partnership, based on the targets.

According to article 26, the open procedure and restricted procedure are the standard procedures to apply in case of procurement. The other procedures can be used in a limited number of situations, for example when the service is innovative, or when the technical specifications can't be determined (art. 26, sub 4.).

Contracting authorities can use framework agreements, provided that they apply the procedures in this directive. The agreement can not exceed four years. Contracts within the agreement will be awarded according to the rules in article 33.

In most procedures the candidates are chosen with the use of selection criteria. The selection criteria may relate to suitability to pursue the professional activity; economic and financial standing and technical and professional ability. All criteria need to be related and proportionate to the matter of the contract (article 58).

5.4.2 *National regulations*

Member States need to implement directive 2014/24/EU before 18 April 2016. In the Netherlands, part of the new directive is already implemented in the new act on procurement (in Dutch: 'Aanbestedingswet') and the regulations on procurement (in Dutch: 'Aanbestedingsreglement'), which is implemented in 2013.

Act on procurement

The scope of the procurement law is first defined by the value of the works. The law refers to the values as stated in the public procurement directive. The law refers to the old public procurement directive, but states that a change in the articles in the directive has priority over the national law (section 2.1.1).

Not all types of public contracts need to be procured. Public contracts to which the defense directive applies are excluded. Moreover, contracts are excluded: if it is secret; if it is about telecommunication or if other procedures apply, based on international agreements. (article 2.23). Besides these types of public contracts, the procurement law excludes several public contracts, based on the content of the contract (article 2.24)¹⁰.

Procedures

In the Netherlands, procurement is executed by the central government and all the ministries. Within the ministries, the different agencies are authorized for procurement. The extensive list of all the bodies is codified in Appendix I of the directive.

Section 1.2.2 of the procurement law notes several special principles for European procurement. This section also states that the procurement should take place without discrimination of the interested candidates and that the contracting authority needs to act transparent. Furthermore the procurement needs to be in line with the principles of proportionality and subsidiarity. The law explicitly states that the selection criteria for candidates in other countries have to be equal to the selection criteria of national candidates. These principles are then repeated in the section on national procurement.

Just as in the public procurement directive, the act states that the standard procedures for procurement are the public procedure and the restricted procedure (article 2.25). Both procedures are in line with the procedures in the directive.

In case the open and restricted procedure are not suitable for a complex public contract, the contracting authority can use the procedure of competitive dialogue. The procurement is expected to be complex when the contracting authority is not able to define the technical measures that are necessary, or can not specify the legal or financial terms of the contract. This is only a limited number of options compared to the EU directive. For the other criteria named in article 26 of the EU directive, the act determines the competitive procedure with negotiation should be used (article 30).

According to the act, the negotiation procedure without publication applies in the same situations as stated by the EU directive (article 2.32 – 2.36).

Since the new EU directive is not yet implemented in the Netherlands, the act still makes a distinction between II-A and II-B services. For B services, a different procedure can be used. This is based on the list of services in annex II of the old direct 2004/18/EG.

¹⁰ For example legal services and rental services

All procedures are explained more precisely in the regulations on procurement, which is in line with the European directive.

The selection criteria are stated in article 2.90 of the procurement law. These criteria are comparable to the criteria in the EU directive. The only difference is that the minimum turnover the economic operators are required to have shall not exceed three times the contract value, while this is two times according to the directive.

5.5 Niche capabilities

One of the focus points of the Netherlands which could be interesting for EU crisis management is the experience with floodings. The Netherlands has a long history of floodings as large parts of the country are located below sea level and the four largest cities of the country are located in these areas. Since the large flooding of 1953 which killed 1863 Dutch people (2,395 in total), The Netherlands has worked on an extensive prevention program, the so-called Deltawerken programme.

In the first years after the flooding the main focus was directed towards physical prevention matters. Many dykes were raised in order to protect the land located nearest to the sea and many sea entrances were permanently or temporarily closed. In the Easter Schelde a permanent bridge containing several locks has been built. The locks allow vessels to sail between the inland waters and the sea, however if the sea level tends to rise too high the locks can be closed to keep the water out. An example of a temporary solution is the Maeslandkering near Rotterdam (the last major physical structure of the Deltawerken, completed in 1997). This construction consists of two big lock doors that are located at the left and right bank of the River Maas. Normally the doors are open and vessels can use the waterway freely. In water levels are expected to rise and form a threat for Rotterdam the lock doors can be closed.



Figure 5.2: Impression of the works in the Easter Schelde (left) and the Maeslandkering (right)

Source: pictures taken from wikipedia

After completion of this large physical works in 1997 the focus on the protection of the people against the sea remained. Frequently, often once a year, the height of all dykes is assessed and if

dykes fall under a certain height the dykes need to be raised. The Deltaworks and the dyke management are mainly carried out in the West of the country. However the Netherlands has also many rivers that might cause sufficient flooding. In order to manage the water levels throughout the country, many water installation pumps (in Dutch: *gemaal*) have been build. In the Water Agency (In Dutch: *waterschap*) measures higher water levels, they can use the pump installations to redistribute the water amongst rivers, lakes and eventually the sea.

The expertise developed during the years is not only used for the own protection, Dutch experts are also exporting their knowledge to other countries that face similar flooding issues. A recent example is the team of Dutch experts advising the US on how to better protect their coastal regions, after the devastating hurricane Kathrina. A group of experts visited the US to assess which measures can be taken and to advise the competent US authorities. Also a site visit in the Netherlands had been organised to the US team the possibilities.



Figure 5.3: Location of all measures taken in the Delta Programme (red lines)

Source: <http://www.deltawerken.com/Deltawerken/16.html>

Resources

Legislative acts

- Directive 2009/81/EC of the European Parliament and of the Council of 13 July 2009 on the coordination of procedures for the award of certain works contracts, supply contracts and service contracts by contracting authorities or entities in the fields of defence and security, and amending Directives 2004/17/EC and 2004/18/EC.
- Directive 2014/24/EU of the European Parliament and of the council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC.
- Directive 2014/25/EU of the European Parliament and of the Council of 26 February 2014 on procurement by entities operating in the water, energy, transport and postal services sectors and repealing Directive 2004/17/EC.
- WET van 29 november 1962, houdende een regeling tot het tegengaan van het hamsteren van goederen in buitengewone omstandigheden
- Wet van 5 december 1962, houdende regeling van het vervoer te land en op de binnenwateren in buitengewone omstandigheden
- Wet van 12 december 1962, houdende een regeling betreffende het vorderen van zaken door de landsoverheid
- Wet van 25 mei 1978, houdende regelen inzake voorzieningen op het gebied van het financiële verkeer in buitengewone omstandigheden
- Wet van 14 februari 1992, houdende nieuwe bepalingen met betrekking tot gemeenten
- Wet van 3 april 1996, houdende regeling met betrekking tot uitzonderingstoestanden (Coördinatiewet uitzonderingstoestanden)
- Wet van 3 april 1996, houdende hernieuwde vaststelling van de Wet buitengewone bevoegdheden burgerlijk gezag ter aanpassing aan de Coördinatiewet uitzonderingstoestanden (Wet buitengewone bevoegdheden burgerlijk gezag)
- Wet van 3 april 1996, houdende hernieuwde vaststelling van de Oorlogswet voor Nederland ter aanpassing aan de Grondwet en aan de Coördinatiewet uitzonderingstoestanden (Oorlogswet voor Nederland)
- Wet van 6 juli 2000, houdende regels inzake de bescherming van persoonsgegevens (Wet bescherming persoonsgegevens)
- Rijkswet van 2 december 2004, houdende instelling van een Onderzoeksraad voor veiligheid (Rijkswet Onderzoeksraad voor veiligheid)
- Wet van 11 februari 2010, houdende bepalingen over de brandweezorg, de rampenbestrijding, de crisisbeheersing en de geneeskundige hulpverlening (Wet veiligheidsregio's)
- Besluit van 24 juni 2010, houdende regels over het personeel van de brandweer, functies voor de bedrijfsbrandweer, functies binnen de GHOR en functies binnen de organisatie van de rampenbestrijding en de crisisbeheersing en het overleg over het personeel van de brandweer (Besluit personeel veiligheidsregio's)

- Wet van 1 november 2012, houdende nieuwe regels omtrent aanbestedingen (Aanbestedingswet 2012) (in English: act on procurement)

Other normative acts

- Aanbestedingsreglement Werken 2012, Reglement voor het aanbesteden van opdrachten voor werken en aan werken gerelateerde leveringen en diensten ,Staatscourant 2013 nr. 3075 (In English: regulations on procurement).
- Besluit van 22 december 1988, houdende vaststelling van een algemene maatregel van rijksbestuur tot regeling van de vrijwillige hulpverlening aan gewonden, zieken, krijgsgevangenen, geïnterneerden en anderszins hulpbehoevenden door erkende en toegelaten verenigingen
- Besluit van 20 juni 1994, houdende nadere regels met betrekking tot de informatieverstrekking en de te verstrekken informatie inzake rampen
- Besluit van 24 juni 2010, houdende regels inzake de organisatie en de taken van de veiligheidsregio's en de gemeentelijke brandweer, alsmede de financiële bijdrage van het Rijk (Besluit veiligheidsregio's)
- Besluit van 2 december 2011, houdende wijziging van het Besluit Rode Kruis 1988, onder meer ter codificatie van de auxiliaire rol en van twee taken van het Rode Kruis, opnemng van een verwijzing naar een protocol en aanpassing aan gewijzigde verantwoordelijkheden

Official documents (white papers, strategies, etc.)

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- LOCC (2010), 'Handboek Bijstand, deel 2: Grensoverschrijdende bijstandsverlening'
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- Ministry of Security and Justice (2013), 'Brochure Wet Veiligheidsregio's'
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- National Centre Terrorism and Security (2013), 'Nationaal Handboek Crisisbesluitvorming'
- National Centre Terrorism and Security (2013), 'Factsheet 0800-1351'
- National Centre Terrorism and Security (2013), 'Factsheet www.crisis.nl'
- National Centre Terrorism and Security (2013), 'Informatie Nationaal Kernteam Crisiscommunicatie (NKC)'
- National Centre Terrorism and Security (2014), 'Risico- en crisisbarometer'
- National Institute for Public Health and the Environment (2013), 'National risk assessment 2011' National Institute for Public Health and the Environment (2013), 'National risk assessment 2012'
- Nederlands Instituut voor de Veiligheid (2013), 'Bestuurlijke netwerkkaarten crisisbeheersing'
- UNDAC (2011), 'Emergency response missions'
- United Nations Office for the Coordination of Humanitarian Affairs (2014), 'INSARAG External Qualification / Reclassification Manual'

Online resources (e.g. websites of key CM organizations)

- <http://www.car-uwo.nl/onderwerpenindex/brandweervrijwilligers/algemene-bepalingen/werkingssfeer>
- <https://www.ivenj.nl/onderwerpen/rampenbestrijding/>
- https://www.ivenj.nl/onderwerpen/rampenbestrijding/wettelijk_kader/
- <https://www.nctv.nl/>
- <http://www.rijksoverheid.nl/documenten-en-publicaties/persberichten/2009/07/10/kabinet-regelt-slagvaardige-besluitvorming-bij-crises-en-rampen.html>
- <http://www.rodekruis.nl/afdeling/gooistreek/dit-doen-we/hulp-bij-rampen/vrijwilliger-rampenhulpverlener>
- <http://www.veiligheid.org/risicobeeld.html>

Publications

- Alliance Developments Work (2014), 'World risk report 2014'
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- IPSOS (2014), 'Risico- en Crisisbarometer – basismeting juli 2014'
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- National Centre Terrorism and Security (2013), 'Magazine Nationale Veiligheid en crisisbeheersing, nr 1: topic Innovatie en R&D'

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- Onderzoeksraad voor veiligheid (2013), 'Voor veiligheid'
- University of Utrecht (2013), 'Analysis of Civil Security systems in Europe (ANVIL) - Country study: the Netherlands'

Expert interviews

Please only mention here the organisation and month of the interview. Only refer to "expert interview" in the text.

- Inspection for Security and Justice, part of the Ministry of Security and Justice
 - *Interview held: November 2014*
- National Centre Terrorism and Security (NCTV), spoken to the National Coordination Centre (NCC), part of the Ministry of Security and Justice
 - *Interview held: December 2014*



Driving Innovation in Crisis Management for **European Resilience**

NORWAY

Capabilities, Organisations, Policies, and Legislation (COPL) in crisis management and disaster response

Responsible Partner: MSB (Marie Norrby)

Scope and limitations

This study serves as supporting information for further work within DRIVER.

Only limited time and budget has been available for this first general survey, which needs to be considered in terms of scope and completeness of the respective studies.

The author/s of this study is/are responsible for its content and quality.

Overview

Norway has three level of governance:

Local level with 434 municipalities

Regional level there is 19 counties. County boards are the government's regional representatives.

National level with the Norwegian parliament and the government

The two levels have their own elected political assemblies. One level has no jurisdictions over another.

Three main principals:

The responsibility principle

The persons or organisations that are responsible for an activity under normal conditions are also responsible for such operations in an emergency situation.

The equality principle

Operations should, as far as possible, be organized in the same way during emergency situations as under normal conditions.

The proximity principle

Emergencies should be handled at the lowest possible level in society. On a central level the Government is the body responsible for this area, on the regional level it is the County Administrative Board and on the local level it is the municipalities.

First responders

Each of the three first responder organisation have their respective mandate and responsibility during an incident. They have to cooperate.

Police

The Police are a Governmental organisation and responsibility, which is also represented at the regional level. The Police's responsibilities include to prevent and detect criminal activity and other disruptions of public order or safety, monitor the public order and security and intervene when disturbances have occurred, investigation and prosecution of criminal offences which fall within the General prosecution, provide public health, information and other assistance, when such assistance is best given by the police. The police are responsible when there is a joint operation.

Fire and Rescue service

The Fire and Rescue Service are a local and municipality responsibility. Some municipalities cooperate and have a common Rescue Service. The incident commander has the mandate to call in all the resources that he or she needs to handle the incident to save life, environment and properties as long as it is in proportion to the incident.

Ambulance and healthcare

Health care is a municipality's responsibility; the specialised hospitals are under state control.

DSB's role

DSB's role, as a governmental agency, is to support and develop the Fire and rescue area. DSB, along with all the other agencies, is also responsible to facilitate and cooperate to improve emergency response. The also together with County Boars audit the local fire and rescue service.

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List of Abbreviations

ABBR	Spell the abbreviation here
DSB	Norwegian Directorate for Civil Protection
SSB	Statistics Norway

1 Policy

1.1 Risk Assessment

Risk assessments are done by all levels in the public sectors.

Local level: 434 municipalities

Regional level: 19 County Boards, 5 Hospital Regions, 27 Regional Police authorities

National level: All governmental agencies

Risk assessments are also done by the private sector that can affect the population and environment like Seveso plants and Energy sector.

1.2 Policy and Governance

Three main principals roll the Norwegian way to share the responsibility for handling an incident. The same principals are applicable during peace time regardless of the scale of the incident, crisis or not.

The responsibility principle

The person who is responsible for an activity under normal conditions should also be responsible for such operations in an emergency situation.

The equality principle

Operations should, as far as possible, be organized in the same way during emergency situations as under normal conditions.

The proximity principle

Emergencies should be handled at the lowest possible level in society. On a central level the Government is the body responsible for this area, at the regional level it is the County Administrative Board and on the local level it is the municipalities.

Handling the incident

The incident commander at the local The Fire and Rescue Service has the mandate to call in all the resources that he or she needs to handle the incident to save life, environment and properties as long as it is in proportion to the incident. If more than one municipality are affected, the Incident commanders can ask the Regional County Board to appoint a common incident commander for the major incident.

1.2.1 Strategy scope and focus

Since all citizens, public and private sector are obliged by law, to prevent, prepare, response and recover from accidents and events there are no gaps. It is an all hazardous approach. On the other hand the quality is entirely up to each and every one. The municipalities have the main responsibility for

the people staying in their area, permanent and temporary. They also audit the private sector to ensure that they have sufficient CM.

The County Board is responsible for auditing Seveso plants and other more dangerous industries in their geographical area including the municipalities to ensure that they have sufficient CM.

1.2.2 Monitoring and analytical support to policy making; R&D

DSB provides studies, auditing and guidelines along with the county boards. There is also for example FFI, Norwegian defence research institute.

1.2.3 Policy for Prevention

Public Sector

Local level:

The 434 municipalities are responsible to do preventive action and ensure common safety for the population. The area of responsibility goes from safe drinking water, sanitation, schools, local roads to Fire and Rescue Services. The municipalities are also responsible to audit the private sector.

Regional level:

The 5 Hospital areas are responsible to do preventive action and ensure common safety for the population in the area of health care.

The 19 County Boards are responsible to audit the municipalities within the county and the private sector that has a higher risk category like Seveso plants. They are also responsible to help and support the municipalities and coordinate prevention action in the region.

The Police are a Governmental organisation and responsibility, which is also represented at the regional level. The Police's responsibilities include to prevent and criminal activity

National level:

The over 250 national agencies are responsible for respective area of responsibility. All agencies and that affect or can affect the environment, people or properties shall have activities that aim to reduce the risks. All agencies are responsible in their respective area

Private sector:

All companies and organisation that affects or can affect the environment, people or properties shall have activities that aim to reduce the risks.

Voluntary sector:

All organisations that affects or can affect the environment, people or properties shall have prevention activities that aim to reduce the risks from their activities. Some voluntary organisations are active in preventing activities towards the general public such as giving first aid courses, swimming lessons and safety on water.

1.2.4 Policy for Preparedness

Public Sector

Local level:

The 434 municipalities are responsible to do preparedness action and ensure common safety for the population. The area of responsibility goes from safe drinking water, sanitation, schools, local roads to Fire and Rescue Services. The municipalities are also responsible to audit the private sector.

Regional level:

The 5 Hospital areas are responsible to do preventive action and ensure common safety for the population in the area of health care.

The 19 County Boards are responsible to audit the municipalities within the county. They are also responsible to help and support the municipalities and coordinate prevention action in the region.

The Police are a Governmental organisation and responsibility, which is also represented at the regional level. The Police's responsibilities include detecting criminal activity and other disruptions of public order or safety.

National level:

The over 250 national agencies are responsible for respective area of responsibility. All agencies and that affect or can affect the environment, people or properties shall have activities that aim to reduce the risks. All agencies are responsible in their respective area

Private sector:

All companies and organisation that affects or can affect the environment, people or properties shall have activities that aim to reduce the risks.

Voluntary sector:

All organisations that affects or can affect the environment, people or properties shall have prevention activities that aim to reduce the risks.

1.2.5 Policy for Response

Public Sector

Local level:

The 434 municipalities are responsible to respond to accidents and incidents Fire and Rescue Services and local health care.

Regional level:

The 5 Hospital areas are responsible to respond to accident and other health related issues and incident to ensure the cooperation with the local health care.

The 19 County Boards are responsible to audit the municipalities within the county. They are also responsible to help and support the municipalities and coordinate prevention action in the region.

The Police are a Governmental organisation and responsibility, which is also represented at the regional level. The Police's responsibilities include monitor the public order and security and intervene when disturbances have occurred, provide public health, information and other assistance, when such assistance is best given by the police.

National level:

The over 250 national agencies are responsible for respective area of responsibility. All agencies and that affect or can affect the environment, people or properties shall have activities that aim to reduce the risks. All agencies are responsible in their respective area

Private sector

All companies and organisation that affects or can affect the environment, people or properties shall have activities that aim to reduce the risks. There are industries that have their own in-house fire brigades.

Voluntary sector

All organisations that affects or can affect the environment, people or properties shall have prevention activities that aim to reduce the risks. There is voluntary organisation in municipalities, like voluntary fire brigades, that responds to incidents.

1.2.6 Policy for Relief and Recovery

Public Sector

Local level:

The 434 municipalities are responsible to do preventive action and ensure common safety for the population. The area of responsibility goes from safe drinking water, sanitation, schools, local roads to Fire and Rescue Services. The municipalities are also responsible to audit the private sector that can affect the population and nature negative, for example Seveso plants.

Regional level:

The 5 Hospital areas are responsible to do preventive action and ensure common safety for the population in the area of health care.

The 19 County Boards are responsible to audit the municipalities within the county. They are also responsible to help and support the municipalities and coordinate prevention action in the region.

The Police are a Governmental organisation and responsibility, which is also represented at the regional level. The Police's responsibilities include to investigate and prosecution of criminal offences which fall within the General prosecution.

National level:

The 250 national agencies are responsible for respective area of responsibility. All agencies and that affect or can affect the environment, people or properties shall have activities that aim to reduce the risks. All agencies are responsible in their respective area

Private sector

All companies and organisation that affects or can affect the environment, people or properties shall have activities that aim to reduce the risks.

Voluntary sector

All organisations that affects or can affect the environment, people or properties shall have prevention activities that aim to reduce the risks. There are Voluntary organisations that help effected peoples, like the Red Cross.

1.3 Financing

1.3.1 Investing in preparedness

Not found aggregated since it is at the local level. National statistics are found at www.ssb.no

1.3.2 Investing in consequence management

For the private sector most have companies have insurance.

For the public sector the state pays when there has been a major rescue operation. All other sectors have to pay their own costs. The polluter pays is the fundamental rule.

1.4 Policy review, Evaluation & Organisational Learning

1.4.1 Post-Disaster Assessment

Individuals get help from the municipality. POSOM groups and other personal help are organised so that if need you get a temporary shelter. Voluntary organisations, like the Red Cross is also assisting.

1.4.2 Departmental Lessons Learned systems

The municipalities and county boards have a common organisation the share different experience.

1.4.3 Centralised (national) Lessons Learned system

There is not one centralised system. Every sector and agency has their own responsibility. SSB, Statistics Norway, is the national agency that collects statistics from a variety of sectors. Some sectors like Dangerous Goods have several agencies and actors that collect statistics and experiences. Below are some examples.

In the spectra of social and health care there is a national lessons learned system, both for the municipalities and Hospital areas.

To investigate major accidents DSB provides reports and recommendation to improve and provide opportunities for lessons learnt.

1.4.4 International exchange for Lessons Learned

Some examples:

DSB, together with other governmental agencies, arrange observation studies when they identify incidents of interest to learn from.

The Nordic countries have also ongoing cooperation in different areas. Nordred Agreement (www.nordred.org), HAGA declaration and Nordhels (www.nordhels.org) are some of them.

CTIF is an international organisation that has national sub-organisation. The purpose is to learn from each other and incidents that has append, from fire to hazardous materials. <http://ctif.org/>

1.4.5 Regular policy reviews

After every election there is a review of the Risk and vulnerability analysis. The level of ability is then reviewed and the new policies are set at the local level.

1.5 Resilience

The implementation of the concept resilience is done in Norway.

Responsible for working with the protection of vital services and critical infrastructure rests in accordance with the principle of responsibility of each sector, as well as the owners and proprietors of businesses.

At the national level a national strategy and action plan for the protection of vital infrastructure as well as guidelines has been produced.

Standard Norway NS-ISO 22301 no ISO 22301 has been adopted as a Norwegian standard.

1.6 Information sharing and data protection

Personal information Law (PUL) and Inspire directive are implemented.

Each municipality have responsibility to ensure the safety of it citizens. The Social office, in the municipality is always involved when evacuation needs to be done.

Each sector is responsible to comply within the law, and secure that necessary information can be chaired.

Each citizen has the right to know what kind of threats that normally exist within the municipality, like the risks for flooding or Seveso plants.

There is no national register of voluntary personnel. Every Voluntary organisation in itself has its own register of members.

One example is FORF, Non-Profit Organisations' Rescue Forum, which organizes several voluntary organisations.

Kriseinfo.no is a web site that gathers information on regular bases from different sites, regarding different warnings and information to the public about how to be prepared and find information.

2 Legislation

2.1 Crisis (emergency, disaster) management concept

The foundation of CM manifested in the Norwegian law.

The responsibility principle

The person or organisation that is responsible for an activity under normal conditions is also responsible for such operations in an emergency situation.

The equality principle

Operations should, as far as possible, be organized in the same way during emergency situations as under normal conditions.

The proximity principle

Emergencies should be handled at the lowest possible level in society. On a central level the Government is the body responsible for this area, on the regional level it is the County Administrative Board and on the local level it is the municipalities.

In the different legislation rolling at all levels and sectors, the method to coop with a major incident are cooperation.

2.2 General crisis (emergency, disaster) management law

There is no overall legislation concerning civil protection in peacetime. Many government agencies and private organisations do, however, have civil protection tasks and are responsible for civil emergency planning, and each part of the administration must ensure that the necessary detailed emergency plans are put into effect. This is mainly regulated through laws and regulations concerning specific sectors.

The following legislation is important in this regard:

The Police Act of 4 August 1995

The Fire Protection Act of 8 December 2000, implemented as of 1 January 2001

The Fire and Explosion Prevention Act of 14 June 2002

The Planning of Building's Act of 14 June 1985, amended 24 November 2000

The Protection against Pollution Act of 13 March 1981

The Regulation of 4 July 1980 on the Main Principles of the Organisation of the Search and Rescue Services

A new Act proposed on Municipal Responsibility for Sectorial Risk, Vulnerability Assessment and Emergency Plan, to be implemented on 1 January 2010.

2.3 Emergency rule

During peacetime, see above.

Municipalities' Rescue Services always have to have an incident commander. The incident commander has, far reaching powers to engage people and resources that he/she need to handle the incident, but not without paying for it.

The Hospital area's representative in the health care authorities during a pandemic or for specified dangerous diseases also have far reaching powers to for example isolate people.

2.4 Specific, department/agency-level legal arrangements and regulations on emergency and disaster management

DSB is a national coordinator to help the municipalities and other actors to facilitate the management of the incident.

2.5 Specific to the regional and local authorities legal arrangements and regulations on emergency and disaster management

The national level can only support the local level.

2.6 Legal regulations on the involvement of volunteers and specialised NGOs

There is no specific legislation regarding NGO's involvement, but is on voluntary base, the "Frivillige Organisasjoners Redningsfaglige" Forum, forming a cooperation with nine major organisations.

2.7 Legal regulations for international engagements of first responders and crisis managers

To engage first responders in the Nordic countries have already been dealt with in multilateral agreements. Cross border cooperation is done on regularly bases directly between the municipalities and the County Councils in Sweden and Hospital Areas in Norway. Some regions also have Cross boarder councils including County boards and municipalities, rescues services and healthcare. (www.norred.org and www.nordhels.org)

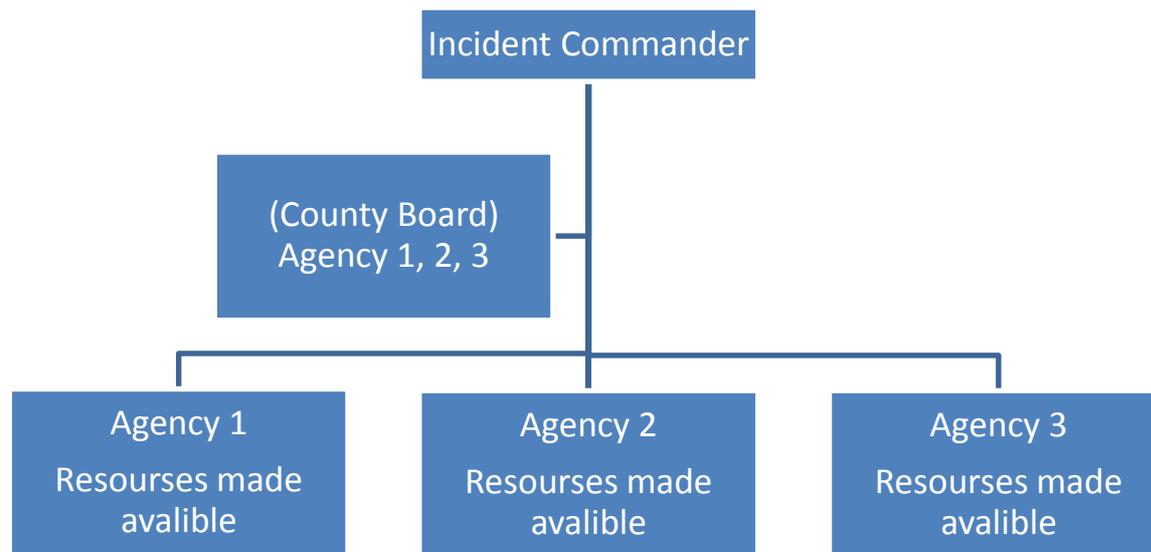
Point of Contact for EU/ERCC is DSB. So if an incident commander needs these recourses they need to contact DSB. DSB needs to inform the government before contacting ERCC. UN needs to be invited and approved both of the government and the municipality.

The incident commander and the municipality still have the responsibility for the incident.

3 Organisation

3.1 Organisational chart

A schematic skis of how a major rescue operation can be organised



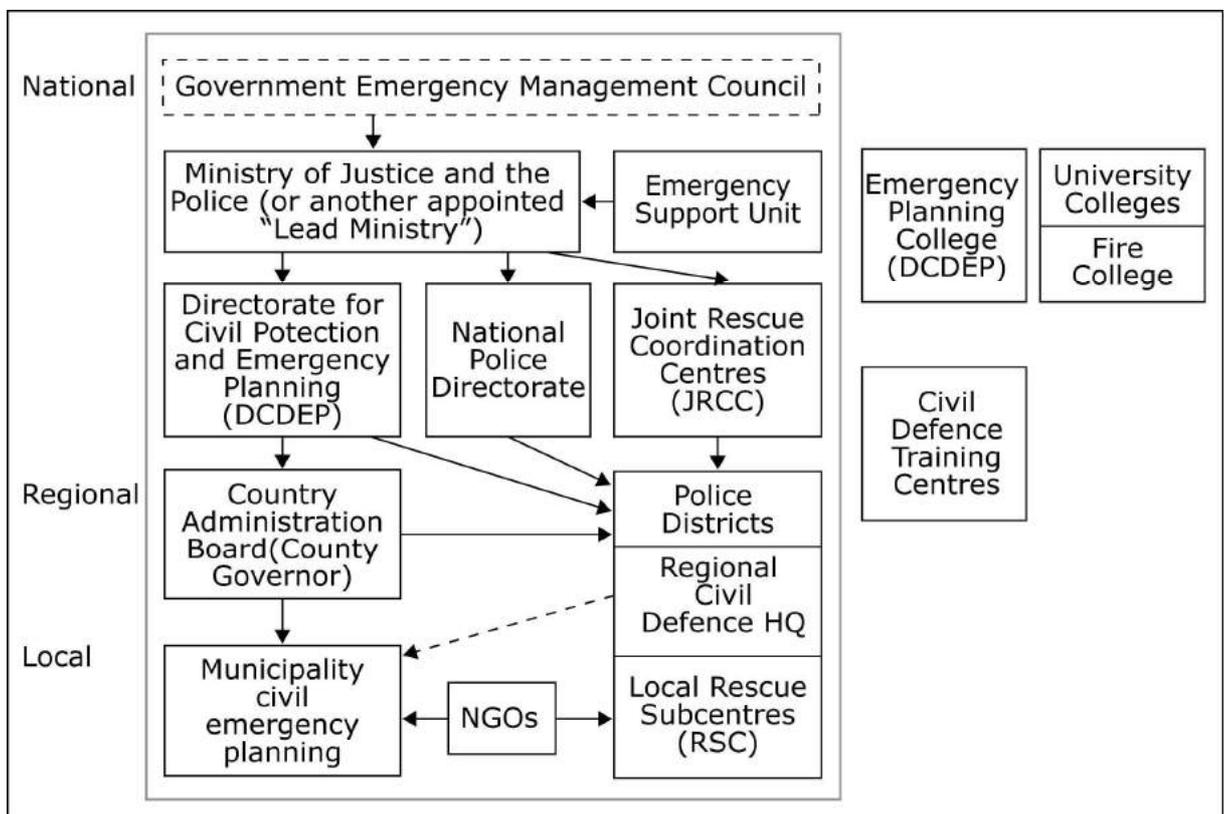
- National/ IO authority for emergency and disaster management; chain of command and high-level decision-making:
The incident commander is the commander during a rescue operation. The Commander can request more recourses and help. All tactical and operational decisions rest at the local level even when there is a crisis. The politicians may need to make funding available to handle the incident.
- Interdepartmental (inter-ministerial) emergency and disaster management authority:
The ministries have a group to keep them informed. DSB and other affected agencies inform the government on regular base during a major incident. They can make more resources available, if necessary.
- National permanent emergency and disaster management unit(s)/ formations; first responders:
There are no national First responders, except for:
Special police forces, mountain rescue, sea rescue, nuclear accident and maritime environment rescue operation.
- Planned/ anticipated use of specialised military assets:
Civil agencies and rescue service can ask for the recourses the military have. The local first responder's organisations may also have pre planned cooperation, and then the military, if they agree to help, is under the command of the incident commander.
- Departmental emergency and disaster management arrangements:

Each department need to have their own disaster management arrangement, including pre planned cooperation with others. It is each organisations own responsibility.

- Other national civil service organisations:
DSB is appointed to coordinate and encourage cooperation between national civil service organisations: special police forces, mountain rescue, sea rescue, nuclear accident and maritime environment rescue operation.
- Provincial (regional) authorities and arrangements for emergency and disaster management:
County Boards, Hospital Areas and municipalities are obliging to plan. Local (municipal, town) authorities have arrangements for emergency and disaster management
- Volunteers and volunteer organisations; specialised NGOs:
Frivillige Organisasjoners Redningsfaglige” Forum organises voluntary organisations that have capacity to be engaged in search and rescue operations both on land at sea. They also have flying capacities.
- Private businesses:
As privet business you are oblige to protect yourself and your property. You are also obliged to prevent further damages, if possible.

In some sectors there are more regulations, transport of dangerous goods, Seveso plats, energy sector etc.

Below is a scheme of the society. The support is going towards the incident commander at the local level. The levels are not chain of command or a hierarchy; it is a way of describing local, regional and national agencies and their respective responsibilities.



3.2 Organisational cooperation

- Operational cooperation (e.g., coordinated CM operations planning and response at national level, cross-border operational cooperation, operational cooperation within the EU)
 - How priorities are assigned in the case of simultaneous occurrence of events?
The municipalities prioritise, together with the incident commander, the resources. The County Board may prioritise national and international recourses.
 - How cross-border collaboration is organized?
Under the Nordred agreement, municipalities on both side of the border have local agreements. They have been authorised by the Nordic countries governments to wright agreements on cooperation in the aim of assisting each other, both in crises and during smaller incidents, like firers and traffic accidents.
- Cooperation and coordination in CM capability development (coordinated departmental CM capability planning, nationally centralized CM capability planning, multi-nation/ EU-level coordination of capability planning and capability development)

Cooperation is vital to handle all incidents. The incident commander is responsible to organise the cooperation and all parties are responsible to cooperate and make resources available for the incident commander. Every sector is responsible to handle their part of the incident.

Cooperation is a vital part of the legislation in the Nordic countries legislation. The Nordred agreement and Haga declaration means that there exists several on gong cooperation, both at local regional and national level. CM is a challenge since the decentralised local CM system. There is an ongoing exchange of experience and sharing of knowledge.

On EU-level DSB is represented in the Module group discussing mainly HNS and the Voluntary Pool.

4 Procedures

4.1 Standing Operating Procedures (SOPs) and Guidelines

Depending on the risk and responsibility each organisation has SOPs or not. There are guidelines and handbooks that DSB produce for the municipalities rescue service to use. Other sectors have their governmental agencies that produce handbooks and guidelines.

4.2 Operations planning

Depending on the risk and responsibility each organisation has its own operations planning. The auditing that the County Boards and DSB do of the plans for operation, highlight the organisations that don't meet a minimum level of safety that the public can expect.

4.3 Logistics support in crises

Depending on the risk and responsibility each organisation has plans for their own needs of logistics support.

4.4 Crisis communication to general public; Alert system; Public Information and Warnings

- Who is responsible for crisis communication? Who coordinates crisis communication within and among MSs? How is the inter-organisational coordination of information exchange about crisis communication to the general public organised and managed?
DSB is point of contact to EU/ERCC.
- How long does it take for the general public to become informed about pending hazards?
-The local incident commander has access to use the emergency alert via media.

There are national procedures how to alert municipalities, county boards and central alarm system. Kriseinfo.no is a web site that gathers information on regular bases from different sites, regarding different warnings and information to the public about how to be prepared and find information.

5 Capabilities

5.1 Human resources

https://www.politi.no/nord_trondelag/redningstjeneste/Tema_920.xhtml

Civil defence has 8 000 men and women that are educated and exercised divided in to 20 districts.

5.2 Materiel (non-financial) resources

- What specific non-financial resources (dedicated equipment etc.) have been allocated to crisis management (central, regional, local preparedness and response)?
 - All sectors and levels have their own pre planning to handle an emergency.
 - DSB has helicopters that can be used in forest fires.
 - The energy sector has their recourses, like personnel on call.
- Permanent reserve stocks (fuel, food, medicines, tents, blankets, etc.)
 - Stock of medicines (National founded)
 - Municipalities and County Council may have their own.
- Planned /anticipated/ involvement of specific military assets (e.g. reconnaissance assets, search and rescue helicopters, fire-fighting planes/helicopters, CBRN, etc.)
 - These assets exist among civil agencies like the Norwegian Coast Gard, Police, and Rescue Services.
- Is provision made for governments to mobilise or commandeer private assets during crises?
 - No it is provision made for the local municipality and the incident commander during a rescue operation, to mobilise or commandeer private assets during crises.

5.3 Training

- National, local and departmental exercises
 - DSB organise a table top crises management exercise every third year for national agencies.
 - Every County Board organise on regularly base table top exercise in their respective region.
 - Every municipality organise on regularly base table top exercise in their respective region.

<http://www.sivilforsvaret.no/Distrikter/Nord-Trondelag/Samvirke/LRS-aktiviteter/Ovingsutvalg-i-lokal-redningscentral-LRS/>
- Centralised specialist training
 - DSB organise training for UN, EU, Norwegian national, regional and local agencies.
- Training of volunteers and NGO personnel
 - FORF among other voluntary organisations organises training, with funding from DSB

- Cross-border and multinational training activities
 - Barents Rescue is a major exercise between Sweden, Norway, Finland and Russia every third year. But there are many exercises done every year.
- Is there a certification system? What standards are used to define specialists' training requirements?
 - Norway don't have a certification system for specialists training requirement. The employer may implement ISO standards if they find it appropriate.

Are there specialised training programmes for high-level decision makers?

- Courses are offered in crisis management and crisis information.
- Strategic Crisis Management, 5 ECTS
- Civil Protection, Emergency Planning, and Civil and Military Cooperation, 5 ECTS

National training centres

National Emergency Planning College

The college is organised under DSB

Norway's fire academy <http://nbsk.no>

5.4 Procurement

5.4.1 Procurement regulation

- What needs to be procured? E.g. goods or services, including trainings?

Procurement regulation in the public sector is strict. Best value for many is the basic rule. Cooperation between the different agencies in the public sector is however encouraged
- Which EU directive on procurement is applicable on procurement of CM tools and related?

Are all articles of the directive applicable or are some articles not implemented?

-All articles are implemented and needs to be followed. If it is a sudden unexpected crisis you are allowed to buy what you need to handle the situation.

5.4.2 Procurement procedures

The public sector at all levels has their own procurement organisation that deals with procurements. A common web site www.anskaffelser.no is available for national an agency.

5.5 Niche capabilities

JRCC has flying capacities for sea rescue operations.

www.hovedredningssentralen.no/english/

Civil defence has resources, divided in to 20 districts.

The Norwegian Coast Guard

Resources

Legislative acts

The Police Act of 4 August 1995

The Fire Protection Act of 8 December 2000

The Fire and Explosion Prevention Act of 14 June 2002

The Planning of Building's Act of 14 June 1985, amended 24 November 2000

The Protection against Pollution Act of 13 March 1981

The Regulation of 4 July 1980 on the Main Principles of the Organisation of the Search and Rescue Services

The Act on Municipal Responsibility for Sectorial Risk, Vulnerability Assessment and Emergency Plan, 1 January 2010.

Other normative acts

Official documents (white papers, strategies, etc.)

There are a range of recommendations and handbooks in different areas to support the local and regional levels both private and public sector.

Some of them are collected at the websites below.

www.regelhjelp.no

<http://oppslagsverket.dsb.no/>

<http://www.beredskapsnett.no/>

Online resources (e.g. websites of key CM organizations)

www.dsb.no

www.politi.no

www.forf.no

www.nordhels.org

www.sivilforsvaret.no

Kriseinfo.no

Publications

There are a range of recommendations and handbooks in different areas to support the local and regional levels both private and public sector.

Some of them are collected at the websites below.

www.regelhjelp.no

<http://oppslagsverket.dsb.no/>

<http://www.beredskapsnett.no/>

Some examples:

Veiledning til forskrift om organisering og dimensjonering av brannvesen, DSB

Retningslinjer for varsling og rapportering på samordningskanal, DSB

Systematisk samfunnsikkerhetsog beredskapsarbeid i kommunene, en veileder fra Direktoratet for sivil beredskap

Expert interviews

Norwegian Directorate for Civil Protection, DSB



Driving Innovation in Crisis Management for **European Resilience**

POLAND

Capabilities, Organisations, Policies, and Legislation (COPL) in crisis management and disaster response



Responsible Partner: CSDM (Vesselin Petkov, Todor Tagarev)

Scope and limitations

This study serves as supporting information for further work within DRIVER.

Only limited time and budget has been available for this first general survey, which needs to be considered in terms of scope and completeness of the respective studies.

The author/s of this study is/are responsible for its content and quality.

Overview

- Poland is a country in the eastern part of Central Europe with an area of almost 312 000 sq. km. Poland is an almost unbroken plain reaching from the Baltic Sea in the north, to the Carpathian Mountains in the south.
- The Polish crisis management system is a complex architecture which is still under construction. The heavy floods of 1997, 2001 and 2010 exposed significant shortcomings and prompted a series of legal and institutional reforms.
- In Poland, there is no single authority dealing with disaster management. The structure of the Polish emergency management has five levels: state, ministry (central government body), province (voivodeship), county (powiat) and district (commune, gmina).
- The national firefighting and rescue efforts are the pivotal part of the crisis management system of the country. The Chief Commandant of the State Fire Service, under the supervision of the Minister of the Interior, is the central body of the state administration responsible for the organisation and management of those activities.



Figure 1: Symbol of the Polish State Fire Service.

- Several services and structures also support or make part of the wider Polish crisis management system, including (but not limited to): the Police; the Border Guard; the State Inspection for Environment Protection; the Institute for Meteorology and Water Management; the National Atomic Energy Agency; the mining rescue stations; the maritime search and rescue service; the naval rescue service; NGOs, e.g. Mountain Volunteer Rescue Service; Tatra Mountains Volunteer Rescue Service; Water Volunteer Rescue Service; Mazurian Rescue Service and others.
- The role of the private sector in the civil security system is limited, while NGOs are important and cooperate closely with the state institutions. The Volunteer Fire Service is the biggest part of the volunteer sector in Poland.

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List of Abbreviations

BDOT	Topographic Objects Database
CAR	Central Reporting Application
CEI	Central European Initiative
CEUDIP	Central European Disaster Prevention Forum Platform
CNBOP-PIB	Scientific and Research Centre for Fire Protection
CTIF	International Association of Fire and Rescue Service
DSM	Digital Surface Model
DTM	Digital Terrain Model
EADRCC	Euro-Atlantic Disaster Response Coordination Centre
EFA	European Fire Academy
EFDR	European Forum for Disaster Risk Reduction
EU ERCC	Emergency Response Coordination Centre
EU MIC	EU Monitoring and Information Centre
FEU	Federation of the European Union Fire Officer Associations
GCS	Government Security Centre
GFFFV	Ground Forest Fire Fighting using Vehicles
GOPR	Mountain Volunteer Search and Rescue
HCP	High Capacity Pumping
INSARAG	International Search and Rescue Advisory Group
ISOK	IT System of the Country's Protection against Extreme Hazards
JHA	Justice and Home Affairs
JRC	[EU] Joint Research Centre
KSWSiA	National Contamination Detection and Alerting System
MOPR	Mazurian Volunteer Search and Rescue
NCMP	National Crisis Management Plan
NFRS	National Firefighting and Rescue System
NPDRR	National Platform for Disaster Risk Reduction
OCHA	UN Office for Coordination of Humanitarian Affairs
PECO	Pays d'Europe Centrale et Orientale
PPL	Act on Public Procurement
PRIOL	Rescue and Civil Protection Program
PSP	Państwowa Straż Pożarna (State Fire Service)

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SMOK	System Monitoringu i Osłony Kraju
TOPR	Tatra Volunteer Search and Rescue
UNECE	United Nations Economic Commission for Europe
WOPR	Water Volunteer Search and Rescue

1 Policy

The Polish crisis management system is a complex architecture which is still under construction.

The heavy floods of 1997, 2001 and 2010 exposed significant shortcomings and prompted a series of legal and institutional reforms.

From a structural perspective, the crisis management (CM) system in Poland has five levels, revolving around central and local government actors. From an operational point of view, the country's fire service plays a major role. The civil defence efforts are also coordinated by the fire service.

The role of the private sector in the civil security system is limited, while NGOs are important and cooperate closely with the state institutions. The Volunteer Fire Service is the biggest part of the volunteer sector in Poland.

After EU accession in 2004, Poland has increased involvement in EU civil protection structures and has activated the EU's Monitoring and Information Centre. The country also relies on bilateral agreements with neighbours.

1.1 Risk Assessment

In 2007 the Joint Research Centre's Institute for the Protection and Security of the Citizen published a report on "Risk Mapping in New Member States,"¹ a result of research carried within the 5th and 6th Framework Programmes, aimed, among others, at examining the existing situation in the 10 PECO (standing for Pays d'Europe Centrale et Orientale; French for Countries of Central and Eastern Europe) countries for mapping of eight priority natural (floods, forest fires, storms, earthquakes, landslides) and technological hazards (industrial installations, transport of dangerous goods and contaminated lands).

According to the report, qualitative self-evaluation by Polish experts shows that the eight hazards have been classified, as follows:

- Carrying high risk - floods, forest fires and transport of dangerous good;
- Carrying medium risk - chemical, contaminated lands, pipelines, transboundary pollution, storms; and
- Carrying low risk - landslides and earthquakes.

¹ "Risk Mapping in the New Member States," JRC Scientific and Technical Reports, available at: http://www.preventionweb.net/files/5455_JRC38184.pdf

Countries	Floods	Indust. Install.	Transport of Dang. Goods	Forest Fires	Contaminated Lands	Storms	Earthquakes	Landslides
Romania	High	Medium	Medium	Medium	Medium	High	High	High
Bulgaria	Medium	High	High	High	Low	Medium	High	Medium
Czech Republic	High	Medium	High	Medium	High	Medium	Low	Medium
Poland	High	Medium	High	High	Medium	Medium	Low	Low
Hungary	High	Medium	High	Medium	Medium	Low	Low	Low
Slovenia	High	Medium	Low	Medium	Low	Low	High	Medium
Slovakia	High	High	Low	Low	High	Low	Low	Medium
Latvia	Medium	High	High	Medium	Low	Low	n/a	n/a
Estonia	Low	Medium	High	Medium	Low	Medium	Low	Low
Lithuania	Medium	Medium	Medium	Medium	Low	Medium	Low	Low
Cyprus	Low	Medium	Low	Medium	Low	Low	Medium	Low

Legend

	HIGH
	MEDIUM
	LOW
n/a	NOT APPLICABLE

Figure 2: Risk Mapping of Poland.

From a methodological point of view, the JRC project relates “high risk” with a hazard that is present within the vast majority of the country (more than 2/3 of it) or, alternatively, when the hazard is confined only to particular areas but in case of an accident, the effect could be significant for at least one major population centre or an important economic resource.

Table 1: Classification of Risks

Type of risk	Territory	Population/resource affected
High risk	HR>2/3	Major population centre
Medium risk	1/3<MR<2/3	Minor population centre
Low risk	LR<1/3	No population centre affected

Floods

As evident from statistical data tabled below, floods have affected the largest number of people in Poland and have caused the greatest damage to the country's economy.

Table 2: The most affecting (in terms of financial damage) disasters in Poland for the period 1900 – 2014.

Disaster	Date	Damage (000 US\$)
Flood	3/7/1997	3500000
Flood	17/05/2010	3080000
Flood	20/07/2001	700000
Flood	May-87	500000
Storm	18/01/2007	100000
Flood	22/06/2009	100000
Flood	Jan-82	53000
Storm	24/01/1990	50000
Storm	1/3/2008	50000
Storm	4/12/1999	10000

Source: "EM-DAT: The OFDA/CRED International Disaster Database www.em-dat.net - Université Catholique de Louvain - Brussels - Belgium," Created on: Sep-11-2014. - Data version: v12.07

Table 3: The most affecting (in terms of people killed) disasters in Poland for the period 1900 – 2014.

Disaster	Date	No Killed
Extreme temperature	1/11/2009	298
Extreme temperature	10/10/2001	270
Extreme temperature	Nov-10	200
Extreme temperature	Oct-05	191
Extreme temperature	Oct-02	183
Extreme temperature	Oct-99	154
Extreme temperature	1/12/2012	101
Extreme temperature	Dec-00	84
Storm	6/7/1928	82
Extreme temperature	1/11/2008	82

Source: "EM-DAT: The OFDA/CRED International Disaster Database www.em-dat.net - Université Catholique de Louvain - Brussels - Belgium," Created on: Sep-11-2014. - Data version: v12.07

Table 4: Summarised table of natural disasters in Hungary between 1900 and 2014.

		# of Events	Killed	Total Affected	Damage (000 US\$)
Earthquake (seismic activity)	Earthquake (ground shaking)	1	-	1050	-
	ave. per event		-	1050	-

Extreme temperature	Cold wave	15	1650	-	-
	ave. per event		110	-	-
	Extreme winter conditions	1	191	-	-
	ave. per event		191	-	-
Flood	Unspecified	1	-	1000	-
	ave. per event		-	1000	-
	Flash flood	2	30	15700	700000
	ave. per event		15	7850	350000
	General flood	10	83	351874	7233000
	ave. per event		8.3	35187.4	723300
Storm	Unspecified	4	20	-	51100
	ave. per event		5	-	12775
	Extratropical cyclone	4	11	1060	160000
	ave. per event		2.8	265	40000
	Extratropical cyclone (winter storm)	2	7	53	50
	ave. per event		3.5	26.5	25
	Local storm	5	91	1292	7900
	ave. per event		18.2	258.4	1580
Wildfire	Forest fire	2	35	-	-
	ave. per event		17.5	-	-

Source: "EM-DAT: The OFDA/CRED International Disaster Database www.em-dat.net - Université Catholique de Louvain - Brussels - Belgium," Created on: Sep-11-2014. - Data version: v12.07

Elements of strategic risk assessment related to natural disasters could be found in the White Book on National Security of the Republic of Poland,² which has been published in 2013. The White Book represents the outcome of the Polish National Security Strategic Review. The document assesses the state of Poland's security system, and provides policy recommendations. The White Book defines the challenges related to disasters caused by the man or natural catastrophes as an element that shapes the internal security landscape in Poland. According to the document, areas of high-risk human activity, such as power engineering, extracting industry, environmental interferences, increase the chance of occurrence of events with disastrous effects.³

2 Website of White Book on National Security of the Republic of Poland, <http://www.spbn.gov.pl/sbn/english-version/5043,English-version.html>

3 Website of White Book on National Security of the Republic of Poland, <http://www.spbn.gov.pl/sbn/english-version/5043,English-version.html>

As regards disasters caused by natural factors, the White Book expects “ever more frequent violent weather phenomena.” The document specifically mentions the risk of extensive floods, adding that their frequency may grow in the next 5-10 years, which – “given deficiencies of the protection infrastructure” – would cause even more significant losses to the state and the citizens.

In addition to that, in July 2013 a report (classified as confidential) on the threats to national security was adopted, identifying the most significant threats to national security and to risks stemming from them.⁴ The document also includes strategic objectives and projects to be implemented to minimise potential risks and their consequences. The report of 2013 identified 53 risks and scenarios that could affect the security and the international status of the country. The report analysed risks related to terrorism, major risks of natural or industrial origin (e.g. floods, epidemics, epizootics, chemical pollution, drought, reduction of the supply of electricity, reduction of the supply of liquid fuels). On the basis of the report, a national plan for emergency management is adopted.

On the basis of the list and description of threats in the plan it is possible to determine the most frequent threats in Poland, their location, probability of occurrence and potential effects on the population, environment and infrastructure.⁵

In terms of risk assessment, a national project called ISOK deserves mention, which is aimed at ensuring an efficient system for the country's protection against extreme hazards (supporting local planners), with focus on flood risk management. The products of the project carried out by the National Water Management Authority, the Institute of Meteorology and Water Management, the Head Office of Geodesy and Cartography at the National Research Institute, the National Institute of Telecommunications, and the government security centre, include the following:

- flood hazard maps and flood risk maps;
- IT system of ISOK;
- report on identification of national information systems;
- preliminary flood risk assessment;
- meteorological hazard maps;
- other hazard maps;
- Topographic Objects Database (BDOT);
- Digital Terrain Model (DTM) and Digital Surface Model (DSM);
- Digital Elevation Model Management System;
- digital orthophotomap;
- map of hydrological division of Poland in the scale 1:10 000.

4 “Raport o zagrożeniach bezpieczeństwa narodowego,” Website of the Government Security Centre, in Polish, http://rcb.gov.pl/?page_id=3702

5 Paulina Pajkiert Vela, “Strengthening the Legal and Policy Framework for International Disaster Response in Poland,” Website of the Polish Red Cross, http://www.ifrc.org/docs/IDRL/Poland-%20Strengthening%20the%20Legal%20and%20Policy%20Framework%20for%20International%20Disaster%20Response_09%20APR%202014.pdf

Overall, national risk assessment is aimed at achieving forecasting accuracy of time and location as well as intensity of unfavourable or severe natural phenomena with enough lead time for prevention activities to eliminate or reduce threat⁶.

In terms of assessing transboundary risks, Poland cooperates actively with neighbours and other countries in the region along legal, organisational, technical aspects lines to identify relevant institutions; to exchange information about threats in border areas and such concerning relief and recovery measures of the effects of extreme hazards; and to prepare effective and simple procedures for coordinated response. The cooperation takes the form of bilateral agreements and of international agreements under the auspices of the United Nations. Examples of the latter include the United Nations Economic Commission for Europe, the Council for the Baltic Sea States, the Central European Initiative and the UN Office for the Coordination of Humanitarian Affairs (which includes INSARAG – International Search and Rescue Advisory Group).

Poland has carried out international cooperation on disaster risk reduction with the Central European Disaster Prevention Forum Platform (CEUDIP), the European Forum for Disaster Risk Reduction and a European Network of National Platforms.

The cooperation is coordinated by the Ministry of the Interior and the Ministry of Foreign Affairs, with key participation of the fire service and the Institute of Meteorology and Water Management.⁷

1.2 Policy and Governance

In Poland, there is no single authority dealing with disaster management. The structure of the Polish emergency management has five levels: state, ministry (central government body), province (voivodeship), county (powiat) and district (commune, gmina).⁸

Coordination at the five levels is carried by the Government Crisis Management Team, the Ministry/Body CM Team, Provincial CM Team, the County CM Team and District CM Team, with the management responsibilities assigned to the Prime Minister and the Cabinet, the respective Minister/Head, the provincial governors, the county administrators, and the mayors, respectively.

Table 5: Crisis Management Levels in Poland

Level	Management	Coordination
-------	------------	--------------

⁶ Poland: National Progress Report on the Implementation of the Hyogo Framework for Action (2009-2011) – Interim, available at www.preventionweb.net/english/hyogo/gar/2011/en/bgdocs/hfa/15978_pol_NationalHFAprogress_2009-11.pdf

⁷ Poland: National Progress Report on the Implementation of the Hyogo Framework for Action (2009-2011)

⁸ Website of the Government Security Centre, http://rcb.gov.pl/?page_id=489, and Piotr Matczak and Grzegorz Abgarowicz, “Country study: Poland,” Analysis of Civil Security Systems in Europe

State	Prime Minister, Cabinet of Ministers	Government CM Team; Government Security Centre
Ministry/Government Body	Minister/ Head	CM Team
Province / Voivodeship	Provincial Governor	Provincial CM Team; Provincial CM Centre
County / Powiat level	County Administrator (starost)	County CM Team, County CM Centre
District / Commune level	District/Borough Administrator or Mayor	District CM Team, District CM Centre (if needed)

The national firefighting and rescue efforts are the pivotal part of the crisis management system of the country. The Chief Commandant of the State Fire Service, under the supervision of the Minister of the Interior, is the central body of the state administration responsible for the organisation and management of those activities.

The system involves state firefighting and rescue units, volunteer firefighting units, industrial fire service units, industrial rescue service units, hospitals in major Polish cities, national experts specialising in different types of rescue operations.

Several⁹ services and structures also support or make part of the wider Polish CM system, including (but not limited to):

- the Police;
- the Border Guard;
- the State Inspection for Environment Protection;
- the Institute for Meteorology and Water Management;
- the National Atomic Energy Agency;
- the mining rescue stations;
- the maritime search and rescue service;
- the naval rescue service;
- NGOs, e.g. Mountain Volunteer Rescue Service; Tatra Mountains Volunteer Rescue Service; Water Volunteer Rescue Service; Mazurian Rescue Service and others.

Volunteer fire brigades within the rescue and firefighting system traditionally carry out fire fighting and prevention activities. Their functions, however, have evolved in recent years. The brigades have become more commonly involved in other types of rescue operations, including primarily technical or road incidents, where various rescue methods and measures are applied. Quite often volunteer

⁹ A list of the so-called Ministry of Interior group is available at <https://msw.gov.pl/en/ministry/mi-group>, while the website of the Polish State Fire Service refers to organisations supporting the CM system <http://www.straz.gov.pl/page/en.php>

firefighters are the first to appear at the site of an accident and take measures to save people's life, health, and property.

1.2.1 Strategy scope and focus

1.2.2 Monitoring and analytical support to policy making; R&D

1.2.3 Policy for Prevention

1.2.4 Policy for Preparedness

Early warning

A Central Reporting Application (CAR) system is being developed in Poland – at the request of the Ministry of Administration and Digitalisation by the Podlasie Voivodeship Office in cooperation with the Government Security Centre (GCS) – to enable collection of comprehensive information on threats from the local level up to the central level and to reduce the amount of data being duplicated by officers on duty in the crisis management centres.¹⁰

In the event of a disaster, the GCS uses an interactive tool: the Geographic Information System, which allows access to the appropriate information, like the availability of rescue equipment and of rescuers, which results in a shortening of the dispatch time.¹¹

Early warning is implemented pursuant to a regulation of the Council of Ministers of 2013 concerning contamination detection and notification systems and the competence of authorities. The regulation provides the legal base for unification and replacement of the previous warning signal system based on mechanical sirens with two signals: to announce and call-off an alarm with an option of broadcasting voice announcements. The second way of informing involves mass media. Work is in progress on enhanced threat notification systems and the use of hybrid TV as well as text messages.

A system of systems, the National Contamination Detection and Alerting System (KSWSiA)¹² was established pursuant to the aforementioned regulation. The system is supervised and coordinated by the Minister of National Defence with the support of the Contamination Analysis Centre of the

10 Paulina Pajkiert Vela, "Strengthening the Legal and Policy Framework for International Disaster Response in Poland."

11 Paulina Pajkiert Vela, "Strengthening the Legal and Policy Framework for International Disaster Response in Poland."

12 Government Security Centre, <http://rcb.gov.pl/wp-content/uploads/2011/02/kswsia.pdf>

armed forces. KSWSiA has communication and information elements subordinated to five ministries (national defence, interior, environment, health and infrastructure), which include Contamination Detection System of the armed forces, the systems that monitor epidemics and communicable diseases; the system of early detection stations and of radiation monitoring points; detection, alert and early warning systems (supervised by voivodes); detection and alert system, organised as per the Plan for Combating Environmental Threats and Maritime Pollution (of the Maritime Search and Rescue Service).

Other systems

The responsibilities of relevant authorities related to monitoring and early warning are also supported by the following systems:

- Monitoring and National Protection System (System Monitoringu i Osłony Kraju (SMOK) of the Institute of Meteorology and Water Management – monitoring of hydrological and meteorological hazards;
- System for Acquisition and Processing of Hydrogeological Data of the Polish Geological Institute (<http://www.psh.gov.pl/en/>); and
- System Osłony Przeciwośuwiskowej (SOPO) PIG-PIB – monitoring of landslides.

Societal perceptions

Despite the positive assessment of the role of institutions in ensuring Poland's security, the prevailing conviction is that the country is not prepared adequately to act in emergency and unforeseen situations – whether caused by the forces of nature or negligence on the part of people, or planned and organised by forces hostile to Poland. Such situations include e.g. floods, which were experienced by Poles several times in recent years. This is probably the reason for the particularly severe criticism of the state's preparedness to encounter natural disasters (61 per cent of negative answers, and 23 per cent of the positive ones).¹³

1.2.5 Policy for Response

1.2.6 Policy for Relief and Recovery

1.3 Financing

1.3.1 Investing in preparedness

13 White Book on National Security of the Republic of Poland, <http://www.spbn.gov.pl/sbn/english-version/5043,English-version.html>

1.3.2 Investing in consequence management

International Aid

Created as a reaction to the heavy floods in Central Europe in the summer of 2002, European Union's Solidarity Fund (EUSF) is aimed at responding to major natural disasters and express Europe's solidarity to region suffering the consequences of disasters. Since then, it has been activated on 60 occasions, including floods, forest fires, earthquakes, storms and drought in 23 European countries. As of September 2014, the Fund has provided funding of over Euro 3.6 bln. Poland has received a total of EUR 105.6 mln. of aid for the floods in May 2010 – covering only a small percentage of the total estimated damage of almost EUR 3 bln.¹⁴

1.4 Policy review, Evaluation & Organisational Learning

1.4.1 Post-Disaster Assessment

1.4.2 Departmental Lessons Learned systems

1.4.3 Centralised (national) Lessons Learned system

1.4.4 International exchange for Lessons Learned

1.4.5 Regular policy reviews

In Poland, a strategic review of the whole national security system was performed, one of the outcomes of which was a White Book providing, among other things, strategic guidance for the crisis management system.

The document proposes a comprehensive approach to be taken within the framework of the National Firefighting and Rescue System (NFRS), with strategic tasks being risk analysis and identification of threats, the elaboration of emergency plans (incl. rules on the use of force, inter-agency cooperation, means of communication, etc.), monitoring, informing, warning and alarming people and institutions, services and other entities performing tasks related to civil protection about threats, educational activities, organisation of rescue exercises, international cooperation.

14 European Commission, The Funds, http://ec.europa.eu/regional_policy/the_funds/doc/interventions_since_2002.pdf

In terms of actions to be taken to achieve the operational strategy, the White Book advises the issues related to civil defence to be regulated in a comprehensive manner with a separate statutory act, to properly place the protection of population tasks within the state security system and divide the roles of involved public administration bodies, leading to harmonisation of applicable laws and to streamline responses. The proposed act and related laws should prepare the groundwork to improve public education and determine the rules for civilian involvement.¹⁵

In operational terms, the regulations should streamline inter-agency cooperation, adjust control mechanisms, put in place adequate mechanisms for coordination of rescue operations and provide the basis for the functioning of rescue dispatch centres. The White Book makes a note that the Ministry of Interior has initiated such a systematisation of the existing rules regarding the protection of the population and civil defence by means of preparing a draft law on protection of the population. However, it further argues that the draft's scope could be extended to cover the rescue element to achieve greater coherence and functional integration within the crisis management system, as well as to take out non-defence issues contained in the current act on the general defence duty and transfer them to the proposed act.¹⁶

The document deems it necessary that the National Firefighting and Rescue System be transformed into a National Rescue System, functioning according to unified rules, pertaining to: notification; “the alerting system; the organization and coordination of rescue operations; the procedures applicable to emergency rescue operations; the system of rescue training; communications systems for all rescue entities; the unification of equipment used by rescue entities; the documentation of events; the information exchange and database systems and the criteria of the efficiency of their operation.”¹⁷ The national rescue system should be centred around providing emergency response at district level and on coordination and support at provincial and national levels.

1.5 Resilience

1.6 Information sharing and data protection

15 Website of White Book on National Security of the Republic of Poland, <http://www.spbn.gov.pl/sbn/english-version/5043,English-version.html>

16 White Book on National Security of the Republic of Poland, <http://www.spbn.gov.pl/sbn/english-version/5043,English-version.html>

17 White Book on National Security of the Republic of Poland, <http://www.spbn.gov.pl/sbn/english-version/5043,English-version.html>

2 Legislation

2.1 Crisis (emergency, disaster) management concept

The legal base of the crisis management in Poland is formed by the Constitution of the Republic of Poland,¹⁸ which was adopted on 2 April 1997.

Chapter XI stipulates the rules concerning extraordinary measures, namely martial law, a state of emergency or a state of natural disaster. Extraordinary measures may be introduced only by regulation, issued according to the statutes, and are required to be publicised. Separate acts determine the principles for activity of organs of public authority and the degree to which the freedoms and rights of persons and citizens may be subject to limitation.

As far as functioning of the state is concerned, art. 228, p. 7 stipulates that during a period of introduction of extraordinary measures, the following shall not be subject to change: the Constitution, the Acts on Elections to the Sejm, the Senate and organs of local self-governments, the Act on Elections to the Presidency, as well as statutes on extraordinary measures. Moreover, during a period of introduction of extraordinary measures, as well as within the period of 90 days following its termination, the term of office of the Sejm may not be shortened, nor may a nationwide referendum, nor elections to the Sejm, Senate, organs of local self-government nor elections for the Presidency be held, and the term of office of such organs shall be appropriately prolonged. Elections to organs of local self-government shall be possible only in those places where the extraordinary measures have not been introduced.

A state of martial law is declared by the President In the case of external threats to the State, acts of armed aggression against the territory of the Republic of Poland or when an obligation of common defence against aggression arises by virtue of international agreement. According to art. 230, a state of emergency may be introduced in the case of threats to the constitutional order of the State, to security of the citizenry or public order. Art. 232 of the Polish Constitution stipulates that in order to prevent or remove the consequences of a natural catastrophe or a technological accident exhibiting characteristics of a natural disaster, the Council of Ministers may introduce, for a definite period no longer than 30 days, a state of natural disaster in a part of or upon the whole territory of the State.

In April 2013, the Polish Council of Ministers adopted a Strategy of Development of the National Security System of the Republic of Poland 2022.¹⁹ In its part on challenges, development trends and development vision of the national security system of the Republic of Poland, the Strategy defines

18 The Constitution of the Republic of Poland, <http://www.sejm.gov.pl/prawo/konst/angielski/kon1.htm>

19 Strategy of Development of the National Security System of the Republic of Poland 2022, Ministry of National Defence, http://mon.gov.pl/z/pliki/dokumenty/rozne/2014/01/ENGLISH_SRSBN_RP_do_pobrania.pdf

“the possibility of crisis situation, occurring as a consequence of natural disasters, human activity or of various global processes and phenomena” as challenge to national security. Thus the Strategy notes “it is crucial to maintain the highest level of response capability for such kind of occurrences, fast minimisation of their consequences, as well as their prevention, if only possible. It is particularly significant to provide appropriate resilience of critical infrastructure to crisis situations.”

The Strategy contains specific texts regarding the capabilities of the Polish Armed Forces to carry out missions in crisis situations – section 2.1.3. on the provision of military support to government bodies during crisis situations of a non- military character envisage “preparation and readiness to use means and powers to clear areas off explosives and other dangerous materials, perform ice breaking and flood management actions and liquidate the consequences of natural disasters,” while section 2.2.4. on the establishment of the National Reserve Forces calls for a reinforcement of the professional armed forces by the reserve forces in “a situation of intensified, military or non-military, threats, related to the necessities of crisis management, including natural disasters and liquidation of their effects, antiterrorist actions, protection of property, search and rescuing or protecting human life and health.”

2.2 General crisis (emergency, disaster) management law

The general crisis management law in Poland is the Act on Crisis Management²⁰ of 26 April 2007. It gives definitions of basic terms, and specifies the authorities responsible for crisis management, their tasks and the general principles for crisis management.

Art. 2 of the Act defines crisis management as “activity of public administration authorities as an element of managing national security management system, which consists of preventing crisis situations, preparing to take control over them by way of planned activities, responding in case of emergencies, removal of their effects and the reconstruction of the resources and critical infrastructure.”

The Act also stipulates the procedures pertaining to civil planning, understood as “overall organisational projects aimed at preparing the public administration to manage crisis,” and critical infrastructure protection.

Article 8 of the Act provides the legal base for the establishment of a Government Crisis Management Team “under the Council of Ministers as a body issuing advise and opinions for the issues of initiating and coordinating activities related to crisis management” and further details its composition.

In addition to that, the Act stipulates the set-up of a Government Security Centre (GCS) with the aim to “increase the ability of competent services and public administration authorities to cope with difficult situations” and to “form a capable response system for crisis situations, when routine

²⁰ Act on Crisis Management, Website of Government Security Centre, <http://rcb.gov.pl/eng/wp-content/uploads/2011/03/ACT-on-Crisis-Management-final-version-31-12-2010.pdf>

resources and operational procedures prove insufficient.” The Act also defines the mission and the tasks of the GCS.

As noted above, work on a draft Act on Protection of the Population has commenced.

2.3 Emergency rule

2.4 Specific, department/agency-level legal arrangements and regulations on emergency and disaster management

Three acts, on a State of Martial Law and (...), on a State of Emergency, and on a State of Natural Disaster, provide definitions, codes of conduct for involved authorities and the scope of limitations of human rights and freedoms in each of the three extraordinary cases. However, the aim of the acts, all adopted in 2002, was mostly to clarify the responsibilities for action in case of an emergency, as the floods of 1997 exposed ambiguities in the interpretation of the regulations.

Two acts of 24 August 1991, on the State Fire Service and on Fire Prevention, form the legal basis for the organisation and functioning of the State Fire Service.

The Polish legal framework also includes an Act of 21 November 1967 on universal obligation to defend the Republic of Poland, which regulates to so called “civil defence” system. Pursuant to the abovementioned Act, the main government administration authority in the field of civil defence is the Chief of the National Civil Defence, who is appointed by the Prime Minister on the request of the minister competent for internal affairs. The Chief of the National Civil Defence shall report to the minister competent for internal affairs. At present, the Chief Commandant of the State Fire Service, is also the Chief of the National Civil Defence.²¹

Executive civil defence authorities are the starostes, commune heads, mayors and city presidents. Civil defence chiefs in relevant provinces, counties and communes shall manage and coordinate preparation and realisation of projects in the area of civil defence by state institutions, entrepreneurs and other organisational units and social organisations acting on their territory.

However, Art. 140 of the Act on universal obligation to defend the Republic of Poland, “a statutory basis for issuing regulations by the Government in respect of specification of duties and rights of institutions in the field of civil defence, matters of civil defence formations and signals of common warning and alarming” was cancelled, creating a legal vacuum in some areas of civil defence, which is expected to be filled with the act on protection of population.

21 Website of the National Civil Defence, <http://www.ock.gov.pl/oce/civil-defence-structur/194,CIVIL-DEFENCE-STRUCTURE.html>

The tasks of the organs of government and self-government administration, implemented within crisis management, were included in following legal acts:

- Act dated 23 January 2009 on Provincial and Government Administration in a Province;
- Act dated 5 June 1998 on Provincial Self-Government;
- Act dated 5 June 1998 on County Self-Government;
- Act dated 8 March 1990 on Commune Self-Government;
- Ordinance of the Council of Ministers of 20 February 2003 on the detailed principles of participation of sub-branches and branches of Polish Armed Forces in preventing or eliminating effects of natural disaster;
- Ordinance of the Minister of Economy of 8 November 2002 on the requirements of action plan in the event of human life, health, property or environmental threat;
- Ordinance of the Council of Ministers of 30 April 2010 on the plans of critical infrastructure protection;
- Regulation no. 86 of the Prime Minister of 14 August 2008 on organisation and code of conduct of the Government Team for Crisis Management;
- Ordinance of the Council of Ministers of 30 April 2010 on the Report on threats to national security;
- Ordinance of the Council of Ministers of 15 December 2009 determining which government authorities shall establish emergency management centres and defining their methods of operation;
- Ordinance of the Prime Minister of 10 July 2008 on organisation and activity of Government Security Centre.²²

2.5 Specific to the regional and local authorities legal arrangements and regulations on emergency and disaster management

2.6 Legal regulations on the involvement of volunteers and specialised NGOs

2.7 Legal regulations for international engagements of first responders and crisis managers

In Poland regulations concerning crisis management are adapted to European Union requirements. EU Legal acts influencing Polish legislation in this field are:

- Treaty establishing a Constitution for Europe;
- COM (2010) 673: Objective 5: Increase Europe's resilience to crises and disasters - Action 2: An allhazards approach to threat and risk assessment;

²² A comprehensive list of relevant legislation could be found in the White Book.

- Council Directive 82/501/EEC of 24 June 1982 on the major-accident hazards of certain industrial activities (Seveso);
- Council Directive 96/82/EC of 9 December 1996 on the control of major accident hazards (Seveso II);
- Council Decision 91/396/EEC of 29 July 1991 on the introduction of a single European emergency call number;
- Directive 2007/60/WE of the European Parliament and of the Council of 23 October 2007 on the assessment and management of flood risk;
- Council Directive 2008/114/EC of 8 December 2008 on the identification and designation of European critical infrastructures and the assessment of the need to improve their protection;
- Council Decision 2008/617/JHA of 23 June 2008 on the improvement of cooperation between the special intervention units of the Member States of the European Union in crisis situations;
- Council Framework Decision 2002/475/JHA of 13 June 2002 on combating terrorism;
- Council of Europe Convention on the prevention of terrorism, adopted on 16 May 2005 in Warsaw;
- Convention on the physical protection of nuclear material, including annex I and II, opened for signature in Vienna and New York on 3 March 1980;
- International Convention for suppression of acts of nuclear terrorism, adopted by the General Assembly of the United Nations on 13 April 2005.

It is also a signatory of the Convention on the Transboundary Effects of Industrial Accidents.

Poland has signed 11 bilateral agreements with European countries: Belarus, Croatia, Czech Republic, France, Germany, Hungary, Lithuania, Russian Federation, Slovakia, Slovenia and Ukraine, as well as with the Ministry of Interior of Brandenburg, the Ministry of the Interior of Free State of Saxony, and the Ministry of the Interior of Mecklenburg-Western Pomerania. An agreement with Estonia is currently being negotiated.

List of the agreements is available below:

- Agreement between the Republic of Poland and the Federal Republic of Germany on Mutual Assistance during Technological and Natural Disasters and Other Serious Accidents, signed in Warsaw on 10 April 1997;
- Agreement between the Ministry of the Interior and Administration of the Republic of Poland and the Ministry of Interior of Brandenburg on Cooperation and Mutual Assistance During Technological and Natural Disasters and Other Serious Accidents, signed in Slubice on 18 July 2002;
- Agreement between Ministry of the Interior and Administration of the Republic of Poland and the Ministry of the Interior of Mecklenburg-Western Pomerania on Cooperation and Mutual Assistance During Technological and Natural Disasters and Other Serious Accidents, signed in Slubice on 18 July 2002;
- Agreement between the Ministry of the Interior and Administration of the Republic of Poland and the Ministry of the Interior of Free State of Saxony on Cooperation and Mutual

Assistance During Technological and Natural Disasters and Other Serious Accidents, signed in Slubice on 18 July 2002;

- Agreement between the Government of the Republic of Poland and the Government of the Russian Federation on Cooperation in Prevention of Technological and Natural Disasters, and in Relief of Their Consequences, signed in Warsaw on 25 August 1993;
- Agreement between the Government of the Republic of Poland and the Government of the Lithuanian Republic on Cooperation and Mutual Assistance in Case of Technological and Natural Disasters and Other Serious Accidents, signed in Warsaw on 4 April 2000;
- Agreement between the Government of the Republic of Poland and the Government of the Slovak Republic on Cooperation and Mutual Assistance during Technological and Natural Disasters and Other Serious Accidents, signed in Bratislava on 24 January 2000;
- Agreement between the Republic of Poland and the Republic of Hungary on Cooperation and Mutual Assistance in Prevention of Technological and Natural Disasters and Other Serious Accidents, and in Relief of Their Consequences, signed in Warsaw on 6 April 2000;
- Agreement between the Republic of Poland and the Czech Republic on Cooperation and Mutual Assistance in Case of Technological and Natural Disasters and Other Emergencies, signed in Warsaw on 8 June 2000;
- Agreement between the Government of the Republic of Poland and the Cabinet of Ministers of Ukraine on Cooperation and Mutual Assistance in Prevention of Technological and Natural Disasters and Other Emergencies, and in Relief of Their Consequences, signed in Warsaw on 19 July 2002;
- Agreement between the Government of the Republic of Poland and the Republic of France on Cooperation in the Field of Internal Affairs, signed in Warsaw on 12 September 1996;
- Agreement between the Government of the Republic of Poland and the Republic of Croatia on Cooperation in Protection against Technological and Natural Disasters, and in Relief of Their Consequences, signed in Zagreb on 17 September 2003;
- Agreement between the Government of the Republic of Poland and the Government of the Republic of Belarus on Cooperation in the Field of the Prevention of Technological and Natural Disasters and Other Emergencies, and in Relief of Their Consequences;
- Agreement between the Government of the Republic of Poland and the Government of the Republic of Slovenia on Cooperation in the Prevention of Natural Disasters and Other Accidents, and in Relief of their Consequences;
- Agreement between the Government of the Republic of Poland and the Government of the Republic of Estonia on Cooperation in the Field of Civil Protection (first round of negotiations).

3 Organisation

3.1 Organisational chart

The State Fire Service (Państwowa Straż Pożarna, PSP) is a professional service, originally established to fight fires. However, the Service's role has been extended to cover the coordination and implementation of rescue operations in crisis situations, caused by disasters and or by transport, construction, or chemical accidents. Outside its response core, the tasks of the fire service also include prevention, identification of hazards, and education, research and development. Moreover, the Service cooperates with the head of the National Criminal Information Centre.

The service functions under the supervision of the Ministry of Interior, and constitutes the main part of the National Firefighting and Rescue System (NFRS), with the Chief Commandant of the State Fire Service being the central authority responsible for the organisation of the NFRS and acting as the Chief of the National Civil Defence and as the Director General for Civil Protection. The entity to collect, transform and analyse information about the NFRS, supporting the Minister of the Interior, is the Rescue and Civil Protection Department of the Ministry.

The organisational structure of the State Fire Service consists of the National Headquarters of the SFS, 16 Regional (voivodeship) Headquarters of the SFS, 353 Municipal (county-level) Headquarters of the SFS and 499 Fire and Rescue Units. The five specialised schools educating country's firefighters are also subordinated to the PSP headquarters. These include the Main School of Fire Service in Warsaw, Central School of the State Fire Service in Czestochowa, two Fire Service Colleges, located in Krakow and Poznan, and NCO School of the State Fire Service in Bydgoszcz.

The Scientific and Research Centre for Fire Protection (CNBOP-PIB), responsible for testing, certification and validation of the equipment used in the State Fire Service, technical fire protection systems, as well as the expertise concerning fire protection systems, including design and installation, and the Central Museum of Fire Service (CMP) are also part of the PSP structure.

The National Centre for Rescue Coordination and Civil Protection, part of the PSP structure, serves as Poland's contact point for the EU Emergency Response Coordination Centre (previous Monitoring and Information Centre (MIC)²³, the NATO Euro-Atlantic Disaster Response Coordination Centre (EADRCC) and the UN Office for Coordination of Humanitarian Affairs (OCHA) civil protection and humanitarian aid operations, the UN Economic Commission for Europe (UNECE) Convention on the Transboundary Effects of Industrial Accidents. The service cooperates in various formats – the Organisation for Economic Co-operation and Development (OECD), the Council of the Baltic Sea State, Salzburg Forum, Visegrad Four, International Association of Fire and Rescue Service (CTIF), Federation of the European Union Fire Officer Associations (FEU), European Fire Academy (EFA), etc., as well as bilaterally.

²³ The ERCC, operating within the European Commission's Humanitarian Aid and Civil Protection department replaces and upgrades the functions of the previous Monitoring and Information Centre.

Nearly 30 thousand officers serve in the PSP. In recent years, the Service underwent technical modernisation. Its vehicles and rescue and firefighting equipment have been systematically replaced with new ones.

Poland's fire service cooperates closely with the Volunteer Fire Service (OSP), which comprises nearly 17 thousand units with approximately 500 thousand active volunteer firefighters (of which 3 815 units with 126 thousand firefighters make part of the NFRS).

Overall, the NFRS includes:

- 499 state firefighting and rescue units;
- 3 815 volunteer firefighting units;
- 5 industrial fire service units;
- 2 industrial rescue service;
- 11 hospitals in major Polish cities;
- 201 national experts specializing in different rescue types.

The Act on Crisis Management stipulates the set-up of a Government Crisis Management Team under the Council of Ministers as an advisory body regarding issues of initiating and coordinating crisis management activities. The Team shall be composed of the Prime Minister (acting as the Team's the chairperson), the Minister of Defence and the Minister of Interior (deputy chairpersons), and the Minister Coordinating Special Services (if appointed). Government administration authorities participate, if necessary, in the Team's meetings, as members. These could be ministers, the Chief Geodetic Inspector of Poland, the Chief Inspector of Environmental Protection, the Chief Sanitary Inspector, the Chief Veterinary Officer, the Chief Commandant of the State Fire Service, the Commander in Chief of Police, the Chief Commander of Border Guard, the Head of the National Water Management Board, the Head of the National Atomic Energy Agency, the Head of the Civil Aviation Office;, the Head of the Internal Security Agency, Head of the Intelligence Agency, the Head of the National Civil Defence, the Head of the Military Counter-Intelligence Service, the Head of the Military Intelligence Service.

Government Security Centre

The Director of the Government Security Centre²⁴ (GCS) acts as a secretary of the Team. GCS is a supraministerial structure, a key component of the Polish crisis management system, established with the aim to augment the capabilities of the competent services and public administration authorities to cope with difficult situations, and to help organise the functioning of the services responsible for crisis management.

The GCS was established under the Act on Crisis Management and has been operating since 2 August 2008. Currently, the organisational structure and operating mode of the Centre is regulated by a Regulation of the Prime Minister of 11 April 2011.

²⁴ Website of the Government Security Centre, http://rcb.gov.pl/eng/?page_id=212

Conducting a comprehensive risk assessment, based on data obtained from within the structures of public administration and from international partners, is considered to be the main task of the GCS. Other tasks of the GCS include:

- compiling a threat catalogue;
- monitoring of threats and hazards in the country and abroad;
- initiating emergency management procedures on the national level;
- implementing planning and policy objectives concerning crisis management;
- supervising consistency of response procedures;
- organising training and exercises in emergency management;
- implementing objectives concerning prevention, control and mitigation of situations resulting from incidents of terrorist nature;
- international cooperation in emergency management, especially with NATO and EU structures.

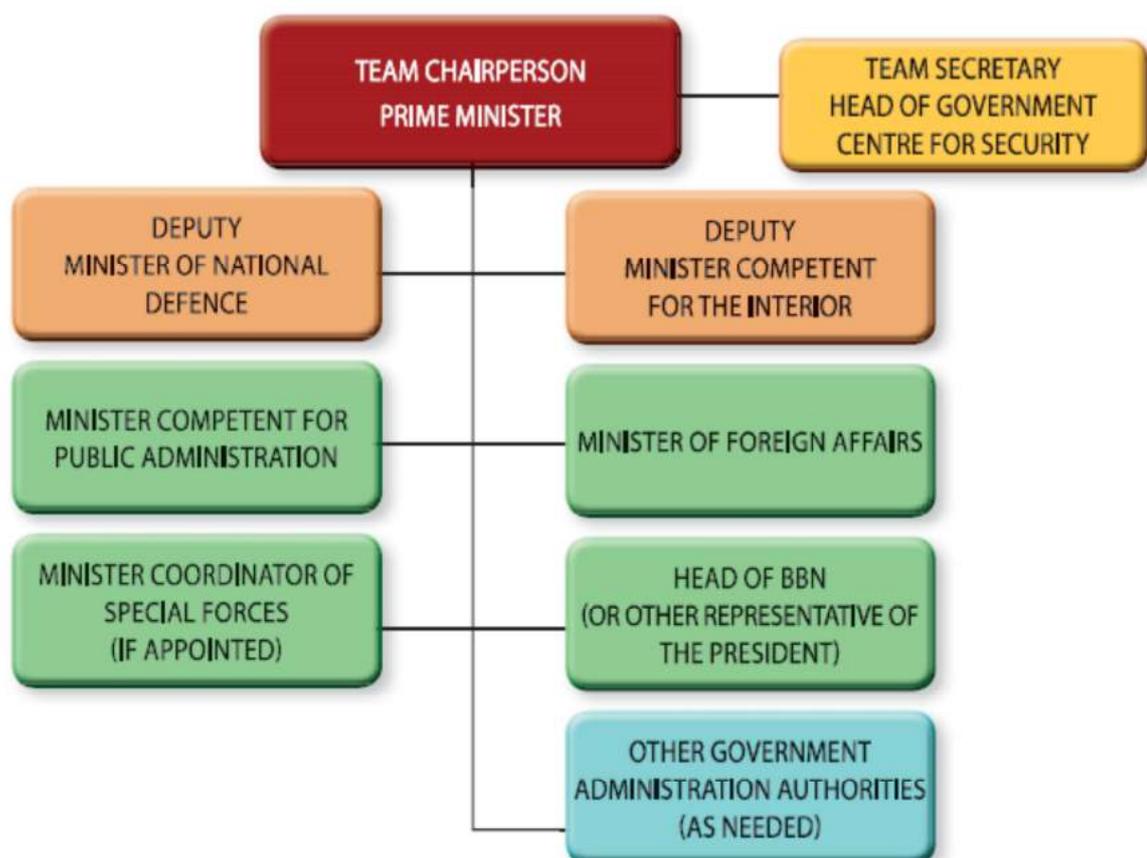


Figure 3: Organisation of the Government Crisis Management Centre.

National Platform for Disaster Risk Reduction

In 2009, Poland formally established its National Platform for Disaster Risk Reduction (NPDRR) from what was formerly the International Decade for Natural Disaster Reduction Committee that had been established in 1991 by the Institute of Meteorology and Water Management. Diverse actors are

represented within Poland's NPDRR, including government agencies, scientific institutes and the Polish Red Cross.

3.2 Organisational cooperation

International cooperation

The PSP of Poland participates in the international operations on the basis of bilateral agreements with certain European countries, as well as in missions coordinated by the UN OCHA, the EU ERCC (previous MIC), the NATO EADRCC.

Polish involvement in international rescue operations includes:²⁵

- Earthquakes: Armenia (1988), Turkey (1999), Algeria (2003), Iran (2003), Pakistan (2005), Indonesia (2006), Haiti (2010), Japan – deployment of Polish expert (EUCPT) (2011)
- Floods: Hungary (2000), the Czech Republic (2002), Germany (2002), Ukraine (2008), Montenegro (2010), Pakistan – deployment of Polish expert (EUCPT)(2011)
- Forest fires: Russia (2010)
- Ammunition depot explosion: the Republic of Congo – deployment of Polish expert (UNDAC Team) (2012)

Involvement in the humanitarian assistance actions includes:

- Medical support: Albania (1999), Romania (2000), India (2001)
- Equipment: Former Yugoslav Republic of Macedonia (2007), Romania (2008), Bulgaria (2012)
- Other assistance: Ukraine (2001), Iran (2004), Sri Lanka and Indonesia (2004/2005), Romania (2005), Pakistan (2005)
- Transport: Bulgaria (2006), Georgia (2008), Albania (2010)

²⁵ Website of the State Fire Service

4 Procedures

4.1 Standing Operating Procedures (SOPs) and Guidelines

Procedures and Guidelines

Art. 5 of the Act on Crisis Management introduces crisis management plans on all levels of public administration (national, voivodeship, powiat and gmina) and stipulates that the plans shall comprise all phases of crisis management (prevention, preparedness, response and recovery).

The crisis management plans shall contain the following three elements: a core plan (including identification of threats and risk assessment, risk maps and maps of threats, tasks and responsibilities of actors involved in the form of a matrix, capabilities and resources), the set of tasks in the case of crisis situations, and the functional annexes to the main plan specifying procedures for implementation of the tasks of crisis management.

The National Crisis Management Plan (NCMP, latest version as of 2013)²⁶ is elaborated and updated by the GCS and it is publicly available in Polish language. Pursuant to the Act on Crisis Management, Part I of the Plan identifies threats to Polish security and provides a risk assessment, as well as on critical infrastructure. The following threats are assessed in the Plan (in order of listing):

1. Floods
2. Disease outbreaks
3. Chemical contamination
4. Interruption of electricity supply
5. Interruption of liquid fuels supply
6. Interruption of gas deliveries
7. Severe frosts
8. Storms
9. Forest fires
10. Epizootic
11. Mass plant diseases
12. Collapse of buildings
13. Landslides
14. Drought
15. Radioactive contamination
16. Social unrest

²⁶ Krajowy Plan Zarządzania Kryzysowego (National Crisis Management Plan), in Polish, http://rcb.gov.pl/?page_id=302

17. Terrorist threat

18. Cyber threats

Information on potential threats in Poland are sent daily from the local level to the regional and the ministerial crisis management centres, which forward them to the GCS. The collected and processed data is prioritised, catalogued and aggregated into daily and problem-specific reports by the GCS.

Part II of the NCMP defines the tasks related to monitoring of risks carried by the ministers, heads of central government bodies and provincial governors, the operational mode for the allocation of the forces and resources for crisis management purposes, the mechanism for national authorities to request and receive international assistance (including by more than one organisation; and the Polish institutions, acting as POC for the relevant international structures), and the operational mode for the Polish Armed Forces providing assistance in case of emergency.

Importantly, in accordance with art. 21 of the Act on Crisis Management, the NCMP defines a general procedure for reaction in case of a crisis, distinguishes between four levels of danger, and details specific procedures for interaction among national authorities for levels 2, 3 and 4:

Table 6: Levels of Crisis Management with Responsible Actors

Level	Definition	Responsible
1	Crisis at the provincial level	Voivoda
2	Crisis at a ministry level	Minister
3	Crisis at a multi-ministry level	Council of Ministers
4	Crisis calling for extraordinary measures	As per relevant law(s)

Part II of the Plan further describes the crisis management centres architecture in Poland:

- CM centres of Ministry of Interior services (Fire service, Police, Border Guard, Government Protection Bureau);
- CM centres of the MI, the Ministry of National Defence, and the Ministry of Foreign Affairs
- CM centres of special services;
- CM centres of other ministries;
- CM centres at provincial level.

Part III of the NCMP details 11 SOPs (including aim, responsible authority, applicable law, course of action) for the implementation of tasks in the field of crisis management, namely:

1. Convocation of government meetings
2. Activation of additional funds
3. Organisation of crisis communication
4. Suspension of the provisions of the Schengen agreement

5. Commissioning activities and procedures of the crisis management system
6. Introduction of a state of natural disaster
7. Introduction of a state of emergency
8. Introduction of a state of martial law
9. Tool system in case of abduction by terrorists of Polish citizens outside Poland
10. Action in the event mass influx of foreigners in the territory of Poland
11. Cooperation between public administration and owners / operators of critical infrastructure

Part III of the NCMP deals also with:

- the organisation of a system for monitoring risks, warning and alerting;
- the principles of informing the population;
- the organization of the evacuation of areas at risk (from abroad, and within Polish borders);
- the organization of rescue, medical care, social assistance and psychological aid;
- the organisation of medical emergency actions (incl. Air rescue);
- the rules and procedures for assessing and documenting damage caused by natural disasters.

In addition to the NCMP, art. 5b introduces a National Critical Infrastructure Protection Programme with the aim to distinguish the facilities, equipment, installations and services that are essential for the security of the state and its citizens and to ensure efficient functioning of public administration authorities, institutions and enterprises. At the same time, the programme is to enable support of the entities.

4.2 Operations planning

4.3 Logistics support in crises

4.4 Crisis communication to general public; Alert system; Public Information and Warnings

Crisis communication to the public

In the preparedness phase, province, county and municipal websites provide relevant information, but the form and amount of the information vary, depending on various factors. The State Fire Service also provides information about risks on its website and, occasionally, uses social media channels. In addition to that, in some cities SMS warning systems have been introduced.

Alert systems are built at province level and are based on sirens. A ministerial decree on the detection of contamination and of the authorities in these matters of 2006 orders use of alarms in

case of an air attack and contamination. The organisation of the alert systems is within the responsibility of provincial governors.

In an emergency situation various methods of informing the public are used, like posters, leaflets etc. Media have legal obligations to inform in case of emergency.

There have been several examples of information campaigns initiated by various government agencies: on the 112 emergency number; on removing snow from roofs; on safety during winter holidays; on safety during winter recreation and sports etc. There have been several campaigns related to floods, e.g. the National Water Management Authority launched the “To know more about Water” campaign, while the Institute of Meteorology and Water Management has formed a special task force dealing with information and education on flood preparedness.

5 Capabilities

5.1 Human resources

In April 2014 the Polish Government adopted a comprehensive Rescue and Civil Protection Program (PRiOL)²⁷ for the period 2014-2020, which provides an overview of the current status of the rescue and civil protection system in Poland, stipulates the strategic goals and the ways and means for their implementation and details financial parameters related to the programme's realisation.

The programme is a joint effort of the Ministers of Interior, Administration and Digitisation, Health and National Defence and interferes with issues concerning the National Firefighting and Rescue System (NFRS), the National Medical Rescue System and the Alert and Rescue System.

PRiOL specifically mentions volunteer and rescue organisations, supporting the NFRS in Poland, such as:

- the Volunteer Fire Brigade – listed as a unit subordinated to the State Fire Service (as per two regulations of the interior minister listed below in text);
- the mining rescue stations; and
- the Mountain Volunteer Search and Rescue (GOPR) and the Tatra Volunteer Search and Rescue (TOPR) – authorised to take part in mountain rescue operations as per relevant act of 18 August 2011 on the safety and rescue in mountain areas and designated ski zones.

PRiOL notes that organisations such as the GOPR, TOPR, the Water Volunteer Search and Rescue (WOPR), Mazurian Volunteer Search and Rescue (MOPR), Mazurian Rescue Service and the Polish Red Cross should have opportunities to integrate more closely and cooperate more effectively with state rescue services, including the PSP.

Specifically, the Polish Red Cross rescue capabilities include following groups: 20 Rescue Groups – trained and equipped for participation in a major disaster; 1 Medical Rescue Group – arranging a Field Medical Point where qualified medical assistance is provided to victims; 1 Special Rescue Group – providing support to Rescue Patrols in their search efforts with 470 members and 6 Humanitarian Assistance Groups consisting of 83 members.²⁸

The involvement of NGOs and volunteers in rescue services and civil protection is regulated by numerous pieces of legislation – both laws and administrative acts, including:

- Act dated 24 April 2003 on Public Benefit and Volunteer Work;

²⁷ Program Ratownictwa i Ochrony Ludności na lata 2014–2020 (PRiOL), in Polish, available at <http://czkw.kielce.uw.gov.pl/download/4/15665/ProgramuRatownictwaiOchronyLudnoscinalata2014-2020.pdf>

²⁸

- Act dated 7 April 1989 on Associations;
- Act dated 6 April 1984 on Foundations;
- Act dated 16 November 1964 on the Polish Red Cross;
- Act dated 27 October 2010 on the Public Utility Activity and Volunteer Activity;
- Act dated 18 August 2011 on the Safety And Rescue in the Mountains and Organised Ski Areas;
- Act dated 18 August 2011 on the Safety of Persons in Water;
- Regulation of the Minister of the Interior and Administration of 14 September 1998 on the scope, detailed conditions and mode of including fire protection units in the NFRS;
- Regulation of the Minister of the Interior and Administration of 18 February 2011, concerning the detailed principles of organisation of the NFRS;

PRIOL²⁹ details the complex structure of the total budget for rescue and civil protection activities, as follows:

- annual subsidy (section 42/754/75409 of the State Budget) for the State Fire Service HQ for the implementation of tasks of the NFRS – PLN 70.716 mln for 2013³⁰
- support to volunteer fire brigade, at the discretion of the Minister of Interior – PLN 31.247 mln for 2013
- reserve of the state budget – for preventing and dealing with the consequences of natural disasters – PLN 1.411 bln. for 2013
- based on an agreement between the Minister of Environmental Affairs and the Minister of Interior and Administration, signed on 25 March 2011, for annual funding under a special reserve created, at the disposal of the Minister of Environment for the purchase of specialised rescue equipment for the relationship Volunteer Fire service and NGOs performing rescue tasks in mountains and in water – PLN 11.429 mln.
- for re-equipping of rescue services – PLN 11.429 mln. for 2013
- state expenditure on civil defence as per section 42/754/75414 (civil defence, carried by the Head of the National Civil Defence) and section 85/754/75414 (budgets of provincial governors for civil defence and 85/750/75011 (budgets of provincial governors for provincial offices of the public administration) – PLN 26.786 mln. for 2013
- funding by the European Regional Development Fund, European Social Fund, the Cohesion Fund, the Internal Security Fund, European Investment Bank, European Solidarity Fund.

The average annual increase cost improvement projects in the field of civil defence planned for the years 2013-2022 is:

29 Program Ratownictwa i Ochrony Ludności na lata 2014–2020 (PRIOL), in Polish, available at <http://czkw.kielce.uw.gov.pl/download/4/15665/ProgramuRatownictwaiOchronyLudnoscinalata2014-2020.pdf>

30 Current figures could be obtained by the State Budget for 2014 (Ustawa budżetowa na rok 2014 z dnia 24 stycznia 2014 r. - podpisana przez Prezydenta RP 29 stycznia 2014 r. (Dz. U. z 2014 r., poz. 162)), Website of the Ministry of Finance, in Polish, <http://www.mf.gov.pl/ministerstwo-finansow/dzialalnosc/finanse-publiczne/budzet-panstwa/ustawy-budzetowe/2014/ustawa>

- at the central level (ministries) – PLN 870 000
- at the central level (central government bodies) – PLN 24 000
- at the provincial level – PLN 16.453 mln

5.2 Materiel (non-financial) resources

According to PRiOL, Poland has committed to the EU civil protection mechanism, to support rescue and humanitarian missions, 340 fire men, 6-12 dogs and 85 vehicles, namely:

- module for middle to heavy urban search and rescue operations (MUSAR and HUSAR);
- 2 modules for High Capacity Pumping (HCP);
- 3 modules for Ground Forest Fire Fighting using Vehicles (GFFFV);
- module for CBRN detection.

5.3 Training

Professional training

The Main School of Fire Service is an academic facility subordinated to the Minister of Internal Affairs and an operational unit of the State Fire Service (PSP). It educates the firefighters of the PSP, officers of other services and guards of the MI system. The school also trains civilians. According to the Act on the State Fire Service, the School provides cadet officers with the opportunity to serve as trainees in the School Rescue and Firefighting Unit.³¹

Trainings for citizens

The State Fire Service coordinates the educational programme Safe Life (together with the Swedish League for Civil Defence), targeting primary schools. As of November 2013, more than 3500 teachers and 111 700 kids received training covering several thematic areas – safe house, safe school, first aid, and took part in demonstration exercises.³²

However, despite general positive assessment of the role of institutions in the protection area, the predominant opinion is that the country “is not prepared adequately to act in emergency and unforeseen situations – whether caused by the forces of nature or negligence on the part of people, or planned and organized by forces hostile to Poland.” This is particularly evident by the high percentage of negative answers in the areas of natural disasters (61%) and environmental disasters (49%), given in a public opinion poll.³³

31 Website of the Main School of Fire Service

32 Website of the National Civil Defence, in Polish, <http://ock.gov.pl/ock/bezpieczne-zycie-progra/563,Materialy-dla-dzieci-do-pobrania.html>

33 White Book on National Security of the Republic of Poland, <http://www.spbn.gov.pl/sbn/english-version/5043,English-version.html>

5.4 Procurement

5.4.1 Procurement regulation

The public procurement system of Poland is based on the Act on Public Procurement (PPL)³⁴ of 29 January 2004, with further amendments.

In principle, contract award procedures are transparent, with few exceptions as per art. 4, pp. 1-14, including when “contracts classified as “confidential” or “strictly confidential” under provisions of the act on protection of classified information, or if this is required in view of significant national security interest or protection of public security.”

The PPL is applied to the contracts above EUR 30 000 (art. 4, p.8 of the PPL).

The PPL distinguishes between the following procedures for awarding public contracts:

- Open tendering
- Restricted tendering
- Negotiated procedure with publication
- Negotiated procedure without publication
- Single-source procurement
- Request-for-quotations
- Electronic bidding

Procedures start with the publication of a contract notice that (depending on the value of the contract) is placed in the Public Procurement Bulletin and/or dispatched to the Publications Office of the European Union for the publication in the Official Journal of the European Union.

The dispatch of a notice to the latter is obligatory if the contract or design contest value exceeds the amounts indicated in the Regulation of the Prime Minister of 23 December 2013³⁵ on the threshold value of contracts and design contests which imposes an obligation of dispatching the notices to the EU Publications Office.³⁶

As the regulation mentioned above, contract notices are submitted to the EU Publications Office, if the value of contracts awarded by public finance sector awarding entities is equal to or exceeds PLN equivalent of EUR 134 000 – for supplies or services and EUR 5 186 000 – for works.

34 Website of the Public Procurement Office, Act on Public Procurement, unofficial translation into English, <http://www.uzp.gov.pl/cmsws/page/?F;370>

35 Website of the Public Procurement Office, <http://www.uzp.gov.pl/cmsws/page/?F;370>

36 “Public Procurement System in Poland,” Website of the Public Procurement Office, <http://www.uzp.gov.pl/cmsws/page/?F;356>

Related thresholds are:

- for contracts awarded by other awarding entities: 207 000 Euro – for supplies or services; and 5 186 000 Euro – for works;
- in case of utilities contracts 414 000 Euro – for supplies or services; and 5 186 000 Euro – for works;
- in case of defence and security contracts 414 000 Euro – for supplies or services; and 5 186 000 Euro – for works;

As the PPL apply to contracts and contests above the EUR 30 000 the notices in the Public Procurement Bulletin include contracts equal or above 30 000 and below the European threshold.

As regards crisis management, public procurement notices are also published at the website of the State Fire Service and relevant authorities; the Centralised System for Access to Public Information (<http://ssdip.bip.gov.pl/>).

Chapter 4a of the PPL stipulates separate provisions for contracts in the field of defence and security, which involve “1) deliveries of military equipment, including all the parts, components and subassemblies; 2) deliveries of sensitive equipment, including all parts, components and subassemblies; 3) works, supplies and services directly connected with the equipment mentioned in point 1 and 2, and all its components and subassemblies connected with life-cycle of this product; 4) works and services for special military purposes or sensitive works and services.”³⁷

5.4.2 Procurement procedures

A total of 302 contract notices has been published by the State Fire Service (HQ and Regional HQs) in the period 2009-2014, covering a wide range of items – from vocational trainings and software to vehicles and specialised equipment.

5.5 Niche capabilities

37 Website of the Public Procurement Office, Act on Public Procurement, unofficial translation into English, <http://www.uzp.gov.pl/cmsws/page/?F;370>

Resources

Legislative acts

Act dated 11 August 2001 on the Specific Rules for the Reconstruction, Renovation and Demolition of Buildings Destroyed or Damaged by Natural Disasters (Dz.U. [the Journal of Laws] No. 84, item 906, as amended)

Act dated 16 November 1964 on the Polish Red Cross

Act dated 16 September 2011 on Specific Solutions Related to the Elimination of the Consequences of Flooding (Dz.U. No. 234, item 1385, as amended)

Act dated 18 April 2002 on the State of Natural Disaster (Dz.U. No. 62, item 558, as amended)

Act dated 18 August 2011 on the Safety and Rescue in the Mountains and Organised Ski Areas

Act dated 18 August 2011 on the Safety of Persons in Water

Act dated 18 July 2001, – the Water Management Act (Dz.U. for year 2012, item 145, as amended)

Act dated 21 June 2002 on the State of Emergency (Dz.U. No. 113, item 985, as amended)

Act dated 23 January 2009 on Provincial and Government Administration in a Province

Act dated 24 August 1991 on Fire Prevention (Dz.U. No. 81, item 351, as amended)

Act dated 24 August 1991 on the State Fire Service (Dz.U. for year 2009, No. 12, item 68, as amended)

Act dated 26 April 2007 on Crisis Management (Dz.U. No. 89, item 590, as amended)

Act dated 27 October 2010 on the Public Utility Activity and Volunteer Activity

Act dated 29 August 2002 on Martial Law and the Competences of the Commander-in-Chief of the Armed Forces and the Rules of his Subordination to the Constitutional Authorities of the Republic of Poland (Dz.U. No. 156, item 1301, as amended)

Act dated 5 June 1998 on County Self-Government

Act dated 5 June 1998 on Provincial Self-Government

Act dated 6 April 1984 on Foundations

Act dated 7 April 1989 on Associations

Act dated 8 July 2010 on Specific Rules for the Preparation for Implementing Investments in the Field of Flood Control Structures (Dz.U. No. 143, item 963, as amended)

Act dated 8 March 1990 on Commune Self-Government

Act dated 8 September 2006 on the State Medical Rescue Service (Dz.U. No. 191, item 1410)

Constitution of the Republic of Poland

Ordinance of the Council of Ministers of 15 December 2009 determining which government authorities shall establish emergency management centres and defining their methods of operation

Ordinance of the Council of Ministers of 20 February 2003 on the detailed principles of participation of sub-branches and branches of Polish Armed Forces in preventing or eliminating effects of natural disaster

Ordinance of the Council of Ministers of 30 April 2010 on the plans of critical infrastructure protection

Ordinance of the Council of Ministers of 30 April 2010 on the Report on threats to national security

Ordinance of the Minister of Economy of 8 November 2002 on the requirements of action plan in the event of human life, health, property or environmental threat

Ordinance of the Prime Minister of 10 July 2008 on organisation and activity of Government Security Centre.

Regulation no. 86 of the Prime Minister of 14 August 2008 on organisation and code of conduct of the Government Team for Crisis Management

Regulation of the Minister of the Interior and Administration of 14 September 1998 on the scope, detailed conditions and mode of including fire protection units in the NFRS;

Regulation of the Minister of the Interior and Administration of 18 February 2011, concerning the detailed principles of organisation of the NFRS;

Other normative acts

Official documents (white papers, strategies, etc.)

Krajowy Plan Zarządzania Kryzysowego (National Crisis Management Plan)

Raport o Zagrożeniach Bezpieczeństwa Narodowego (Report on Threats to National Security)

Rescue and Civil Protection Program (PRiOL)

Strategy of Development of the National Security System of the Republic of Poland 2022

White Book on National Security of the Republic of Poland

Online resources

Central Mine Rescue Station, www.csrg.bytom.pl

Government Security Centre, <http://rcb.gov.pl/>

Institute for Meteorology and Water Management, www.imgw.pl

Maritime Search and Rescue Service, <http://www.sar.gov.pl>

Mazurian Rescue Service, www.msr.unicity.pl

Ministry of the Interior, www.msw.gov.pl

Mountain Volunteer Rescue Service, www.zakopane.pl/topr

National Atomic Energy Agency, <http://www.paa.gov.pl>

National Border Guard Headquarters, www.strazgraniczna.pl

National Police Headquarters, www.kgp.gov.pl

Naval Rescue Service, <http://www.mw.mil.pl>

Polish Ecumenical Council, <http://ekumenia.pl>

Polish Humanitarian Action, <http://pah.org.pl>

Polish Red Cross, <http://www.pck.pl>

Polish Scout Union, <http://eng.zhp.pl>

Public Procurement Office, <http://www.uzp.gov.pl>

State Fire Service, www.straz.gov.pl (www.kgppsp.gov.pl)

State Inspection for Environment Protection, <http://www.gios.gov.pl>

Volunteer Fire Brigade of the Republic of Poland, <http://zosprp.pl/>

Water Volunteer Rescue Service, www.wopr.pl

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PhD candidate in the field of crisis management. Date of the interview: 11 November 2014.



Driving Innovation in Crisis Management for **European Resilience**

PORTUGAL

Capabilities, Organisations, Policies, and Legislation (COPL) in crisis management and disaster response

Responsible Partner: ATOS (Adem Yaşar Mülayim)

Scope and limitations

This study serves as supporting information for further work within DRIVER.

Only limited time and budget has been available for this first general survey, which needs to be considered in terms of scope and completeness of the respective studies.

The author/s of this study is/are responsible for its content and quality.

Overview

Portugal is comprised of 18 districts as main administrative divisions; Lisbon, Leiria, Santarém Stúbal, Beja, Faro, Évora, Portalegre, Castelo Branco, Guarda, Coimbra, Aveiro, Viseu Bragança, Vila Real, Porto, Braga and Viana do Castelo and two autonomous regions; Azores and Madeira.

In Portugal Civil Protection is understood as all those activities developed by many civilians actors, the State, Autonomous Regions, Local Authorities, citizens and all public and private organizations with the objective of prevent collective risks inherent in serious accident or disaster, to mitigate its effects, protect and rescue people and property in danger when those situations occur.

Forest's wildfires and floods are the key natural disasters and areas of concern in Portugal. The 2009 floods in Madeira caused several casualties and more than \$1.35 billion of economic damage. Furthermore, despite the promising results achieved in recent years in prevention and response to seasonal forest fires, Portugal is still one of the most affected EU Member States. Additional to natural hazards, oil slicks can also be given as an example area of concern for man-made hazards.¹

The National Authority for Civil Protection (ANPC) is a central service under direct administration of the Portuguese State, Ministry of the Internal Administration, with administrative and financial autonomy. The mission of the ANPC is to plan, coordinate and implement the civil protection policy, particularly in the prevention and response to major accidents and disasters, protection and rescue of populations and oversight of the activity of fire and ensure the planning and coordination of national needs in the domain of emergency civil planning in order to deal with situations of crisis or war.

The ANPC was created in 2007, replacing the National Service for Fire and Civil Protection, and is the result of the merge of the National Civil Protection Service and Specialized National Commission of Forest Fire Service. Additionally, the ANPC assumed the competences of the extinguished National Council of Emergencies Civil Planning (CNPCE).

The ANPC proceed, in accordance with Decree Law number 73/2013 of 31 May, assignments within the forecasting and risk management and emergency planning, protection and rescue activity, the activities of firefighters, resources civil protection, and the application and enforcement of standards within their duties.

National crisis management & disaster response concept:

In Portugal, the civil defence structure is organized into three levels:

1. National level, The Prime Minister of Portugal is responsible of the creation of the national civil protection policy. The Ministry of the Internal Administration is the responsible of conduct the civil protection policy and creation of the main guidelines to adapt or to propose that domain, and the ANPC is the Portuguese central service for Civil Protection.
2. District level, District Centres for civil protection operations
3. Municipal level (Municipal Civil Defence Services) At local level, the mayor of the Town Hall, in the exercise of responsible municipal functions of civil protection policy, is the first responder in the imminence or occurrence of a major accident or disaster, the protective actions of prevention, recue, rehabilitation assistance and appropriate in each case.

¹ 3rd Session of the Global Platform for Disaster Risk Reduction 8-13 May 2011, Geneva

The entire civil protection system is the combination of National Authority for Civil Protection (ANPC), the Regional Services for Civil Protection in the Azores and Madeira (SRPC), the District Commands for Relief Operations (CDOS, one in each of the eighteen districts) and the Municipal Services for Civil Protection (SMPC, one in each municipality).

When it is required, Inter-ministerial coordination is provided by the National Civil Protection Commission (CNPC).

Inter-agency coordination is ensured by the National Operational Coordination Centre (CCON) and district level centres (CCOD). CCON is the coordination body of the Integrated System for Relief and Protection Operations (SIOPS)

Operational organisations act under civil protection command according to the rules of the SIOPS. Decisions are made by the National Coordination Centre. According to the nature of the disaster, specific organisations may be called to act under civil protection authority (e.g. the Water Institute, the Forest Service's etc.).

Portugal has subscribed to the Hyogo Framework for Action in 2005 and has, since then, taken concrete steps to integrate and streamline Disaster Risk Reduction (DRR) in its national development strategies.

Portugal has bilateral agreements with; Spain, France, Morocco, Russia and Cape Verde.

Portugal participates in multilateral cooperation with many regional and international organizations; European Union, NATO, United Nations/ United Nations Office for Disaster Risk Reduction, European and Mediterranean Major Hazards Agreement (EUR-OPA), Ibero-American Association of Governmental Organizations of Defence and Civil Protection (AIAOGDPC), International Organization of Civil Protection (OIPC).

Key stakeholders: ANPC, CDOS, SMPC, CCON, CCOs, CNPC, SIOPS, Civil Protection Agents (e.g. fire brigades, security forces, armed forces, maritime and aeronautical authorities, health services, etc.), Portuguese Red Cross, Public governance (government, governors, mayors, parliamentary committees), volunteer organisations.

In the private sector The National Association of Portuguese Municipalities, The National Fire School, The Portuguese Fire League.

Financing: According to 2014's internal safety plan, the National Civil Protection Authority will have a budget of approximately €128 million. Nominal GDP for 2014 is €168.908 billion.

Niche crisis management capabilities of interest to the EU and other MSs:

SIOPS - Integrated System for Relief and Protection Operations

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List of Abbreviations

AIAOGDPC	Ibero-American Association of Governmental Organizations of Defence and Civil Protection
ANPC	National Authority for Civil Protection
CCOD	District level Operational Coordination Centre
CCON	National Operational Coordination Centre
CDOS	District Commands for Relief Operations
CNPC	National Civil Protection Commission
COS	Commander function of Relief Operations
CPA	Civil Protection Agent
DNB	National Fire Department
DRR	Disaster Risk Reduction
EAPS	Teams Psychosocial Support
FM	Frequency Modulation
GDP	Gross Domestic Product
NATO	North Atlantic Treaty Organization
NSS	Security Center and Health
OIPC	International Organization of Civil Protection
REPC	Strategic Network of Civil Protection
SGO	Operations Management System
SIOPS	Integrated System for Relief and Protection Operations
SMPC	Municipal Services for Civil Protection
SRPC	Regional Services for Civil Protection
UV	Ultra Violet
UAV	Unit Support Volunteers
VHF	Very High Frequency

1 Policy

1.1 National strategy

Within the guidelines set by the Restructuring of the State's Central Administration Program (PRACE) and the objectives of the Government Programme on the administrative modernization, improving the quality of public services with efficiency gains, the Decree-Law Nr 203/2006 of 27 October, which approved the organic law of the Ministry of Internal Affairs, advanced in the definition of organizational models for civil protection services and their structure.

At national level the civil emergency planning is knowledgeable as the activity that is intended to coordinate the non-military components and capabilities of national Defence and the civilian support to the armed forces, as well as to organize and prepare the various strategic sectors of the nation to address situations of crisis or war in order to contribute equally to the governmental action and for the safety and well-being of the people.

Since April 2012, the National Authority for Civil Protection (ANPC) took responsibility to ensure national representation in Civil Planning Emergency at national level and international partnership with different international organizations as NATO, for instance, in the areas of industry, energy, transport, communications, agriculture, environment, health and cyberspace, defining updating and implementing the civil emergency planning policies.

The planning of civil emergencies in Portugal recognizes the serious accidents and disasters as threats to security and stability. This vision is materialized in the definition of five specific areas of action in the field of civil emergency planning:

- Civil support for collective defense operation
- Support for crisis management operations
- Support to national authorities in emergency management
- Support to national authorities in protecting against the weapons of mass destruction
- Cooperation with partner countries in preparing for and responding to emergencies

The Portuguese Government has developed, in partnership with the academic and scientific communities, seismic risk-assessment evaluations in the Lisbon Metropolitan Area and Algarve Region.

1.2 Risk Assessment

Forest's wildfires and floods are the key natural disasters and areas of concern in Portugal. The 2009 floods in Madeira caused several casualties and more than \$1.35 billion of economic damage. Furthermore, despite the promising results achieved in recent years in prevention and response to seasonal forest fires, Portugal is still one of the most affected EU Member States. Additional to natural hazards, oil slicks can also be given as an example area of concern for man-made hazards.

The national system for Civil Protection and the ANPC assumed a primary role in the scope of risk assessment. Portugal has subscribed to the Hyogo Framework for Action in 2005 and has, since then, taken concrete steps to integrate and streamline Disaster Risk Reduction (DRR) in its national development strategies.

A list of major disasters occurred in Portugal is included in **Table 1**.

Year	Disasters
2013	Wildfire in Tondela, Oliveria de Frades, Couzela, Águeda y Viser, total burnt area of 9,500 hectares of natural forest with water supply and waste services disruption.
2010	Madeira Island floods; 47 deaths, 250 injured, disruption of main water and electricity supply systems
2006	European heat wave between May and September, produced 1259 deaths in Portugal
2005	Wildfire during this year caused 15 deaths and the devastation of 325.226 hectares
2003	Sirocco wind contributed to spread extensive forest-fires; 18 deaths about 5% of the countryside and 10% of the forests destroyed.
2003	Extreme temperatures; 2,696 dead in August, 41 dead in July due to the heat wave
2001	Flood in northern and central Portugal caused 6 deaths, disruption of transports by land and sea in Portuguese ports
1998	Earthquake in the Azores; 8 dead, 110 injured, 1,600 homeless, 500 collapsed/destroyed houses; damage estimated at EUR 60 million
1997	Floods and mudslides in the Azores; 29 dead, 60 homeless, damage estimated at EUR 15 million
1997	Floods in Lisbon, Algarve and Alentejo; 11 dead, 44 injured, 300 homeless, 95 collapsed/destroyed buildings, destruction of agriculture assets and crops
1995-1996	Floods in the districts of Porto, Aveiro, Coimbra, Viseu, Satarém and Lisboa; 12 dead, 1,340 homeless; damage estimated at EUR 80 million
1995	Forest fires in the north/central region, 170,000 hectares destroyed
1991	Forest fires north of Tejo, 182,000 hectares destroyed
1990	Forest fires north of Tejo, 137,000 hectares destroyed
1990	Oil slick from the Cypriot tanker Ogennitor in the harbour of Sines, 500 km ² polluted by oil

Table 1 Major disaster in Portugal

1.3 Policy and Governance

With the entry into force of Law Nr 27/2006 of 3 July that approved the Law of Civil Protection basis, the civil protection system was redefined, taking the National Civil Protection Authority (ANPC) a key role in planning, coordination and execution of civil protection policy in national emergency, war situations, severe accidents and catastrophes.

The ANPC main objectives are to prevent collective risks and the occurrence of serious accidents or resulting disasters; to attenuate collective risks and to limit its effect; to rescue and to assist people and other living beings in danger, to protect cultural and environmental assets and other assets of high public interest and to support the reestablishment of normality in the life of people living in the areas affected by serious accidents or disasters.²

² <http://www.procriv.pt/SistemaNacional/ProteccaoCivil/Pages/default.aspx>

The relationship between the ANPC and relevant entities of different sectors was regulated during 2013 with the Decree-Law Nr 72/2013 of 31 May which modifies the organizational model established in the Decree-Law Nr. 134/2006, of 25 July.

The implementation of the SIOPS (Integrated System for Relief and Protection Operations) was a vital step in reforming the rescue function. The SIOPS is defined under the principle, at operational level, of unique strategy and command irrespective of their hierarchical and functional dependence, of all operational organisations of Civil Protection agents of the national territory. The SIOPS is the set of structures, rules and procedures to ensure that all the civil protection agents act in operational terms, articulately under a single command, without prejudice to their hierarchical and functional dependence (Decree-Law Nr. 134/2006 of 25 July).

The SIOPS aims to respond to situations of imminent or occurrence of a major accident or disaster, under the principle of single command based on the two dimensions of the system.

- the institutional coordination, and
- the operational command.

The institutional coordination of SIOPS is ensured at national level and within each district, the CCO (Operational Coordination Centres), which include representatives of entities whose intervention is justified on the basis of each occurrence in concrete.

The CCO is responsible for managing and trigger the operational participation of each force or service for relief operations. The responsibilities of the CCOs are:

- Ensure the coordination of resources and logistical support of relief operations, emergency and assistance made by all members of SIOPS organizations
- The collection of strategic information relevant to the protection and rescue missions, owned by member organizations of the CCO and to promote their management
- Collect and disseminate, by all players because of the occurrence and the state of readiness, strategic nature of information essential to tactical operational command component
- Permanently inform their political authority of all relevant facts that could lead to problems or bottlenecks within the operational response
- Ensure the management and follow all instances, ensuring adequate response under the SIOPS

The CCON (National Operational Coordination Centre) ensures that all entities and national institutions, essential to protection and relief operations, emergency and predictable or arising assistance of a major accident or disaster are properly orchestrated, ensuring the means deemed appropriate to the management of occurrence in each case. The CCON counts with representatives from:

- National Civil Protection Authority
- National Guard
- Public Security Police
- National Institute of Medical Emergency
- Institute of Meteorology
- National Forestry Authority
- Other entities that an occurrence in concrete may justify
- Elements of the armed forces whenever they are engaged in protection and rescue operations, emergency assistance and human and material resources.

The tasks of CCON are depicted below:

- integrate, monitor and evaluate all operational activity when in a serious accident or disaster situation
- ensure the operational link and national coordination with the civil protection agents and other operational structures in planning, counselling, intervention and technical or scientific support in the areas of relief and emergency
- ensure that the entities and institutions of the CCON trigger, in its hierarchical structure, the means necessary for the development of operations and the increase in resources
- Ensure continued flow of strategic information with the civil protection services of the Autonomous Regions in particular on the verge or in case of a major accident or disaster
- To disseminate press releases and notices to the people and entities and institutions, including the media
- To assess the situation and advise the National Civil Protection Commission to draw with the Government requests for assistance to other countries and international organizations through the competent bodies
- To ensure the triggering of subsequent actions to the statements of alert conditions, contingency and disaster.

The operational coordination at district level is done by the District Operational Coordination Centres (CCOD). The CCOD shall ensure that all entities and institutions at district level that are essential to protection and relief operations, emergency and predictable or arising assistance of a major accident or disaster, are coordinated when facing each concrete case. The representatives of CCODs are similar to those of CCONs. The main CCOD competencies are as follows:

- Integrate, monitor and evaluate all operational activity when in a serious accident or disaster situation
- ensure the operational link and the district liaison with the civil protection agents and other operational structures in planning, counselling, intervention and technical or scientific support in the areas of relief and emergency
- ensure that the entities and institutions of the CCOD trigger, as part of its hierarchical structure and the level of the district level, the means necessary for the development of actions
- To disseminate press releases and notices to the people and entities and institutions, including the media
- To evaluate the situation and propose to the civil governor of the district measures under national request for help.

The National Civil Protection Authority (ANPC) has its own operational structure or National Command Relief Operations (CNOS) that at legal level permits to ensure an integrated operational command of relief operations of all fire brigades.

The CNOS were reinforced giving a greater capacity to respond and creation of district groupings of relief operations in order to take effect scale and synergy in the coordination and monitoring capacity. At the same time, provides greater consistency and constancy to the different responses that are necessary regarding the nature of the emergency, e.g. fight with forest fires, industrial accidents or any other kind of severe occurrence or catastrophe. The competences of the CNOS are:

- Ensure the operation, operability and coordination with all actors of civil defense members of the protection and rescue system
- coordinate operationally district command of relief operations

- ensure the command and control of situations which by their nature, severity, extent and means involved or involve require his involvement
- ensure coordination and strategic direction of rescue operations
- to monitor continuously the operational situation in the field of SIOPS member institutions
- support technically and operationally the Government
- Prepare operational guidelines and standards and disseminate them to lower levels for planning and implementation
- To propose national arrangements, the media allocation plans, human resource management policies and operations orders.

1.3.1 Strategy scope and focus

The Civil protection is the activity of the State, Autonomous Regions and local Authorities focused on the following objectives:

- To prevent collective risks and the occurrence of serious accidents or resulting disasters,
- To attenuate collective risks and to limit its effect,
- To rescue and to assist people and other living beings in danger,
- To protect cultural and environmental assets and other assets of high public interest and
- To support the reestablishment of normality in the life of people living in the areas affected by serious accidents or disasters.

Important domain of civil protection actions are the following:

- Survey, forecast, evaluation and prevention of collective risks,
- Permanent analysis of vulnerabilities facing risk situations,
- Information and training of populations, aiming at raising awareness for self-protection measures and for the necessity of collaborating with the authorities,
- Emergency planning, search and rescue, providing aid and assistance, as well as evacuation, lodging and population supplies,
- Inventory of resources, availability of means and the most suitable way to mobilise them, at the local, regional and national levels,
- Study and dissemination of adequate forms of protection of buildings in general, monuments and other cultural assets, infrastructures, archival patrimony, essential services facilities, as well as environmental and natural resources,
- Forecast and planning of actions concerning the eventual isolation of areas affected by risks.

1.3.2 Monitoring and analytical support to policy making; R&D

The services and institutions dedicated to technical and scientific research, either public or private, with specific competences in the domains of interest in the pursuit of the Civil Protection objectives, cooperate with the management, planning and coordination agencies which integrate the national system for Civil Protection.

The cooperation is developed in the following domains:

- Survey, forecast, evaluation and prevention of collective risks of a natural, technological or human nature and vulnerability analysis of populations and the environmental systems to which they are exposed;

- Study of adequate forms of protection of the buildings in general, monuments and other cultural assets, facilities and essential infrastructures and assets;
- Research in the domain of new equipment and technologies adequate to search and rescue and providing aid and assistance;
- Study of adequate forms of protection of natural resources.

According to the nature of the disaster, specific organisations may be called to act under civil protection authority (e.g. the Water Institute, the Forest Service, etc.).

1.3.3 Policy for Prevention

The national system for Civil Protection and the ANPC has a primary role in this scope. ANPC, CDOS (one in each of the eighteen districts) and the SMPC (one in each municipality) contribute to disaster prevention policies.

Portugal has subscribed to the Hyogo Framework for Action in 2005 and has, since then, taken concrete steps to integrate and streamline Disaster Risk Reduction (DRR) in its national development strategies.

According to the nature of the disaster, specific organisations may be called to act under civil protection authority (e.g. the Water Institute, the Forest Services, etc.).

1.3.4 Policy for Preparedness

Civil protection planning is performed according to the guidelines laid down in Regulation Nr 25/2008. This Regulation defines that emergency plans at national, regional, district and municipality levels are mandatory. These plans follow an all-hazard approach.

Specific emergency plans may also exist for floods, forest fires, earthquakes, industries or dams.

All plans include risk and vulnerability assessments, general procedures for operational response and a list of resources that might be available to each type of disaster.

Emergency plans are approved by the National Civil Protection Commission, according to the advice issued by the National Civil Protection Authority.

Several civil protection exercises are conducted every year, but there is no national exercise planning directive. These exercises take place at different levels: local, regional and national, and can assume different natures: command post or live exercises.

1.3.5 Policy for Response

SIOPS - Integrated System for Relief and Protection Operations is the set of structures, norms and procedures which ensures that all Civil Protection agents act, at the operational level, under a sole command, without prejudice of the respective hierarchic and functional dependence, in accordance to Decree-Law 134/2006, of 25 July.

SIOPS aims at answering to eminent situations or in the occurrence of serious accidents or disasters. The principle of a unique command is based on a two-dimensional system, the institutional coordination and the operational command.

SIOPS Institutional coordination is assured at the national and district levels by the so called Operational Coordination Centres (Portuguese acronym CCO), which integrate representatives from the entities which intervention is justified in accordance with each concrete occurrence.

CCO's are responsible for the management of the operational participation of each force or service in the rescue operations.

1.3.6 Policy for Relief and Recovery

Additional to previously given organizations, command structure and the SIOPS framework, the Portuguese Red Cross conducts in cooperation with additional agencies and in harmony with its proper statutes, civil protection functions in the domains of intervention, support, aid, sanitary and social assistance.

2 Legislation

2.1 Crisis (emergency, disaster) management concept

Crisis management concept is defined by Integrated System for Relief and Protection Operations (SIOPS). SIOPS provides a set of rules and procedures, which guarantee that civil protection agents act, at the operational level, in a coordinated way and under a unique command.

2.2 General crisis (emergency, disaster) management law

With the enactment of the Law Nr 27/2006, of 3rd July, which approved the Basic Law for Civil Protection, the national system for Civil Protection was redefined, and the National Authority of Civil Protection (Portuguese acronym ANPC) assumed a primary role in the scope of planning, coordination and implementation of the Civil Protection policy.

The following list gives the different levels of the legal basis in Portugal:

- National level
 - The most important national laws and regulations for civil protection are:
 - The General Law for Civil Protection (Law Nr 27/2006 3 July)
 - The Law Decree establishing the Integrated System for Relief and Protection Operations (SIOPS) Law-Decree Nr72/2013 31 May (Creation by Law-Decree Nr 134/2006 modified by Law-Decree Nr 114/2011 30 November)
 - The National Civil Protection Authority Law (Law-Decree Nr 75/2007).
 - Structure of National Authority of Civil Protection(Law-Decree Nr 163/2014, 31 October)
- Ministerial level
 - The General Law for Civil Protection (Law Nr 27/2006 3 July)
 - The Law Decree establishing the Integrated System for Relief and Protection Operations (SIOPS) (Law Decree Nr 134/2006 3 June).
 - Structure of the Ministry of The Internal Administration (Law-Decree Nr 126-B/2011 29 December, modified by Law-Decree Nr 163/2014 31 May)
- Inter-ministerial cross-cutting coordination
 - The General Law for Civil Protection (Law Nr 27/2006 3 July).
- Regional level
 - The General Law for Civil Protection (Law Nr 27/2006 3 July)
 - The Law Decree establishing the Integrated System for Relief and Protection Operations (SIOPS) (Law Decree Nr 134/2006).
 - Structure of Regional service of Civil Protection (Law-Decree Nr 17/2009/M 30 June)
- Local level
 - The Law defining the organisation of Civil Protection at local level (Law Nr 65/2007).
- International level
 - The General Law for Civil Protection (Law Nr 27/2006 July).

2.3 Specific, department/agency-level legal arrangements and regulations on emergency and disaster management

Please refer to Section 2.2

2.4 Specific to the regional and local authorities legal arrangements and regulations on emergency and disaster management

Please refer to Section 2.2

2.5 Legal regulations on the involvement of volunteers and specialised NGOs

Please refer to Section 2.2

2.6 Legal regulations for international engagements of first responders and crisis managers

Please refer to Section 2.2

3 Organisation

3.1 Organisational chart

The Portuguese Civil Protection system is based on decentralization and subsidiarity. Under the framework provided by the Law 27 of 2006, and the Law 65/20071, is ensured forecasting, preventive, emergency and recovery measures for the protection of people, goods and of the environment. At local level the responsibility is of the Mayor and other authorities that participate in the prevision and prevention of disasters. The central authorities are involved only in case of major events that have or may have national consequences or that require the use of extraordinary means and resources. There has been a commitment at the local level in DRR exercises, public information and preparation of emergency plans.³

In Portugal, the civil defence structure is organized into three levels; National level (National Authority for Civil Protection), District level (District Centres for civil protection operations) and Municipal level (Municipal Civil Defence Services).

The entire civil protection system is the combination of National Authority for Civil Protection (ANPC), the Regional Services for Civil Protection in the Azores and Madeira (SRPC), the District Commands for Relief Operations (CDOS, one in each of the eighteen districts) and the Municipal Services for Civil Protection (SMPC, one in each municipality).

When it is required, Inter-ministerial coordination is provided by the National Civil Protection Commission (CNPC).

Inter-agency coordination is ensured by the National Operational Coordination Centre (CCON) and district level centres (CCOD). CCON is the coordination body of the Integrated System for Relief and Protection Operations (SIOPS)

Operational organisations act under civil protection command according to the rules of the SIOPS. Decisions are made by the National Coordination Centre. According to the nature of the disaster, specific organisations may be called to act under civil protection authority (e.g. the Water Institute, the Forest Services, etc.).

Portugal has subscribed to the Hyogo Framework for Action in 2005 and has, since then, taken concrete steps to integrate and streamline Disaster Risk Reduction (DRR) in its national development strategies.

In Portugal, the Ministry of The Internal Administration is the responsible entity for the maintenance of relations in the field of internal management policy with the European Union, other governments and international organizations, without prejudice to the duties of the Portuguese Ministry of Foreign Affairs. The National Civil Protection Commission is responsible of the agreements or conventions on international cooperation in civil protection and to formulate with the government, requests for assistance to other countries and international organizations, through the competent bodies.

Also the Basic Law on Civil Protection (Law Nr. 27/2006, of July 3 provides that within the framework of international commitments and the applicable rules of international law, civil protection activity

³ Portugal. National progress report on the implementation of the Hyogo Framework for Action (2011-2013). <http://www.preventionweb.net/english/countries/europe/prt/>

may be exercised outside the national territory, in cooperation with foreign states or international organizations which Portugal belongs. Thus, international cooperation on civil protection is developed on two levels: through bilateral cooperation and through multilateral cooperation.

¡Error! No se encuentra el origen de la referencia. gives an outline of its organisational structure⁴.

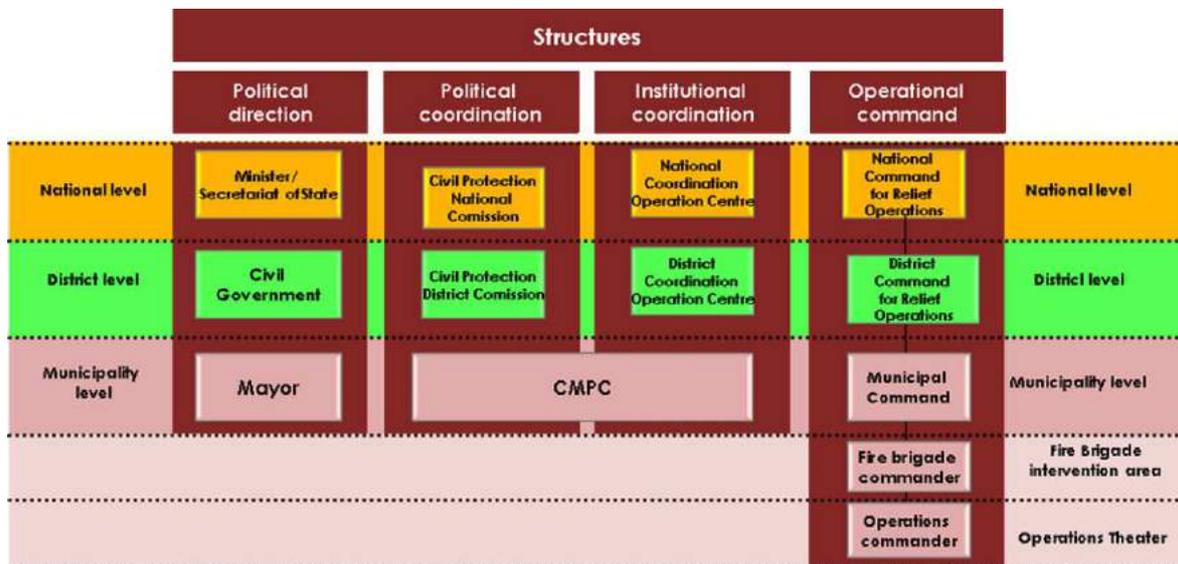


Figure 1 Portugal civil defense organizational chart

3.2 Organisational cooperation

Please refer to Section 3.1

⁴ http://ec.europa.eu/echo/files/civil_protection/vademecum/pt/2-pt-1.html

4 Procedures

4.1 Standing Operating Procedures (SOPs) and Guidelines

The Integrated System for Relief and Protection Operations (SIOPS) defines a set of rules and procedures, which guarantee that civil protection agents act, at the operational level, in a coordinated way and under a unique command.

Operational organisations act under civil protection command according to the rules of the SIOPS and decisions are taken by the National Coordination Centre.

Specific emergency plans may also exist as instruments of planning, organization, coordination and operational command of Integrated Device Protection and Relief Operations (DIOPS). For example:

- Fight against forest fires DECIF - Dispositivo Especial de Combate a Incêndios Florestais
- Integrated Protocol for Aircraft Disaster Response DIRACAERO - Dispositivo Integrado de Resposta Acidentes com Aeronaves
- Integrated Operational Protocol for Nuclear, Radiological, Biological and Chemical, NRBQ - Dispositivo Integrado de Operações-Nuclear, Radiológico, Biológico e Químico
- Integrated Protocol for Relief and Protection Operations DIOPS - Dispositivo Integrado das Operações de Protecção e Socorro

4.2 Operations planning

Emergency plans are approved by the National Civil Protection Commission, according to the advice issued by the National Civil Protection Authority.

Guidelines for civil protection planning: Civil protection planning is performed according to the guidelines laid down in Regulation 25/2008, which states that emergency plans at national, regional, district and municipality levels are mandatory. These plans follow an all-hazard approach. All plans include risk and vulnerability assessments, general procedures for operational response and a list of resources that should be available to each type of disaster.

4.3 Logistics support in crises

In the context of an emergency or crisis, the protection civil agents provide the required logistic support according to the severity level and the nature of the incident. The most relevant civil protection agents in Portugal are listed below:

- The fire departments,
- Security forces,
- The Armed Forces,
- Maritime and aeronautical authorities,
- The INEM (National Institute of Medical Emergency) and other health services,
- The forest firefighters.

4.4 Crisis communication to general public; Alert system; Public Information and Warnings

Emergency telecommunications are key means to ensure the command, control and coordination of relief operations and civil protection both in normal time and in time of disaster or calamity. Especially in times of catastrophe, disaster or other special circumstances, it is expected that the telecommunications facilities used in day-to-day, can reduce or even completely lose their operational capabilities, motivating, in such cases, the use of emergency telecommunications systems. On the other hand, civil protection cannot be conceived without considering close cooperation with the civil society. With regard to communications in an emergency, the participation of amateurs, as civil defense volunteers, is of great importance, acting as a complement and alternative to the means and systems already installed by official bodies. Their territorial dispersion, high number, the permanent availability, associated with high sense of citizenship is naturally considered as a pillar base of emergency telecommunications at national and international level.

The **Strategic Network of Civil Protection (REPC)** is a VHF / FM network, connected by repeaters and Link's, with national coverage, with interconnection between the National Relief Operations Command (CNOS) at the Headquarters of ANPC, the 18 District Command of the continent Relief Operations (1 per capital district), the Municipal Civil Protection Services (SMPC's) and even the different Civil Protection Agents (APC's). The SMPC's, the Fire Brigade and other Civil Protection Agents and other entities specifically authorized by the ANPC for this purpose, have access to REPC, according to its working procedure.

The Portuguese alert-level status can be monitored in real time for many natural menaces. The ANPC, in cooperation with national organizations, provides information on:

- Forest fires
- Daily risk of forestall fire happening
- UV radiation index
- Heat wave alerts
- Weather alerts
- Civil Protection Alerts

The Civil Protection is a system with multiple agents and performance instruments. A citizen aware of the risks and the contribution he/she can make to avoid or mitigate their consequences is, in principle, a civilian protection active agent, playing a key role in the system. In fact, citizens are today both protagonists and civil protection active agents, whether regarding the right to information about the risks they face in their day-to-day, whether on duty to take preventive behaviors and appropriate self-protection measures. It is already common to say that the Civil Protection starts and ends in each of us, if we prepare for being both agents and beneficiaries. In the field of education and citizenship, the ANPC strategy is based on the following assumptions:

- Use of resources and knowledge at the closest level to the citizen
- Preference for positive approaches (no risk is greater than our ability to manage it) over the negative (disasters are inevitable)
- Identification of children and youth as a privileged public but not unique
- Importance of non-formal and informal education as a supplementary resource
- Inclusive approach
- Recognition of state limitations, supplementing them with collaborative partnerships
- Use of Information and Communication Technologies to better achieve its objectives

- Targeting, proportionate to the means available.

5 Capabilities

5.1 Human resources

The Operations Management System (SGO) is a form of operational organization that develops a modular configuration, according to the importance and type of occurrence, applying whenever a force of any Civil Protection Agent (CPA) or institution with special duty of cooperation is driven to an instance in which the head of the first team to reach the site immediately assumes the command of the operation - Relief Operations Commander (COS) - and we build an evolutionary command and control system appropriate to the current situation.

The National Relief Operations Command (CNOS) consists of the national operational commander at 2 national operational commander and three deputies operations and comprises the cell planning, operations, and information and logistics cell.

The Psychosocial Support Teams (EAPS) are part of the operational response of the National Civil Protection Authority. The coordination of these teams is carried out by the Security Center and Health (NSS) Unit Support Volunteers (UAV) that integrates the National Fire Department (DNB).

5.2 Materiel (non-financial) resources

The ANPC has special vehicles properly equipped with telecommunication means and systems to ensure the operation in an emergency situation. Since 2005, the Civil Protection has been making a great effort to extend and renew the fleet of vehicles, at district level:

- Light vehicle fire fighting
- Forest fire fighting vehicle
- Urban vehicle fire fighting
- Urban tactical tank vehicle
- Rural tactical tank vehicle
- Rescue vehicle and tactical assistance
- Rescue vehicle and special assistance
- Tactical Command Vehicle
- Rescue Ambulance.

5.3 Training

The National Service of Civil Protection (SNPC) is a body for the development of plans, policies and coordination and control of emergency response. There are no organic disaster response units or schools for civil protection within its organisation. The training of civil protection agents lies with the commands/directions that have schools and training centres for such purpose.

Several civil protection exercises are conducted every year, but there is no national exercise planning directive. These exercises take place at different levels: local, regional and national, and can assume different natures: command post or live exercises. Some examples of exercise are the following:

- The first civil protection international exercise took place in the Lisbon Urban Area on May 2009 and aimed at testing the operational procedures foreseen in the Lisbon Emergency Plan for Earthquakes.
- The “Terra Treme”⁵ is a preparation exercise and self-protection for the seismic risk during one minute, in which every citizen could participate individually or in groups. This is a training exercise organized by ANPC.

5.4 Niche capabilities

Telecoms Sans Frontieres – TSF the mission of TSF is to provide telecommunications in places where local infrastructure are destroyed, are insufficient or non-existent

The Portuguese Red Cross shall perform , in cooperation with the other agents and in accordance with its own constitution, civil protection functions in the areas of intervention, support, relief and health and social care.

The following entities play special roles as civil protection agents:

- Humanitarian associations of volunteer firefighters;
- Security services;
- National Institute of Legal Medicine and Forensic Sciences;
- Social security institutions;
- Institutions with rescue purposes and solidarity;
- Bodies responsible for forests, nature conservation, industry and energy, transport, communications, water resources and environment;
- Security services and private help public and private companies, ports and airports.

⁵ <http://aterratreme.pt/>

Resources

Legislative acts

- Lei de Bases da Protecção Civil: Lei n.º 27/2006, de 3 de julho (Alterados os artigos 13.º, 16.º, 34.º, 39.º, 50º, 53º e revogados o n.º 2 do artigo 34.º e a alínea a) do n.º 1 do artigo 39.º, pela Lei Orgânica n.º 1/2011, de 30 de novembro).
- Sistema Integrado de Operações de Protecção e Socorro: Decreto-Lei n.º 72/2013, de 31 de maio (Sistema criado pelo Decreto-Lei n.º 134/2006, de 25 de julho, e alterado pelo Decreto-Lei n.º 114/2011, de 30 de novembro).
- Orgânica do Ministério da Administração Interna: Decreto-Lei n.º 126-B/2011, de 29 de dezembro (Alterado pelo Decreto-Lei n.º 163/2014, de 31 de outubro, pelo Decreto-Lei n.º 161-A/2013, de 2 de dezembro e pelo Decreto-Lei n.º 112/2014, de 11 de julho).
- Orgânica da Autoridade Nacional de Protecção Civil: Decreto-Lei n.º 163/2014, de 31 de outubro (Altera e republica o Decreto-Lei n.º 73/2013 de 31 de maio). Portaria n.º 224-A/2014 de 4 de novembro (Determina a estrutura nuclear e as competências das unidades orgânicas da ANPC).
- Regime Jurídico do Sistema de Protecção Civil da Região Autónoma da Madeira: Decreto Legislativo Regional n.º 16/2009/M, de 30 de junho
- Orgânica do Serviço Regional de Protecção Civil, IP-RAM: Decreto Legislativo Regional n.º 17/2009/M, de 30 de junho
- Orgânica do Serviço Regional de Protecção Civil e Bombeiros dos Açores: Decreto Legislativo Regional n.º 7/99/A, de 19 de março (Alterado pelo Decreto Legislativo Regional n.º 39/2006/A, de 31 de outubro e pelo Decreto Legislativo Regional n.º 11/2007-A, de 23 de abril)
- Organização dos Serviços Municipais de Protecção Civil: Lei n.º 65/2007, de 12 de novembro
- Normas de Funcionamento da Comissão Nacional de Protecção Civil: Portaria n.º 302/2008, de 18 de abril
- Regulamento de Funcionamento dos Centros de Coordenação Operacional: Declaração n.º 344/2008
- Critérios e Normas Técnicas para a Elaboração de Planos de Emergência de Protecção Civil: Resolução n.º 25/2008, de 18 de julho
- Conta de emergência que permite adoptar medidas de assistência a pessoas atingidas por catástrofe ou calamidade: Decreto-Lei n.º 112/2008, de 1 de julho
- Lei de Segurança Interna: Lei n.º 53/2008, de 29 de agosto

Online resources (e.g. websites of key CM organizations)

- Agência Portuguesa do Ambiente (APA) <http://www.apambiente.pt/>
- Associação Nacional de Municípios Portugueses (ANMP) <http://www.anmp.pt/>
- Autoridade Marítima (AM) <http://autoridademaritima.marinha.pt/PT/Pages/Home.aspx>
- Autoridade Nacional de Protecção Civil (ANPC) <http://www.prociv.pt/Pages/default.aspx>

- Autoridade Nacional de Segurança Rodoviária (ANSR) <http://www.ansr.pt/>
- Cruz Vermelha Portuguesa (CVP) <http://www.cruzvermelha.pt/>
- Direcção-Geral da Saúde (DGS) <http://www.dgs.pt/>
- Escola Nacional de Bombeiros (ENB) <http://www.enb.pt/>
- Estado-Maior General das Forças Armadas (EMGFA) <http://www.emgfa.pt/>
- Guarda Nacional Republicana (GNR) <http://gnr.pt/>
- Instituto da Água (INAG) <http://www.inag.pt/>
- Instituto da Conservação da Natureza e das Florestas (ICNF) <http://www.icnf.pt/portal>
- Instituto Português do Mar e da Atmosfera (IPMA) <http://www.meteo.pt/>
- Instituto Nacional de Emergência Médica (INEM) <http://www.inem.pt/>
- Instituto Nacional de Medicina Legal e Ciências Forenses (INMLCF) <http://www.inml.mj.pt/>
- Liga de Bombeiros Portugueses (LBP) <http://www.lbp.pt/>
- Polícia Judiciária (PJ) <http://www.policiajudiciaria.pt/>
- Polícia da Segurança Pública (PSP) <http://www.psp.pt/>
- Portal do Cidadão <http://www.portaldocidadao.pt/>
- Portal do Governo <http://www.portugal.gov.pt/pt.aspx>
- Serviço de Estrangeiros e Fronteiras (SEF) <http://www.sef.pt/portal/v10/PT/asp/page.aspx>
- Serviço Regional de Protecção Civil e Bombeiros dos Açores <http://www.proxiv.azores.gov.pt/>
- Serviço Regional de Protecção Civil, IP - RAM - Região Autónoma da Madeira <http://www.proxivmadeira.pt/index.php?lang=pt>



Driving Innovation in Crisis Management for *European Resilience*

ROMANIA

Capabilities, Organisations, Policies, and Legislation (COPL) in crisis management and disaster response



Responsible Partner: CSDM (Valeri Ratchev)

Scope and limitations

This study serves as supporting information for further work within DRIVER.

Only limited time and budget has been available for this first general survey, which needs to be considered in terms of scope and completeness of the respective studies.

The author/s of this study is/are responsible for its content and quality.

Overview

Romania is highly vulnerable to catastrophic natural disasters. Firstly, it is situated in a seismically active region and has a history of devastating and deadly earthquakes – the most affecting happened in Vrancea in 1977. Furthermore, the Bucharest area has experienced a number of tremors of varying intensities, and the probability that a severe and damaging earthquake will occur is high. However, Romania is also at risk by other natural and technological hazards. More specifically, the floods in 2010 revealing weaknesses of the civil protection system triggered some process of improving. Of the former group, floods, drought and heat/cold waves have been experienced frequently, while the most affecting example of a man-made disaster has been the accident at the Baia Mare gold processing plant, where, in 2000, 100 000 cubic meters of toxic waste water spilled out and flooded into the Danube River, affecting Romania, Hungary, Ukraine, Serbia and Bulgaria.

The Romanian crisis management concept views civil protection as a public policy issue, and as a civil operation during which the military could provide support with both assets and people. Crisis management does not rely on a centralised structure, but is a result of the interaction of parallel architectures. The latter involve bodies and agencies dealing with particular risks, while the crisis management system-of-systems employs an all-hazard approach. The most significant developments within the crisis management domain took place in 2004, as well as after the 2007 accession to the European Union.

The National Emergency Management System (NEMS) is a nationally owned mechanism of multiple stakeholders, which provides coordination and response in case of emergencies, and serves as an advocate for prevention and disaster risk reduction at different levels. It is organised at four levels (national/governmental, ministerial, county and local), with a particular coordination and communication role for the national-level authorities. The system is led by the Prime Minister, supported by the National Committee for Emergency Situations and having the Minister of Administration and Interior as a chief executive. The main executive administrative body is the General Inspectorate for Emergency Situations (GIES), which coordinates plans and operational activities in cases of natural and man-made emergency situations. Specific plans are prepared at all administrative levels. Funding is provided through the state and local budgets, though they are used mostly for post-disaster rehabilitation and less for preventive measures.



The role of the private sector in the civil security system is limited, while NGOs cooperate closely with the state institutions, mostly in the fields of education and training. The number of organised volunteers is about 130 000. Regulations require that everyone be prepared to take care of himself in the immediate aftermath of major disasters. Every family and company should develop its own emergency plan, stock its own emergency survival kit, and ensure that each family member or company employee is familiarised with emergency procedures and can take precautions to protect their personal safety. However, in general, the society is not well organised at a community level and expectations that disaster management is a state responsibility are widely spread.

After Romania's EU accession in 2007, the country improved its cooperation with international actors and increased its efforts to make the crisis management system coherent with international (particularly the EU) context. Romania has increased its engagement in the work of committees and working groups dealing with the EU's civil protection. Romania has activated the EU's Monitoring and Information Centre (MIC)¹ several times and contributed to several MIC-coordinated interventions providing support to Greece, Georgia, Hungary, Moldova and Turkey. Bilateral agreements or protocols are signed with some of the Romania's neighbours (Bulgaria, Hungary, and Moldova), as well with other European (Czech, Denmark, France, the Netherlands, and Turkey) and non-European countries (Azerbaijan and the USA –with FEMA and USTDA).

The Romanian capacity for emergency response includes several niche capabilities: pyrotechnical capabilities for drainage, controlled breaches, and detonation, for water purification and transportation and for marine de-pollution. Military cargo aircraft are also available in cases of emergencies at home and abroad (C-27J Spartan – 6, C-130 Hercules – 3, and An-26 Curl – 4).

¹ The structure was renamed to Emergency Response Coordination Centre (ERCC).

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List of Abbreviations

ASRO	Romanian Standards Association (Asociatia de Standardizare din România)
CN APELL	National Centre APELL for the Disaster Management
COCG	Government's Command Operational Centre
DREF	Disaster Relief Emergency Fund
ECMWF	European Centre for Medium-range Forecasts
EMIS	Emergency Management Information System
EMIS	Romanian Emergency Management Information System
EOC	Emergency Operational Centres Single National Emergency Call System (SNECS)
EU MIC	EU's Monitoring and Information Centre (renamed to Emergency Response Coordination Centre)
EUMETNET	European National Meteorological Services
EUMETSAT	Organisation for the Exploitation of Meteorological Satellites
EUSF	European Union Solidarity Fund
GFDRR	UN Global Facility for Disaster Reduction and Recovery
GIES	General Inspectorate for Emergency Situations
HFA	Hyogo Framework for Action
HIS	Hydrological Information System
ICPO	International Organisation of Civil Protection
IFRC	International Federation of Red Cross and Red Crescent
IGAR	Institute of Geography
INCERC	National Institute for Building Research
NCES	National Committee for Emergency Situations
NEMS	National Emergency Management System
NIEP	National Institute of Research and Development for Earth Physics ()
NPP	Nuclear Power Plant
PAID	National Disaster Insurance Pool
REWS	Rapid Early Warning System in Romania
SMURD	Mobile Emergency Service for Resuscitation and Extrication
UNEP	UN Environment Programme

1 Policy

Romania emphasises disaster risk reduction and emergency management policy as one of the pillars of national security. Recently, it is focused on combination of legislative and organisational measures, capability building and training efforts and actions in cases of emergencies. In long-term perspective, strategy is directed towards building a culture of safety and resilience. In order to achieve such progress, national, regional and local development programs and projects are and will be subsumed to the principles of sustainable development, environmental impact prevention and reduction, responsibility and protection of citizens against disasters.

The policy-making and implementation mechanism is established around the following main phases: risk assessment, analyses, monitoring, alerting, decision-making, and interventions.

1.1 Risk Assessment

Romania is highly vulnerable to various hazards, particularly to earthquakes and floods. The occurrence of disasters, related to both nature- and technology- related risks, is high. However, despite growing public demands for proper disaster management, the current open source risk assessments are mostly focused on the character and (likelihood of) occurrence of hazards, and much less on various types of exposure – physical, social, economic and environmental as a minimum. Vulnerability, as a result from interaction between hazards (harmful events) and the structural components, exposed to them, could provide more correct and useful (in terms of crisis management policy) assessment of risks associated with natural and technological hazards. In result, the data and studies are dominantly of quantitative character and do not provide enough convincing picture of disaster risks in Romania. (Tanislav, 2009)

Natural hazards

In terms of systematic study of natural hazards, Table 1 provides a categorisation by Romanian scholars, based on historical evidence or likelihood of occurrence:

Table 1: Natural hazards, which affected or may affect Romania

SUBGROUPS	CATEGORIES	SUBCATEGORIES	TIPES
1. Cosmic (astrophysics) hazards	Cosmic corps fall		Meteors fall
	Cosmic corps clink		Comets, asteroids, stars clink
	Cosmic corps blast		Gamma radiations
2. Geological hazards	Hazards produced by internal factors of the Earth		Earthquakes
			Volcanic eruptions
	Hazards produced by external factors of the Earth	Movement of released soils, roks and sediments masses	Landslides
		Movement of snow and ice masses	Falls, rolling land-slide or crumblingof rocks Avalanches
3. Hydro-meteorology-cal hazards	Movement of air masses		Storms, Blizzards, Tornados
	Movement of water masses	Movement of fresh water	Water flow, Torrents, Floods
		Movement of sea water	Storm waves
		Movement of fresh and sea waters	Floods on the Danube
	Electrical discharges		Lightnings, Thunders
	Frost phenomena of water	Frost water in air	Fogs, Hails
		Frost water on rivers	Ice floes, Ice bridges
	Moisture deficiency		Droughts
	Excessive temperatures		Very high temperatures
			Very low temperatures
			Arsons of forest Arsons of land
4. Biological hazards	Epidemics	Epidemics caused by bacteria	Plague, Cholera, Anthrax, Leprosy, Brucellosis
		Epidemics caused by viruses	Smallpox, Encephalitis, Meningitis, Malaria, Influenza, West Nile, SARS, HIV
		Epidemics caused by rickettsii	Foot and mouth disease, Typhus
		Epidemics caused by toxins	Botulism
		Epidemics caused by unknown causes	Balkan endemic nephropathy (NEB)
	Epizootics	For people and animals	Cholera, Plague, Brucellosis, SARS, Foot and mouth disease, Glanders, Ornitosa-psittacosis
		For animals	Pig pesta
	Invasions of insects		Caterpillars invasion Grasshoppers invasion

Source: *Marinescu et al., 2010*

In terms of monitoring and analysis of natural hazards in Romania, the scope is quite large and typical for a continental European country. However, the focus is placed mostly on earthquakes, floods and landslides and extreme temperatures (incl. droughts). Table 2 provides an overall picture of natural hazards for a period longer than a century.

Table 2: Summarised table of natural disasters in Romania between 1900 and 2014

Disaster	Characteristic	Number of events	Victims	Total Affected	Damage (000 US\$)
Drought	Drought	2	-	-	500000
	average per event		-	-	250000
Earthquake (seismic activity)	Earthquake (ground shaking)	13	2630	392850	2010000

	ave. per event		202.3	30219.2	154615.4
Epidemics (Bacterial Diseases, Infectious Diseases (Acute respiratory syndrome (SARS))	Bacterial Infectious Diseases	2	-	5270	-
	ave. per event		-	2635	-
	Viral Infectious Diseases	1	-	1	-
	ave. per event		-	1	-
Extreme temperature	Cold wave	10	323	9259	-
	ave. per event		32.3	925.9	-
	Extreme winter conditions	1	68	-	-
	ave. per event		68	-	-
	Heat wave	8	138	1000	-
	ave. per event		17.3	125	-
Flood	Unspecified	5	1278	1241715	550000
	ave. per event		255.6	248343	110000
	Flash flood	5	27	24712	-
	ave. per event		5.4	4942.4	-
	General flood	34	398	367399	1936190
	ave. per event		11.7	10805.9	56946.8
Mass movement wet	Landslide	1	-	330	-
	ave. per event		-	330	-
Storm	Unspecified	4	20	1460	-
	ave. per event		5	365	-
	Extratropical cyclone	1	-	90	-
	ave. per event		-	90	-
	Local storm	5	30	6906	-
	ave. per event		6	1381.2	-

Source: "EM-DAT: The OFDA/CRED International Disaster Database www.em-dat.net - Université Catholique de Louvain - Brussels – Belgium

Some of the crises have been of national importance, involving mobilisation of the various services, while the greater number caused local or regional disturbances. The 2005, 2006, 2008 and 2010 floods are among the major disasters of the last decade. The types of disasters encountered in Romania are the following: floods, heavy snowfalls, strong storms, earthquakes, landslides, epidemics, nuclear, chemical or biological accidents, infrastructure accidents, hazardous material

spills, large fires and water works accidents.² Table 3 presents some of the most affecting natural disasters in Romania.

Table 3: The most affecting disasters in Romania for the period 1900 – 2014

Disaster	Date	Number of victims	Number of affected	Damage (US\$ 000)
Earthquake (seismic activity)	04/03/1977	1641	386 300	2 000 000
Flood	1926	1000		
Earthquake (seismic activity)	10/11/1940	980		
Flood	11/05/1970	215	122 320	500 000
Flood	29/07/1991	108	15 000	
Extreme temperature	23/01/2012	86		
Extreme temperature	20/01/2006	68		
Flood	07/75	60	1 000 000	
Extreme temperature	18/11/1998	60		
Extreme temperature	22/01/2010	52		
Flood	21/09/2005		30 800	
Flood	05/04/2000		60 431	500 000
Flood	13/03/2006		17 071	
Flood	12/07/2005		14 669	800 000
Flood	28/07/2004		14 128	
Draught	07/2000			500 000
Flood	21/04-14/08/2005			313 000
Infectious disease – Swine flu, H1N1	2009	122	7 008	

Source: compilation of data from "EM-DAT: The OFDA/CRED International Disaster Database www.em-dat.net - Université Catholique de Louvain - Brussels – Belgium"

The average number of the various types of natural disasters per year presents significant dominance of the hazards related to the climate and meteorological conditions:

Table 4: Average disasters per year

Drought:	0.06
Earthquake*:	0.10
Epidemic:	0.10
Extreme temp:	0.55
Flood:	1.26
Mass mov. wet:	0.03
Storm:	0.29
Wildfire:	...

Source: UNISDR Prevention Web³

² Source: <http://www.lege-online.ro/portal-legislatie>

³ Available at <http://www.preventionweb.net/english/countries/statistics/?cid=141>

Earthquakes

Romania is one of the most seismically active countries in Europe. According to a World Bank sponsored study (WB, 2007), “Even though, as per EM-DAT, earthquakes comprised just 5 per cent of all hazards recorded in the country during 1974-2006, there have been some damaging and catastrophic earthquakes in Romania in the past. Historic records show that the earthquake of 1940 had 980 fatalities, while the 1977 earthquake had 1,641 fatalities and led to economic damages of USD 2 billion.”

Even though Romania has not recorded any major earthquake in the last three decades, the vulnerability of the country to earthquakes is of special concern for the state authorities. Many of the disaster management measures taken are driven by earthquake considerations. Vrancea seismic zone is the main source of concern (in the past 300 years, a single major seismic event occurred with an epicentre outside this area – in 1916). The map below illustrates the concentration of the earthquake threat.

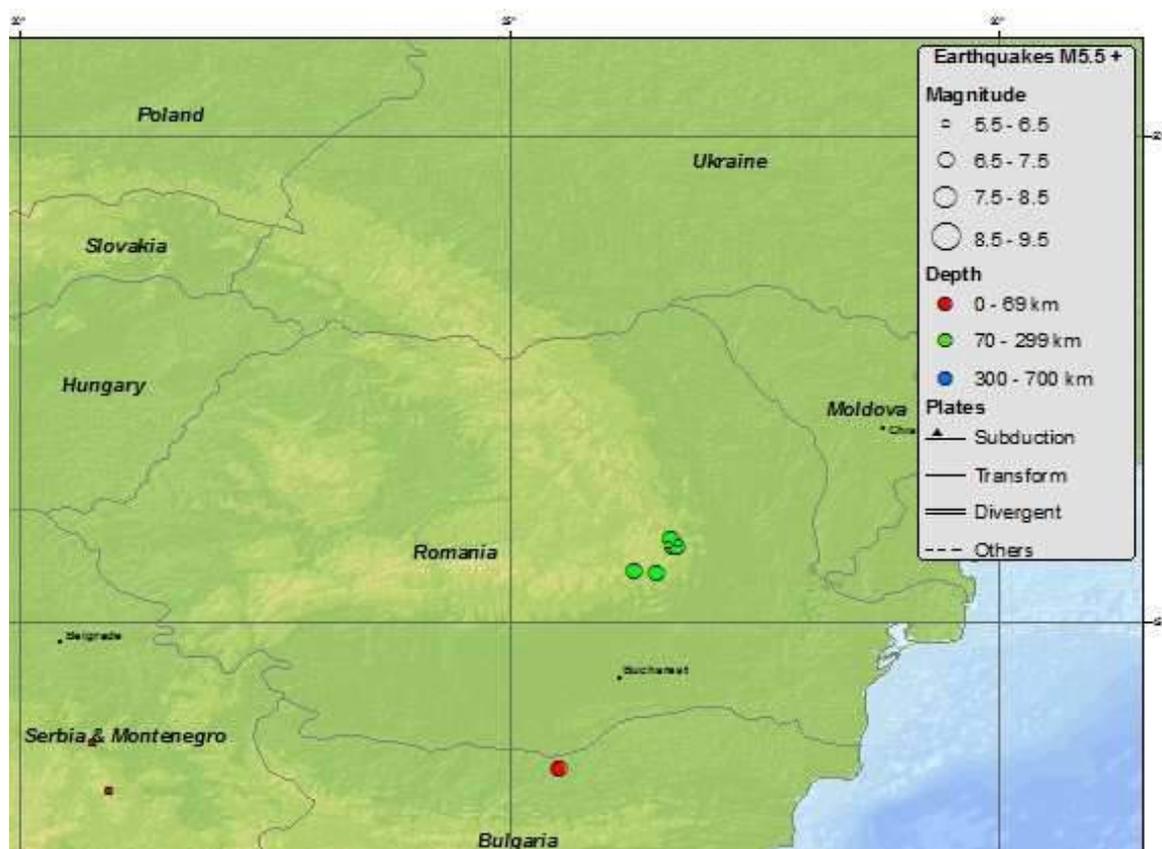


Figure 1: Seismicity map of Romania for the period 1900 – 2012

Source: United States Geological Survey's (USGS) Earthquake Hazards Program⁴

⁴ Available at <http://earthquake.usgs.gov/earthquakes/world/romania/seismicity.php>

As Figure 2 shows, in case of serious seismic activities within the Vrancea zone more than 50% of the territory of the country could be affected. However, from vulnerability risk point of view, Romanian research data indicate that within the area of higher seismic activities (probabilities) there is not significant population concentration, national critical infrastructure or industrial businesses, using dangerous substances. (Ozunu, 2011)

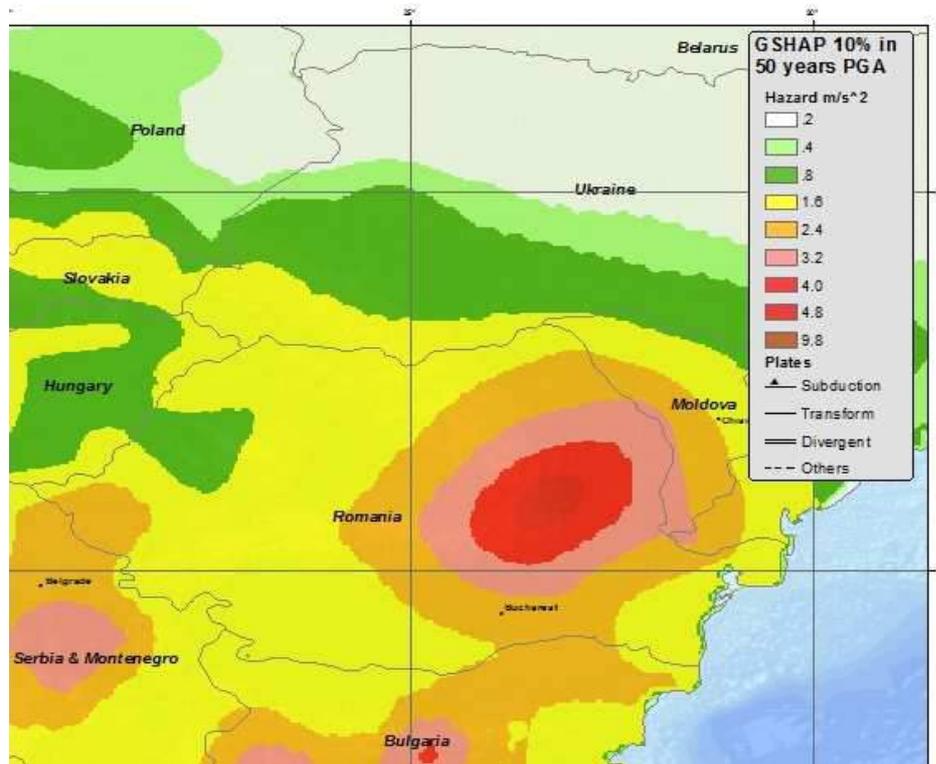


Figure 2: Seismic hazards from Vrancea seismic zone

Source: United States Geological Survey's (USGS) Earthquake Hazards Program⁵

Floods

Romanian studies point at floods of internal rivers and of the Danube as the most frequent hazards usually having great economic and social consequences. Marinescu et al. revealed that

“Annual occurrence is around 10-15 floods, with greater frequency at medium altitudes (in the mountains and Sub-Carpathians) and lower frequency towards the plain. Catastrophic floods are produced every 50 -100 years because of torrential rains combined with sudden snow melting. They are most frequently occurring in the western part of the country. Spring held regularly floods by melting snow, above which the overlap of spring rains. At the beginning of summer, they are wide spread in the country, being due to heavy rain. Autumns are rarer, due to rainfall during October-November and having a higher frequency in Banat and Oltenia. It is estimated that the maximum exposed flooding in our country is about 3.5 million ha, representing 15% of the country.” (Marinescu, 2010)

⁵ Available at <http://earthquake.usgs.gov/earthquakes/world/romania/gshap.php>

Damage to the Romanian economy from large-scale floods, as those in 2005 and 2010, has exceeded 1.7 billion USD. As a result, the National Strategy for Civil Protection determines floods as one of the most dangerous natural phenomena that may require evacuation and sheltering of mass number of population. Figure 3 illustrates the most affected by floods areas of Romania recently.

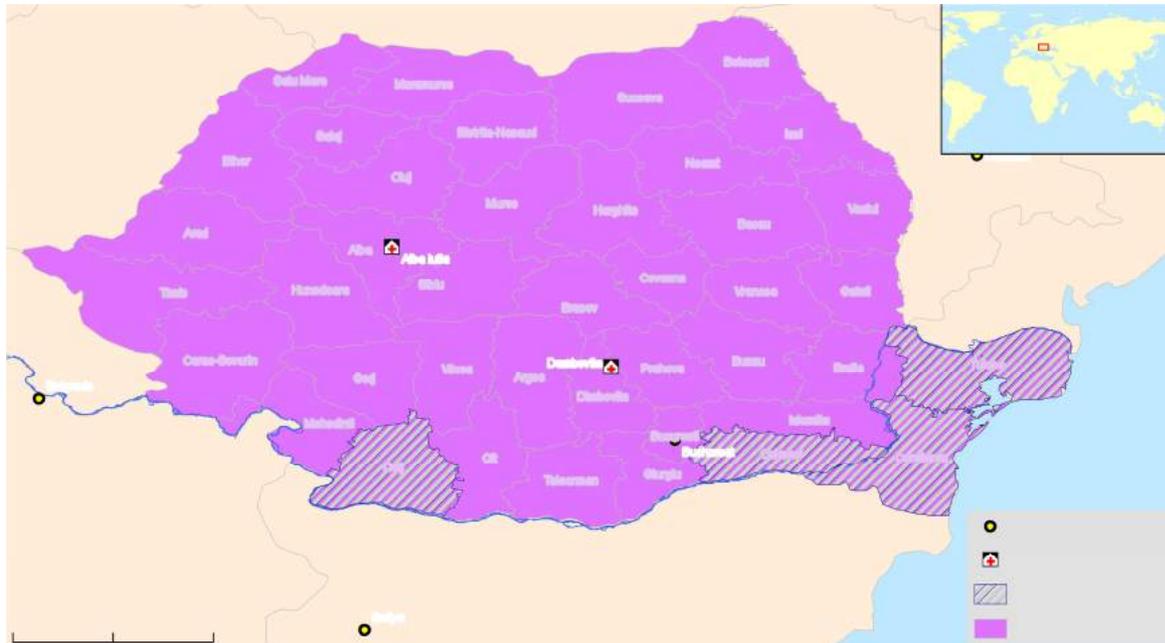


Figure 3: Usually the most affected counties by floods

Source: Federation of Red Cross and Red Crescent Societies⁶

According to information, shared by the GIES, as a result of the severe rainfalls in Romania that started on June 21, 2010, 37 counties out of a total of 41 were seriously affected by floods, torrents, flash floods or landslides. The most affected counties are those from the North-East of the country: Lasi, Suceava, Neamt, Bacau, Botosani, Covasna, Galati and Vaslui. During this disaster:

- more than 6.746.700 persons have been affected, 19.997 have been temporary evacuated and 23 deceased;
- 8 882 houses have been affected at different levels, approximately 700 km of protective works/embankments have been destroyed, 35 dams damaged;
- 5 257 km of national, county and local roads have been affected together with 707 bridges and 2.729 small bridges;
- in the agriculture sector 110 585 hectares of crops, 33 110 hectares of pastures, vineyards and 8 220 hectares of saplings have been completely wasted;
- many public utilities like schools, kindergartens, hospitals, churches, etc. were damaged at different levels;
- The overall direct damages have been estimated at approximately 875 million EUR.

⁶ Available at available at http://reliefweb.int/sites/reliefweb.int/files/resources/0FF3563DE9D39410C1257161002AF351-ifrc_FL_rou010506.pdf

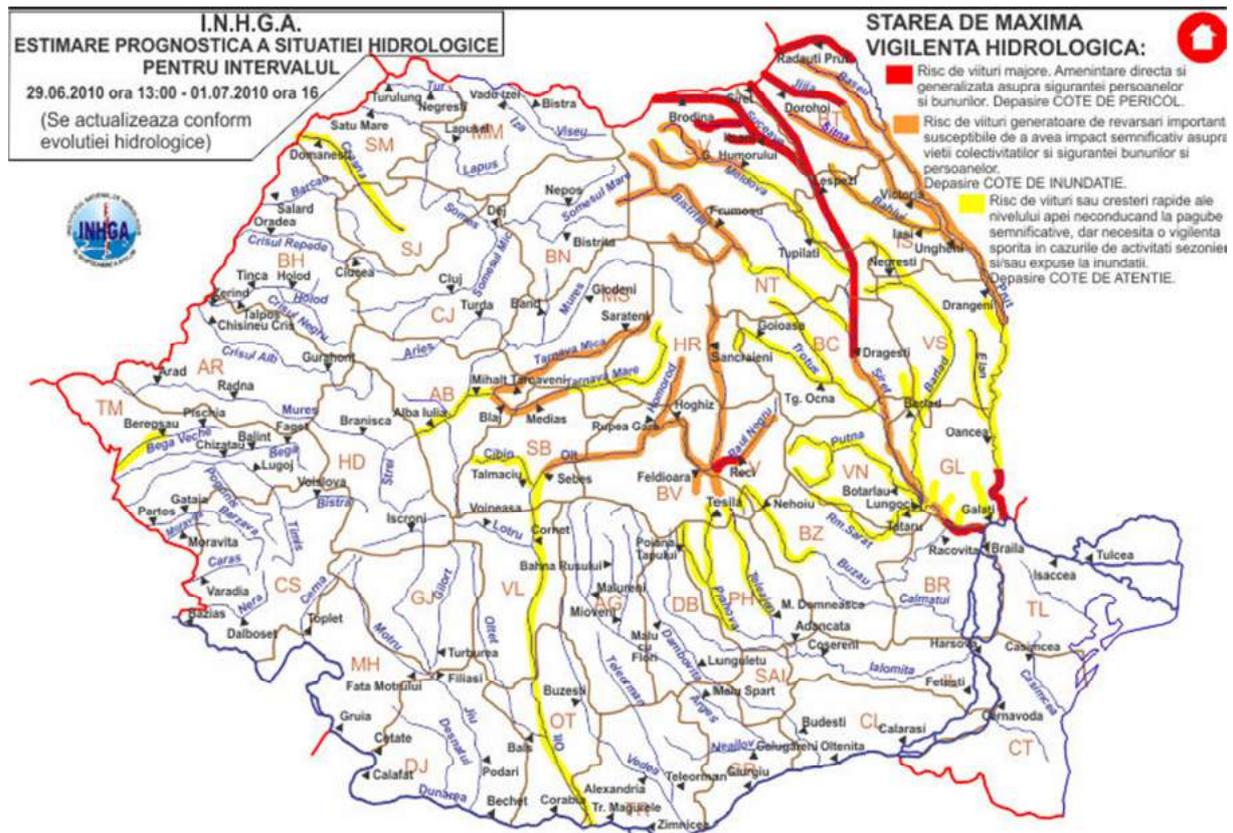


Figure 4: Most affected areas by the 2010 floods (June 29 – July 1)

Source: GIES presentation

Droughts

The National Strategy for Civil Protection determines droughts as one of the main natural phenomena that may threaten the Romanian population. Droughts are seen as resulting from variations of temperature that might be frosts, droughts, and heat waves. Elena Mateescu et al. argue that in Romania, the drought affects 7.1 million ha, which represent 48% from the total agricultural land. According to their study, “[t]he South, Southeast and East parts of the country are the most hit areas (<600 m³ water/hectare – extreme and severe pedological drought) during the extremely droughty years average yields of various crops representing only 35-60 per cent of the potential yields.” (Mateescu et al., 2013) As noted by their research, “[s]ince 1901 until now (2013), Romania has seen in every decade one to four extremely droughty/rainy years, an increasing number of droughts being more and more apparent especially after 1981.” The following statistics illustrate this conclusion:

Table 5: Droughty/rainy years in Romania, 1901-2010

DECADE	XX-TH CENTURY	
	EXTREMELY DROUGHTY YEARS	EXTREMELY RAINY YEARS
1901-1910	1907-1908	1910
1911-1920	1917-1918	1911, 1912, 1915, 1919
1921-1930	1923-1924, 1927-1928	1929
1931-1940	1934-1935	1937, 1939, 1940
1941-1950	1945-1946, 1947-1948, 1949-1950	1941, 1944, 1947
1951-1960	1952-1953	1954, 1955, 1957, 1960
1961-1970	1962-1963, 1964-1965	1969, 1970
1971-1980	1973-1974, 1975-1976	1972, 1974, 1975, 1976
1981-1990	1982-1983, 1985-1986, 1987-1988	1981, 1990
1991-2000	1992-1993, 1997-1998, 1999-2000	1991, 1997
2001-2010	2000-2001, 2001-2002, 2002-2003, 2006-2007, 2008-2009	2005, 2006, 2010
2011-...	2011-2012	

Obviously, drought periods (in terms of intensity, duration and spatial extension) have been more frequent and severe in the last decade, and have had a very negative effect upon crop yields. Some of the drought years may be considered as catastrophic given their impact on the main yield of winter wheat and maize crops – the most important crops in Romania. Some research studies and data from the Ministry of Agriculture and Rural Development have shown that the decline in crop yields reached 40-60%, especially in the southern part of the Romanian Plain. In the excessive drought years main crop yields have been partially or entirely compromised in the areas without irrigation systems. The critical development stage of these crops (formation of the reproductive organs during flowering and grain filling) very often coincides with almost total depletion of the available water supply in the soil and with the maximum evapotranspiration demand. (EEA, 2009) The figure below shows a general picture of how long a drought takes across Romania's territory.

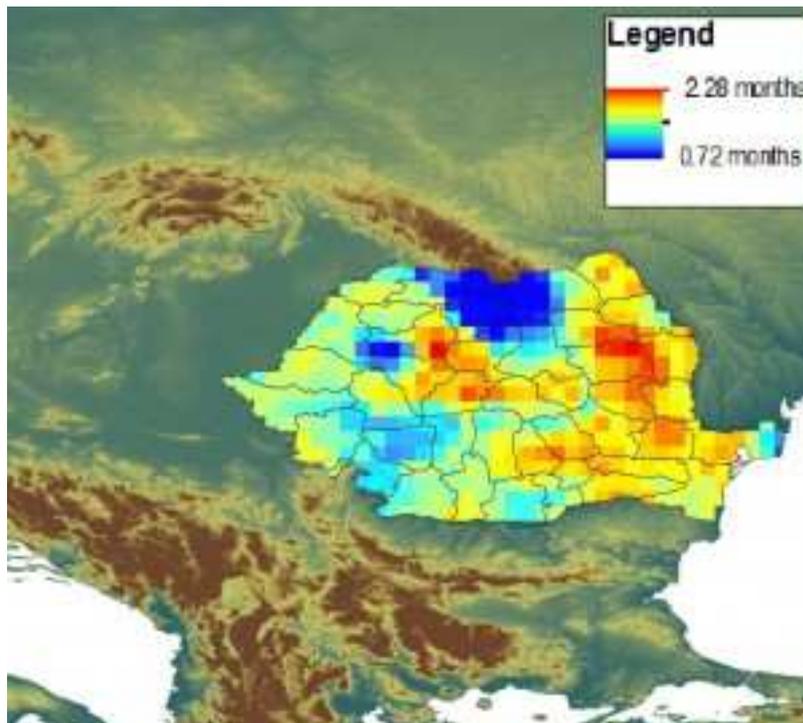


Figure 5: Average number of months/year with drought (referenced period 1951-2010).

Source: European Drought Observatory

Technological hazards

In terms of technological hazards, the major risks in Romania are associated with nuclear plants, mining and chemical (petrochemical and rubber) industry.

Nuclear

Risks from nuclear pollution are associated with the Romanian nuclear power plant (NPP) at Cernavoda and the Bulgarian at Kozlodui.

The Cernavoda nuclear power plant is part of the 1980s strategy of the communist regime to make the country fully energy independent. Accordingly, big dam projects on the Danube River – Iron Gate II, Turnu Magurele and Silistra, large hydro projects in the Carpathian Mountains, and ambitious wind energy plans in the Danube Delta had to be realised and implemented. In fact, only several hydro projects in the Carpathian Mountains and the Iron Gate II became a reality.

After the revolution of 1990, the construction of the Cernavoda NPP was halted, but shortly afterwards work on unit 1 continued, with the facility put in operation on 11 July 1996. Consequently, the construction of unit 2 at Cernavoda was restarted, with the unit entering in operation on 7 August 2007. In the early 2000s, plans to finish construction of units 3 and 4 resurfaced. The reactors in Cernavoda are based on the Canadian CANDU6 design, which, according to the Western European Nuclear Regulators Association, has not changed since 1979. According to

some experts, “there are big question marks over the reactor’s safety, which shares the same design flaw as the reactor that caused the Chernobyl disaster in 1986.”⁷

The Kozlodui NPP in Bulgaria has two operational reactors (Russian design VEER 1000) of six with plans to build a new one, based on a different technology.

Other sources of concern are nuclear reactors used for research and engineering purposes. Figure 6 below illustrates the dislocation of nuclear facilities and estimates of the risks from the major nuclear facilities in Romania and bordering Bulgaria.

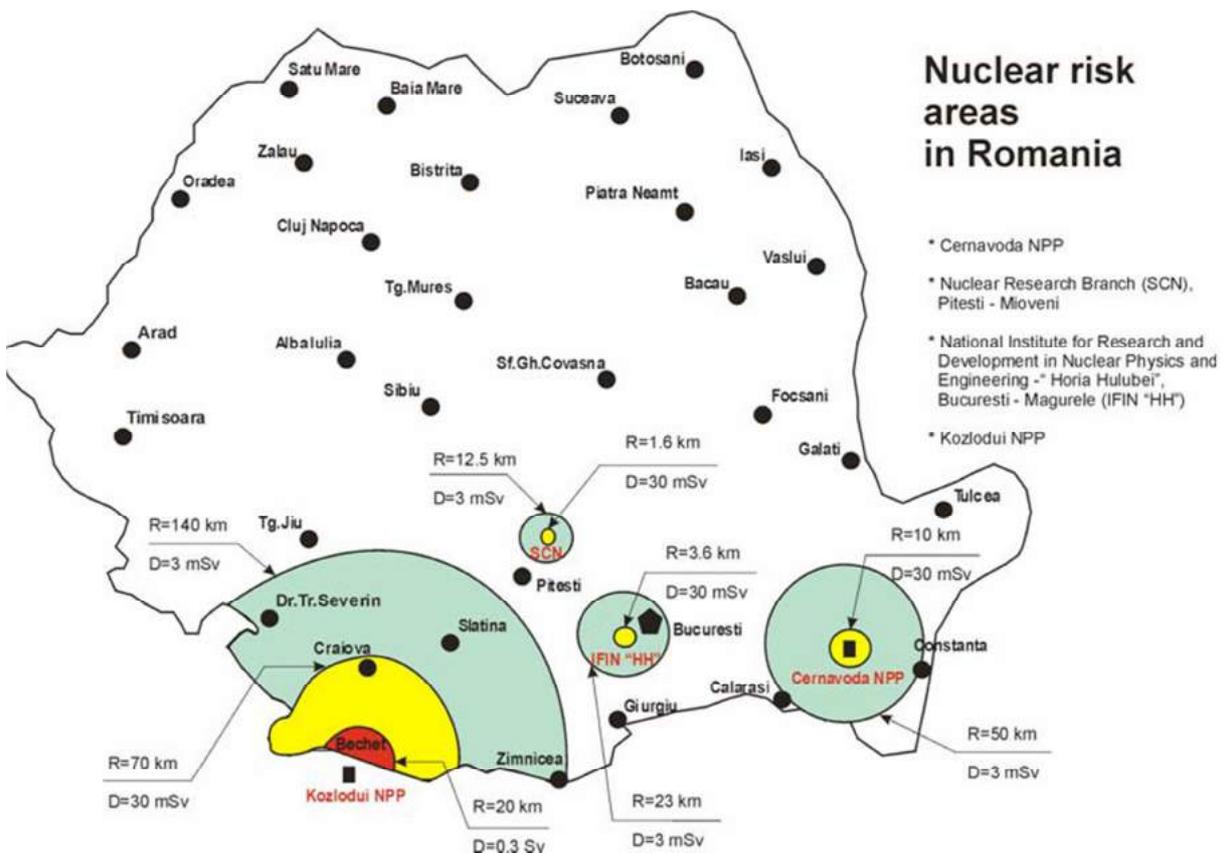


Figure 6: Nuclear risks areas in Romania

Source: UNISDIR, 2008. Courtesy of the Romanian General Inspectorate for Emergency Situations.

Mining-environment

On 30 January 2000, the dam containing toxic waste material from the Baia Mare Aurul gold mine in North Western Romania burst and released 100 000 cubic meters of wastewater heavily contaminated with cyanide, into the Lapus and Somes tributaries of the Tisza river, one of the biggest in Hungary. The cyanide-contaminated water was carried to the river Danube that flows through Serbia, Bulgaria and Romania. Reports from the area indicate that there was extensive damage to the river ecosystem and its fauna (between 80 and 100 per cent of fish stock has been killed), while other wildlife has also been affected, including Mute Swans, Black Cormorants, foxes and other carnivores.

⁷ Source: www.banktrack.org

- earthquakes and floods have been the most dangerous natural threat;
- risks of technological hazards have decreased as a result of measures taken, but the situation may worsen due to aging equipment in the critical industries.

1.1 Policy and Governance

Romania has been exposed to a range of natural disasters and several industrial catastrophes during the last several decades, causing human, economic, social and psychological distress and damages.

Modern crisis management policy for civil security is still in process of setting up. Similar to other former communist countries, the culture behind policy-making and implementation is dominantly reactive and in minimum degree – preventive and proactive. From social psychological point of view, the general expectation is that any kind of emergency preparedness, actions and reactions are exclusive responsibility of the state, while the role of the citizens being minimal, even concerned their own property and values.

Such cultural mind-set robustly reflects the building of country's new crisis management architecture: the set of institutions, norms, procedures and practices. Similar to other former Warsaw Pact countries – the civil security system in Romania has been built as a component of the national defence organisation, having all its typical characteristics as strong centralisation (more power to the "centre" than to any local authority), hierarchical decision-making and ministerial based funding and resourcing. It has been organised to address mainly consequences of war (both conventional and nuclear) and, as a secondary function, those from natural disasters and industrial accidents.

First strong signal about the need of serious improvements in the civilian protection organisation of the country were the tragic consequences of the 1997 earthquake in Vrance: 7.2 on the Richter scale caused 1 570 dead (according to other sources, 1 578), 11 300 injured, 32 900 houses collapsed or severely damaged, 35 000 families displaced, 763 business units affected. The damage amounted to 10 billion lei, the equivalent of more than USD 2 billion. The lesson was that establishment of a new professional civil protection organisation was necessary at both national and local levels. Zulean and Prelipcean argue that the "Law no.2/1978 regarding civilian defence set up the norms, rules and institutions both on a national and a local level to take measures in the case of natural and man-made disasters within the system of national defence." (Zulean, Prelipcean, 2012) Despite the fact that the new arrangements place the civilian defence again under the umbrella of the Minister of Defence, there is a special Commandment of Civilian Defence, consisting of non-uniformed professionals.

The first in Romania civilian organisation for emergency management was established in 1996 under the supervision of the Minister of Interior. The Law of Civil Protection No 106 set a unified design for the responsibilities of the personnel in charge of that matter, and laid down guidance for operations in emergency situations.

Over the last two decades, the focus on over-centralisation, inherited from the era of communism, has been moved (very slowly) towards the establishment of a system more relevant to the European democratic and contemporary crisis management practices. Several international research and assessment projects have identified serious weaknesses in key components of policy-making, organisation, legislation and professional performance. A World Bank country report from the Hazard Risk Mitigation & Emergency Preparedness Project indicated that “The current institutional setup and technical capacity are obsolete and does not match the requirements of a modern emergency management system, nor the requirements of EU integration.” (WB, 2004-11) This conclusion is convincingly confirmed by the above presented risk assessment data on the scope, frequency, and impact of major natural and man-made disasters in the country.

The major changes in policy-making and governance took place in 2004, when the emergency management and civil protection were combined into a unified system called National System for Emergency Management and the General Inspectorate for Emergency Situations was established by merging and reorganising the Inspectorate General of the Military Fire-fighters Corps and the Civil Protection Commandment. (Nițică, 2013)

For the period 2011-13, Romania has declared the following strategic goals in the area of civil protection (NPR, 2011):

- “Area 1: The more effective integration of disaster risk considerations into sustainable development policies, planning and programming at all levels, with a special emphasis on disaster prevention, mitigation, preparedness and vulnerability reduction. Romania emphasises disaster risk reduction through legislative and organisational measures and through actions taken towards building a culture of safety and resilience. National, regional and local development programs and projects are subsumed to the principles of sustainable development, environmental impact prevention and reduction, responsibility and protection of citizens against disasters.
- Area 2: The development and strengthening of institutions, mechanisms and capacities at all levels, in particular at the community level, that can systematically contribute to building resilience to hazards. A well-determined Romanian legal framework implements disaster risk reduction mechanisms at all levels. This framework is based upon incorporating risk reduction elements in land use practices, infrastructure development and land use planning policies. Institutional cooperation, multiannual planning and an integrated approach are key-actions in building capacities in order to strengthen disaster resilience
- Area 3: The systematic incorporation of risk reduction approaches into the design and implementation of emergency preparedness, response and recovery programmes in the reconstruction of affected communities. The National Emergency Situations Management System is built to perform comprehensive pre-disaster planning, emergency response and post-disaster actions. Identifying, assessing, ranking and monitoring the risks are necessary in order to maintain the system’s efficiency. The update and improvement of contingency plans and preparedness for emergency of the population and public authorities are key-elements for the emergency services.”

1.1.1 Strategy scope and focus

An international regional research project, led by UNISDIR and the World Bank, identified that “civil protection is viewed in Romania both in terms of the traditional concept of “protection and rescue” and the broader notion, prevalent in the EU, that each citizen has the right to safety at home, at work and while travelling around the country. Moreover, each citizen has the right, as well as an obligation, to be trained in protection and rescue and to receive full and timely information about all threats of disaster, as well as all available protection measures and activities.” (UNISDIR, 2008)

Crisis management and emergency preparedness in the context of natural and technological disasters seems to be a component of the National Security Strategy of Romania as “[i]t refers primarily to the following fields and activities: the rule of law, citizens’ safety, public security and national defence, protection against natural disasters, degradation of living conditions and industrial accidents.”⁹

Horizontally, the protection against disasters and environment changes are seen in Romania as elements of a comprehensive homeland security function that includes all, but the national defence against external military threat. On the vertical axis, the Romania security strategy gradually expands its scope from the attributes of the state (sovereignty, independence, territorial integrity) “down” towards societal and individual security. This development reflects also the decision-making process in crisis management, which progressively develops as more decentralised and inclusive. In the organisational axis of national security, the civil security organisations are components that expand the “traditional” national security means (armed forces, diplomacy, intelligence, civil defence, etc.).

By legal definition, civil protection is a component of the national security system and represents an integrated set of specific activities, organisational, technical, operational, and humanitarian measures and tasks and public information. They are planned, organised and carried out to prevent and reduce disaster risk and to protect people, property and the environment against the adverse effects of emergencies, armed conflicts and their aftermath. The overall aim of civil protection is to provide conditions necessary for the survival of individuals affected by natural and man-made threats. Civil protection activities are of national interest and are performed by the central and local public administration authorities, other legal subjects and private Romanians.

The scope of the civil protection strategy includes the most well-known risks as earthquakes, floods and industrial disasters (mostly nuclear). However, some recent analytical studies explain that, especially at the local and regional level, issues like forest fires, heavy snows, and landslides receive prevailing attention.

Generally, the crisis management strategy of Romania during the last two and more decades gradually moves in four main directions as thinking, approach and decisions:

⁹The National Security Strategy of Romania, 2007, available at <http://www.isn.ethz.ch/Digital-Library/Publications/Detail/?ots591=0c54e3b3-1e9c-be1e-2c24-a6a8c7060233&lng=en&id=156800>

- a) *Towards progressively established balance between military/civil defence and civil security/civil protection.* This process is not completed and is accompanied with inter-institutional frictions. Certainly, there are overlapping and gaps (to be discussed below) but the direction of change seems to be firmly and irreversible.
- b) *From consequence management towards prevention and risk reduction.* Significant role for such developments play the intensive international cooperation with the UN institutions, the World Bank, Germany, Norway, Japan, and others, and recently, the transposing of EU norms to the Romanian internal legal arrangements. One of the important results from partnership (with the World Bank) is development of the Emergency Management Information System (EMIS).
- c) *From a completely centralised system towards an equilibrium in crisis management decision-making.* This process is also not completed yet as its implementation requires building of huge capacity for a large number of local and regional authorities. Decentralisation of funding is a component of this process as well.
- d) A positive development is also that *there are many collaborative initiatives between the academic community and national and local research institutions* involved in disaster prevention. This collaboration is manifest through various training exercises, seminars, conferences and congresses as well as through joint research programmes. This way society became better informed, included and prepared for emergency situations. Expanded base of crisis management, among everything else, exerts pressure on state authorities to improve permanently the legal, organisational, and resource grounds of emergency preparedness and disaster management.

1.1.2 Monitoring and analytical support to policy making; R&D

The Romanian authorities see monitoring and analysis as “prevention information.” In accordance to the General Inspectorate for Emergency Situations (GIES), prevention is, by law, a preventive activity planned, organised and conducted for risk management. On behalf of the Ministry of Internal Affairs, the GIES is the national coordinating authority. Prevention information is the result of the application of a set of actions and measures that ensure relevant awareness of citizens and institutions on the existing and possible risks in a certain time and place (including through training and orientation), and on the protective measures and behaviour they should follow in case of emergency.

Generation and delivery of prevention information is one of the core functions for the ministries and other central agencies and some NGOs for the prevention and management of emergencies at the national level. Local authorities, volunteers, healthcare, media, environmental specialists, industry and NGOs are engaged to carry out prevention information functions locally in the phase of prevention and during emergencies.

The National Strategy for Civil Protection determines as an objective the identification, monitoring and management of risks, generated by existing natural and technological disasters in Romania or on the territory of neighbouring states that could affect Romania. With respect to the functions of the National Emergency Management System, the following tasks pertain to that objective:

- to monitor the parameters of all obvious sources of risks;

- to collect and process data, to be shared within the system when they overcome established concrete limits of attention.

However, the system for monitoring of natural hazards has not been completely reformed. Some of the sectors have been developed within the environmental policy framework (water, air quality, Black sea water, forests, etc.), while others have been established after major natural disasters (earthquake, floods, landslides, etc.). They are at different levels of modernisation and operate more independently than as a system. In reality, there are several major areas and issues to monitor, from which the information flows towards various ministerial crisis management centres and to the GIES. Decision-making is either ministerial or for the committee that is supported by the GIES.

The most comprehensive and sustainable monitoring systems are:

- *Seismic monitoring and early warning system.* A method to rapidly estimate an earthquake's magnitude in 4-5 seconds from the moment of detection of a P wave in the epicentre has been developed. The early warning system consists of several different parts: a dedicated acquisition system, algorithms to rapidly detect seismic events, algorithms that eliminate false detections and alarms and methods to estimate the earthquake's magnitude and to send the warning to the users. All of these parts have been designed to work automatically, in real time, without interruption for a long period. This can be used to approximate very well an earthquake's magnitude in the first seconds after detection. The average absolute error is low of 0.171 magnitude degrees. The software developed by National Institute for Earth Physics was tested during the Vrancea earthquake of 25 April 25, 2009 when the magnitude ($M_w = 5.7$) of the earthquake was computed in the first 4 seconds with an accurate value.¹⁰
- *Meteorological system for the prevention of hazards associated to severe hydro-meteorological phenomena.* The National Meteorological Administration delivers operational services in meteorology, performing as well current activities, studies and researches, within its competencies. The integration of the meteorological activity within the system of conventions and international relations is ensured through:
 - Performing observations and measurements of the weather state and evolution;
 - Designing methodologies for data measuring and processing and achieving meteorological and specialised products;
 - Elaborating meteorological diagnoses, forecasts and warnings;
 - Participating in adjacent activities for preventing meteorological hazards;
 - Building up, systematically updating and managing the national meteorological data fund;
 - Performing studies and researches for the development of its own domain, i.e. Systems and methods for measuring the meteorological, radar, climatological, agro-meteorological and atmospheric physics parameters and elaborating software products for specialised applications, in accordance with needs and demands at national and European level respectively;

¹⁰ Source: Romanian presentation at The 3-rd International Disaster and Risk Conference IDRC Davos 2010 Davos, Switzerland, available at <http://www.slideshare.net/GRFDavos/davos-2010prezentareppt>.

- Organising and coordinating the national system for capacity building and training in meteorology, climatology, agro-meteorology and atmospheric physics;
- Participating in international programs/activities, according to its competencies;
- Representing Romania with the World Meteorological Organization, the European Organisation for the Exploitation of Meteorological Satellites (EUMETSAT), the European Centre for Medium-range Forecasts (ECMWF) and operational programme for exchanging information from Weather Radar Units within the European National Meteorological Services (EUMETNET).
- *Hydrological risk monitoring.* The Hydrological Information System (HIS) and the organisations it supports are divided into multiple levels of operational responsibility, including: sensor level operations, sub-basin level operations, basin level operations, and national level operations. Each of those operational levels is further broken down into elements dealing with automated sensors, hydrological operations processing, dispatch operations processing, communications, and interfaces with existing Romanian infrastructures.
- *Integrated water monitoring system* in Romania has been established in accordance with Article 8 (1) of the Water Framework Directive (2000/60/EC). It has been operational since 2006 and includes six subsystems covering: rivers, lakes, transitional waters, coastal waters, groundwater, and wastewaters (control monitoring of wastewater discharged into natural receivers). The monitoring of the water is done by the National Administration of Romanian Waters through its territorial units (in some sections of the Danube delta and in coastal waters the monitoring is done by the National Institute of Development Research “Danube Delta” – Tulcea and the National Marine Research Institute that “Gheorghe Antipa” – Constanta.

According to Government Ordinance No 2288/2004, Annex 2, the functions related to monitoring of hazards and risks and their negative effects are divided among various ministries and state agencies in the following way:¹¹

- Centralisation of data and information on hazards and risk monitoring, as well as their negative effects: Ministry of Internal Affairs through the GIES;
- Quality of air monitoring: Ministry of Environment and Climate Change;
- Environmental monitoring: Ministry of Environment and Climate Change;
- Seismic hazard monitoring: National Institute for Earth Physics (INCDFP) and National Institute for Research & Development in Construction;
- Monitoring of hydrological phenomena on watercourses and quality their waters: Ministry of Environment and Climate Change through National Administration “Romanian Waters”;
- Monitoring the main hydraulic works: the Hydro administrator, Ministry of Environment and Climate Change and the Ministry of Economy;
- Monitoring dangerous weather phenomena: Ministry of Environment and Climate Change, National Meteorological Administration;
- Public health monitoring: Ministry of Health;
- Monitoring shipments of hazardous chemicals: Ministry of Transport;

¹¹ The original text is available at <http://www.crucearosie.ro/uploads/Legislatie/Hotarare%202288%20din%202004%20-%20functii%20de%20sprijin.pdf>. The titles of several ministries are changed accordingly to the current Government.

- Monitoring of sources of nuclear and radiological risks: National Commission for Nuclear Activities through the Nuclear Agency & Radioactive Waste;
- Monitoring of nuclear activities and transport of nuclear fuel and radioactive material: National Commission for Nuclear Activities;
- Hazard monitoring of special nuclear research and development facilities: Ministry of National Education;
- Monitoring of safety construction: State Construction Inspectorate;
- Monitoring of economic sources of chemical risks: Ministry of Environment and Climate Change, Ministry of Internal Affairs, the Ministry of Economy and the National Dangerous Chemical Substances Authority;
- Monitoring of the economic sources of risks of fire and explosion: Ministry of Internal Affairs and Ministry of Economy;
- Monitoring shipments of military explosives: Ministry of Defence;
- Monitoring of sources of risks of military explosions: Ministry of Defence;
- Hazard and risk monitoring signalled externally: Ministry of Foreign Affairs through the Crisis Operation Centre;
- Hazard monitoring for communications networks and information: Ministry of Communications and Information Technology, Special Telecommunications Service and the National Regulatory Authority for Communications;
- Monitoring of critical infrastructure security: the ministerial committees for emergency situation;
- Monitoring of food safety: National Sanitary, Veterinary and Food Safety Agency.

Analysis

Analytical work on threats assessment and risks identification is organised in two areas – natural hazards and technological risks. It is based on List of methods/procedures for fire risk assessment approved by the General Inspectorate for Emergency Situations.¹²

A Methodology for Risk Analysis Involving Industrial Hazardous Substances (in Romanian Metodologie pentru analiza riscurilor industriale ce implică substanțe periculoase)¹³ has been introduced for risk analysis in the technological domain. It has been developed in accordance to the Directive 96/82/EC, the so-called Seveso II, and Directive 2003/105/EC, amending the latter. In Romania Seveso II applies to several thousands of industrial establishments where the amount of dangerous substances exceeds the thresholds in the Directive. The authorities, responsible for the implementation of Seveso II, are:

- At the national level: the Ministry of Environment and Climate Change, National Environmental Protection Agency, the General Inspectorate for Emergency Situations, and the National Environmental Guard;
- At regional level: Regional Directorates of the National Environmental Protection Agency and Regional Commissariat of National Environmental Guard;
- At local level: Environmental Protection Agencies, County Inspectorates for Emergency

¹²Available in Romanian language at http://www.igsu.ro/documente/metode_avizate_risc_incendiu_02.06.2011.pdf

¹³ Available in Romanian language at http://www.igsu.ro/documente/seveso/Metodologie_analiza_risc_final.pdf

Situations, and County Commissariat of National Environmental Guard.

There are number of checklists and assessment guides developed for the implementation of the Methodology for Risk Analysis Involving Industrial Hazardous Substances, as follows:

- Site inspection checklist for fertilizers;
- Checklist for inspection of activities of the mining industry;
- Checklist for inspection in refineries;
- Checklist for inspection of liquefied petroleum gas deposits;
- Assessment guide for external emergency plan;
- Implementation guide for Seveso spatial planning and urbanism;
- User rating for security reports.

According to the Government Ordinance No 2288/2004, Annex 2, chapter C, the risk assessment functions are dedicated to different ministries and state agencies in the following way:

- Mass illness: Ministry of Health/Directorate General for Public Health and the State Sanitary Inspection, National Centre for Surveillance and Control of Communicable Diseases and the National Veterinary Services and Food Safety;
- Epizootic diseases/zoonosis: Ministry of Agriculture and Rural Development and the National Sanitary, Veterinary and Food Safety Authority, in collaboration with the Ministry of Health;
- Failure cosmic objects: Ministry of Education and Research/Romanian Space Agency, Ministry of Internal Affairs, Ministry of Defence;
- Collapse of land caused by mine explosions: the Ministry of Economy and administrators of geological exploitation;
- Collapse of land in urban areas: Ministry of Transport, Ministry of Internal Affairs/local government;
- Landslides: Ministry of Internal Affairs/National Agency of Cadastre and Land Registration and the Ministry of Transport;
- Biological threat: Ministry of Health and the National Sanitary Veterinary and Food Safety Authority;
- Ecological threats: Ministry of Defence and Ministry of Environment and Climate Change;
- Threats to critical infrastructures: Ministry of Transport, Ministry of Communications and Information Technology, Ministry of Economy, Ministry of Environment and Climate Change, Ministry of Health, Special Telecommunications Service and the Protection and Guard Service.

In conclusion, the organisation for monitoring and analysis of hazards in Romania seems to be comprehensive and covers all key sources of natural and industrial risks. A work for internal integration between different sub-systems based on modern telecommunications solutions is in progress. Implementation of the EU directives is advanced based on specialised EU funding. Cross-border and regional co-operation for early warning and analytical work has been established and is expanding.

1.1.3 Policy for Prevention

See 1.2.6

1.1.4 Policy for Preparedness

See 1.2.6

1.1.5 Policy for Response

See 1.2.6

1.1.6 Policy for Relief and Recovery

The civil protection management in Romania is not organised strictly according to the wide-spread modern construct of prevention, mitigation, preparedness, response and recovery or to the European civil Protection Mechanism, adopted in 2007 (EC 779/2007, Euroatom). According to the Government Emergency Ordinance No 21/2004 (Art. 3), the principles of emergency management are:

- Prediction and prevention;
- Priority protection and rescue of people's lives;
- Compliance with the fundamental rights and freedoms, accountability for emergency management of the public administration authorities;
- Cooperation at national, regional and international level with similar bodies and organisations;
- Transparency of activities carried out for the emergency management, continuity and gradualness of emergency management activities, efficiency, active cooperation and hierarchical subordination of the components in the National System.

These principles have been transferred into a three-phase mechanism that actually reflects the preliminary risk reduction work, actions during emergencies and post-crisis activities:

- Pre-disaster actions and measures include:
 - Identification of sources of threats by character and area of possible exploration, monitoring of those sources and analysis of their escalation in time and scope;
 - Building and maintenance of an early warning and alert system;
 - Organising, equipping and training of professional and volunteer crisis response units;
 - Drafting and implementation of specially funded programmes and plans for risks mitigation;
 - Drafting operational plans based on hypothetical scenarios for different hazards including combined and of nature-technological character;
 - Preparing the population, institutions, infrastructure and specialised units for disaster response;
 - Improving the crisis management related legislation including transposing the relevant EU Directives;
 - Maintaining of strong, reliable, and sufficient quantity of prepared people and resources in size and scope relevant to the risks assessments.
- Disaster response actions include:
 - Alarming the population;
 - Deployment and conduct of timely operations of specialised formations, specialists and volunteers to protect the lives of the people;
 - Evacuation of people, animals and other valuable material goods out of danger zones;

- Reviewing and updating deliberate plans and taking protective measures to limit the scope of the danger and damages;
- Raising the capacity of crisis response forces and means involved through mobilisation, outreach and making requisitions;
- Sharing information, analysis and assessments with neighbouring countries and international organisations;
- Requesting of international support;
- Post disaster measures and actions are organised and performed in short-, medium- and long-term frameworks to include:
 - Short-term civil protection measures include continued search and rescue operations, improvement of the situational awareness about the losses and damages, caused by the disaster, drawing analysis and recommendations for further actions and measures, taking measures for immediate support of the people in need, improving the quality of measures, taken during the period of rapid response, and maintaining the cross regional and cross border co-ordination and support.
 - In mid-term timeframe the focus is on restoration of the vital social, economic and security functions within the damaged areas and throughout the country, creation of normal living conditions for the population, including through collection, storage and equitable distribution of essential national and foreign humanitarian aid, restoration of the main elements of affected infrastructure and utilities management;
 - In long-term perspective measures and actions will continue to provide support to the affected population, removing the effects of disasters and helping to resume the normal economic and social activities, eventual relocation of evacuated population, restoration of civil protection assets, materials and funds used in response actions.
- Post-crisis impact assessment involves a systematic analysis of socio-economic and environment losses and impact, along with reports that contain the disaster effects mitigation measures that were taken and also the measures that will be implemented to prevent that kind of situations. Those reports are presented to the Government and mass media and can be consulted by every interested person or institution. The physical preliminary evaluation and the value disaster effects evaluation are a permanent care of the Romanian emergency management body, aiming to realise some urgent operative measures and also medium and long term rehabilitation and reconstruction measures in order to normalise the social-economic activities and to promote the long lasting objectives. At local level, there are consequences evaluation commissions that use a specific methodology for estimation of the losses, to ensure compensations and provide necessary funds for situation normalisation. In case of disasters with major consequences, governmental commissions are responsible for assessment of the impact, sometimes involving cooperation with international experts. A specialised lessons learned unit has not been established yet, but each leading institution is doing it for itself and report to the central authority (i.e. GIES).

Both Romanian authorities and academic researchers underline that addressing the overall challenge of disaster prevention, mitigation and response require a comprehensive approach to the continuum of disaster risk assessment, forecast, prevention, preparedness and mitigation (pre- and post-disaster), bringing together the different policies, instruments and services available to the state, regional and local authorities. In Romania, most of the important components exist, but their

integration and optimisation into a real modern and effective “system” yet to happen. Accordingly, the existing links between civil protection and environmental policies should be reinforced in order to take full advantage of the preventive measures included in environmental legislation and ensure an integrated approach to disaster prevention and mitigation. In addition, cost effectiveness concerns and resource constraints call for a managed, coordinated and integrated response and recovery.

1.2 Financing

In accordance with the National Strategy on Civil Protection of 2005, funds should be allocated primarily to programs that ensure the efficient and cost-effective crisis management. A second priority has been determined to be a balanced structure of the budget – the target being the average in NATO countries allocation of resources – 40% for personnel, 35-40% for investments, and 25-20% for operations and maintenance, to be achieved around 2008. The strategy also declares that the period 2008-2012 shall be dedicated priority to modernisation of the equipment and training for crisis management interventions.

1.2.1 Investing in preparedness

To achieve the strategy’s aims, the ministries, and the local and central public authorities are forced by law to provide funds for prevention and mitigation of disaster effects. According to Emergency Ordinance No 21/15.04.2004, the National Committee has as its main duty to examine and propose to the Government for approval a national plan for ensuring human, material and financial resources for the purposes of emergency management, elaborated by the General Inspectorate for Emergency Situations. Further, the Committee proposes to the Government the inclusion of funds in the annual state budget, necessary for emergency management.

In accordance with Public Financial Law no.500/2002, the state budget includes the Government’s Intervention Fund, which is allocated, on the basis of Government decisions, for financing emergency actions with the view of eliminating disaster effects and supporting the individuals suffering from calamity.

Local and county councils, within their own budgets, must secure the necessary funds for intervention and prevention of disasters for the purposes of limiting and mitigating the disasters’ consequences. In special cases, e.g. state of emergency, according to the law, there is a possibility of making requisitions of technical means and materials necessary for intervention. Perishable items and goods that can be used only once can be made requisite, according to the law, by paying a certain amount of money as compensation.

In addition to that, the annual budget of the Ministry of the Environment and Climate Change may contain funds for works for flood protection, as well as for repair of protection facilities damaged during the previous year. Through the annual budget of Ministry of Transport funds may be allocated for multi-floor inhabited buildings’ strengthening, if they are classified as being most exposed to seismic risk and thus represent a public danger.

Within the National Progress Report on the Implementation of Hyogo Framework for action (2011-13),¹⁴ Romania was asked to provide information on “the ratio of the budget allocation to risk reduction versus disaster relief and reconstruction.” The answer includes the following information:

¹⁴ National Progress Report on the Implementation of Hyogo Framework for action (2011-13), available at http://www.preventionweb.net/files/31547_rou_NationalHFAProgress_2011-13.pdf

Table 6: Dedicated resources to implement disaster risk reduction activities

	Risk reduction/prevention (%)	Relief and reconstruction (%)
National Budget	0.002	NA
Decentralised/sub-national budgets	1	2.5
USD allocated to hazard proofing sectoral development investments (e.g. transport, agriculture, infrastructure)	NA	NA

The report makes the following description:

“Important amounts of money were invested in prevention activities and in disaster risk reduction measures, especially in the flood risk field. These funds are from the local councils, decentralized public services, central authorities and European programs. The investments in disaster risk reduction made by central authorities are easily identified (hydrotechnical works, hazard and risk maps, the program for the reduction of seismic risk of the buildings).

At the local level, there are also current investments in disaster risk reduction (capacity building of the local emergency situations services, public awareness campaigns, the maintenance of ditches and dikes), investments covered by the emergency situations dedicated funds. These funds are dedicated for all prevention, response and recovery actions. Local authorities spend 0-4% of the local budget for disaster risk reduction measures and 0-10% for response and recovery, depending on the existing situation.” (p. 6)

1.2.2 Investing in consequence management

According to the World Bank, an important criterion for disaster consequence management is the insurance penetration, defined as insurance premiums as percentage of the Gross Domestic Income (GDI). Non-life insurance (which consists mostly of property and automobile insurance) penetration is one of the criteria used to illustrate the ability of a particular society (not a state) to recover from heavy damages as of natural or man-made sources. However, specific data of catastrophic risk insurance in Romania are not available. This makes it difficult to explore the role of catastrophic insurance in financing natural disaster recovery. With these limitations, The World Bank has classified Romania as a mid-level country in terms of both GDI and non-life insurance penetration.

As part of the reforms in disaster management sector, initiated after 2004, Romania has introduced catastrophe-related insurance by adopting Law no. 260/2008, in force since 2009, on compulsory house insurance against earthquakes, landslides and floods, amended by Law no. 248/2010 (actually, in Romania there are only two compulsory insurances: the compulsory motor liability insurance and the compulsory home insurance (that are reflected by Figure 1)). This law regulates:

- the terms and conditions of compulsory insurance for dwelling owned by individual legal entities;
- relations between parties, their rights and obligations;
- the setting up, aims, goals, responsibilities, status, organisation and operations of the

National Disaster Insurance Pool (PAID – Pool de Asigurare Impotriva Dezastelor Naturale).

Established according to the law, the Romanian catastrophic insurance scheme works the following way:

- Perils covered: earthquake, flood, and landslide;
- Property covered: dwellings only (both public and private), in accordance with the category of construction;
- Not covered: outbuildings, appurtenances, contents, temporary accommodation;
- Basis of loss: replacement cost or repair;
- Sum insured or limit of cover: EUR 20 000 or 10 000.¹⁵

Potential beneficiaries of PAID are about 8.4 mln homeowners. Under pressure by the insurance business, some amendments to the law were introduced in 2010: homeowners who have bought a volunteer insurance policy are excluded from the obligation to buy a compulsory one.

Some experts from the insurance business believe that the major problems related to recovery funding are:

- the current legislation, which mixes volunteer products with compulsory policy, as the latter cannot compete with volunteer products (sum insured is four times higher);
- poor financial education;
- low level of insurance culture.

International aid

The European Union Solidarity Fund (EUSF) was set up to respond to major natural disasters and express European solidarity to disaster-stricken regions within Europe. The Fund was created as a reaction to the severe floods in Central Europe in the summer of 2002. The table below¹⁶ informs about the EU support for the disaster recovery during the last decade.

Table 7: EU Solidarity Fund for Romania

18		April 2005	Spring Floods	major	489	18.8	110.5
		July 2005	Summer Floods	major	1 050	52.4	
		July 2008	Floods	regional	471	11.8	
		June 2010	Floods	major	876	25.0	
		August 2012	Drought & Fires	(major) ¹	807	2.5	

Disaster Relief Emergency Fund (DREF) of the International Federation of Red Cross and Red Crescent (IFRC) is also providing funds for disaster recovery to the country. After heavy floods in 2013, DREF has provided CHF 185,736 to support the Romanian Red Cross Society in delivering immediate

¹⁵ Source: prof. Dumitru G. Badea, Chairman and CEO of the Romanian Insurance Institute

¹⁶ Data from EU Commission, Regional policy, available at http://ec.europa.eu/regional_policy/thefunds/solidarity/index_en.cfm

assistance to some 900 families (3,600 beneficiaries), mobilising its branches in the affected territories and with the help of other stakeholders.¹⁷

Independent and academia studies agreed that, despite declared priority, disaster management in Romania has not received special funding recently. There are specifically allocated funds for disaster management within the state budget and the local budgets. When needed, these can be supplemented by reallocating funds within the state budget by governmental decree, using resources from the so-called Intervention Fund. However, dedicated funding and resources are sometimes used in higher-priority areas, due to financial constraints.

Recent Romanian achievements in the areas of prevention, preparation, mitigation and risk reduction everything have been financed via the budgets of various ministries. Such practice is met often in South-Eastern Europe. However, the quoted studies underline that it could be successful only if investments are based on a well-coordinated and properly managed governmental level national plan. The established in Romania mechanism for crisis management, led by the Government through the National Committee for Emergency Situations and administrated by the GIES, may provide such consolidation of efforts.

1.3 Policy review, Evaluation & Organisational Learning

- 1.3.1 Post-Disaster Assessment
- 1.3.2 Departmental Lessons Learned systems
- 1.3.3 Centralised (national) Lessons Learned system
- 1.3.4 International exchange for Lessons Learned
- 1.3.5 Regular policy reviews

Disaster management policy is not yet a subject of overall periodical reviews. As ANVIL project Deliverable 2.1 pointed out “Published evaluations of the efficiency and effectiveness of Romanian civil security system are limited, but there are however a few reports on the major floods available.”¹⁸ Reporting mechanism includes mostly two types of documents: ministerial reports and inter-institutional reports.

The ministries that have legal obligations to monitor and lead the disaster response produce ministerial reports. They are post-factum and provide information mostly on the causes for the disaster and on “who-did-what.” Causes usually explain the connection between the specific natural phenomena and the man-made preconditions for disastrous consequences (as deforestation, wasting of watercourses, illegal house construction in landslide areas, etc). The criterion for doing

¹⁷ IFRC

¹⁸ ANVIL – Analysis of Civil Security Systems in Europe, Deliverable 2.1. p. 872. Available at http://anvil-project.net/wp-content/uploads/2014/01/Deliverable_2.1.pdf. Approached on August 9, 2014.

the right is based on instructions and guidance. Having these, ministries make their own assessment of the damage and draw conclusions on the organisation and performance of emergency management mechanism.

More policy review oriented reports are those that have been produced by inter-ministerial commissions. They are usually established under the supervision of the National Committee for Emergency Situations, depending on the type and scope of the situation. The focus of these commissions is on circumstances, causes, interventions and comprehensive impact of emergencies. Reports include recommendations for improving the overall National Emergency Management System, including legal, organisational and capabilities aspects.

In any case, the reports are directed to the General Inspectorate for Emergency Situations and respectively, to the Minister of Internal Affairs. The latter presents a summary of the assessments and the recommendations to the National Committee for Emergency Situations, providing also a draft committee decision. Depending on the case, the abovementioned two bodies decide in what degree and format the post-emergency reports, conclusions and recommendations will be made publicly available.¹⁹

In its report on the floods in 2010, the GIES focused on the following recommendations:

- to launch a major project for improvement of the flood prevention and protection in the upstream of Prut and Siret rivers;
- to build a system with automatic water level monitoring stations;
- to improve the level of preparedness of the local authorities;
- to strengthen cooperation with neighboring countries;
- to improve the national disaster damage assessment regulations;
- to speed up the process of drawing up the risks maps according the Flood Directive 2007/60/EC;
- to develop guidelines on management of emergency situations generated by floods, dangerous meteorological phenomena, and hydro-technical accidents, and accidental pollutions (on rivers and sea shore);
- Romania to apply for support from the European Union Solidarity Fund.²⁰

Non-governmental organisations such as the Red Cross also make post-disaster reports, which are focused mostly on damages and needs than on policy, performance and organisation.²¹ Caritas Romania Confederation has focused its work on community level of risk reduction and disaster preparedness.²²

¹⁹ However, there is no evidence that this mechanism has been followed throughout each emergency.

²⁰ Presentation of the report is available at http://www.igsu.ro/documente/SAEARI/ROMANIA_Floods_2010.pdf

²¹ For an example visit http://reliefweb.int/sites/reliefweb.int/files/resources/887A8506CBD450748525775A006709DD-Full_Report.pdf

²² A book is available at <http://www.caritas.org.ro/CARITASfiles/DRRBook/612%20Disaster%20Risk%20Reduction.pdf>

Within the framework of different international projects, variety of international organisations (UN, EU, The World Bank) and countries (Japan, Norway) have compiled or sponsored studies and produced reports on major aspects of the Romanian emergency management policy, organisation and practice. These are usually self-assessment reports or field studies. As a rule, they propose specific policy recommendations in different time-perspectives:

- The ANVIL project quoted above made an assessment of the Romanian crisis management capacity from the point of view of “civil security”, focusing on three criteria: legitimacy, effectiveness, and efficiency. However, the project has produced “key findings” but did not draw policy recommendations.
- National progress reports on the implementation of the Hyogo Framework for Action (HFA) are based on self-declared strategic goals for a two-year period and a self-assessment sheet for the previous two years (the last report available is for the period 2011-2013²³). An example of the way these reports may contribute to policy improvement is the following assessment and recommendation: “The legislation concerning the management of emergency situations (crisis management) is put in place, each central and local authority having specific responsibilities on this issue. On the other hand, risk management is focused more on disaster prevention and mitigation rather than on risk reduction as a whole.”²⁴
- In 2007 the United Nations International Strategy for Disaster Reduction (UNISDR), within the context of the Global Facility for Disaster Reduction and Recovery (GFDRR) awarded a consultancy project to prepare a report of the risk assessment of the South East European countries. The Report analyses the risks from both vertical (country), and horizontal perspectives (SEE sub-region level) emphasising the trans-boundary disaster risks and their effects. Risk assessment of all the member countries is prepared along with addressing the country level and regional issues and area of cooperation. The report concludes with recommendations that are general for all SEE countries; for example: “The system must ensure a very close working relationship between the policy formulating body, the committee within the ministry responsible for national disaster management, and the operational agency/s that implement the decisions.”²⁵
- Another UN – World Bank sponsored regional crisis management study has been undertaken within the scope of the South Eastern Europe Disaster Risk Mitigation and Adaptation Programme (SEEDRMAP), in cooperation with a number of international and regional partners, including the European Commission. The study focused on four issues: legislation, organisation, funding, and societal engagement. An example from the policy recommendation is; “Furthermore, risk assessment procedures are reasonably well established, although further development could enhance the ability to cope with potential future hazard scenarios, especially those related to climate change.”²⁶

²³ An HFA Monitor update published by Prevention Web <http://www.preventionweb.net/english/countries/europe/rou/>

²⁴ Ibid. p. 6.

²⁵ Final report is available at http://www.preventionweb.net/files/2695_SEEDRMI.pdf. Quotation is from p. 78.

²⁶ Report is available at http://www.unisdr.org/files/9346_Europe.pdf. Quotation is from p. 156.

1.4 Resilience

The concept of resilience is not an explicit component of the Romanian civil security policy. However, considering that resilience is the capacity of a state, society and communities to cope with the challenges of different hazards by changing or resisting in order to reach and maintain acceptable levels of functioning and structure, in Romania many activities have been initiated and measures have been taken to reduce the vulnerability of the country to the risk of disasters. Since 2004, different governments have taken the resilience approach, particularly in the enforcement of certain regulations. Romania is one of the South-eastern European countries with recognised success in systematic incorporation of standards regarding the building and infrastructure codes.

As resilience is also the capacity of a community to grow through disasters, it is partially determined by the degree to which the social system is capable of organising itself to increase its capacity for learning from past disasters for better future protection and to improve risk reduction measures. Across the efforts, undertaken while reforming the civil protection service in Romania, one may identify some core elements that actually build-up on the ground of resilience as:

- reducing the most dangerous vulnerabilities through improving legislation, investing in preparedness and monitoring, developing relevant alerting system and building intervention capabilities;
- mitigating the impact of natural and man-made situations applying protective standards in construction of housing and critical infrastructure, implementing new insurance policy and culture, maintaining a rapid reaction capacity and reserve materials;
- improving the education and training at all levels and developing towards knowledge based disaster management.

In decade after 2004 Romania has been very active reforming inherited ineffective civil protection service using the paradigm of resilience: to addresses the loss of life, property and economic productivity caused by weather extremes and other natural hazards in the context of the implementation of the Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters. To that end, Romania has three focus areas:

- Hydrometeorological forecasting, data sharing and early warning;
- Coordination of disaster mitigation, preparedness and response; and
- Financing of disaster losses, reconstruction and recovery, and of disaster risk transfer (disaster insurance).

The resilience concept, as part of the national civil protection policy, has been already realised through non-structural channels such as urban planning and building codes. According to the UN study (UNISDIR, 2008, p. 156), “[r]isk maps are being developed covering every locality considered to be in a risk area to chart the risks posed by hazards including floods, earthquakes and landslides. The maps identify hazards and populations at risk and include information about measures needed to prevent disasters caused by natural or technological hazards. The maps will be accessible by all interested parties and will be included in urban development plans to manage building and land use.”

Regarding standardisation, starting on 31 October 1998, the Romanian Standards Association (ASRO, Asociația de Standardizare din România) has taken over the position of a specialised private body of public interest on standardisation issues. It is a not-for-profit association, authorised by the Government, replacing, in this respect, the former Romanian Standards Institute. In conformity with Law 355/2002, the Romanian Government granted ASRO governmental recognition as a National Standardisation Body for standardisation in all aspects of European and international standardisation. The association represents Romania in the international standardisation process by coordinating the national input, organising delivery of information on standards and providing a wide range of services both for the distribution of standards and for accredited certification activities. It also issues (in printed form and on electronic media) various publications and performs training courses. ASRO members represent the industry, the economy, the research and development area, consumers, national authorities, university media, certification bodies and various other stakeholders, all standards users and developers.

There is no available information for the implementation of ISO/TC 223 Societal Security in the country's overall crisis management system. ASRO plans for 2014 does not envisage issues, related to crisis management, to be standardised.

1.5 Information sharing and data protection

Romanian disaster management concept and practice are based on, among other things, the understanding that efficient flow of information ensures a permanent connection with the National Emergency Management system's objectives. The constitutionally guaranteed access to information is the grounds to improve the education and knowledge of hazards and crisis management, and this way, to further improve the culture of safety and resilience.

The National Strategy on Civil Protection determines that the success of civil protection depends primarily on the amount and quality of information. The Strategy also governs that one of the primary strategic missions is the collection and processing of data and information for any controlled parameters that go beyond the determined limits. However, the document does not specify how the sharing of information should happen.

Without being explicitly regulated, information about hazards and emergencies is viewed as preventive and operational. The legislation on civil protection (Law 481/2004) uses two terms regarding the delivery of information:

- Notification – an authorised transmission of information about impending or occurrence of disaster and/or armed conflict by central or local public administration authorities, as appropriate, in order to avoid surprise and the achievement of protection measures;
- Warning – providing the population with necessary information about impending or occurrence of disasters. (Art. 9, (1), c), and d))

In addition to that, Article 3, (1), b) from Law No 481/2004 determines that among the civil protection attributions are the collection, processing, storage, study and analysis of data and information on civil protection.

The information on hazards and emergencies is co-ordinated nationally by the Ministry of Internal Affairs and delivered through the General Inspectorate for Emergency Situations (GIES). According to the GIES, “[p]reventive information consists of all the actions and measures that ensure:

- Citizens’ awareness of the risks that could expose you to a certain time and a certain place, and on protective measures and behaviour should adopt in the event of an emergency;
- Educating citizens on how their alarm and permanent information in case of an emergency.”²⁷

The flow of information for decision-making and operational command and control is presented in Figure 4. During emergencies, operational information is aimed on clarification of the situation, analysis of the necessary measures, adaptation of contingency plans, warning (including internationally), and decision-making.

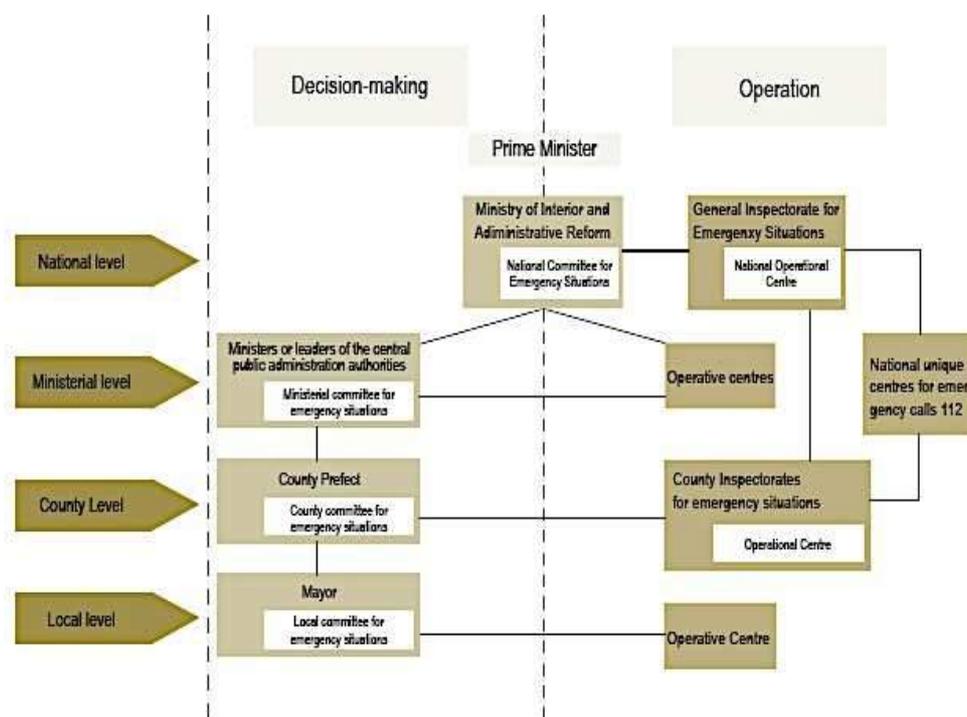


Figure 8: Flow of information in the Romanian National Emergency Management System²⁸

²⁷ Source: GIES web site available at http://www.igsu.ro/index.php?pagina=informare_preventiva

²⁸ Source: UNISDIR, WB, 2008

2 Legislation

Generally, the Romanian legal system belongs to the “civil law model,” under which only the Constitution and other statutory legislation constitute a legitimate source of legal rules. It does not recognise case law or judicial precedent as a source of legal rules. Previously decided cases therefore are not binding upon lower courts and do not create “law.”

2.1 Crisis (emergency, disaster) management concept

The key conceptual crisis management document at strategic level in Romania is the National Strategy on Civil Protection (in Romanian, Strategia nationala de protecție civilă). It was approved by the Government on 9 June 2005 and published in Official Gazette No 600 of 12 July 2005.

The strategic concept of crisis management, as the core of the national civil protection strategy, describes the main ways of using civil protection forces in operationalising the civil protection strategy and defines directions in which the national civil protection will be organised, equipped and trained.

An important characteristic of the concept is that it integrates civil (security) protection and traditional civil defence into one package. Among others, that determines a role of the military throughout the entire “peace-crisis-war” continuum. The civil protection tasking is done for:

- Peacetime (in terms of normality or of disasters that do not require the declaration of emergency);
- Crisis situations caused by disasters and declaration of state of emergency;
- Time of war.

The concept determines four pillars of civil protection in Romania: credible response capability, restructuring and modernisation, enhanced operational partnership and gradual integration with EU and NATO (in terms of crisis management).

- Credible response capability. The concept is based on the understanding that the national civil protection in Romania must be permanently maintained in order to be able to respond effectively and appropriately to any escalating natural and technological risk or military threat. Response will be provided in two phases: pre-disaster actions and measures (in peacetime) and post disaster measures and actions (over the short, medium and long term).
- Restructuring and Modernisation. The number of risks and scope of danger they pose to Romania, but also political and military instability in the area of geo-strategic interests of the country require that, in the future, forces and means emergency structures to grow in terms of efficiency and specialisation. Sizing and equipping them will depend on financial resources that the central and local government would be able to dedicate to

civil protection. To strengthen the capacity of uniformed organisations, the central and local authorities support the establishment of volunteer formations.

- Enhanced operational partnership. Partnerships are seen as the best way to prepare civil protection structures in Romania to integrate in a collective security. It will amplify the dynamics of civil protection structures of other NATO and EU member states. In bilateral and multilateral cooperation, the civil protection structures of Romania participate in group exercises, joint forces and multinational operations for humanitarian assistance.
- Gradual integration.²⁹ Integration of Romania in NATO and EU is seen as a core factor for national security, including in civil protection context. Focus of international co-operations is placed also on OSCE and integration into the International Organisation of Civil Protection (ICPO).

The concept of civil protection has a comprehensive scope, but relatively short inwardness. Obviously, it suffers from the lack of relevant interpretation of modern civil protection practices and benchmarks. The inclusion of both peace and war time situations into one concept does not serve to higher efficiency of its civil security component and keeps the over-centralised management, inherited from the past.

In September 2010, in the aftermath of the heavy floods in 2007, the National Strategy for the Management of the Flood Risk was adopted. This strategy address issues such as integrated management of the water sources, land management and urban development, environment protection including forestry and agriculture, protection of the transport infrastructure, tourist areas, and individual protection.³⁰

2.2 General crisis (emergency, disaster) management law

The legislative set concerning civil protection in Romania has been established and gradually improved over the last decades, beginning with the aftermath of the catastrophic earthquake in 1997, when one of the lessons learned was the need of having professional civil emergency personnel and organisation at the national and local level.

By way of background, Law No 2/1978 on civil defence assigned its organisation to the Ministry of Defence (a typical solution for the Warsaw Pact countries for that time) and led by Commandment of Civilian Defence. (Zulean, Prelipcean, 2012) In 1990, Romania ratified the additional First and Second Protocols of the Geneva Convention (1949), which provided a framework for further improvement of the civil protection service. The Constitution as of 1991 regulated the state of emergency in very broad terms without making distinction between different causes and forms – military, social unrest, ethnic clashes, natural disasters, technological catastrophes, environmental accidents, etc. During the 90s, in parallel with the first military reforms, civil protection gradually moved away from its military frame and wartime core. With the introduction of the Law of National Defence No 45/1994, “civil defence” was transformed into “civil protection.” Two years later, the Romanian Parliament passed the Law on Civil Protection No 106/1996, setting the responsibilities of the personnel in

²⁹ The National Civil Protection Strategy has been approved before Romania joined EU.

³⁰ GIES presentation, available at http://www.igsu.ro/documente/SAEARI/ROMANIA_Floods_2010.pdf

charge to this purpose of that matter and providing guidance to civil protection operations in case of emergency.

The latter organisation was used until the socio-political clashes of 1999. The coal miners attempt to through-down the government triggered the establishment of a new law enforcement mechanism. The Government's Emergency Ordinance No 1/1999 laid down regulations on declaring a state of siege and emergency on the territory of the country. Furthermore, through series of legal acts adopted between 1999 and 2002 the crisis management system received a civil security focus, becoming more decentralised, and professional. The course of the evolution was obvious: from "war-civil defence" dominance to "civil security-crisis management" priority.

With any natural disaster and major industrial accident, lessons have been learned and legislation improved. Variety of factors, mostly the floods and the prospect of NATO membership in 2004, have generated political will for comprehensive and quick legal regulation and development of an improved civil protection system. The first major step forward was the Government Emergency Ordinance No 21/2004 that set up the National System for Emergency Situations Management. Its first principle was formulated as "prevention and anticipation," while the newly established National Committee for Emergency was made responsible to the Government for drafting the National Plan for providing resources in case of emergency. (Zulean, Prelipcean, 2012) According to the ordinance, emergency is an exceptional, non-military event, the intensity of which threatens the life and health of the population, the environment, and important material and cultural values. This formally moved civil protection away from the concept of civil defence and the dominance of the military over the civil security.

Several months later, a new law, No 481/2004, on civil protection, confirmed its place within the Ministry of Internal Affairs' domain. However, the new law determined civil protection situation as a situation caused by the imminence or occurrence of a disaster, military conflict and/or other unconventional situation. From an organisational perspective, the newly established General Inspectorate for Emergency Situations (GIES) was defined as a co-ordination and executive body that serves under the National Committee for Emergency's guidance. The law 2004, as amended in 2006 and 2008, represents the core civil security legislative act.³¹ It stipulates that civil protection is a component of the national security that aims to prevent and reduce the risk of disasters, and to protect the public, property and the environment from the negative effects of emergencies and of armed conflicts. Also pertaining to the organisational element of the Romanian crisis management system is the 2006 Law on Health Reform, which set up the mobile emergency rescue service, placed within the professional emergency services.

In 2008 an amendment to law No 481/2004, introduced art. 4 dealing with radiological, chemical and biological protection in the event of an emergency, stipulating that public institutions and operators that manufacture, transport, store or handle hazardous substances in such quantities that may endanger the life and health of the public must check for radioactive, chemical and biological

³¹ Civil Protection Law No. 481 of 8 November 2004; a consolidated version of the law with all amendments since 2004 has been published in the Official Journal, Part I No. 554 of 22 July 2008.

contamination of raw materials and products, and where necessary decontaminate their personnel, lands, buildings and machinery. The decontamination is to be performed according to technical regulations established by the respective ministries and approved by the GIES. Pollution control consists of specific measures for the identification and removal of pollution sources, and includes evacuation and agricultural and consumption prohibitions. Operators and public authorities must warn the population immediately of any pollution or contamination.

All subsequent legal acts and government ordinances have been focused on improving the quality of civil protection in three directions: porting efforts on prevention and risk reduction, improving crisis management organisation and capacity and applying modern methods for improving post-disaster recovery of both private and state owned real estate and infrastructure.

Currently, disaster management is addressed by various legislative documents and the work of various administrative authorities, public institutions, volunteers, and specialist bodies with responsibilities for disaster prevention, monitoring, and response:

Basic legal acts:

- Ordinance no. 88 of 30 August 2001 regarding the establishment, organisation and functioning of public services for emergency situations;
- Emergency Ordinance no. 21 of 15 April 2004 on the National System of Emergency Situations Management;
- Emergency Ordinance no. 25 of 21 April 2004 amending and supplementing Government Ordinance no. 88/2001 regarding the establishment, organisation and functioning of public services for emergency situations;
- Ordinance no. 360 of 14 September 2004 approving the performance criteria for the organisational structure and professional equipment for emergency services;
- Decision no. 1492 of 9 September 2004 concerning the organisation, functioning and responsibilities of the professional emergency services (replacing Government Ordinance no. 88/2001);
- Law no. 481 of 8 November 2004 on civil protection;
- Decision no. 547 of 09 June 2005 approving the National Strategy for Civil Protection;
- Ordinance no. 1134 of 13 January 2006 approving the Regulation on planning, preparation, organisation, conduct and management of intervention stocks of emergency services professional;
- Ordinance no. 1184 of 6 February 2006 for the approval of the organisation and ensure the activity of emergency evacuation;
- Decision no. 548/2008, for approval of the National Strategy for Communication and Public Information for Emergency Situations.

Acts related to protection from natural hazards:

- Law no. 307 of 12 July 2006 on protection against fire;

- Regulation of 12 May 2005 concerning the management of emergencies arising from floods, hazardous weather, hydro construction accidents and pollution incidents.

Acts related to protection from industrial accidents:

- Law no. 92/2003 on the ratification and transposition of the Convention into the national legislation;
- Decision no. 95/2003 on the control of major accident hazards involving dangerous substances;

Implementation agency or department regulations:

- Decision no. 1489 of 9 September 2004 on the organisation and functioning of the National Committee for Emergency Situations;
- Decision no. 1490 of 9 September 2004 on the GIES;
- Decision no. 1491 of 9 September 2004 approving the Framework Regulation on the organisation, competence, functioning and endowment committees and operational centres for emergency situations;
- Order no. 370 of 28 September 2004 approving Regulation on organisation and operation of county and Bucharest emergency inspectorates;
- Decision no. 259 of 31 March 2005 on the setting up and establishing the powers of the National Centre for Fire Safety and Civil Protection;
- Decision no. 1514 of 29 November 2005 amending Government Decision no. 1 490/2004 for the approval of the organisation and functioning and organisational structure of the General Inspectorate for Emergency Situations.³²

Overall, according to some national experts and international assistance projects, the legislative base of civil protection in Romania seems to be comprehensive, but also too complicated, scattered and obviously, outdated.

2.3 Emergency rule

The Constitution of Romania contains the basic legal framework for regulating extraordinary situations, determining that:

“Article 93 [Siege, Emergency]

(1) The President of Romania shall, according to the law, institute the state of siege or emergency in the whole or part of the country, and shall request Parliament approval of the measure thus adopted within five days from adoption.

(2) If Parliament does not sit in a session, it shall be convened de jure within 48 hours from the institution of the state of siege or emergency, and shall function throughout this state.”

³² A more detailed list of legislation pertaining to crisis management is available in the National Report regarding the Disasters Prevention in Romania, available at <http://www.unisdr.org/2005/mdgs-drr/national-reports/Romania-report.pdf>

Art. 148 (3) further states that “The Constitution shall not be revised during a state of siege or emergency or at wartime.” Under the same paradigm, the role of Parliament during emergencies is guaranteed by Art. 89 (3), stipulating that “Parliament cannot be dissolved during the last six months of the term of office of the President of Romania, nor can it be dissolved during a state of siege or emergency.”

The Constitution also determines that the legislation, concerning “the states of siege and emergency” are qualified as “organic.” (Art. 72, e) This means that the law on civil protection is among the fundamental legal acts in Romania.

Article 114, which is dealing with enabling legislation, stipulates that “(1) Parliament may pass a special law enabling the Government to issue orders in fields outside the scope of organic laws.” This text provides opportunity for additional legislation concerning the emergency and crisis management. Further, with respect to emergency, which may occur in an unexpected form and scale, the Constitution (Art. 114) permits that “(4) In exceptional cases, the Government may adopt emergency orders, which shall come into force only after their submission to Parliament for approval. If Parliament does not sit in a session, it shall obligatorily be convened.”

This legal framework provides for the institution of a state of siege or a state of emergency under Art. 93. Law no. 453 of 12 November 2004, modifying Government Emergency Ordinance no. 1/1999, detailing the elements of a state of emergency. It is to be instituted in cases where dangers to national defence and security or threats of calamities occur.

The President has the power to declare state of emergency by decree, which will then be up for parliamentary approval. A state of emergency can end if Parliament does not approve it within five days of the issuance of the decree, if Parliament decides that the danger has been removed ahead of term, or at the expiration date included in the presidential decree. It can also be prolonged by Parliament.

Law no. 453 clarifies the international law limits, which operate to restrict the state of emergency. These include the right to life (except when the death is the result of a lawful act of war), torture and inhuman and degrading treatment, punishment for offences not previously proscribed as such, and restrictions of the access to justice.³³

Introduction of states of emergency can be applied in two forms, each designed for a different type of situation.

- Emergency situation (Stare de alertă): Non-military, can be enforced by a prefect. Roadblocks are enforced. Any utilitarian vehicle or equipment can be temporarily used by the state, without any restriction. Evacuation is not mandatory, unless extreme circumstances apply.

³³ Source: Geneva Academy of International Humanitarian Law and Human Rights, available at http://www.geneva-academy.ch/RULAC/national_legislation.php?id_state=182

Only emergency medical service, police and firefighting personnel are required to intervene. This situation can be enforced in case of natural disasters or civil unrest.

- State of emergency (*stare de urgență*): Military, can only be enforced by the President of Romania. The military becomes the upper form of control in the country (under the rule of the president). The civilian population is subject to strict regulations, imposed by the type of emergency. All private and public non-crucial activities are suspended. Essential services might be disrupted. This situation can be enforced in case of extreme circumstances, such as a war.

The declaration of an emergency represents an exceptional act, which allows the application of a series of political, economic and public order measures covering the entire territory (national level), or parts of the territory (country and local level). Emergency status can be declared when there exists a serious actual threat or imminent threat to national security or the functioning of democracy; or there exists an actual calamity or imminent threat of calamity, which requires prevention or mitigation activities.³⁴

During an emergency, the National Committee for Emergency Situations manages intervention activities, which is directed by the Minister of Administration and Interior, while the Prime Minister explores oversight and co-ordination role.

The local police has also a legal opportunity to introduce “special security zone” (*Zonă specială de siguranță publică*) as an administrative measure in different situations with public character, that may (usually) turn into public unrest. This implies installation of road check-points and higher numbers in police and gendarmes/riot police presence, patrolling the area. There could be applied also a ban that restricts the right to travel for people in the area; any vehicle and individual transiting the zone are subject to screening.

The most well-known event in which the state of emergency has been enforced has been because of the 1977 Vrancea earthquake. The last instance in which the special zone of public safety has been enforced was on 8 December 2013 in Pungești and Vaslui, following popular unrest in Pungești triggered by Chevron’s plans to begin exploring shale-gas in the village. According to police officials, the special security zone will be maintained as long as there is conflict in the area that poses a threat to Chevron’s operations. This special security zone has faced domestic and international criticism for alleged human-rights abuses.³⁵

³⁴ UNISDIR, WB, 2008

³⁵ Sources: Natural Gas Europe, available at <http://www.naturalgaseurope.com/riot-police-special-security-zone-chevron-romania> and others.



Figure 9: Protesters against “special security zone” in Plungesti³⁶

2.4 Specific, department/agency-level legal arrangements and regulations on emergency and disaster management

The highest-level governmental interagency body with responsibilities for crisis management is the National Committee for Emergency Situations. It was established on the same day as the GIES by Decision no. 1489 of 9 September 2004 on the organisation and functioning of the National Committee for Emergency Situation.

The main executive agency for civil protection at the national level is the Ministry of Internal Affairs. It was established in its current format on 28 June 2003, by means of the Romanian Government Emergency Ordinance no. 63, which merged the interior ministry and public administration ministry..³⁷

In the civil protection domain, the Ministry of Internal Affairs has the following functions:

- drafting and implementing the national strategy on civil protection;
- developing and updating of the action plan establishing the state of emergency and coordination of the uniform application of measures in a state of emergency by the military and civilian public authorities involved;
- monitoring of the development of the situation, and proposing the extension of the operation or the restriction of the period of application of the state of emergency;

³⁶ Source: <http://www.naturalgaseurope.com/riot-police-special-security-zone-chevron-romania>

³⁷ Source: http://www.mai.gov.ro/engleza/index01_1.htm

- monitoring of the operational situation and proposing measures for the prevention and mitigation of the consequences of the crisis in the field of public order; and
- operational management in case of crisis.

The highest-level state agency, focussed only on civil protection from natural disasters and industrial incidents is the General Inspectorate for Emergency Situations (GIES; in Romanian, Inspectoratul General pentru Situații de Urgență - IGSU). This is a structure subordinated to the Minister of Administration and Interior. It was created on 9 September 2004³⁸, by merging the Civil Defence Command (Comandamentul Protecției Civile) with the General Inspectorate of the Military Fire-fighters Corps (Inspectoratul General al Corpului Pompierilor Militari).

In such a configuration, policy guidance and oversight for civil protection are provided by the National Committee for Emergency Situations; coordination, control, and expert technical assistance is secured by the Ministry of Internal Affairs, via the General Inspectorate for Emergency Situations, and locally, by the County Inspectorates and the Inspectorate of the Municipality of Bucharest for Emergency Situations.

2.5 Specific to the regional and local authorities legal arrangements and regulations on emergency and disaster management

Emergency Ordinance no.21/2004 established the National Management System for Emergency Situations, which acts as reference body for Level 0 disasters. It is composed of emergency committees at national and ministerial level, the General Inspectorate for Emergency Situations, professional emergency services, operational centres for emergency situations, and an action commander.

At Level 1 are the county committees for emergency situations (Romania is divided into 41 counties and 1 municipality – Bucharest), headed by the county prefects. The committees are formed by the county council president (since 2008 the county council president is elected directly by the local people), managers of public institutions and private companies, and managers of private companies which can generate emergency situations. The organisation, attributes and functioning of the county committees are established by orders of the Prefect.

The current Constitution and the Law on Local Public Administration determine the Prefect as a political figure, representing the Government. According to the law, the Prefect has the following duty concerned the civil protection (Art.110): “to be responsible, in conformity with the law, for the preparation and implementation of non-military defence measures; the military authorities and the local bodies of the Ministry of Internal Affairs are required to inform the prefect on any problems relevant for the county; (the Prefect has also other duties).”

³⁸ Available in Romanian at http://www.igsu.ro/documente/legislatie/HOTARARE_Nr1490.pdf

At Level 2 are local committees for emergency situations (each county is further subdivided into cities and communes, the former being urban, and the latter being rural localities; there are 319 cities and 2686 communes in Romania. Each city and commune has its own mayor and local council). They are convened at city, commune or village level under the leadership of mayors. The members of local committees include: one vice-major, local secretary, and representatives from public institutions and companies in that territory. The mayor, with the agreement of the prefect, organises and establishes the attributes and functions of the local committee.

A special status has been provided for the Bucharest municipal committee for emergency situations. In terms of governance, including on civil protection, the capital is equalised to a county level.

In later documents, the identification of 0, 1, and 2 levels has been replaced with “national”, “county” and “local” levels.

2.6 Legal regulations on the involvement of volunteers and specialised NGOs

The role of the volunteers for the crisis management policy and especially for the civil protection from natural and industrial hazards is expanding at both normative and organisational levels.

Recently they are regulated by a set of laws, governmental and ministerial acts:

- Volunteer Law no. 195 of 20 April 2001;
- Order of Ministry of Internal Affairs no. 718 of 30 June 2005, approving the capabilities and organisational structure of emergency volunteer services;
- Government Ordinance no. 1579 of 08 December 2005 regarding the statute of volunteer personnel from emergency volunteer services;
- Government Ordinance no. 160 of 14 February 2007 regarding the conditions and details for using the uniform protection equipment and distinctive signs for emergency volunteer services personnel;
- Order of Ministry of Internal Affairs no. 160 of 23 February 2007 on the rules for planning, organising and performing the emergency prevention activities within the emergency volunteer services.

According to the Romanian Volunteer Law (Legea Voluntariatului) adopted in 2001 and amended in 2006, volunteering is an activity of public interest, undertaken out of free will by a person aiming at helping others, without being motivated by financial or material gains. The public interest activity is carried out in various domains such as social assistance and services; environmental protection; culture, education, arts etc. The organisation hosting the volunteers or carrying out the volunteer activities may be a non-profit private or a public organisation, run in the public benefit.

The role of the various types of non-governmental organisations (for research, fundraising, etc.) is regulated by Government Ordinance no. 2288/2004 on the support tasks of ministries, other central institutions and non- governmental organisations to prevention and emergency management.

2.7 Legal regulations for international engagements of first responders and crisis managers

At international level, activities related to crisis management and especially to disaster risk reduction, early warning, response and recovery are governed by different political agreements, conventions, and compacts as well as with operational agreements in the field of emergency management.

3 Organisation

Romania is divided into 41 counties and 1 municipality (Bucharest): Alba, Arad, Arges, Bacau, Bihor, Bistrita-Nasaud, Botosani, Braila, Brasov, Bucuresti, Buzau, Calarasi, Caras-Severin, Cluj, Constanta, Covasna, Dimbovita, Dolj, Galati, Gorj, Giurgiu, Harghita, Hunedoara, Ialomita, Iasi, Ilfov, Maramures, Mehedinti, Mures, Neamt, Olt, Prahova, Salaj, Satu Mare, Sibiu, Suceava, Teleorman, Timis, Tulcea, Vaslui, Vilcea and Vrancea. Each county is further subdivided into cities and communes, the former being urban, and the latter being rural localities. There are 319 cities and 2686 communes in Romania. Each city and commune has its own mayor and local council.

Each county is administered by a county council, responsible for local affairs, as well as a prefect appointed by the central government. The latter is responsible for the administration of national (central) affairs at county level. Since 2008, the president of the county council has been directly elected by the people, and not by the county council.

The civil protection structure is organised at national and ministerial, Bucharest specific, county and municipal levels.³⁹ Decision-making is attributed to national (when two counties and more affected)/ county/ local committee for emergency situations, depending on the emergency.

At national level, an inter-ministerial body, the National Committee for Emergency Situations (NCES) has coordination responsibilities in terms of emergency management. The NCES is composed of decision-making representatives, experts and specialists designated by the ministries. The National Committee is established and acts under the direct guidance of the Minister of Administration and the Interior under the coordination of the Prime Minister.

The National Committee for Emergency Situations is structured as follows:

- President: the Minister of Internal Affairs;
- Vice President: one of the Secretaries of State within the Ministry of Internal Affairs;
- Members: one Secretary of State from each of the ministries involved or deputies representing heads of central public institutions;
- Consultants: one or two experts/specialists from each ministry and the central public institutions.

To handle inter-ministerial and cross-cutting coordination, the committees for emergency situations are structured also at ministry, county and local level. The committees are chaired by the respective ministries/head of institution, county prefect (the Bucharest Committee is chaired by the Prefect of Bucharest), and the mayor (endorsed by the respective county prefect).

³⁹ As architecture, the Romanian National Emergency Management System is quite similar to the Netherlands one – compare at http://ec.europa.eu/echo/files/civil_protection/vademecum/nl/2-nl-1.html

At national level, the General Inspectorate for Emergency Situations (GIES) is the national civil protection authority responsible for managing the implementation of emergency management actions and measures on national territory. The GIES is part of the National Emergency Management System and a component of the National Defence System. The GIES is an integrated body within the Ministry of Internal Affairs managed by a General Inspector.

All competent institutions in the field of defence, public order and national safety are required to transmit to the GIES or, if necessary, to the Minister of Internal Affairs or the Prime Minister information on potential emergencies, their expected evolution and consequences. The GIES communicates the decisions made by the Government or by the National Committee (through its Technical Secretariat) to the authorities of central public administration in order to secure coordinated management of emergencies. At county level, County Inspectorates for Emergency Situations operate in the 41 counties and in Bucharest. They are subordinated to the General Inspectorate for Emergency Situations (GIES) and provide - in their areas of competence - guidance and control of prevention and management of emergencies.

In addition to that, Operational Centres for Emergency Situations are organised at ministerial, municipal level (except Bucharest Municipality), city and commune levels. These centres can have a permanent character (for those ministries/institutions with complex functions within the National Emergency Management System) or a temporary character (they become active only when requested, following the decision by the National Committee for Emergency Situations).

The recent establishment of a Governmental Command Operational Centre (COCG), as a decision-making support for the National Committee for Emergency Situations (NCES), is seen as a way to make coordinated and rapid intervention in emergency situations, which will account for more lives saved and less money spent. The COCG is operational since 8 April 2014 when the centre hosted the first meeting of NCES led by the Prime Minister together with the Deputy Prime Minister for National Security, and all other members of the committee.



Figure 10: The Government's Command Operational Centre (COCG) at the Victoria Palace⁴⁰

Other state organisations involved in crisis management and emergency management

Gendarmerie. The Romanian Gendarmerie, component of the Ministry of Internal Affairs, is a specialised state agency with military status, having the following attributions under the law: defending public order, fundamental citizens' rights and freedoms, public and private property, preventing and detecting crimes and other violations of laws, protecting state institutions and fighting against terrorism. Due to its responsibilities, organisation, training and territorial coverage, the Romanian Gendarmerie contributes to guaranteeing the state sovereignty, independence, authority, unity, security and constitutional democracy throughout the national territory both in peacetime and in crisis. Romanian Gendarmerie units' activities are focused on law enforcement, respecting fundamental citizens' rights and freedoms while ensuring social equilibrium status within society.⁴¹

Police. In terms of emergency, the police is engaged in homicide, armed assault attacks, public disorder, traffic accidents resulting in human casualties or persons trapped in cars, explosions; electrocution, falls, landslides, serious subway accidents, aviation and train accident.

Ambulance. Bucharest Ambulance Service (S.A.M.B.) is a unique medical unit at both Bucharest and country level. It is a strategic medical unit, operating 24/7/365. S.A.M.B. is subordinated to the Bucharest Public Health Division and provides pre-hospital emergency medical assistance at both the

⁴⁰ Source and photo: (c) Liviu Sova, AGERPRES)

⁴¹ Source: www.jandarmeriaromana.ro

requested location and during patients' transport to hospital (ill people, injured ones, pregnant women).⁴²

Mobile Emergency Service for Resuscitation and Extrication (SMURD). SMURD is responsible for the entire range of interventions covering all emergencies for saving one or more persons' lives. These interventions include road accidents, explosions, work or home accidents such as falls from height or electric shocks, unconsciousness that include cardiac arrest, suspected strokes, acute respiratory insufficiencies and also multiple victim accidents. In addition to usual ambulances interventions, SMURD staff also uses various types of helicopters and airplanes for transferring patients in critical condition to different medical centres within the country or abroad. In these particular cases, the medical crew consists of two persons, one of them being a doctor with experience in emergency and intensive care.⁴³

Inter-agency operations

Inter-agency operations during emergencies are managed by a person (action commander) nominated by the national, ministerial or county (or Bucharest) committees for emergency situations, depending on the nature or the extent of the event or on the number of forces involved. He/she may receive support in executing the tasks from the operative groups and the advanced operative point according to the legislation in force.⁴⁴

3.1 Organisational chart

Romania's National Emergency Management System (NEMS) is a nationally owned mechanism of multiple stakeholders, which provides coordination and response in case of emergencies, and serves as an advocate for prevention and disaster risk reduction at different levels.

The core legal documents concerning the NEMS are:

- Emergency Ordinance no. 21 of 15 April 2004 on the National System of Emergency Situations Management;
- Ordinance no. 2288 of 9 December 2004 regarding support, provided by different stakeholders for crisis management;
- Decision no. 1489 of 9 September 2004 on the organisation and functioning of the National Committee for Emergency Situations;
- Decision no. 1490 of 9 September 2004 on the GIES;
- Decision no. 1491 of 9 September 2004 approving the Framework Regulation on the organisation, competence, functioning and endowment committees and operational centres for emergency situations.

⁴² Source: www.ambulanta.ro

⁴³ Source: www.smurd.com

⁴⁴ This chapter has been based on variety of sources (with corrections, amendments and compilation): European Commission, Humanitarian Aid & Civil protection: Vademecum - Civil Protection; Zelean, Prelipcean, 2012; UNISDIR, WB, 2008; GIES web site <http://www.igsu.ro>

The key components of NEMS are presented at Figure 11.

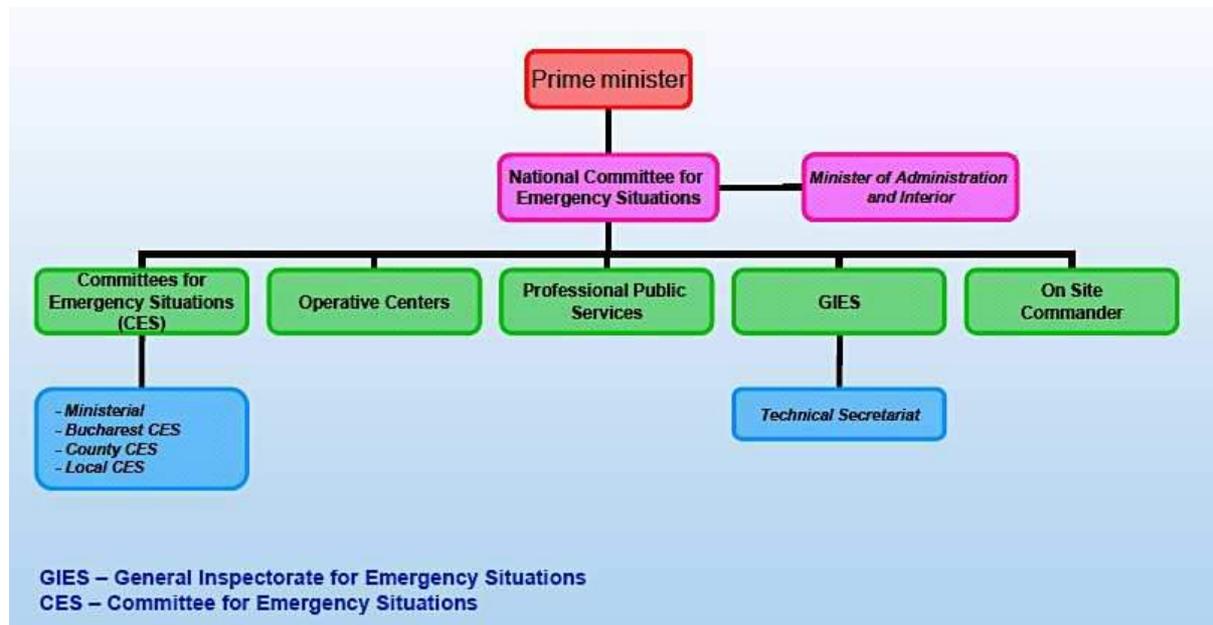


Figure 11: General structure of NEMS⁴⁵

Within this architecture, NEMS has three levels of activation:

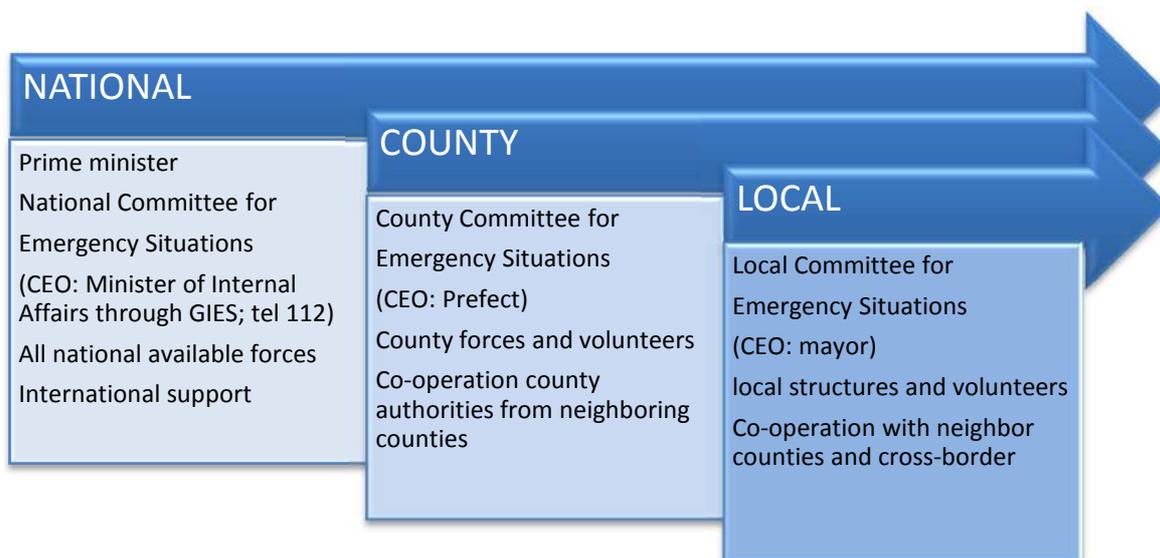


Figure 12: Institutional chain of command by levels of activation

The Prime Minister is at the top of the NEMS. The Minister of Internal Affairs, who chairs the National Committee for Emergency Situations (NCES), reports directly to the Prime Minister. As described above, the NCES is an inter-ministerial organisation, composed of decision-makers and experts from authorities with responsibilities in emergency situations.

⁴⁵ Source: GIES presentation, available at http://www.igsu.ro/documente/SAEARI/IGSU_EN.pdf

The Committee's attributes include: Initiating legislation regarding emergency management and approving ministerial and county committees' legal papers, examining and proposing for Government approval the national plan for human, material and financial resources for emergency management, subsequent to Prime-Ministerial approval, declare the setting-up/cessation of "warning status" at national level or at the level of several counties; decide the application of an evacuation plan under the proposal of ministerial or county committee.

NCES is responsible for the co-ordination in cases of emergency in more than two counties simultaneously (that determines the "national" level), the co-ordination of any disaster mitigation activities of international forces, and for disseminating information to the public regarding emergency management.

Ministerial committees

Ministerial committees for emergency situations operate at national level and are composed of decision-makers and experts from ministries and other stakeholders within the civil protection domain.

The specific functions of different ministries and state agencies, regarding civil protection, are explained in Annex 1 to Government Ordinance No 2288/2004.⁴⁶

County committees

County committees, responsible for managing emergency situations at county level, are headed by prefects. These committees are formed by the county council president, managers of public institutions and private companies and the managers of private companies that represent potential risks and can generate emergency situations. The organisation, attributes and functioning of county committees are established by orders of the prefect.

Local committees

Local committees for emergency situations are convened at city, commune and village level under the leadership of mayors. The members of local committees include: one vice mayor, local secretary, and representatives from public institutions and companies in that territory. The mayor, with the agreement of the prefect, determines the attributes and functions of the local committee.

Notably, according to Article 24 of the framework Law No 195/2006 on decentralisation, the local authorities are responsible for prevention and management of emergencies at local level, and for public order and security.

General Inspectorate for Emergency situations (GIES)

GIES is the focal point in the Romanian emergency system. It integrates the political decision-making with the executive bodies and relevant types of forces. Its responsibilities cover the whole spectrum

⁴⁶ Available at <http://www.crucearosie.ro/uploads/Legislatie/Hotarare%202288%20din%202004%20-%20functii%20de%20sprijin.pdf>

of disaster management – from risk reduction to consequence management. GIES is responsible in peace and wartime for the rescue of people, public evacuation, firefighting, mitigation of the environmental consequences of accidents (including chemical, radiological and biological accidents) occurring during transport of dangerous substances.

In terms of prevention, the GIES major tasks include:

- risk identification and assessment;
- verifying the well-observance of fire safety regulations for designing, execution, utilization and maintenance;
- verifying the application of specific measures in order to maintain acceptable risk levels;
- population preparedness and emergency training;
- coordination of professional public emergency services and volunteers.

In cases of disaster response, the GIES manages:

- rescue actions (persons in hostile environment, trapped, isolated, suicide intentions);
- evacuations and relocations of affected persons (disasters, armed conflict);
- mitigation of accidents' consequences and alerts of responsible environment stakeholders (detection, radiation measurement, establish contamination degree, neutralisation);
- extrications.

GIES includes National Operational Centre, Prevention Inspection, directorates for planning, logistics, and finance. Subordinated to the GIES are 41 County Inspectorates for Emergency Situations plus the Bucharest Inspectorate for Emergency Situations, training centres, schools, research, IT&C, warehouses, logistics. Its component layout operates according to the minimum response time 8 to 10 min in urban areas and 14 to 20 min in rural areas.⁴⁷

Overall, within the NEMS architecture, responsibilities are shared as shown in Figure 14.

⁴⁷ Source: Annex 2 to GO No 1490/ September 9, 2004

	Authorities	Normality	Emergency
NATIONAL	NCES (<i>Minister of Interior</i>) Ministerial Committees GIES On site commander	CNCCI Ministerial operative Centres 112	CNCCI (<i>reinforced</i>) Ministerial operative Centres 112
COUNTY	CCES (<i>Prefect</i>) County forces (<i>police, ambulance,...</i>) County IES On site commander	CJCCI operative centres 112	CJCCI (<i>reinforced</i>) operative centres 112
LOCAL	LCES (<i>Mayor</i>) Local forces (<i>police, ambulance,...</i>) Intervention units On site commander	Dispatchers 112	Dispatchers 112

GIES – General Inspectorate for Emergency Situations
NCES, CCES, LCES – (National, County, Local) Committee for Emergency Situations
CNCCI – National Centre for Coordination and Disaster Relief
CJCCI – County Centre for Coordination and Disaster Relief

Figure 13: Sharing of responsibilities within the NEMS⁴⁸

Volunteers and specialised NGO

Relevant volunteer and specialised NGOs are listed below.

Association of Voluntary Rescuers in Emergency Situations (ASVSU, <http://www.asvsu.ro/>) organises experienced specialists and volunteers for interventions in emergency, providing:

- Research-Search-release-rescue;
- First aid in emergency;
- Radio communications in cases of emergency;
- Accidental transportation from mountains;
- Psychological first aid;
- Search and Rescue Canine
- Search of missing children.

Romanian Red Cross (<https://www.ifrc.org/en/what-we-do/where-we-work/europe/romanian-red-cross>)

National Centre APELL for the Disaster Management – CN APELL RO. Awareness and Preparedness for Emergencies at Local Level (APELL) is a United Nations Environment Programme (UNEP) initiative in response to a number of industrial accidents that resulted in deaths and injuries, environmental

⁴⁸ Source; GIES presentation, available at http://www.igsu.ro/documente/SAEARI/IGSU_EN.pdf

damage, and extensive economic consequences for the surrounding communities. The APELL process is a methodological tool focusing on the local level for identifying possible industrial hazards, raising awareness of these hazards, and building local capacity for immediate, multi-party response in the event of an emergency. Romanian APELL co-ordinating group is allocated within the Babes-Bolyai University in Cluj-Napoca (<http://www.ubbcluj.ro>).

“Rescue Society of Bucharest” is a foundation type of NGO, aimed to provide support for improving the quality of emergency medical services in Bucharest, especially the capacity of the “Bucharest Ambulance Service.” The foundation also organises scientific events in the field of emergency medical care locally, nationally and internationally and training courses for those interested in first aid. It has established a medical centre for healthcare of sexually exploited women.

Academia and research institutes

- *National Institute of Research and Development for Earth Physics.* The National Institute of Research and Development for Earth Physics (NIEP) is an organisation for research and development in earth sciences established in 1977, co-ordinated by the Romanian Ministry for Education and Research. It is mainly financed by contracts from public sources.
- *Institute of Geography.* The Institute of Geography (IGAR) is the main institution of fundamental and applied geographical research in Romania. It carries out integrated research in Geomorphology, Hydrology, Biogeography, Climatology, GIS Systems, Human Geography and Environmental Geography, focusing on investigating the relationships between the components of the physical and biotic environment (relief, water, soil, vegetation and fauna) and of the social and economic milieu, as well as their spatial distribution in connection with global environmental change.
- *Institute of Geology.* The Institute focuses on fundamental research imposed by the tasks implied by the priority program of the Romanian Academy: “Complex geophysical research in geodynamically active areas, with a special emphasis on the Vrancea seismogenic area.”
- *Institute of Geodynamics “Sabba S. Stefanescu”*
- *German-Romanian Collaborative Research Centre (CRC)* is a German contribution to the UN initiative “International Decade for Natural Disaster Reduction” (IDNDR) based on the UN resolution 42/169/1987. It is funded by the German Research Foundation and supported by the Universität Karlsruhe (TH) and the State of Baden-Württemberg, Germany. A group of Romanian and German geoscientists and engineers have created a research program on strong earthquakes in the Romanian Vrancea area.
- *National Centre for Seismic Risk Reduction*
- *Research Centre for Disaster Management “Babeş-Bolyai”.* The centre contributes to prevention and reduction of consequences of NATECH (NATural Hazards Trigger TECHNological Accidents) and provides education on environment protection and emergency.

Other specialised universities, institutes and research centres are:

- Technical University of Civil Engineering, of Bucharest; Technical University, of Timisoara; Technical University “Gh. Asachi”, of Iasi; Town-Planning and Architecture University “Ion Mincu”, of Bucharest; Polytechnic University, of Bucharest;

- National Institute for Building Research – INCERC; Studies and Designing Institute for Land Improvement – ISPIF, of Bucharest; Environment Research and Engineering Institute.

3.2 Organisational co-operation

Operations

The concept of emergency management operations is of a task force type. For each particular situation, a package of capabilities should be allocated and a commanding officer must be determined. When it is a first response operation, GIES has the leading role for immediate reaction. Otherwise, the commanding officer and the package of forces (capabilities) is assigned to the ministry, which is responsible for monitoring the particular source of hazard or threat.

The key coordination body – the NCES, has to be called immediately when a situation escalates to the “national” level (that means the emergency covers more than one county) or when the impact is high. In any case, NCES investigates the situation, coordinates efforts, capabilities and operations between both different agencies and centre-county-local levels assigned.

It is common for NCES to consider international support and, if needed, to deliver requests. GIES has a mandate to communicate with foreign partners, especially when the situation may have a cross-border impact. The Romanian contribution to the international humanitarian assistance and disaster relief operations is provided through the EU’s Monitoring and Information Centre (MIC), operated by the European Commission in the framework of Community mechanism to facilitate reinforced cooperation in civil protection assistance interventions and the Euro-Atlantic Disaster Response Coordination Centre (EADRCC/NATO).

The GIES coordinates and is directly responsible for all international assistance offered/received on a bilateral or regional basis or through the MIC, EADRCC and UN-OCHA.

International assistance is offered/requested on a case-by-case basis, based on a decision by the National Committee for Emergency Situations at the request of the GIES.⁴⁹

Capability planning

Even though there is not a formal system for co-ordinated inter-departmental capabilities planning and acquisition, NCES and GIES have mandate to co-ordinate any national level plans and programmes. The procurement is done usually through the ministries, county and local authorities as they have both specific responsibilities and budgets.

Regional initiatives

Romania is expanding its engagement in both bilateral and regional civil protection initiatives. The country has signed bilateral agreements for mutual assistance in cases of emergency with Bulgaria,

⁴⁹ Source: HA&CP

France, Hungary, Moldova and Turkey. Emergency management agreements have been signed with Azerbaijan, Czech Republic, Denmark, France, UK and USA.

Within some multilateral formats Romania is also involved in cross-border co-operation programmes with non-EU states, including Moldova, Ukraine and Serbia.

On a regional level, Romania (mostly through GIES) participates actively in initiatives, projects and actions developed under the regional bodies, which Romania is a part of, such as:

- Civil Military Emergency Planning Council for South-Eastern Europe (CMEPC SEE);
- Black Sea Initiative on Civil Military Emergency Preparedness (BSI CMEP);
- Commission on the Protection of Black Sea Against Pollution – Advisory Group on Environmental Safety Aspects of Shipping (AG-ESAS);
- European Maritime Security Agency (EMSA);
- Stability Pact for South-Eastern Europe / Disaster Prevention and Preparedness Initiative (DPPI);
- DKMT Euro-Region (Danube – Kris – Mures – Tisza);
- South-Eastern European Defence Ministerial (SEDM);
- Organization of the Black Sea Economic Cooperation (BSEC).

GIES participate in the NATO's missions in civil emergency planning with special attention to: critical infrastructure protection, preparedness for consequence management in the event of natural disasters and in incidents involving chemical, biological, and radiological materials. GIES also provides representation in the following bodies:

- Civil Emergency Planning Committee (CEPC);
- Civil Protection Group (CPG);
- Group of Experts on the Evaluation of humanitarian and disaster relief.

In the last ten years, Romania has provided assistance to other countries in case of emergency. Some of the support has been provided even when Romania has been also in emergency:

- 2006 – to Bulgaria: anti-pollution materials;
- 2006 – to Hungary: flood protection materials;
- 2007 – to Greece: means for aerial forest firefighting;
- 2010 – to Hungary: flood protection materials;
- 2010 – to Moldova: materials and flood protection intervention teams;
- 2011 – to Libya: emergency airlift;
- 2011 – to Turkey: support materials;
- 2012 – to Bulgaria: flood protection materials.

Further expansion of the Romania cross-border emergency management co-operation has been conceptualised through Government approved *National Strategic Concept of territorial development ROMANIA 2030*.⁵⁰

⁵⁰ Available in English at http://www.mdrl.ro/documente/publicatii/2008/Brosura_Conc_strat_EN.pdf

4 Procedures

4.1 Standing Operating Procedures (SOPs) and Guidelines

There is no available information that Romania produced standing operational procedures (SOP) for civil protection.

The National Operations Centre, which is a structure of the GIES, seems to be capable of producing such standards. The Centre operates the following services and departments:

- Service analysis, evaluation and coordination of intervention;
- Exhaust Service, pyrotechnics and emergency rehabilitation CBRN;
- Services are operational and dispatch;
- Disaster Medicine Department;
- Psychological compartment;
- Compartment specific standards and regulations;
- Permanent Technical Secretariat of the National Committee for Emergency Situations;
- Secretarial Department.

Having in mind the large number of actors with legal responsibilities for managing crisis in different areas, training is of crucial importance. The National Centre for Training Improvement in Emergency Situations Management operates regional training centres, which train personnel involved in civil protection and high-level public workers, and public workers with management responsibilities in the national system (officers, non-commissioners, public administration personnel, etc.).

GIES has participated in the NATO led “Project on Minimum Standards and Non-Binding Guidelines for First Responders Regarding Planning, Training, Procedure and Equipment for Chemical, Biological, Radiological and Nuclear (CBRN) Incidents.” In result, a collectively produced Guidelines for First Response to a CBRN Incident is in use.⁵¹ The guide covers:

- Information gathering;
- Scene management;
- Saving and protecting lives;
- Additional/specialist support.

4.2 Operations planning

Civil protection is a component of the national security system and represents an integrated range of specific activities, and organisational, technical, operational measures and tasks having a

⁵¹ Available in English at http://www.igsu.ro/documente/SAEARI/Brochure_First_Response_Guidelines_-_EN.pdf

humanitarian and public character. Civil protection is planned, organised and performed according to the law on civil protection with a view to preventing and reducing disaster risks, protecting the population and the environment against the effects of emergencies and armed conflicts and securing life-saving conditions during emergencies.

The responsibility for the elaboration of (national) plans in emergency-related areas lies with the National Committee for Emergency Situations, the Ministerial Committees for Emergency Situations, as well as with the county and local committees for emergency. Planning activity for civil protection is set up through following documents:

- At national level: National Development Plan, National Strategy on Civil Protection, Climate change policy and strategy, Civil defence policy, strategy and contingency planning;
- At ministerial level: Operational plans for specific disasters, elaborated by the Ministerial Committees for Emergency Situations;
- At county and local level: Plans for protection and intervention in case of specific disasters; the relevant authorities draft and implement a General Urban Plan, taking into consideration the hazard maps.

The economic agents have emergency plans that are elaborated in cooperation with the counties civil protection inspectorates. These plans cover natural and technological disasters that may affect the economic agent and surrounding population. The basic principle in these plans is to use all possible human and material resources for interventions.

Academic, research, learning and nongovernmental organisations, volunteers and population are involved in the planning process at certain levels.

The applicability of the measures, envisaged in the operational plans is periodically verified through exercises organised and conducted by GIES.

For protection against floods, meteorological phenomena and accidents threatening dams, once every four years plans are elaborated at county, city, locality and hydrographic basin level, which are revised whenever necessary. The plans represent technical documentation, containing preventive and intervention measures, detailing the information flow for warning the population in case of a danger. The responsibility for the activation of these plans belongs to the chairmen of county and local committees for emergency situations and the territorial water management units.

For earthquakes and landslides, the county and local emergency situation committees have plans for each phase of the disaster management process. These plans are revised yearly and/or after a disaster occurs. The Chairmen of the respective committees are responsible for the elaboration and revision of the plans.

The GIES draws and submits the National Plan for Emergency Situation Management for adoption by the Government. The national plan outlines the necessary human, material and financial resources. The GIES also agrees on intervention or technical assistance aspects of international plans for

emergency management and submits them for adoption by the National Committee for Emergency Situations.

4.3 Logistics support in crises

There is no available information about the use of private logistic providers. The use of military logistic support is provided on the basis of a decision of the National Committee for Emergency Situations.

4.4 Crisis communication; Alert system; Public Information and Warnings

The basic legal document for communications in emergencies is Government Ordinance No. 548/2008, for the approval of the National Strategy for Communication and Public Information in Emergency Situations.

Romanian Emergency Management Information System (EMIS) is a fully integrated information system connecting all Emergency Operational Centres (EOC) and other stakeholders for streamlining information sharing and decision support for daily routine and in case of emergency as well. It is designed to support all phases of emergency management: mitigation, preparedness, response and recovery and is deployed in the EOCs of the National Emergency Management System (NEMS) as shown on Figure 15.

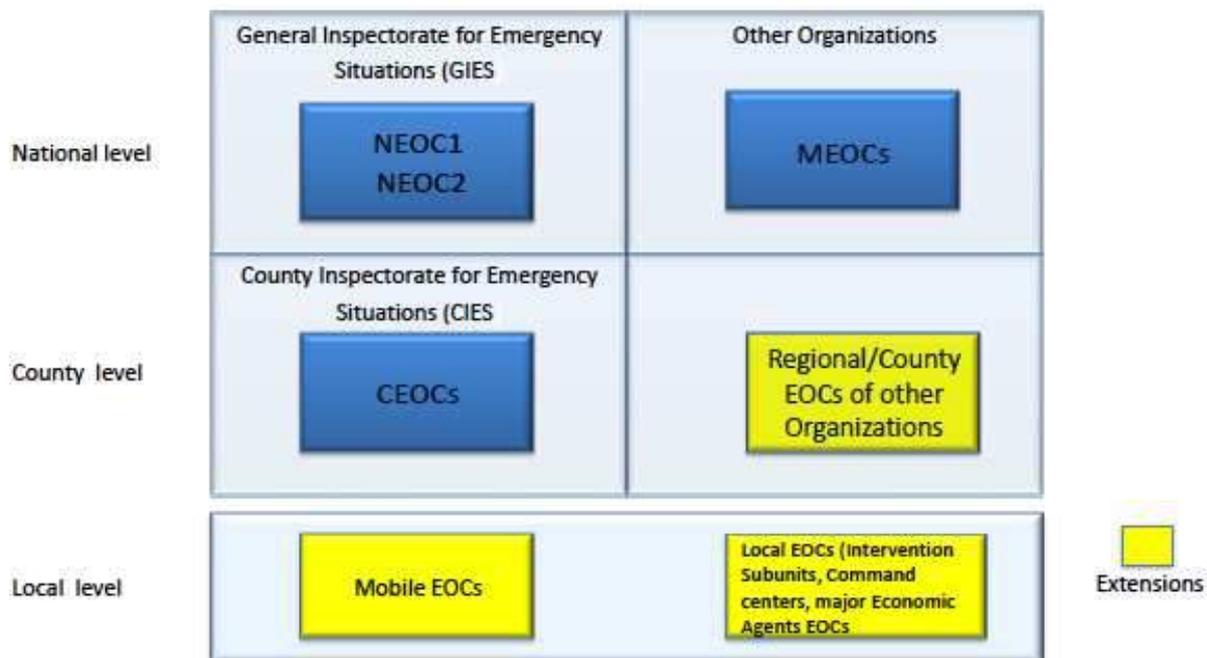


Figure 14: Romanian Emergency Management Information System within the NEMS⁵²

In this system, the EOCs are information hubs that move the flow of information through WAN from different primary sources towards the two levels of centralisation: country level (County Emergency Operation Centres, CEOCs) and ministerial level (Ministerial Emergency Operation Centres, MEOCs). It is replicated at the national level (NEOC 1, 2) where it is summarised, analysed, verified and presented in forms of draft decisions.

The CEOCs are not fully permanently staffed – in case of emergency experts from different organisations operate them. NEOC1 has the coordinator's role in any serious emergency, while NEOC2 is activated only in cases of countrywide crisis as a reserve command centre.

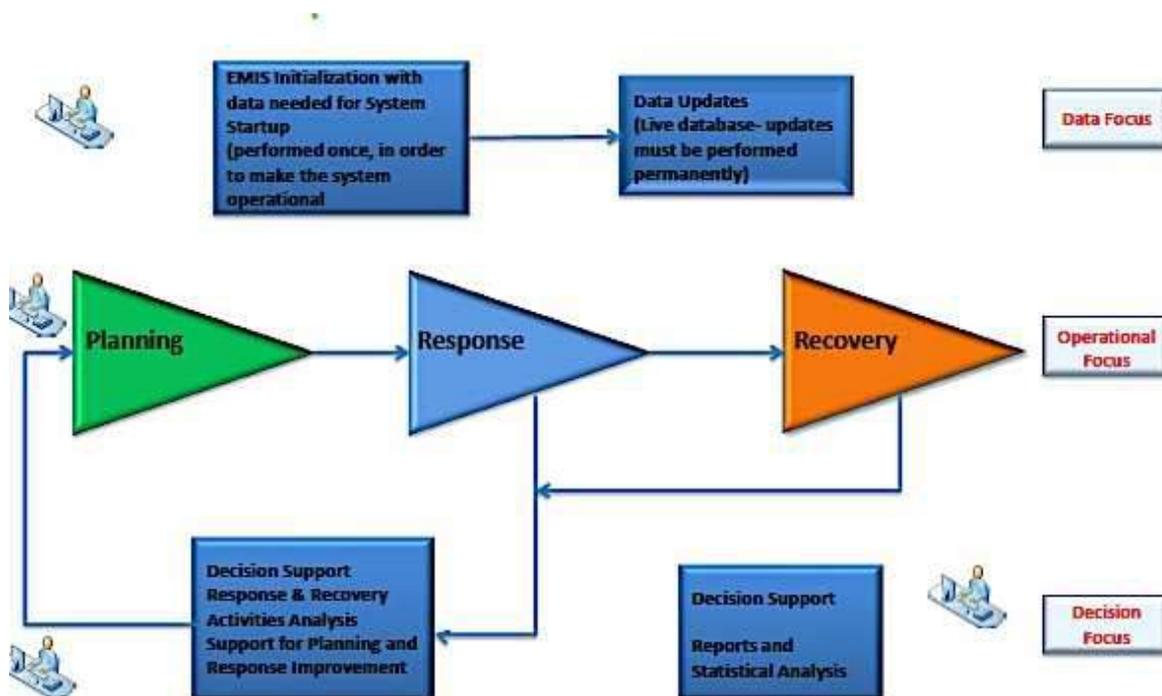


Figure 15: EMIS operational process

In terms of the operational process, the system is organised in such a way to support the basic emergency management functions (Figure 17):

- Planning (including tasking, task force creation, and budgeting);
- Response and recovery (including task force creation, evacuation, and damages in people, infrastructure and material);
- Alerting and notification;
- Reporting on situations and interventions;

⁵² Monitor II available at http://www.monitor2.org/downloads/MONITORII_WP4_Partner%20specific%20module_EMIS_PP6.pdf

- EMIS database management (including organisation, human resources, logistics, risks, hazardous materials management, evacuation, etc.)

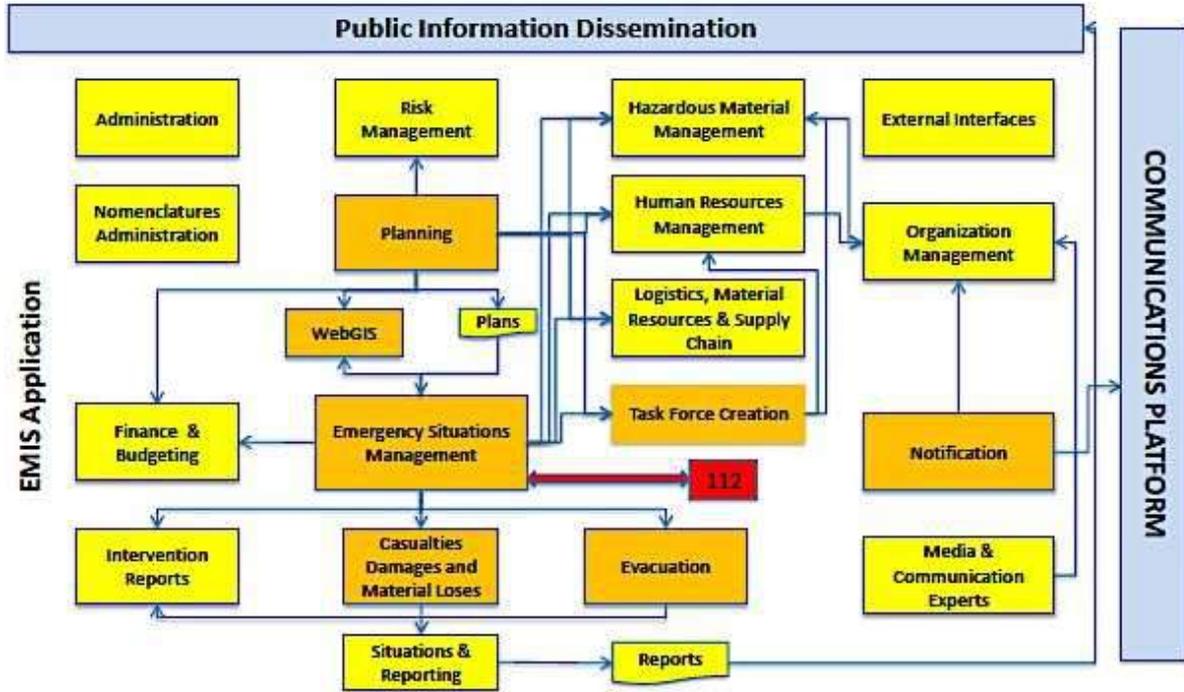


Figure 16: EMIS modular architecture

The workflow within the EMIS is described in Figure 18.

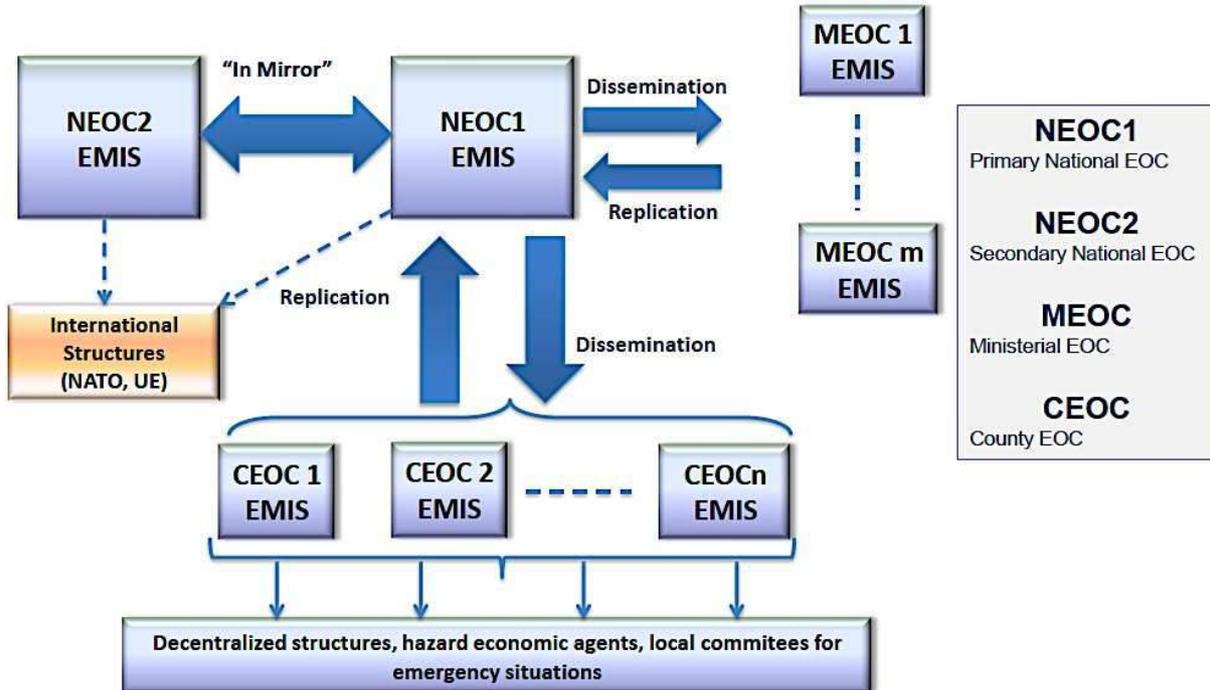


Figure 17: EMIS information workflows

Thus, the Romanian Emergency Information Management System seems to be completely relevant to the architecture of the NEMS. It covers the main processes as prescribed by the National Strategy on Civil Protection and related legislation – preparation, response and recovery.

Technically, the EMIS may serve as a network for daily routine exchange of information and reports, as well as during any kind of emergencies, allowing sharing of information between all participating actors in both vertical and horizontal projection. The system also can operate in two modes – real and simulation. The latter is a powerful infrastructure for crisis management training.

The system provides opportunity to trace any crisis management activities at each command level, including information on victims and damages, statistics and reports. In terms of lessons learned, this is a valuable source of analyses and measures to improve the overall system.

The EMIS is a component and key backbone of the national emergency alert system.

Alert information sources

Additionally to the national EMIS there are variety of independent alert networks, channels, and other opportunities that make the Romanian alert system more complicated but flexible and sustainable in unexpected emergencies.

The Single National Emergency Call System (SNECS). SNECS is a vital constituent of the universal service obligations, as laid down the EU acquis. The SNECS consists of 40 (one in every county capital, with back-up capacities) emergency call answering centres known as Public Safety Answering Points (PSAP) and their associated equipment - an operative telecommunications system, designed to notify, receive, process and transfer the emergency calls to the requested services, in a centralised and unitary way. The system also applies to the communications between the Police, the Fire Brigade, and the Ambulance special response systems, which have the obligation to respond in case of emergency calls.⁵³

The SNECS receives and automatically records the emergency calls received on/through telephone, radio, automatic announcement devices, signaling, and alarming by other methods, confirming and locating, as much as possible. It analyses, organizes and promptly transfers the emergency calls as received to specialised response agencies, competent authorities (depending on the nature of the events and their consequences); transfers immediately the calls, the data and the information received in case of disaster to the NCES, receives and records the data and information on the events and response development and collects, stores and makes available for the competent authorities the data regarding the handled emergency calls. This is a multi-lingual service made available to all countrywide citizens (both Romanian and foreign) who are in an emergency situation.⁵⁴

⁵³ Sources: <http://www.112.ro/index.php?limba=en> and Current Status of Emergency Response System (ERS) in India and Model ERS Based on International Best Practices (case study of Romania) - http://www.adrc.asia/aboutus/vrdata/finalreport/2012B_IND_fr.pdf

⁵⁴ Sources: <http://www.112.ro/index.php?limba=en> and Current Status of Emergency Response System (ERS) in India and Model ERS Based on International Best Practices (case study of Romania) -

Rapid Early Warning System in Romania (REWS) for earthquakes has been developed, including the following stages

- 1980-1982 – Installation of telemetry seismic network with 18 seismic stations
- 2004 – REWS extended to dangerous facilities;
- 2007 – REWS for nuclear facilities;
- 2011-13 - Danube Cross-border System for Earthquakes Alert.

Accident Emergency Warning System (AEWS) in the Danube Basin. AEWS is activated whenever there is a risk of transboundary water pollution, or threshold danger levels of hazardous substances are exceeded. The AEWS operates on a network of Principal International Alert Centres in each of the participating countries. These centres are made up of three basic units:

- Communication Unit (operating 24 hours a day), which sends and receives warning messages;
- Expert Unit, which evaluates the possible transboundary impact of any accident using the database of dangerous substances and the Danube Basin Alarm Model;
- Decision Unit, which decides when international warnings are to be sent.⁵⁵

Electronic sirens, TV and radio and the Internet are used by responsible national agencies, e.g. Meteoalarm and National Institute of Hydrology and Water Management.

Operative information exchanged between operational forces involved in interventions is handled via a SIMPLEX handset. Coordination information is handled via a TETRA handset and the Mobile Command Post. Public information systems use TV, the radio, spokespersons and live transmissions from disaster scenes transmitted through the Mobile Command Post.

In addition to that, Orange Romania is supporting the release of an application, which works as an alert system for emergencies in public places. Following its download from the App Store or Google Play via phones, or online from www.existaunerou.ro for users without smartphones, one can register to help in an emergency.

http://www.adrc.asia/aboutus/vrdata/finalreport/2012B_IND_fr.pdf

⁵⁵ Source: <http://www.icpdr.org/main/activities-projects/aews-accident-emergency-warning-system>

5 Capabilities

To achieve legally determined aims and goals, the Romanian strategy and policy on civil protection, the components of the National Emergency Management System, as well as the civil protection volunteers and professionals need to be prepared, trained and equipped.

5.1 Human resources

No open systematic information on human capacity for emergency management. The UNIDIR and The World Bank sponsored study as of 2008, as well as a 2007 GIES presentation provide the following figures:

- People, involved in civil protection in normal condition – 1200;
- Resource of the General Inspectorate for Emergency Situation and its subordinates – 31 000;
- Organised into detachments volunteers around the country – 131 000;
- Personnel from private enterprises – 21 175.⁵⁶

There is no definitive data available on the total number of volunteers in Romania. The lack of data on this matter is determined by two key factors:

- Not all volunteers sign a volunteering contract with the host organisation;
- There is no national register of volunteering contracts.

By way of background, according to a comprehensive study of the European volunteerism (GHK, 2010), the actual proportion of the overall active volunteers in Romania ("who do voluntary work on a regular monthly basis"), but not specifically on emergencies, is estimated to be fewer than 2% of the adult population. By this criterion, Romania has been classified by the study in the group of countries with low or relatively low levels of participation in volunteering with a modest trend towards an increase.

5.2 Materiel (non-financial) resources

In accordance to the National progress report on the implementation of the Hyogo Framework for Action (2011-2013) there are no funds dedicated for disaster risk reduction measures. The investment in response and recovery leads to limited/no budget left for disaster risk reduction measures. Most of the time, local authorities have to face many and various challenges with a limited amount of money and some of the emergency situations funds are used to cover more urgent needs. Important amounts of money were invested in prevention activities and in disaster risk reduction measures, especially in the flood risk field. These funds are from the local councils, decentralised public services, central authorities and European programs. The investments in disaster risk

⁵⁶ Sources: GIES presentation and (UNISDIR, WB, 2008)

reduction made by central authorities are easily identified (hydrotechnical works, hazard and risk maps, the program for the reduction of seismic risk of the buildings) and for them are spent 0,002% from the overall budget. At the local level, there are also current investments in disaster risk reduction (capacity building of the local emergency situations services, public awareness campaigns, the maintenance of ditches and dikes), investments covered by the emergency situations dedicated funds. These funds are dedicated for all prevention, response and recovery actions. Local authorities spend 0-4% of the local budget for disaster risk reduction measures and 0-10% for response and recovery, depending on the existing situation. The same report indicates that for risk reduction and prevention the local authorities spend 1% of their budgets while 2.5% goes for relief and reconstruction.

The National Administration for State Reserves is responsible for managing all materials and goods for supporting the affected population, on the basis of a governmental decision.

At the county level, emergency situation inspectorates manage warehouses with protection, intervention and first necessity materials for displaced population, financed by the counties' budgets. The warehouses belonging to the Romanian Red Cross can provide shelter materials, clothes, footwear and foods.

5.3 Training

The National Centre for Training Improvement in Emergency Situations Management operates regional training centres, which train personnel involved in civil protection and high-level public workers, and public workers with management responsibilities in the National System for Emergency Situations (officers, non-commissioned officers, public administration personnel, etc.).

There is a national emergency management exercises programme, which is part of the GIES main activities plan (not available to the public). Exercise planning is based on risk analyses and preparedness/prevention needs.

5.4 Procurement

5.4.1 Procurement regulation

5.4.1 Procurement procedures

When the procurement of materials for civil protection is in the scope of particular ministry, then it has the responsibility to provide the necessary items or services. As a first step in the process, an annual plan for centralised procurement is prepared and during the budget year, public tenders are

announced. In some cases, the tenders could be classified. In general, tenders are also made public at the web site of GIES.⁵⁷

5.5 Niche capabilities

No available information

⁵⁷ Procurement at GIES web site: http://www.igsu.ro/index.php?pagina=centr_ap

6 Conclusion

Emergency management in Romania is a government function with rapidly growing importance during the last decade. Almost every year serious natural disasters motivate and force the country leadership to work systematically on building relevant system for crisis management. Public expectations for a more decisive role of the state are also on the rise. The reform efforts' focus is currently diffused between a prioritisation of the natural disasters and terrorism, and a coherent strategic approach.

Over the last two decades, the concept, legal framework and institutions of the civil protection system have been completely changed. Obviously, the emergency system has performed better after the reform, but still lacks "...the knowledge and the necessary legislative, technical and financial capacities to respond effectively..." (Zulean, Prelipcean, 2012) The system has been oriented to cope mostly with "known unknowns" as earthquakes, floods and extreme temperatures, but there is a low level of preparedness and capabilities to respond to new types of threats.

Conceptually, the emergency management in Romania has not yet benefitted from a comprehensive civil security approach. Since the end of the authoritarian regime, the sector's focus gradually moved from wartime "civil defence" towards building an organisation that is more relevant to contemporary threats and risks. Transformation has resulted in the introduction of two basic architectures: the National Emergency Management System and the National System on Preventing and Combating Terrorism. Other elements of the comprehensive civil security such as the economic, ecological, and social have not been integrated yet.

From an organisational point of view, the Romanian emergency management system can be considered as rather sectorial with some influence of the all-hazard approach. There are several, relatively independent services focused on particular risks. Despite certain attempts to establish an all-hazard structure, the sectorial approach prevails. The crisis management system, which could be considered as an all-hazard device, is only a coordination platform, and in practice, actions are undertaken by particular ministries and specialised agencies. As a result, co-ordination still represents a challenge.

De-centralisation in emergency management is a fact in legal and organisational terms. However, the lack of balance between the capabilities of ministries, and those of county and local authorities is obvious. As budgets dedicated to emergency management are not assigned to particular programmes, they tend to be spent for other than risk reduction purposes, mostly for post crisis recovery. Nevertheless, funding is insufficient to fill the gaps in risk reduction, capabilities and nation-wide training.

Romanians expect the state to play a more active role in crisis management. Individual insurance seems to be at very basic level. General emergency training is limited. State agencies and several NGOs are campaigning for volunteer contribution and self-insurance, but they are considered mostly

low profile as the interest of the young generation in any volunteer work is in decline. The business has a defined, but limited role in the Romanian civil emergency system; it is more effective in private owned critical infrastructure protection.

Romania is relatively active in the international co-operation for natural and technological risk reduction and emergency management. Bilateral agreements have been signed with all neighbours and co-operation is recently considered as effective. The country is engaged in the work of committees and working groups dealing with the EU's civil protection. Its specialised structures participate and organise exercises and trainings. Romania has activated the EU's MIC and received support several times, and has provided assistance to other EU member and non-EU countries. Recently, international co-operation is considered as an important factor for rapid response and filling the capability gaps.

Resources

Legislative acts

Decision no. 1489 of 9 September 2004 on the organisation and functioning of the National Committee for Emergency Situations

Decision no. 1490 of 9 September 2004 on the GIES

Decision no. 1491 of 9 September 2004 approving the Framework Regulation on the organisation, competence, functioning and endowment committees and operational centres for emergency situations

Decision no. 1492 of 9 September 2004 concerning the organisation, functioning and responsibilities of the professional emergency services (replacing Government Ordinance no. 88/2001)

Decision no. 1514 of 29 November 2005 amending Government Decision no. 1 490/2004 for the approval of the organisation and functioning and organisational structure of the General Inspectorate for Emergency Situations

Decision no. 259 of 31 March 2005 on the setting up and establishing the powers of the National Centre for Fire Safety and Civil Protection

Decision no. 547 of 09 June 2005 approving the National Strategy for Civil Protection

Decision no. 548/2008, for approval of the National Strategy for Communication and Public Information for Emergency Situations

Decision no. 95/2003 on the control of major accident hazards involving dangerous substances

Emergency Ordinance no. 21 of 15 April 2004 on the National System of Emergency Situations Management

Emergency Ordinance no. 25 of 21 April 2004 amending and supplementing Government Ordinance no. 88/2001 regarding the establishment, organisation and functioning of public services for emergency situations

Government Ordinance no. 1579 of 08 December 2005 regarding the statute of volunteer personnel from emergency volunteer services;

Government Ordinance no. 160 of 14 February 2007 regarding the conditions and details for using the uniform protection equipment and distinctive signs for emergency volunteer services personnel;

Law no. 307 of 12 July 2006 on protection against fire

Law no. 481 of 8 November 2004 on civil protection

Order of Ministry of Internal Affairs no. 160 of 23 February 2007 on the rules for planning, organising and performing the emergency prevention activities within the emergency volunteer services.

Order of Ministry of Internal Affairs no. 718 of 30 June 2005, approving the capabilities and organisational structure of emergency volunteer services;

Ordinance no. 1134 of 13 January 2006 approving the Regulation on planning, preparation, organisation, conduct and management of intervention stocks of emergency services professional;

Ordinance no. 1184 of 6 February 2006 for the approval of the organisation and ensure the activity of emergency evacuation

Ordinance no. 360 of 14 September 2004 approving the performance criteria for the organisational structure and professional equipment for emergency services

Ordinance no. 370 of 28 September 2004 approving Regulation on organisation and operation of county and Bucharest emergency inspectorates

Ordinance no. 88 of 30 August 2001 regarding the establishment, organisation and functioning of public services for emergency situations

Regulation of 12 May 2005 concerning the management of emergencies arising from floods, hazardous weather, hydro construction accidents and pollution incidents

Volunteer Law no. 195 of 20 April 2001;

Other normative acts

Official documents (white papers, strategies, etc.)

National Security Strategy (published by the Ministry of Defence in 2007)

National Strategy on Civil Protection, published in Official Gazette no. 600 of 12 July 2005

National Strategy for Communication and Public Information for Emergency Situations, published in Official Gazette of Romania, Part I, no. 426 of June 6, 2008

National Waste Management Strategy

Online resources (websites of key CM organisations)

Institute of Geodynamics “Sabba S. Stefanescu”, <http://www.geodin.ro/>

Institute of Geography (Romanian Academy of Sciences), <http://www.geoinst.ro/publications.html>

Institute of Geology, <http://www.igr.ro>

Ministry of Agriculture and Rural Development, <http://www.madr.ro/ro/>

Ministry of Communications and Information Society, <http://www.mcsi.ro/>

Ministry of Economy, Trade and Business Environment, <http://www.minind.ro/>

Ministry of Education, Research, Youth and Sports, <http://www.edu.ro/index.php/base/frontpage>

Ministry of Environment and Forests, <http://www.mmediu.ro/beta/>

Ministry of Foreign Affairs, <http://www.mae.ro/>

Ministry of Health, <http://www.ms.gov.ro>

Ministry of Internal Affairs, <http://www.mai.gov.ro/Home/index.htm>

Ministry of National Defence, <http://www.mapn.gov.ro/>

Ministry of Public Finance, <http://www.mfinante.ro/acasa.html?method=inceptut&pagina=acasa/>

Ministry of Transportation, <http://www.mt.ro/nou/index.php/>

National Administration of State Reserves and Special Problems - <http://www.anrps.gov.ro/>

National Centre for Seismic Risk Reduction, http://cnrrs.utcb.ro/cnrrs_en/ncsrr.html

National Institute of Research and Development for Earth Physics, <http://infp.infp.ro/>

Nuclear Agency - <http://www.andrad.ro/>

Protection and Guard Service, <http://www.spp.ro/>

Romanian Intelligence Service, <http://www.sri.ro/>

The General Inspectorate for Emergency Situation, <http://www.igsu.ro/>

The National Authority for Sanitary Veterinary and Food Safety - <http://www.ansvsa.ro/>

The National Commission for the Control of Nuclear activity, <http://www.cncan.ro/main-page/>

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<http://www.arduph.ro/domenii/protectie-persoane-si-bunuri/drepturile-omului-la-pace/civil-protection-in-romania/>

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Expert interviews



Driving Innovation in Crisis Management for **European Resilience**

SLOVAKIA

Capabilities, Organisations, Policies, and Legislation (COPL) in crisis management and disaster response

Responsible Partner: AIT (Stefan Schirrhofer, Bettina Jager)

Scope and limitations

This study serves as supporting information for further work within DRIVER.

Only limited time and budget has been available for this first general survey, which needs to be considered in terms of scope and completeness of the respective studies.

The author/s of this study is/are responsible for its content and quality.

Overview

With a risk of 3.57% Slovakia ranks on the 135th place of the World Risk Report 2014. In the last twelve years, floods, storms, heat waves as well as cold waves affected Slovakia the most.

The initial regulation of civil protection in Slovakia can be dated to 1994, when the Act of the National Council of the Slovak Republic No. 42/1994 Coll. of Laws on Civil Protection of the Population was adopted. Therein, the narrow outlook of the protection concept focused solely on times of war, was expanded to the protection of the population also in peaceful times. Important milestones in the field of civil protection were reached in 2002 with the Acts concerning the reform of the Integrated Rescue System (IRS), the Management of the State in Crisis Situations apart from Wartime and States of War and the Constitutional Act 10 on National Security of the State in War, the State of War, State of Exception and State of Emergency (Act Nr. 227/2002 Coll.), which is the overall civil protection Act. For crisis and disaster situations, the Slovakian civil protection concept envisages rescue measures, mitigation and elimination actions as well as an inter-organisational and cross-border cooperation in for the assistance in emergencies.

At the regional level, the IRS plays a vital part in the Slovakian civil protection. Operated by regional state officers, the Ministry of Health and the Fire Rescue Brigade the IRS provides response to disasters at first instance. If an emergency exceeds the capacity of the regional level, a central crisis staff under the chair of the Minister of the Interior will be established to coordinate measures of the state and the self-governmental regions of the counties. While the ministerial level acts as a central planning and decision-making body, the assigned duties will be carried out by authorities at the regional and the local level.

As most relevant bodies of the Slovakian civil protection, the Government of the Republic, the Ministry of the Interior as well as other ministries, district officers, self-governmental regions as well as the municipalities can be identified. Apart from administrative/governmental bodies, voluntary organisations (e.g. T.O.R. rescue) and NGOs (e.g. Slovak Red Cross) as well as individuals take an important part in civil protection.

As one especial feature of the civil protection system in Slovakia, in crisis and emergencies legal persons are allowed to provide services of own civil protection units to the district offices and municipalities.

Annually, the Republic of Slovakia spends approximately 0.007 percent of the GDP for Civil Protection. The largest share is taken by the Ministry of the Interior, which expends the second largest amount of its budget to rescue services.

At the operational level, the long-established Voluntary Fire Brigades are an integral part of the Slovak civil security system and perform important tasks in the response to disasters.

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List of Abbreviations

CEI	Central European Initiative
DM	Disaster management
DO	District Office
EM-DAT	Emergency Database
ERCC	Emergency Response Coordination Centre
EU	European Union
IRS	Integrated Rescue System
MIC	EU's Monitoring and Information Centre
MoI	Ministry of the Interior
NATO	North Atlantic Treaty Organization
OECD	Organisation for Economic Co-operation and Development
RSPG	Radio Spectrum Policy Group
SOP	Standing operating procedures
SRC	Slovak Red Cross
UN	United Nations
VFB	Voluntary Fire Brigades

1 Policy

Slovakia is a unitary state (republic) with a parliamentary system. The Parliament is unicameral, consists of 150 deputies and is called The National Council of the Slovak Republic (Národná rada Slovenskej republiky). The political system of the country is based on proportional representation. Since its independence in 1993, Slovakia has had experience with coalitions where one party dominated, as well as with the fragility of large coalitions. Institutional elements were taken from the German/ Austrian neo-corporatist model. Therefore, the system can rather be described as consociational. However, it is often pointed out that the Slovak reality is largely distant from the ideal model of consociational democracy.

In 1996 a new system of the regional and district division was introduced. In 1999, the government initiated a new round of reforms of public administration. In 2000, a Conception on Decentralization and Modernization of Public Administration was approved. The aim was to decentralize competencies to the self-governmental bodies, to de-concentrate competencies from central administrative bodies to local state specialized administration and to decentralize finances. In 2002, a new regional self-government system was created (consisting of eight self-governing regions). Currently, the country is divided into eight regions (Banskobystrický, Bratislavský, Košický, Nitrianský, Prešovský, Trenčianský, Trnavský, Žilinský – all of them have between 500,000 and 800,000 inhabitants) and 79 districts. There are 2,890 municipalities out of which 138 have the statute of a town. (Slovak Statistical Office online)

In another round of reforms starting in 2004, regional offices of the state administration were abolished and new district offices of state administration were introduced and specialized state administration at the regional level strengthened. Starting from January 2013, the specialized state administration bodies at the regional level (such as Office for the Environment or for Road Traffic and Communications) were abolished and their agenda integrated in district offices (a part of the state administration).

In Slovakia, currently the so-called parallel model of public administration exists, i.e. the state administration is completely separated from self-government. District offices and district offices in the seat of regions are now bodies of state administration, budgetary bound to the MoI. They are active also in the field of civil protection. The responsibility for civil security and crisis management rests mostly with the state administration. The legislative and main administrative competences rest on the national level with respective ministries, especially the MoI.

Despite the de-concentration and decentralization in public administration, the civil security system is rather centralized, although municipalities (bodies of self-governance) have an important place in the system of crisis management: they are the final link of public administration and the first one in contact with citizens. They can also declare an “extraordinary situation”, which has been the case with many local floods and heavy snowfalls. Principles of subsidiarity and the related up-scaling take place according to the territorial spread of a crisis event.

In case of a crisis, the government establishes a central crisis staff (the head is thereof the minister of interior) which coordinates activities of state administration bodies and self-governing bodies (Act Nr. 387/2002 Coll.). The ministries are responsible for civil security planning and decide about measures to deal with crisis situations. These measures are executed by the district offices in the seat of region which in turn coordinate activities of district offices and municipalities. The district offices

then execute measures to deal with the crisis situation and coordinate activities of municipalities. At the lowest level, municipalities execute measures to deal with the crisis situation and they demand assistance from the district office (DO).

Table 1: Slovakian Crisis Management Structure
Source: Brazova et al. 2013 accessed: July 19th, 2014.

<i>Administrative level</i>	<i>Crisis management authority</i>	<i>Consultative and advisory body, participates at crisis management</i>	<i>Crisis Management Centre</i>
Centre	Government, the Prime minister	National Security Council (esp. Committee for Civil Emergency Planning)	Central crisis staff (head is the minister of interior)
Ministries and other central administration bodies; Slovak National Bank	Minister, head of the central administration body	-	Departmental crisis staffs
Region	Chief of the DO in the seat of region (<i>Prednosta Obvodného úradu v sídle kraja</i>) State administration	Security Council (Headed by the chief of DO; members include a police, fire-fighter and army representative)	Crisis staff of the DO in the seat of region
District	Head of the DO (<i>Prednosta</i>) State administration	Security Council	Crisis staff of the DO
Municipality	Mayor (<i>starosta</i>) Self-governing body	-	Crisis staff of the Municipality

1.1 Risk Assessment

Among other things the Ministry and the state administration authorities focus on risk analysis and risk assessment methodologies. The key risks are possible leakage of radioactive substances caused by accidents in nuclear power plants, possible leakage of dangerous chemical substances caused by accidents in chemical plants and in the course of their transport, threats of terrorist attacks and floods.

As stated by Brazova et al. (2013), the most frequent crises that occur in Slovakia, in the independent history of the country from 1993, are caused by extreme weather conditions. Although industrial and transportation disasters do occur (such as a coal mine explosion in 2009 or explosion at military repair facilities in 2007), they are comparatively less important than natural disasters in terms of the number of people affected (EM-DAT online).

The typical crisis which regularly tests the civil security system preparedness is the flood. The most important one which also demonstrated the weaknesses of the system was the flood of 2010. As explained by ICPDR (ICPDR 2012), the extreme floods were recorded mostly in May and June. Altogether there were 206 days of flood alerts until the end of August (85 percent of the time) and the floods affected the whole territory of the Slovak Republic. Extreme flood events, which resulted from long-lasting rainfalls in the beginning of June, occurred in several river basins of the Central Slovakia.

It revealed that the Integrated Recue system (IRS) was not sufficiently ready to deal with consequences of a large-scale event at the central level for a long period of time. After this experience, the government approved a new conception of the IRS and its operation in January 2011.

Table 2: List of Crises in Slovakia (2000 – 2012)

Source: Brazova et al. 2013; accessed: July 19th, 2014.

Year	Crisis description	Crisis category	Damage		
			# of persons killed	# of persons injured	# of persons affected
2000	Wildfire (in Spišská Nová Ves district)	Natural Disaster	7		
2001	Flood (Bodrog, Poprad, Hornád, Ondava, Topľa, Laborec and Torysa rivers)	Natural Disaster	1		
2003	Bus crash near Úhorná	Transportation accident	11	24	
2004	Flood (esp. Ondava river)	Natural Disaster	1	230	2004
2004	Storm (esp. in Tatra mountains)	Natural Disaster	2	24	10,300
2005	Flood (esp. Ondava, Laborec, Hornád rivers)	Natural Disaster	1		
2006	Army plane crash	Transportation accident	42	1	
2006	Flood (esp. south-east of the country)	Natural Disaster	1		100
2007	Extreme temperature	Natural Disaster	1	89	
2007	Explosion at military repair facilities	Miscellaneous Accident	11		
2009	Coal mine explosion in Handlová	Industrial Accident	20		
2009	Gas crisis (outage of gas supplies)	Infrastructure failure/ Other			NA
2009/2010	Flu H1N1	Infectious disease	56		1210
2010	Extreme temperature (heat wave)	Natural Disaster	122		
2010	Flood (whole territory)	Natural Disaster			850
2011	Medical doctors' shortage	Other			NA
2012	Extreme temperature (extreme frost)	Natural Disaster	5		

1.2 Policy and Governance

The Central crisis headquarters and crisis headquarters of the county and district offices fulfil their tasks in accordance on "Management of state in crisis situations except war and warfare". The

central crisis headquarters coordinates the activities of the bodies of the state management, of the bodies of the territorial self-administration and other compounds dedicated to the solution of crisis situation within the period of crisis situation. The minister of the interior is the head of the central crisis headquarters. The structure of the central crisis headquarters is stipulated by its statute, which is approved by the Government of the Slovak Republic (National Report in preparation for World Conference of Disaster Reduction 2004).

1.2.1 Strategy scope and focus

According to the European Commission (2014), the aims of civil protection, as specified in the Act on Civil Protection of the Population (January 1994), are to protect the lives, health and property of the population and create conditions for survival under extraordinary circumstances and during the declared emergency situation.

An additional objective is to cooperate with the corresponding institutions of other countries in order to be able to provide coordinated emergency assistance. The Slovak civil protection is responsible for the following tasks:

- The organisation, management and execution of rescue, containment and elimination activities, especially those involving search and rescue operations, provision of paramedical and medical care, release of trapped persons and transportation of injured
- The organisation and provision of warning and information services
- The provision of emergency supplies and shelter
- The provision of refuge and evacuation
- The implementation of radiation and chemical protection measures
- The organisation and training of the civil protection forces, and the training of citizens in self-protection and self-assistance
- The evaluation and location of buildings according to land-use building procedures and the observation of the technical parameters of civil protection facilities.

According to the Expert Interview (2014), crisis management is provided strategically in all phases – prevention, preparedness, response and recovery. **In the area of natural disasters, there the focus is laid on preparedness and prevention.** The main legal scope which expresses crisis management in terms of the Slovak republic is a constitutional act no. 227/2002 about security of state in case of war, warfare, state of emergency and emergency.

1.2.2 Monitoring and analytical support to policy making; R&D

Partial Monitoring System – Geological Factors

Systems of monitoring along with information system are important tools to ensure the quality of the environment. At the same time they provide the basis for decision-making on the current and future activities in the field of the environment. The environmental monitoring is a systematic, time/space defined observation of the characteristics of the environment compounds (usually in points, forming a monitoring network), with a certain degree of power to represent the area under study, and in summary, a larger territorial unit. The monitoring provides objective knowledge of the characteristics of the environment and their changes in the area under study.

Partial Monitoring System - Geological Factors is a component of the Monitoring System of the Environment of the Slovak Republic. The focus is mainly in the so-called geological hazards, i.e. harmful natural or anthropogenic geological processes that threaten the natural environment and, ultimately, humans. The more and more adverse effects of natural forces formed the central issue in recent years, i.e. the number of incidents, disasters that have a negative impact on the lives and health of people or their property; in particular, recurring floods and landslides. The results of monitoring provide information to adopt appropriate and timely measures to prevent the incidents.

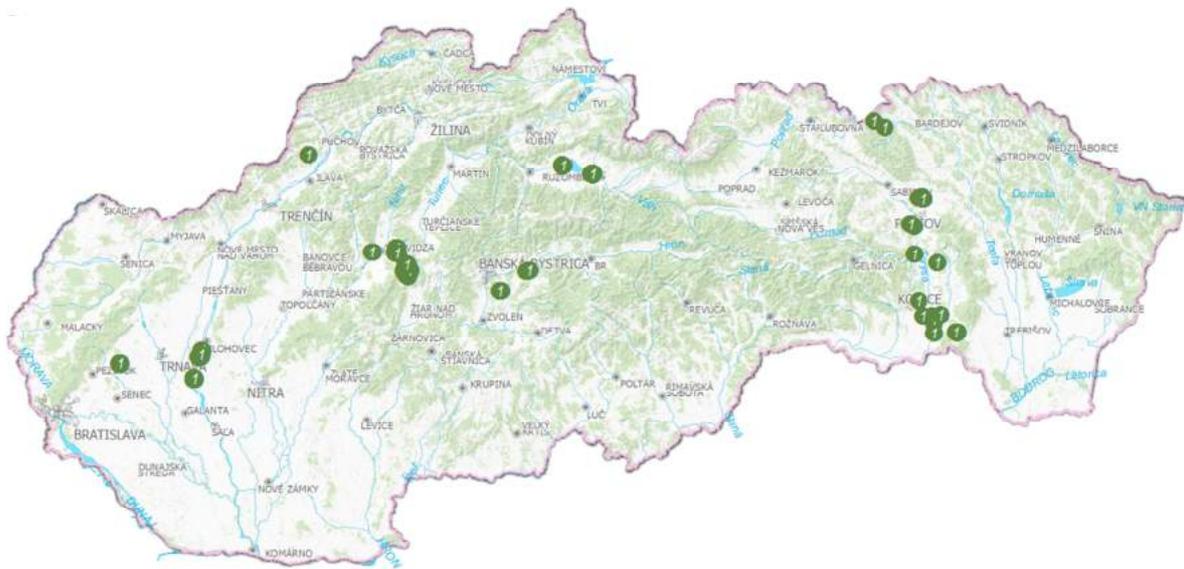


Figure 1: Partial Monitoring System

Source: <http://mapserver.geology.sk/monitoring/>; accessed: September 21st, 2014.

The monitoring of the geological environmental factors of the Slovak Republic is seen as multi-component, integrated and open system. Separate objects of monitoring are divided into the following subsystems¹:

1. Landslides and other slope failures
2. Tectonic and seismic activity of the territory
3. Anthropogenic sediments of the environmental loads nature
4. Impact of mining upon the environment
5. Monitoring of the radon bulk activity within the geological environment
6. Stability of rock masses below historic objects
7. Monitoring of fluvial sediments
8. Volume unstable soils

In addition, civil protection includes the complementary activities necessary for performing the above tasks, such as planning, organisation and provision of material and technical resources as

¹ Information available at: http://www.geology.sk/new/en/sub/ms/cms_en; accessed: November 2nd, 2014.

well as inspections. These civil protection tasks shall continue to apply if a state of increased preparedness has been declared. The scope of the tasks is stated in the Decree on the Classification of the Territory of the Slovak Republic issued by the Government of the Slovak Republic.

Radiation monitoring

Radiation monitoring of environmental components in case of emergency, release of radioactive substances leak in the Slovak Republic is organized by the Slovak Center of Radiation Monitoring Network (Institute of Preventive and Clinical Medicine Bratislava). An important role in monitoring has the Civil protection authority, which operates three monitoring systems:

1. Monitoring system based on radiometers RSPG² with continuous measurement, evaluation and storage of results according to a reset mode. This system enables an automatic notification and build the base for an emergency declaration, if the limit value is exceeded.. The system consists of 23 stations allocated in the Slovak Republic.
2. The monitoring system based on dosimeters DC - 4C and DC - 4D, which is designed for monitoring and evaluation of radiation situation after the use of nuclear weapons. This system is activated, if necessary, with the possibility of using after the nuclear facilities accidents.
3. The monitoring system based on gamma spectrometric measurements of soil samples from predetermined points throughout the territory of the Slovak Republic. Samples are evaluated by the chemical control laboratory of the civil protection authority.

1.2.3 Policy for Prevention

Disaster prevention is part of the civil protection system. Coordination and cooperation are included within the general mission and tasks of civil protection.

1.2.4 Policy for Preparedness

A variety of organisations and departments at national level are involved in DM. Most of these institutions were geared towards flood disasters, some of them being exclusively dedicated to deal with mitigation and preparedness for landslides and avalanches.

The legal bases of disaster preparedness for natural hazards in Slovak are:

1. The Constitution of the Slovak Republic
2. The European Federation of Geologists (EFG)
3. The Slovak Water Act (Nr. 364/2004)
4. The Slovak Flood Protection Act (Nr. 666/2004)
5. The water Framework Directive 2000/60/ EC
6. Directive of the European Parliament and of the Council on the assessment and management of flood risks (2007/60/EC)
7. Bilateral agreements
8. International water management plan 2006-15

² More information at: <http://rspg-spectrum.eu/>; accessed: November 21th, 2014.

The European Federation of Geologists³ (EFG) is a well-known panel of experts to provide high quality response to the European Commission and Parliament. Recently, the EFG expert section on natural hazards was approached to provide additional input to the 7th Framework Programme, to be able to identify a strategic research agenda for the natural hazards sector. The key issue to be kept in mind is that the better we understand the natural mechanisms and the performance and properties of the subsurface, the better we can set up mitigation measures that can ultimately lead to prevention and full preparedness to these threatening hazards. Improving our understanding extensively of all geological processes will therefore be of great benefit to the European society.

1.2.5 Policy for Response

In cases of minor accidents, commanders of individual protection and rescue units command the response. The management of the response in major accidents or disasters is in the hands of civil protection commanders and their staff at municipal or regional levels. In case of major disasters, the Civil Protection Commander of the Slovak Republic manages the response, and he/she would be directly accountable to the Government. He or she will be assisted by the Civil Protection Headquarters, which would be formed by the members of various respective ministries, experts from different fields and heads of different protection and rescue units.

1.2.6 Policy for Relief and Recovery

According to the European Commission (2014), the Government also manages the recovery of the effects of major natural and other disasters, and supervises the work of various ministries in the sphere of civil protection.

1.3 Financing

1.3.1 Investing in preparedness

Each year approximately 0.4% of the national government budget is allocated for protection, rescue and relief activities. The MoI is responsible for the financing of these tasks.

Table 3: Security and Defence Budgets

Source: Kratky 2010. "Slovakia Security Sector Overview" British Security Industry Association.

Institution	Budget 2011 (EUR million)	Budget 2010 (EUR million)
Slovak Intelligence Service	38.95	43.31
Ministry of Defence	739.77	822.94
Ministry of Interior	860.61	838.57

³ Web-Page about the European Federation of Geologists: <http://eurogeologists.eu/>; accessed: November 2nd, 2014.

Ministry of Justice	291.42	270.03
National Security Authority	7.99	8.80
Total Security Budget	1,938.74	1,983.65
as % of State Budget	11.45%	12.19%
Total State Budget	16,936.06	16,276.99

Table 4: Ministry of Interior Budget Breakdown
Source: Kratky 2010.

Ministry of Interior Budget Spending - 2010	€ million	%
Emergency services	90.34	10.78%
Public Security (Police)	674.02	80.42%
Public Administration	73.8	8.81%
Total Budget	838.16	100.00%

1.3.2 Investing in consequence management

1.4 Policy review, Evaluation & Organisational Learning

1.4.1 Post-Disaster Assessment

As stated by the Expert Interview (2014), each of these emergencies is evaluated and depending on its range, measures are taken by the body of crisis management in the area of civil protection or humanitarian aid. The main document that provides the basis for the post-disaster assessment is an analysis of a territory of the Slovak republic, which informs amongst others, people about possible risks.

During the floods of 2010, the analyses of operation were usually conducted at the regional level. The Košice region can serve as an example- one of the most severely affected by the crisis. Already during the flooding event, the causes of the critical developments were analysed and evaluated. The activities of the crisis management bodies were subject to analysis at three levels: crisis staff, self-government of Košice and the EVA commission. The analyses showed that there were not enough persons to fulfil the tasks of civil protection and crisis management at the District Office (DO) level. Insufficiencies also appeared in the technical material and in the evacuation of ill and immobile persons.

Generally, most of the results of the analyses stressed either a lack of financial resources or imprecision in the relevant legislation, rather than to point to a personal responsibility. These analyses led to changes on the local level, e.g. the crisis management unit at the DO level was

strengthened. At the central level, after the 2010 floods and after a temporary fall-out of emergency lines in January 2011, the decision to reform the IRS was made. Although there was consensus about the need of this reform (to be finished in 2015), some disagreement exists between the current minister of interior and his predecessor on which bodies should be the leading ones.

As stated by the ANVIL Study (2013), no analyses have been conducted in the case municipalities in particular and self-governing bodies in general. So far, no objective and comprehensive evaluation of the conduct of self-governing bodies during rescue works has been conducted following any floods in the country's history. The mayors of municipalities are often seen as the weakest link by some practitioners in dealing with crisis.

1.4.2 Departmental Lessons Learned systems

Brazova et al. (2013) stated that the analysis of the floods in 2010 was conducted at the regional level, where the region of Košice was examined exemplarily. An evaluation of the performance of crisis management bodies was done by the crisis staff, the self-government of Košice and the EVA Commission. As a result, a lack of human resources for Civil Protection and Crisis Management, an insufficiency of equipment and deficits of evacuation performance became evident. Insufficient financial resources were considered as a main source of problem (Brazova et al. 2013).

1.4.3 Centralised (national) Lessons Learned system

The development of measures in the aftermath of emergencies and the implementation of experiences is in the competence of state administration bodies, which are cooperating together. The supreme body of Slovak republic is the government of the Slovak republic. Individual participants are allocating information that is needed on vertical or horizontal level. The connectivity of the system of crisis management and European Union is secured by the national contact points (Ministry of Interior of the Slovak republic, Ministry of the Defence of the Slovak republic and Ministry of Foreign Affairs of the Slovak republic (Expert Interview 2014). Investigations of the floods in 2010 and the temporary fall-out of emergency lines in 2011 caused a reform the IRS, because of its inconsistency in command and control.

1.4.4 International exchange for Lessons Learned

As indicated by the Expert Interview (2014), the Slovak republic is participating in international practices, providing humanitarian aid, exchanging of experts and educating through courses in the community mechanism and through participation at specific missions. Slovak republic is cooperating with other partner states and providing important information that is needed.

1.4.5 Regular policy reviews

It was explained within the Expert Interview (2014), Crisis management and its origin of improvement is a day by day process, which involves evaluation of specific measures in the actual crisis situations. Structures of state and local government are one of the participants on those crisis situations.

1.5 Resilience

Slovak republic understands the concept of resilience as the analysis of territory of the Slovak republic. In case European Union requests the analysis of territory, Slovak republic is able to provide the analysis. In this regard is a possibility of understanding the legislation of Slovak republic in this way: plans of protection of citizens, plans of providing assistance and other standards are as concept of resilience (Expert Interview 2014). Therefore, Standards of ISO have been applied ad-hoc, and if it's needed en-bloc.

The concept of resilience in civil protection, in terms of county's capacity is to withstand shocks due to natural and other disasters, to rebuild itself with efficiency and to improve on the pre-existing state wherever possible, has not been explicitly established in the Czech Republic by law or other normative act.

According to the WDRC-Report (2004) the Slovakian Government has adopted in response to past flood Disasters the resolution No. 31 of January 19, 2000 by which the Master Plan was approved. It identifies several of flood-protective measures and its part is the project "Flood Warning and Forecasting System of the Slovak Republic" (POVAPSYS) which is aimed at the considerable innovation of the flood warning and forecasting practices. The Slovak Hydrometeorological Institute (SHMU) was made responsible for it. SHMU prepared a POVAPSYS was approved in February 2002 by the Ministry of Environment of Slovak Republic. The main aim of POVAPSYS is to develop a tool which would make possible to reduce the damage to life and property to those who might be affected by floods in future. Experience shows that it may be in a catchment, small or large, within the reach of flood waters. It is evident that achievement of this aim will increase substantially the quality of life of the local population by granting them more safety against flooding. It will also comply with the Directive on water 2000/60/EC of the European Parliament and of the Council of 23 October, 2000 which defines the framework of the Community for national water policy.

The following main components of the Project are listed below:

- Integrated management system
- Ground meteorological data monitoring system
- Hydrological data monitoring system
- Telecommunication network
- Satellite data receiver
- Radar network and lightning detection system
- Meteorological and hydrological forecasting methods and models
- Staff training

One of the priorities in the Biennial Collaborative Agreement (BCA) between WHO/Europe and Slovakia for 2010-2011 is WHO assistance in strengthening the emergency preparedness and institutional capacity building in line with the WHO guidelines for emergency preparedness and response.

WHO/Europe has been actively involved in the development of an integrated emergency system in Slovakia since 2008. Apart from other activities a desk review of the draft national health sector crisis preparedness and response plan has been carried out, based on which a set of policy and technical recommendations to the national health sector emergency preparedness plan have

been provided. These have been gradually incorporated into national strategies, methodologies, tools and guidelines.

1.6 Information sharing and data protection

The National Security Authority⁴ is responsible for the protection of classified information. It provides support in domain of information security and information systems certification, crypto-security and crypto-certification, personal security, R&D, and administrative security for the Slovak Republic.

The Expert Interview indicated, that the Slovak republic has transposed legal acts as sensitive, reserved, secret, and top secret in the area of information sharing. In case of vulnerability of critical infrastructure legal acts are transposed and used under very strict rules.

The WDRC Report (2004) states that on the base of bilateral agreement between the Austrian Ministry of Agriculture, Forestry, Environment and Water-Management and the Slovak Ministry of Environment Austrian side gave into the ownership of the Slovak side an automatic aerosol monitor AMS-02 including container and weather station. The Slovak Ministry of Environment provides the Austrian Ministry of Agriculture, Forestry, Environment and Water-Management with the reading of this monitor, free of charge, for at least 2 years and vice versa, the Austrian side gives the readings of the Austrian aerosol monitors⁴ to the Slovak Ministry of Environment free of charge. At present national monitoring centre in Bratislava-Koliba is connected via ISDN with Jaslovské Bohunice and Austrian centre providing the data exchange.

In the frame of Unit database of radiation data in the Slovak Republic, SHMI cooperates with other partners like: Slovak Army, Civil Defence, Ministry of Health, Slovak Power Plants. At present bilateral data exchange with Slovak Army is running and with other partner is prepared.

International Data Exchange

SHMI cooperates with European Commission Joint Research Centre in Ispra in the frame EURDEP (European Union Data Exchange Platform). At present the Solvakian Republic uses the data exchange with EC JRC new version of format EURDEP 2.0. Data are send from the monitoring network on ftp server of SHMI every 24 hour and then the data are downloaded to database in Ispra.

Austria

Data between SHMI and Radiation Warning Centre Vienna are exchanging by means of directories on the radiation monitoring server of SHMI. Every 10 minutes data from 336 Austrian stations are stored into the directory on our server and then inserted onto the radiation database. Every 10 minutes data from monitoring network are stored to the directory on server on the Slovakian side and then downloaded to the Austrian side.

Hungary

On the base of agreement between the Hungarian Ministry of Environment, Hungarian Ministry of Interior and the Slovak Ministry of Environment, SHMI started the data exchange with Hungary Meteoservices in summer 2002. Data files with the radiation data in the EURDEP 2.0 format are exported from the Slovakian database every 10 minutes and then files are downloaded to the server in Meteoservice Hungary.

Slovak republic is able to use volunteers (plan of providing integrated rescue system and coordination with volunteer organisations, which has the status – other rescue units in Slovak

⁴ Available at <http://www.nbusr.sk/en/>; accessed: November 2nd, 2014.

republic. Simple volunteers are used depending on their powers and resources and ability of intervention. Due to the fact, that Social media is not a transparent and reliable tool in case of crisis situations; there is no intent to use it.

2 Legislation

2.1 Crisis (emergency, disaster) management concept

The most current legal framework governing the civil security system was established in 2002. Since then, however, the respective acts have been subject to many changes. Competencies and responsibilities in the field of civil security are all legally institutionalized. The statutory basis of civil security in Slovakia does not rest upon a single law or provision.

2.2 General crisis (emergency, disaster) management law

The main act regulating security is the Constitutional Act on National Security of the State in War, the State of War, State of Exception and State of Emergency (Act Nr. 227/2002 Coll.). The country adopted this legislation for the first time in 2002. Since then, this act has been changed three times. The last change took place in 2006 (agreed upon in November 2005) and introduced a new threat to the list of threats, namely a pandemic – especially a flu pandemic but also any other pandemic caused e.g. by a terrorist attack with biological weapons. The previous two changes were reacting to the reform of public administration and to the reform of Slovak military forces, respectively.

Another crucial regulation is the Act on Management of State in Crisis Situations Other Than War and State of War (Act Nr. 387/2002 Coll.), specifying the authority of different bodies of public administration when dealing with crisis situations. Prior to the adoption of this act in 2002, no complex regulation existed. Competencies of public administration bodies, municipalities, as well as of private and legal persons in case of crises had been always stipulated only by a particular provision concerning a particular type of crisis (e.g. Act on Protection against Fires or Act on Civil Protection).

The Act on Civil Protection of Population (Nr. 42/1994 Coll.) is somewhat older from 1994. Among other things, this regulation states tasks and authority lines of public administration bodies, as well as rights and obligations of natural and legal persons while ensuring civil protection. Also, the principles of warning and their specification are provided by this act. Since 1994, this regulation has been subject to a change fourteen times, the last taking place in 2012. From the point of view of civil security, the last interesting change to this act occurred in 2011, when the authority of the MoI was broadened so as to include professional education on civil protection. Also, the competencies of self-governing regions were broadened regarding the establishment of a crisis fund from which reparation costs after an extraordinary event can be covered. In the same year, by another change, the “threat to public health of a second degree” was introduced to the list of extraordinary events. (Act Nr. 172/2011)

The next important regulation is the Act on IRS (Nr. 129/2002 Coll.). This reacted to the need to coordinate various rescue services as the number of incidents was growing, where not only one but more different rescue agencies were needed simultaneously. The inspiration for such a system and for its coordination centres was taken from Austria, Germany and the Czech Republic. Also this act has been subject to change eight times so far, mostly due to changes in other related legislation. In 2011, the government approved a new Conception of the Operation of IRS. The Conception

envisages a new delimitation of competencies and organizational changes at all levels of management⁵ and thus also further changes in the respective legislation might be expected.

2.3 Emergency rule

As stated by Brazova et al. (2013), there are legally defined special states which can be declared during a crisis. The least intensive – and the most often declared one – is the extraordinary or “emergency situation” (mimoriadna situácia) in which the IRS is used. Within the Constitution of the Slovak Republic, no specific circumstances have been provided for emergency rule. In contrast, the ordinary legislation refers to different types of emergency rule, such as the state of military alert, natural disasters and catastrophes. In a majority of cases, however, there are different types of emergency rule to deal with different kinds of emergencies in proportion to the gravity of the situation (Khakee 2009). As stated by Khakee (2009), the President of the Republic declares a state of emergency or a state of war on proposal of the government, which should take its decision collectively. In the Slovak Republic, this is contingent up on the passage of a special constitutional law by the National Council (Parliament) which requires a three-fifths majority of all deputies (EUROPEAN COMMISSION FOR DEMOCRACY THROUGH LAW 1995). It is incumbent on the president to decide, when a state of emergency or a state of war shall come to an end.

The “state of emergency” can be declared by the government (only for the affected area), when lives and health of people are immediately threatened; or when property values are significantly threatened under natural disaster, catastrophe or industrial or other accident (Act Nr. 227/2002 Coll.; art. 5, sec.1). So far, this has been the case in 2011 when there was an acute shortage of medical doctors.

The “state of exception” has not been used in Slovakia so far. It can be declared by the president (on governmental proposal) in the following cases: terrorist attack, large-scale street unrests involving attacks on public authorities, looting or other mass attacks on property, and other mass violent unlawful action (ibid.; art. 4). Since 1993 (Slovak independence), civil protection (civilná ochrana) has been directed by the MoI. A clear distinction between internal and external security exists. Both of these spheres are ruled by their own legislation and have different leading agencies (MoI responsible for civil security; Ministry of Defence for any deployment of armed forces). The military serves as a secondary body in the IRS, i.e. it does not belong to its basic bodies (Act Nr. 129/2002 Coll.). Usually, the help of the military and its equipment is required when dealing with crisis situations. For example, heavy snowfall in Prešov in February 2013 meant that an “extraordinary situation” was declared. The city asked then the army to provide equipment necessary to clear away the snow (Frank 2013).

As emphasised by the EUROPEAN COMMISSION FOR DEMOCRACY THROUGH LAW (1995), despite the absence of constitutional provisions guaranteeing certain fundamental human rights and freedoms under emergency rule, Art. 15 of the European Convention on Human Rights would fully apply in such a situation, since Article 11 of the Slovak Constitution states that “international instruments on human rights and freedoms ratified by the Slovak Republic and promulgated under

⁵ Available in Slovakian language at:

<http://www.rokovania.sk/Rokovanie.aspx/BodRokovaniaDetail?idMaterial=19089>; accessed: 21st November 2014.

statutory requirements shall take precedence over national laws provided that international treaties and agreements guarantee greater constitutional rights and freedoms".

In 2011, there were 109 emergency situations registered at the MoI. Most of these were floods, leakages of dangerous substances or large traffic accidents. In most cases, these were local emergencies with emergency situations declared at municipal or local (district) level.

The crisis legislature and particularly the Act on Civil Protection stipulate the rights and obligations of the population in the state of a crisis. An individual has the right of warning, evacuation, sheltering, for obtaining relevant information on civil protection, and to immediate help when his/her life is threatened, as well as his/ her health and property. Individuals also have the right of education in civil protection with the aim of self-help learning and the ability to help others in need (Act Nr.42/1994 Coll.).

As for legal obligations, individuals are required to participate in the tasks of civil protection. When there is an emergency situation, people are legally required to follow the instructions of local offices, municipalities, and other legal entities as defined by law. Citizens are also legally obliged to carry out measures to protect food, water, animals, and feed which are in their possession or were entrusted to them. Natural persons are obliged to fulfil duties in civil protection units and to be prepared for these duties in advance. People also can be asked to participate in (time-limited) works which aim at the protection of life, health and property.

An obligation also exists for natural persons to provide material means which are in their possession (after the crisis, these are returned or refunded) and to provide room for emergency accommodation for the people affected by an emergency situation or to people conducting the rescue works. Legal persons are legally obliged to cooperate with district offices and municipalities in civil protection. They also can – based on their own judgment – establish civil protection units. Legal persons are further obliged to provide warning for their employees and to provide material means which are in their possession to the state administrative bodies or to municipalities for the preparedness for civil protection and during emergency situations.

2.4 Specific, department/agency-level legal arrangements and regulations on emergency and disaster management

As summarised at the VADEMECUM Web-Site (2014):

At ministerial level

- Order No 75/1995 Coll. on the Provision of Evacuation, as worded in later instructions
- Order No 523/2006 Coll. on the Provision of Rescue Operations and Organisation of Civil Protection Units, as worded in later instructions.

Inter-ministerial cross-cutting coordination

Government regulations:

- Regulation of the Government of the Slovak Republic No 130/1994 Coll. on Single Extraordinary Compensation for Injury or Death in Respect of the Protection of the Population, as worded in later instructions
- Regulation of the Government of the Slovak Republic No 166/1994 Coll. on Categorisation of the Slovak Republic's Territory, as worded in later instructions.

2.5 Specific to the regional and local authorities legal arrangements and regulations on emergency and disaster management

At regional level

- Directions of the MoI and methodological instructions of the Section on Crisis Management and Civil Protection of the MoI to the district offices stipulating the conditions of specific tasks in the civil protection field.

At local level

- The Act of the National Council of the Slovak Republic No 42/1994 Coll. on Civil Protection of the Population, as worded in later amendments including the tasks at local level.

2.6 Legal regulations on the involvement of volunteers and specialised NGOs

Although the state plays a dominant role, also some private bodies regularly participate in the provision of civil security. Private (for-profit) companies especially dominate in the field of health provision. The Health System Reform (agreed by the government in 2004) included complete privatization of health rescue services. The aim was to introduce market principles into the public health provision and to decentralize management and ownership of the health services. The role of the Ministry of Health was weakened. The main driver of this reform was economization of activities. Currently, the providers of medical and health emergency services are linked together in the Association of Rescue Health Service Providers and the Association of Rescue Health Services, with 17 and 11 members (respectively). Also the formerly state-owned Medical Emergency Services has been transformed into for-profit companies. The Air Health Rescue Service operates on the same basis – the company Air Transport Europe operates seven centers.

Enterprises can establish their own fire-fighting and civil protection units. The company Flack Fire Services provides (since 2007) fire-fighting company brigades to large industrial enterprises (such as chemical plants or car factories). It also organizes and mediates educational and training programs in the field of fire protection for Slovak and Czech enterprises (Flack Fire Services online).

2.7 Legal regulations for international engagements of first responders and crisis managers

International intervention is governed by political agreements (EU, UN, NATO, CEI⁶, Visegrad Group⁷).

⁶ More information at: www.cei.int/; accessed: November 19th, 2014.

⁷ More information at: www.visegradgroup.eu/; accessed: November 17th, 2014.

3 Organisation

3.1 Organisational chart

According to the European Commission (2014), for the formulation in the area of civil security, the MoI is mainly responsible. The bodies responsible for crisis management, according to the current legislation, are the government of the Slovak Republic, ministries, National Bank, district offices at the seat of region, district offices and municipalities. The government commands and controls the ministries in terms of crisis management and decides about both asking for and providing foreign assistance (Act Nr. 387/2002 Coll.). In practice, the level which is meant primarily to respond to crises is the regional level. Here, the prominent position is held by the district offices in the seat of region which are managed/ led by the MoI. The role of the state administration in this field remains crucial.

With respect to civil protection, the most important body is the MoI. It approves the composition and size of expenses of the district offices for civil protection (which is financed through the MoI budget). At lower level, the role of the district offices in the seat of region is important as these bodies declare the “emergency situation” at the level of region and they lead rescue works in such case. At an even lower level, the district offices are tasked with leading the rescue works if these are not in competency of any other body (e.g. when an emergency situation is declared at a higher level) (Act Nr. 42/1994).

In the field of civil protection – unlike in the case of crisis management – some more space is given to the self-governing regions. These can e.g. establish a crisis fund to finance a potential damage. Yet, the obligation to do so does not exist. The regions cooperate with state administration bodies in civil protection. They do not have any special or individual tasks to perform on their own. Municipalities are more involved in both crisis management and civil protection. Municipalities can and do declare emergency situations. They also create civil protection units from the citizens of the municipality.

Criticism exists that the legislation does not respect the experience of lower administrative bodies (both state and self-governing ones), most importantly their responsibility to the citizens. Also, the responsibilities of the fire rescue brigades are not entirely clear while leading rescue works before the lead is taken over by a state administration body. Responsibility is stated by the legislation only implicitly. The public administration reform did not affect the crisis management capabilities directly. Especially the replacement of regional crisis management bodies by strengthening of district offices in the seat of region is criticized as not conceptual. Moreover, the legal principles of functioning of the crisis staffs at the municipal, district and regional level remain unclear. The competencies and crisis management tasks of state administration and self-governing bodies are overlapping in large cities (Bakken and Rhinard 2013).

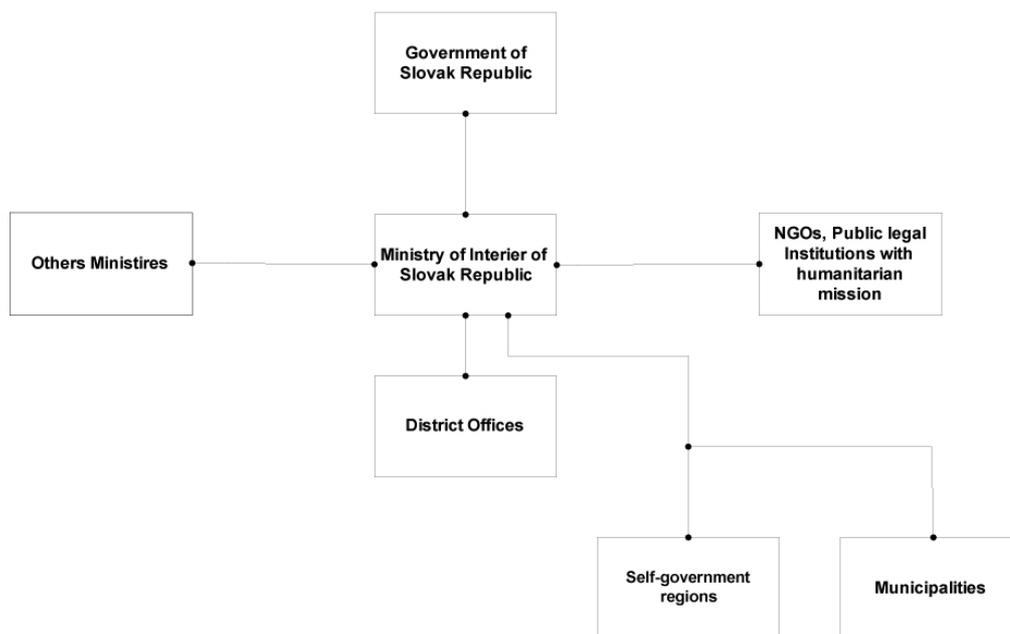


Figure 2: Organisational Chart of civil protection agents

Source: http://ec.europa.eu/echo/files/civil_protection/vademecum/sk/2-sk-1.html#orga; accessed: November 1st, 2014.

Since 2002, the civil security system has been practically provided by the so-called IRS. This is an operating platform to respond to crises within which operate: the Mol, Health Ministry, district offices in the seat of region and rescue bodies. The main leading and coordinating role is endowed to the Mol. Expenditures on the IRS are financed from the state budget through the budget of the Mol (Act Nr. 129/2002).

The rescue bodies of the IRS are divided into three parts: basic rescue services, other rescue services and the police corps. The basic rescue services are: fire rescue brigades, health emergency services, inspecting chemical laboratories, Mountain Rescue Service, and Mining Rescue Service. Among the Other rescue services belong e.g. army, municipal fire brigades, municipal police, civil protection units, Slovak Red Cross (SRC) and others.

The main level of operation of the IRS is the regional level: The district offices in the seat of region establish a so-called Coordinating Centre (in place since 2003). Its operators are representatives of regional state administration, of Ministry of Health and of the Fire Rescue Brigade. The Centre ensures warning of the population. It also coordinates the actions of the rescue services within the IRS and gives orders to the respective (basic or other) service of the IRS to intervene. When the forces of the rescue services at the regional level are not sufficient to handle a crisis, the Coordinating Centre asks assistance from other regions through the Mol.

So far, floods have been dealt with at the regional level as the highest level. During the 2010 flood, many regions called an “emergency situation” (e.g. the chief of the DO in the seat of Košice Region in eastern Slovakia declared an “emergency situation” for the whole region during the 1st of June to the 25th of June because the forces and means of the state administration did not suffice any more for providing rescue and protection at the municipal and district level).

The floods of 2010 have shown that the IRS is not sufficiently ready to deal with a crisis in the whole country for a longer period of time (Brazova et al. 2013). In reaction hitherto, the government approved of a new conception of the IRS in 2011. The Mol also pointed to the malfunctioning of

some technical components of the IRS and to the absence of emergency plans. Also the cooperation among and operation of some bodies was problematic. For example the Fire Rescue Brigade was performing its professional duties but it was leaving broader civil security tasks to the civil protection bodies. Generally, the professional fire rescue brigades (due to their capacities) did not represent a decisive force in the rescue actions.

During the 2010 floods, municipalities remained “alone” for some time. The district offices’ (DO) staff and the IRS were not able to be everywhere and priorities had to be set. The forces and facilities of professional rescue bodies were not sufficient; the armed forces were not able to be in every village. The staffing of civil protection and crisis management units of the DO proved to be insufficient. Also there were problems in the coordination of humanitarian help. The cooperation on the side of the municipalities was problematic: these did not observe the obligation to update the higher levels of administration about the current situation. Also this case was said to show-case the inadequacy of legislation in the field of crisis management and civil protection: the position and competencies of leading agencies and bodies were not clear. Currently, the lack of financial resources illustrates a big challenge.

3.2 Organisational cooperation

As stated by Brazova et al. (2013), Slovakia has established bilateral cooperation with all its neighboring countries (the Czech Republic, Poland, Hungary, Austria and Ukraine). Other countries with which Slovakia has bilateral agreements for so-called extraordinary situations are: Croatia, Russia, Slovenia and Montenegro (MoI online). Multilateral agreements on cooperation in the cases of crises include the Central European Initiative (CEI) – an agreement on cooperation in anticipating, preventing and mitigating natural and technological disasters between the governments of Austria, Croatia, Hungary, Italy, the Republic of Slovenia (signed 1997; effective since 2000), and the UN/DHA project on the use of military and civil defense capacities in rescue operations.

Slovakia has also signed regional and multilateral provisions. It is a member of the Council of Europe, EU, NATO, OSCE and the UN. In terms of civil security, under the Visegrad Group take place regular meetings of the directors general for civil protection and disaster management. Also within the Salzburg Forum (a Central European governmental initiative on internal security) the establishment of a National Logistic Centre for humanitarian aid in Bratislava was discussed in February 2012. This could be used for providing help abroad as well as when national need arises. There is regional cooperation with Poland (Operation Program Poland – Slovakia), developing a common system of civil protection against natural disasters (MoI online).

After the storm damaging large forest areas in the High Tatra, the deputy prime minister of Slovakia requested financial help from the EU’s Solidarity Fund to finance part of the damage removal activities. During heavy floods in April 2006, Slovakia urgently requested 150,000 sand-bags from NATO’s Euro-Atlantic Disaster Response Coordination Centre. Within this mechanism, Austria, Croatia, Germany and Poland delivered the requested sand-bags. In the case of Poland, this help was provided through the EU-MIC mechanism⁸.

⁸ More information available at: <http://reliefweb.int/report/slovakia/eadrcc-final-report-floods-slovak-republic>; accessed: November 12th, 2014.

In 2010, when floods hit all of central Europe, the ministers of Slovakia, Poland and the Czech Republic agreed to cooperate. The Czech rescue workers (members of the firefighting brigade of the Moravskoslezský Region and of the rescue corps of the firefighting brigade) were sent to Slovakia upon request of the Slovak government. The aim was to conduct a rescue operation in the district of Trebišov in eastern Slovakia.⁹

Due to the fact, that the most frequent emergencies in Slovakia are natural disasters, these events will be addressed as a priority.

⁹ More information available at: <http://www.usar.cz/webmagazine/subcategories.asp?idk=293>; accessed: November 6th, 2014.

4 Procedures

4.1 Standing Operating Procedures (SOPs) and Guidelines

According to the Journal of South Asian Disaster Studies (2010), the territory of Slovakia from the geographic location and geomorphologic characteristics' point of view was often exposed to natural hazards in the past. Since 1990, the periodicity of occurrence of natural hazards such as floods, landslides, and avalanches seem to increase. Most of dangerous natural phenomena in Slovakia occur in mild and moderate scale.

Slovakia has the *International Water Management Plan from 2006-15* for rivers and lakes separately but not for ground and coastal water. There are separate action plans for different categories of disasters in Slovakia. The National Action plan for disaster preparedness acted in different years (1992 through 2006). Now, all disaster preparedness projects to move ahead by ECO, the Water Resources Strategy 2000, are sectorial plan and polices that take care of Natural disasters relating to floods and landslides at national level. The building code of 2001 was brought in to mitigate the effects of earthquakes in urban areas and as a measure towards earthquake preparedness. The Government of Slovak Republic in 2001 has approved The National Program of Flood Protection till 2010 as part of the project 'Flood Warning and Forecasting System of Slovakia (POVAPSYS)'. The European Federation of Geologists (EFG) established panels of experts to provide high quality response to the European Commission and Parliament. Recently, the EFG expert panel on natural hazards was approached to provide additional input to the 7th Framework Programme, to be able to identify a strategic research agenda for the natural hazards sector. Organization of hazard prevention and public education developed as well and helped to minimize the risk. However, climatic changes increase extremes in precipitation influencing local storms, landslides, erosions, and sedimentations. There is a document called "Analysis of a territory of the Slovak republic", which builds the basis for the SOPs. SOPs are based on generally accepted standards which are regularly exercised (Expert Interview 2014). Operations planning is a common procedure of all stakeholders on national and local level.

4.2 Operations Planning

Since 2002, the civil security system in Slovakia has been practically provided by the so-called IRS. This is an operating platform to respond to crises within which operate: the MoI, Health Ministry, district offices in the seat of region and rescue bodies. The main leading and coordinating role is endowed to the MoI. Expenditures on the IRS are financed from the state budget through the budget of the MoI (Act Nr. 129/2002).

The rescue bodies of the IRS are divided into three parts: basic rescue services, other rescue services and the police corps. The basic rescue services are: fire rescue brigades, health emergency services, inspecting chemical laboratories, Mountain Rescue Service, and Mining Rescue Service. Among the Other rescue services belong e.g. army, municipal fire brigades, municipal police, civil protection units, Slovak Red Cross (SRC) and others. The main level of operation of the IRS is the regional level: The district offices in the seat of region establish a so-called Coordinating Centre. Its operators are representatives of regional state administration, of Ministry of Health and of the Fire Rescue Brigade.

The Centre ensures warning of the population. It also coordinates the actions of the rescue services within the IRS and gives orders to the respective (basic or other) service of the IRS to intervene. When the forces of the rescue services at the regional level are not sufficient to handle a crisis, the Coordinating Centre asks assistance from other regions through the Mol (Brazova 2013).

4.3 Logistics support in crises

The Slovak Republic has a specific mechanism to deal with disasters arising from relevant legal acts (the Act of the National Council of the Slovak Republic on Civil Protection of Population, the Concept of Organization and Development of Civil Protection by 2015, Act on Management of the State in Crisis Situations except for the Wartime and Hostilities, Act on Integrated Rescue System, Act on Fire Protection, Act on Mountain Rescue Unit, Act on Flood Protection and the other operational documents including Territory Emergency Analysis, Population Protection Plan, Evacuation Plan, Plan of material and technical equipment of civil protection units, documentation for radiological, chemical and biological measures). In accordance with the Act on Armed Forces of the Slovak Republic the armed forces can be utilized in order to provide necessary logistical support at the request of state bodies, municipalities and higher territorial units which charge the armed forces with task regarding protection, assistance and cooperation with the aim to eliminate consequences of natural disasters, catastrophes and accidents threatening human lives or property (Office of the High Commissioner for Human Rights 2014).

4.4 Crisis communication to general public; Alert system; Public Information and Warnings

The government of Slovak republic is responsible for crisis communication and crisis management. Crisis communication runs between all interested subjects and Ministry of Interior takes care of voice and data system. Ministry of Interior is responsible for notification and warning of the citizens. As stated by the Expert Interview (2014), information for citizens is secured by warning system – sirens via voice communication means, local radio and etc. Warning signals of civil protection are used in the situation when notification and warning of the citizens is needed.

Brazova et al. (2013) found out, that the primary method of informing the public about an immediate crisis is through the use of sirens. Two different tones are distinguished: the “general threat” (všeobecné ohrozenie) and the “water threat” (ohrozenie vodou). The end of the threat or the end of the emergency is announced by a special signal “the end of threat” (koniec ohrozenia). Warning signals as well as the ending signal are further enhanced by information through the mass media. There is a special tone for the test of the sirens and the public is informed about the test through the media. The tests are coordinated by the Mol and are conducted four times a year, always in an exactly stipulated date and time (Act Nr. 42/1994 Coll.). In Slovakia, a notification network of civil protection exists. This is amended by an independent system of warning and notification which is provided by legal persons (e.g. chemical plants) who might endanger life, health or property of people through their activities. Starting from February 2013, a new governmental decree on warning entered into force. In reaction to advances in telecommunication, the state is now responsible to ensure warning of the entire permanently inhabited territory (earlier, 80 percent was the compulsory coverage area) by electronic sirens or other means. On the entire territory of Slovakia, thus, public telecommunication networks, mass-media, local wireless radio and electronic services of mobile

providers can also be used for warning. An “emergency situation” is called on and called off through the mass media. The natural and legal persons who operate radio and TV broadcasting are legally obliged to publish information on a crisis and on the measures related to the provision of help. They are obliged to do so free of charge, upon request of the Coordination Centre (Act Nr. 129/2002). So far, the use of Internet for the informing of the public has not been large. Similarly, the use of social media has not been extensive. The government's office as well as the MoI Facebook pages have been established only recently (e.g. the Facebook page of the MoI was set up on November 7, 2011) and have not served as a means of updating the public on crisis so far (the Facebook page of the MoI contains only one entry about an emergency situation: in Košice from 24.5.2012. In April 2013, this page was “liked” by 895 Facebook users).

5 Capabilities

5.1 Human resources

An official agreement between the MoI of the Slovak Republic and the Slovak Red Cross (SRC) on cooperation and assistance was signed on 22 November 2010. The SRC is a non-state organization which is exclusively accepted as a helping organization of the Military Medical Service. It is active in the field of civil protection and provides help during catastrophes, natural disasters, etc. It also organizes and mediates aid during catastrophes both within and outside of the Slovak territory. SRC is a part of the IRS and a member of the Central Crisis staffs at both central and local levels.

The number of SRC members (74,906) is relatively high. Basic organizational units of the SRC are local societies (1160), which join in larger territorial units (38 in total). The number of local societies is very high (e.g. 53 in the city of Košice; 44 in Nitra). At the top of the organization is the Central Secretariat of the SRC. A specific organization is the Water Rescue Service of the SRC. The overall number of SRC volunteers was 18,699 in 2011, out of which 2,255 were ready in crisis situations. In 2010 (the year of large floods), there were 26,606 registered SRC volunteers (2,306 ready in crisis situations) (Brazova et al. 2013).

Other NGOs have different positions compared to the SRC. These organizations are e.g. the Samaritan Association of the Slovak Republic (founded in 2005; currently having approx. 100 voluntary members); the Tatra Mountain Service (specialized at rescue and preventive-educational activities in the High Tatra mountains territory); the Mountain Service in Slovakia (search and rescue works); and the Mountain Service of Pieniny National Park (rescue and preventive-educational activities on the territory of Pieniny National Park). Due to their specialization and territorial location, these mountain services were not much involved during the 2010 flood. The Samaritan Association helped e.g. in the Kežmarok District providing logistics of supplies and medicine to people on territories made inaccessible by torn-down bridges (Hužiková, undated).

Over the last years, also the organization Modrý anjel (Blue Angel) has gained in importance. It specializes in crisis intervention (i.e. in dealing with crises in their acute state). It started its operation under a European Social Fund project aimed at providing psycho-traumatic first aid with the medical rescue services. Currently, the organization has 53 members. It has assisted in most of the large-scale crisis events (e.g. after the explosion in a military repair facility in 2007; during the 2010 floods). It was directly activated by the MoI after the coal mine explosion in 2009 (Modrý anjel online).

A very important voluntary organization is the VFB (established in 1922), whose main tasks include (besides regular fire-fighting) civil protection and education of voluntary fire-fighters. Currently, there are 2,478 VFB in Slovakia, consisting of some 90,000 members. These organizations form district and territorial boards of voluntary fire protection based on the territorial principle. There are also eight regional boards based on a principle of delegation (Dobrovoľná požiarna ochrana SR online).

As explained by Brazova et al. (2013), in the face of an emergency, the VFB provides rapid response at the site. Although, a better equipment might be desirable, their contribution to civil protection gained consideration during the floods in 2010.

As indicated by the ANVIL report (2013):

Other voluntary organization specializing in civil security are the T.O.R. RESCUE¹⁰ from the town of Prešov (its main tasks being search and rescue actions during natural disasters) and the Dog Rescue Slovakia (established in 2000, specialized in search works). Beside this, a number of organizations and charities are partially involved in the civil security system too – by establishing money collection in the aftermath of crises. For example ADRA Slovakia organized such a collection after the 2010 flood and provided alimentation for 300 evacuated people.

Table 5 provides an overview on operational forces for civil protection activities.

Table 5: Overview on operational forces for protection and rescue activities in Slovakia
Source: Kratky (2010).

Stakeholder Type	Name	Number of Personnel
Voluntary Organisation	Fire Rescue Service (Employed + Volunteers)	90,000
	Mountain Rescue	120
	Slovak Red Cross (Employed + Volunteers)	130,000
Agency/Department	Czech Armed Forces	13,539
	Police	22,288
Total		255,947

5.2 Materiel (non-financial) resources

Among non-financial sources include organ compositions crisis management components of the IRS. Those reserves are located in the humanitarian aid store fuel reserves throughout the territory of the Slovak Republic (Expert Interview 2014). Specific resources from the military are deployed as needed. If necessary, it can be ordered in kind or personal assistance. Specific resources are also used by private operators.

Although floods have so far been the major disasters in Slovakia, they have never led to a declaration of an “emergency situation” or “state of emergency” at the central level. However, help from abroad was requested (and received) through NATO’s Euro-Atlantic Disaster Response Coordination Centre after floods in 2006 (sand-bags) and through bi- or tri- lateral cooperation within central Europe in 2010 (Czech Firefighters helping to deal with floods).

So far, a state of emergency has been declared once, when medical doctors were massively leaving to the Czech Republic in 2011: From the 29th of November to the 8th of December, 2011, a state of emergency was declared. The reason was that approximately 1,200 Slovak medical doctors left their jobs in a joint protest organized by the medical unions on the 1st of December, 2011. In summary, a state of emergency was declared for 13 districts and 15 hospitals were affected. Under the state of emergency, it was possible to order the doctors to be on so-called ‘labor duty’. However, even these measures were not entirely sufficient to provide full medical care in Slovakia. The government of the Czech Republic was asked by the Slovak government to send in help in the form of 30 military doctors. Help was also offered from the Austrian Ministry of Health which offered to accept patients from Slovakia in emergency cases in Austrian hospitals (Czech Press Agency 2011). In the end, the

¹⁰ T.O.R. rescue is a voluntary organization, which includes rescuers, divers, cragsmen.

Slovak medical unions and the Slovak government reached an agreement and signed a common memorandum which put an end to the crisis.

A large crisis dealt with at the central level also occurred in January 2009. A “state of emergency in gas industry” was declared when there was a 70 percent reduction (later on growing to 100 percent) in deliveries of Russian gas due to a Russian-Ukrainian dispute. A crisis staff at the level of the Ministry of Economy was established relatively early to deal with the situation. The reserves previously thought to be fully sufficient but proved to be inadequate. The Slovak population was not directly affected, yet the government decided to reduce gas supplies to some one thousand selected enterprises. The Slovak prime minister asked his Czech counterpart for help. Some 6.3 million cubic meters of gas were then provided to Slovakia daily until the crisis was over.

5.3 Training

Training exercises are performed at all levels, educational activities, achieving proficiency in the field of CO₂, special courses and regular courses in European courses within the framework of the Community mechanism (Expert Interview 2014).

Ministries are responsible for the provision of education in the field of civil protection and training at all types of schools in the country. Civil preparedness is then realized at lower levels and also funded and organized by the self-governing regions. These cooperate with regional media which publish or air especially useful articles, footage of model exercises, etc. A legal obligation is given to the district offices to exercise (and if needed, to change) the plan of civil protection. This has to be done at least once every three years (Act Nr. 42/ 1994 Coll.).

The education in the Slovak public administration is organized hierarchically: MoI coordinates education and preparedness of the crisis staffs of Slovak ministries and of crisis staffs of the district offices in the seat of region. The latter ones, in turn, organize professional preparedness (education) of the crisis staffs of district offices. These organize the education of crisis staffs of municipalities.

People who are trained are employees who fulfil the tasks of civil protection and crisis management in the state administration, self-government and legal entities as well as individuals, entrepreneurs, directors and teachers of elementary schools and high schools.

The centres of education and training are located in Slovenska Lupca, Nitra, Limbach and Spišská Nova Ves, which are an organisational part of the Section on Crisis Management and Civil Protection.

National exercises programmes are included into the annual action plans of the Section on Crisis Management and Civil Protection. Yearly staff exercises are held at regional and district levels, examples include Košice 2005, Stropkov 2006, Airport 2008 and Fercekovce 2008.

5.4 Procurement

5.4.1 Procurement regulation

In Slovakia, the Act on Public Procurement regulates the procurement including open procedure, restricted procedure, and negotiated procedure with or without prior notification and competitive dialogue (Bianchi & Guidi 2010), only design contest was not covered. For the procurement of services, it is sufficient to publish it in national e-Journals of Public Procurement and contract award notices will be published in the national e-Journal and the EU Official Journal.

The Office for Public Procurement and the Supreme Control Office at the Ministry of the Finance are the supervision bodies for the control of public procurement.

5.4.2 Procurement procedures

According to OECD (2007), the Slovak Republic has a centralised structure for Public Procurement, established at the Office for Public Procurement. The Council of Ministers is the competent authority for drafting of the primary and secondary legislation, advisory and support of operations, international co-ordination, monitoring and control publications and information promote the professionalization and strengthening the capacities as well as complaints review and remedies.

5.5 Niche capabilities

The Voluntary Fire Brigades was considered an integral part of the Slovak civil security system. Brazova et al. (2013) emphasised, that this long-established organisation play an important role at the operational level by performing necessary tasks in order to response to disasters. It was stated, that the Mayors of municipalities are supposed to take an important role in response, nevertheless they are unprepared. Although, the rescue teams of the Slovak Republic exhibits a good performance in the field of chemical, biological and radiation threats.

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IFRC - Disaster Law Data Base: <http://www.ifrc.org/publications/disaster-law-database/>; <http://ifrc.org/en/what-we-do/disaster-law/news/europe/>

GripWeb <http://www.gripweb.org/gripweb/?q=early-warning-systems-catalogue>; <http://www.gripweb.org/gripweb/?q=disaster-database>

Prevention Web <http://www.preventionweb.net/english/countries/statistics/?cid=156>

UNISDR <http://www.unisdr.org/partners/countries/svk>

Mol (online), <http://www.minv.sk/?ministry-of-interior>

Nuclear Safety, www.ebrd.com/pages/sector/nuclearsafety.shtml

Institute of Hydrology, Slovak Academy of Science, www.ih.savba.sk/

Water Research Institute of Slovakia, http://www.vuvh.sk/index.php/en_US/uvod

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Driving Innovation in Crisis Management for **European Resilience**

SLOVENIA

Capabilities, Organisations, Policies,
and Legislation (COPL) in crisis
management and disaster response



Responsible Partner: CSDM (Valeri Ratchev)

Scope and limitations

This study serves as supporting information for further work within DRIVER.

Only limited time and budget has been available for this first general survey, which needs to be considered in terms of scope and completeness of the respective studies.

The author/s of this study is/are responsible for its content and quality.

Overview

According to official reports, Slovenia is threatened by a variety of natural hazards, mostly earthquakes, floods, landslides, hail, storms, sleet, frost, and fire. The country has one nuclear power plant and a large industrial sector that operates dangerous substances – a potential source of ecological damages and catastrophic accidents.

The recent civil protection system has been constructed after 1992 by means of the adoption of a number of legislative acts and organisational reforms. The core characteristic of the civil protection system of Slovenia is that protection against natural and man-made disasters has been separated from the national defence system. This way, an integral and functionally unified system has been established based on common goals and principles. However, the main administrative and co-ordination structure for civil protection – Administration of the Republic of Slovenia for Civil Protection and Disaster Relief (ACPDR) is a constituent body of the Ministry of Defence.



Figure 1 Symbol of the Administration of the Republic of Slovenia for Civil Protection and Disaster Relief (ACPDR)

Conceptually, the civil protection and rescue system is one of the three pillars of national security along with the defence system and the internal security system. However, “civil protection” in Slovenia is a relatively narrow concept which is common elsewhere in the EU. It includes very specific range of activities, commanding and co-ordinating bodies and specialised units for interventions and rescue in emergencies.

The system is built at three levels – national, regional and municipality. Functionally the focus is on regional capabilities and local authorities, supported by the state. Commercial entities, civil organisations and citizens have legally prescribed important functions for prevention, monitoring, alarming and responding to any extreme developments. Volunteering has a long lasting tradition in Slovenia.

Key civil protection stakeholders are the National Assembly, the Government, particular ministers, and the civil protection service that includes commanders, headquarters and heads of intervention and rescue units, and the local authorities. The administrative and specific expert tasks related to protection against natural and other disasters are carried out by the ACPDR, which is a multi-sectorial and coordinating body.

The units of the Slovenian Armed Forces and the Police are to carry out protection and rescue tasks related to their training and equipment. Their participation in protection and rescue operations is decided upon by the government and in emergency cases by the respective ministers at the request of the Commander of Civil Protection of the Republic of Slovenia.

Annually, Slovenia allocates approximately 0.5% of its national budget for civil protection while municipalities earmark 3% of their budgets. Protection against fire is partly financed from the fire fund, which is generated from a tax on fire insurance.

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List of Abbreviations

ACPDR	Administration (of the Republic of Slovenia) for Civil Protection and Disaster Relief
ARAO	Agency for Radwaste Management
CISF	Central Interim Storage Facility
CMAS	World Underwater Association
CRED	Centre for Research of the Epidemiology of Disasters
DPPI SEE	Disaster Preparedness and Prevention Initiative for South Eastern Europe
DUNJA	Sound Alarm Management and Triggering System
EM-DAT	Emergency management data base
EU	European Union
FCI	International Canine Federation
GDP	Gross Domestic Product
GIS-Ujme	Geographic Information System
IKAR	International Mountain Rescue Commission
IRO	International Rescue Dogs Organisation
JSI	Jožef Stefan Institute
LILM	Storing Low- and Intermediate- Level Waste
MCS	Mercalli-Cancani-Sieberg scale
MoD	Ministry of Defence
NATO	North Atlantic Treaty Organization
NRC	National Review Commission
OECD	Organisation for Economic Co-operation and Development
OJSR	Official Journal (Gazette) of the Republic of Slovenia
RCB	Radiological, chemical and biological (protection)
RIC	Reactor Infrastructure Center
SEE	South-eastern Europe
SOP	Standing operating procedures
UNISDR	United Nation's Office for Disaster Risk Reduction
WOSM	World Organisation of Scouting Movements

1 Policy

In general, Slovenian citizens feel safe. However, serious natural disasters during the last decade made them increasingly aware of ecological, natural and man-made disasters. The governments reflect the growing public demands for improving the preparedness and rapid reaction capabilities in cases of emergencies, making civil protection one of the pillars of national security policy.

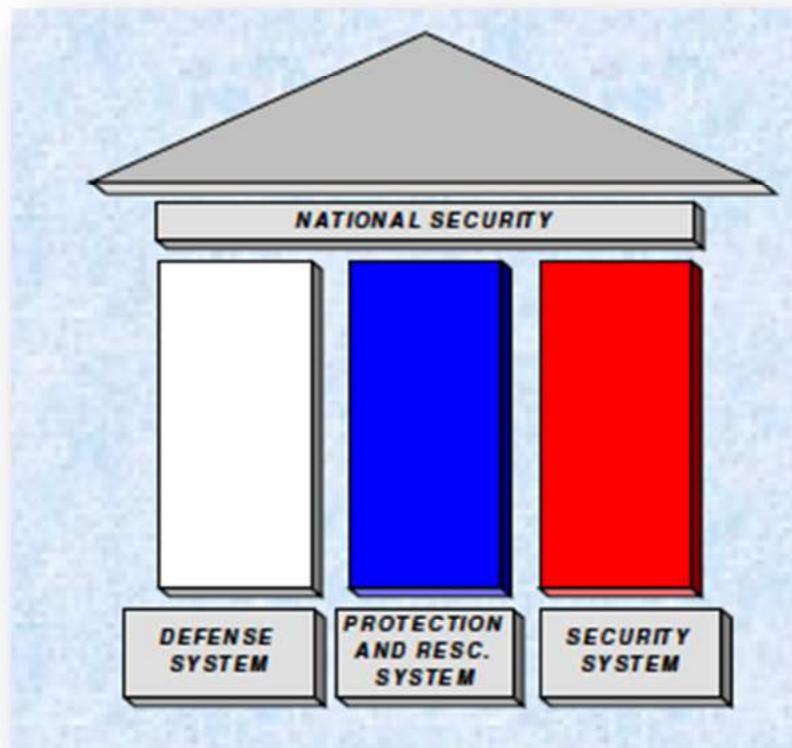


Figure 2: Construct of the Slovenian National Security System.¹

The National Security Strategy explains civil protection policy as a component of the national security policy along with foreign, defence, and internal security policies.

The social context of civil protection in Slovenia is the nation's long lasting tradition in volunteering in cases of emergencies like fires, avalanches in the mountains, and floods. Despite the separation of the civil protection system from the defence system, Slovenians strongly perceive (above 80%) an important military role in cases of emergency.²

¹ Source: Slovenian presentation by Romana Slabe (MoD – ACPDR) on the international roundtable in Sofia, 2009.

² Jelušič, 2003

1.1 Risk Assessment

With the aim of ensuring an efficient disaster management system, Slovenia prepares risk assessments at national, regional and local (municipal) levels, and for individual industrial facilities.

Risk assessment for individual types of disasters is based on the Instruction for Conducting Risk Assessment, which serves as a basis for all risk assessments. The Administration of the Republic of Slovenia for Civil Protection and Disaster Relief is responsible for risk assessment for individual natural or other disasters, which affect the entire or parts of the national territory, while risk assessment at the local level is performed by the competent municipal bodies.

Natural and man-made disasters are between the focal points of the Slovenian National Security Strategy. The document points out that “[N]atural disasters, which pose greatest risks to the Republic of Slovenia are earthquakes, floods, storms, droughts, major wildfires, and massive outbreaks of infectious diseases in human, animals, and plants.”³ A document adopted earlier, namely the Doctrine for Protection, Rescue and Relief (2002) determines that “the main sources of dangers and threats of natural and other disasters are inadequate encroachment on the environment, pollution, military threats, terrorism, and other non-military sources of threat.” Regarding the technological hazards, the Strategy underlines that of particular importance are the industrial and transportation accidents, as well as those that are result of malicious attacks.

As a country, which is independent only since 1991, it has not yet developed a well-established system for hazards, risks and vulnerabilities mapping. Hazard data of Slovenia is available only from 1995 onwards in the EM-DAT database.⁴ However, as the preventive aspect of civil protection has been determined as a policy priority, systematic efforts in this direction have been undertaken.

A) Natural hazards

According to the Brussels based Centre for Research of the Epidemiology of Disasters (CRED),⁵ the deadliest natural disasters are caused by earthquakes, extreme temperatures and storms.

³ National Security Strategy of the Republic of Slovenia (2010), art. 4.3.2

⁴ The International Disasters Database at the Centre for Research of the Epidemiology of Disasters (CRED), Belgium, available at <http://www.emdat.be/database>

⁵ CRED’s emergency management database is available at <http://www.emdat.be/>

Table 1 Natural disasters in Slovenia⁶

Hazard	Date	Number of killed	Number of affected	Damage (000US\$)
Extreme hot temperature	07/2003	289		80 000
Storm	18/09/2007	6	1 050	292 000
Earthquake (seismic activity)	12/07/2004	1		10 000
Extreme cold temperature	31/01/2014	1	50 000	
Flood	05/11/2012		12 000	265 000
Earthquake (seismic activity)	12/04/1998		700	
Earthquake (seismic activity)	12/07/2014		605	
Storm	17/01/2007			100 000
Flood	19/08/2005			5 000

Source: "EM-DAT: The OFDA/CRED International Disaster Database www.em-dat.net - Université Catholique de Louvain - Brussels – Belgium

Obviously, in terms of fatalities, the most dangerous proved to be extreme temperatures and earthquakes. For the period of the last 35 years, the average number of disasters per year is respectively, 0.03 and 0.06. The floods and storms cause the most serious material and financial damage, with an average appearance of 0.06 storms and 0.03 floods per year.⁷

Earthquakes

From geotectonic point of view, each year Slovenia is shaken about ten weak to moderate seismic shocks, which focus is at a depth between five and ten kilometres. This is because the country lies on the seismically active southern boundary of the Eurasian tectonic plate on the North-Western boundary of the Mediterranean-Himalayan seismic belt, which is one of the most seismically active zones on Earth.

60 per cent of the Slovenian population lives in areas where earthquakes of intensity VIII – IX on Mercalli-Cancani-Sieberg (MCS) scale may occur.

⁶ Data are relevant from 1991 (the independence of Slovenia) to January 2014.

⁷ Source: <http://www.preventionweb.net/english/countries/statistics/?cid=157>

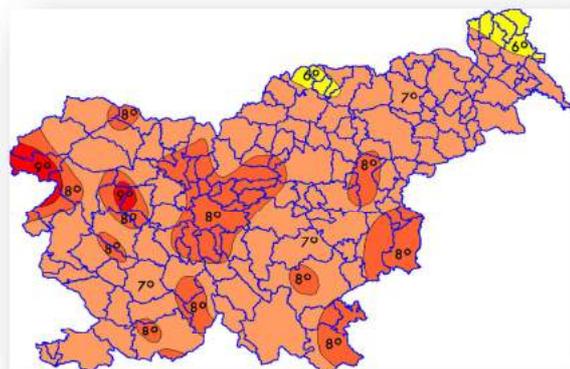


Figure 3. Population delivery vis-a-vis probabilistic assessments of seismic activities of 7, 8, and 9 level on MCS scale⁸

The Slovenian territory is the juncture of three geotectonic units: the Alps in the north and west, the Dinarides in the Southern, South-Western and central part, and the Pannonian Basin in the northeast.⁹ There have been many destructive earthquakes in this region: in 1895, a strong earthquake with a magnitude between 8 and 9 on the MCS scale severely damaged Ljubljana, affecting largest density of population and numerous important government functions.¹⁰ Historically, the most destructive of them are the following:

Table 2. Most powerful earthquakes on the territory of Slovenia¹¹

Date	Time	Location	MCS	Magnitude	Effect
26 March 1511	2 pm	Idrija-Cerkno	X	6,90	Destructive
8 August 1511	-	Čedad	IX	5,70	
17 June 1928	6 pm	Krško-Brestanica	VIII	5,06	
Year 1640	-	Brežice	IX	4,91	Shallow
10 May 1689	3 am	dolina Temenice	VIII	5,00	
11 February 1699	-	Metlika	VIII	5,02	Extensive damage
7 March 1857	2.56 am	Cerkno-Straža	VII-VIII	5,50	
14 April 1895	8.17 pm	Ljubljana	VIII-IX	6,06	Destructive
9 January 1917	8.23 am	Brežice-Krška vas	VIII	5,59	Destructive

⁸ Source: ACPDR presentation “Damage assessment and usability of earthquake damaged buildings”, available at http://www.protezionecivile.gov.it/cms/attach/editor/Slovenia_damage_assessment.pdf

⁹ Source: Slovenian Environment Agency

¹⁰ Adamic, 1995

¹¹ Source: Administration of the Republic of Slovenia for Geophysics from <http://www.sos112.si/eng/page.php?src=og11.htm>

According to the World Health Organisation, the seismic map of Slovenia includes two specific areas of seismic activities. While the most active as a number of cases area is between the towns Ptuj and Novo Mesto the most dangerous epicentre of seismic activities is 50-70 km west from the capital city of Ljubljana, the so-called Gorenjska-Ljubljana area (with a seismic hazard higher than 4).



Figure 4. Seismic Hazard Distribution Map¹²

The Seismological Institute of the Republic of Slovenia provides the following scheme of the country's seismic zones (in Slovenian language spelling):

- Čičarija area (A);
- Goriško-Javornik area (B);
- Gorenjska- Ljubljana area (C1);
- Dolenjska-Notranjska-Bela Krajina area (C2);
- Karawanke-Kozjansko area (D);
- Koroška-Haloze area (E);
- Štajerska-Goričko area (F).

¹² Source: World Health Organization, available at www.who-eatlas.org/europe/images/map/slovenia/svn-seismic.pdf

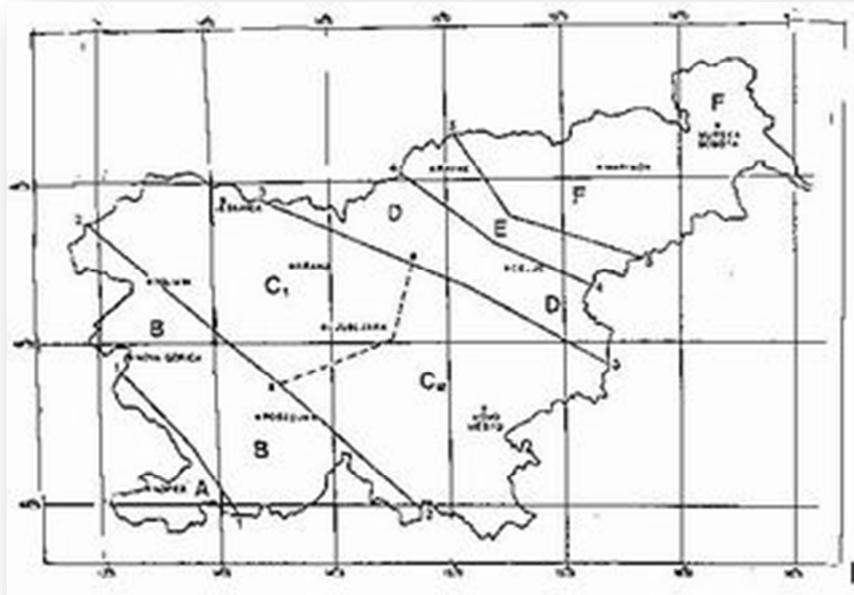


Figure 5. Seismic zones in Slovenia (Seismological Institute of the Republic of Slovenia, 1991)¹³

The most active zones are C1 and C2 with assessed maximum magnitude as of 6.2 and intensity of 8-9 levels on the MSC scale. The towns at the highest risk include Idrija, Ljubljana, Krško, Tolmin, Ilirska Bistrica and Litija with population about 700 000 citizen (more than 33% of the country's population).¹⁴ The recent application of probabilistic seismic hazards methodology for distributed seismicity confirms the historical statistics.

Floods

In recent Slovenia, floods are considered as the natural phenomena with increasing damaging capacity and impact on people and economy. Floods pose a threat to over 300 000 hectares of land (about 15% of the territory of the country), which lies mostly in narrow valleys carved by torrents. The floods are source of risk for about 600 000 people or over 30% of the population, while under high risk of flooding are 24% of them.

The Slovenian authorities pay special attention to the floods: the research and monitoring of the flood risk is one of the civil protection focuses, along with the alert system, preventive measures and training of the population. Risk assessments are conducted according to the character of floods and source of the high water: heavy rains and the melting of snow. The civil protection organisation¹⁵ uses the following set of qualifications for analyses of the character of floods:

- Type of stream (mountain, valley-bottom, flatland);
- Terrain (sloping, depressed);

¹³ Source: <http://www.sos112.si/eng/page.php?src=og11.htm>

¹⁴ Hyogo, 2005

¹⁵ Information from the ACPDR web site <http://www.sos112.si/eng/page.php?src=og11.htm>

- Volume;
- Intensity and extent of precipitation;
- Season (autumn, spring);
- Type of high-water wave;
- Duration;
- Frequency in particular timeframe (5 for frequent to 50 years for catastrophic floods);
- Type of land and of inundated facilities.

In terms of defining the floods hazard, the local authorities have qualified the country's rivers in four categories, depending the main sours of high waters – snow or rain:

- A – Snow driven regime (Mura and Drava rivers);
- B – Snow-rain driven regime (Sava and Savinja rivers);
- C – Rain-snow driven regime (Soca river);
- D – Rain driven regime (Dragonja, Rižana, Reka and Pivka rivers).

The risk from floods comes mostly from the River Sava (Upper, Middle and Lower Sava), as well from Drava and Savinja rivers.



Figure 6. The biggest rivers in Slovenia that cause most dangerous floods

The distribution and timing of rainfall is largely influenced by the geographical location of Slovenia and the diversity of its terrain. According to ACPDR, “[m]ost rainfall occurs during advances of wet and relatively warm air from the Mediterranean.” The map of flood hazard level, produced by the World Health Organsiation, illustrates that the level of flood risk is the highest (coloured in orange) for the North-eastern part of the country, followed by the area of Ceije in central Slovenia, and the Valley of Sava River, including the capital city of Ljubljana.

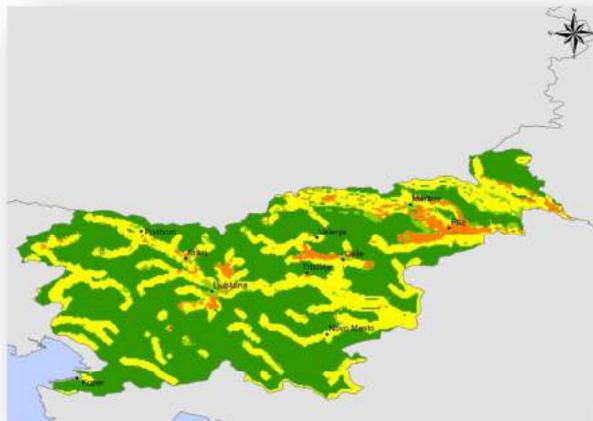


Figure 7. Flood hazard in Slovenia

Landslides

Slovenian area is relatively highly exposed to slope mass movement processes due to its geological and morphological settings. Heavy rains and floods are the most often source of landslides – in Slovenia there are about 1 400 landslides at encompassing a territory of approximately 7 000 km² (everywhere, except in the Primorska and Dolenjska Karst region).

According to the latest study of landslides, the 15-years average landslide damage represents 7.6% of total damages due to disasters in Slovenia (and 0.03% of GDP). In the last 15 years, more than 10 people have been killed in landslide events. (Šinigoj, 2014) Landslide susceptibility map of Slovenia at scale 1:250,000 has been completed, based on the extensive landslide database and analyses of landslide spatial occurrence. The map below illustrates that the landslides have been concentrated along the main river valleys, related most of all to river regimes and the rain-snow factor. (Komac, Ribicic, 2006)

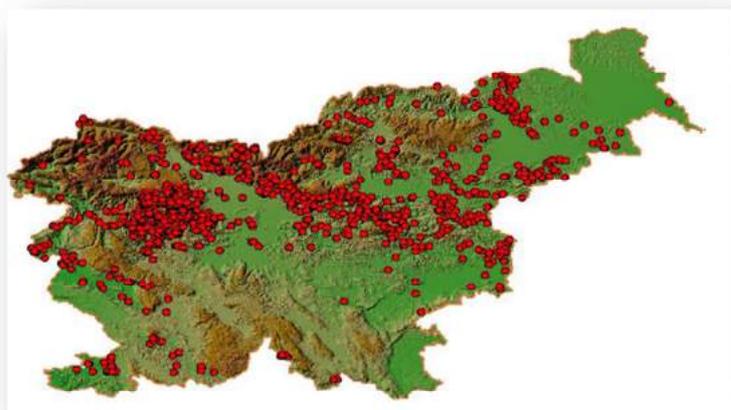


Figure 8. Landslides map of Slovenia¹⁶

¹⁶ Source: Presentation by Danica Babic from MoD/ACPDR “Emergency response in Slovenia”, available at <http://www.unece.org/fileadmin/DAM/env/teia/ConsultationPoCII/Slovenia.pdf>

Avalanches

Given the dominantly mountain character of the country, avalanches are of permanent concern for the local people, tourists and business. With the overall expansion of ski tourism the government's concerns of avalanches are increasing – recently, more than 1260 possible avalanches have been registered.



Figure 9. Avalanches map of Slovenia

Forest fires

Forests are of special importance for the Slovenian people. The state provides comprehensive care for the health of the forests from biological and reforestation point of view. Forest fires are a serious problem, especially common in the Karst. Only in the drought year of 2003 there were as many as 65 forest fires in Slovenia, affecting forests in a surface area of more than 2000 hectares. A specific character of the risk assessment of forest fires is the fact that during the last years, de-nationalisation of the land, the forests also became mostly private. Of the total forested area in Slovenia, 71% is now privately owned (about 300 000 private owners), 26% is in state ownership and 3% are owned by legal entities (local communities or other organisations). However, from risk point of view, the area covered by private forests is highly fragmented – the size of the average forest holding is less than 3 ha. The larger forest holdings are in the hilly areas.¹⁷ (Koroška, Zgornja Savinjska, Pohorje)

Dangerous weather (cold, sleet)

The first major case of countrywide sleet has occurred on 31 January 2014: because of the heavy burden, trees and electrical infrastructure have started to collapse and fall down. On 2 and 3 February, there was widespread damage on electrical infrastructure and forests. From all 13, eleven provinces were affected: a lot of households were left without electricity; over 2000 km of electrical grid were affected; 40 % of forests in Slovenia were heavily damaged and it will take decades to mitigate this damage. Combined estimated damage is over 430 million €, with one casualty and 23 injured at the end of the intervention among rescuers, electrical company

¹⁷ Information from the web site of the Slovenian Government, available at http://www.vlada.si/en/about_slovenia/geography/forests_in_slovenia/the_threat_to_slovenian_forests/

workers and army personnel.¹⁸

B) Technological hazards

The main technological hazards affecting Slovenia are those associated with nuclear and other radiological threats and chemical and industrial accidents.

Nuclear and other radiological threats

Slovenian authorities consider the following sources of nuclear and radiological threats:

- Nuclear facilities (nuclear power plant, nuclear research reactor, uranium enrichment facilities, facilities for the production of fissile substances, facilities for the treatment and depositing of irradiated nuclear fuel, and facilities used for the storage, processing and depositing of nuclear waste material);
- Facilities where sources of radioactivity are used (stationary or mobile facilities where radioisotopes are used, e.g. in industry, research institutions and hospitals)
- Transport of radioactive substances (by road, rail, air or sea).



Figure 10. Slovenian nuclear facilities¹⁹

From civil protection point of view there are four main nuclear and radiological facilities in Slovenia that may pose serious risks:

- There is one nuclear power plant in Slovenia (Krško NPP). It is situated on the left bank of the Sava River, around 3 km from the town of Krško. The power plant is 70 km South-East of Ljubljana and 35 km North-West of Zagreb. In 2013, the Krško NPP has produced about 5,3 MWh gross electrical energy from the output of the generator. According to the 2013 Annual Report on Radiation and Nuclear Safety in the Republic of Slovenia²⁰, there have been three operations shutdowns at Krško NPP:

¹⁸ Source: presentation by Branko Dervodel, deputy director general of Administration for Civil Protection and Disaster Relief, Montenegro, 22-24 April 2014. Available at <http://dppi.info/sites/default/files/Slovenian%20Experience%20-%20Sleet%20disaster%20%28February%202014%29.pdf>

¹⁹ Source: Agency for Radwaste Management (ARAO), <http://www.arao.si/resolutions>

Date	Hours	Type	Actuation	Cause
Feb 25	142	fast	automatic	automatic plant shutdown due to inadvertent closure of a main steam isolation valve
Oct 1	1178	normal	manual	shutdown of the plant in order to carry out the regular refuelling outage
Nov 23	45	fast	automatic	automatic plant shutdown due to improper functioning of the new system for measuring the temperature of the reactor coolant

- The second nuclear reactor TRIGA²¹ (RR TRIGA at Fig. 7) is for research purposes and is located near the town Brinje. The operator of the TRIGA Mark II Research Reactor is the Jožef Stefan Institute (JSI) and operation is carried out by the personnel of the Reactor Infrastructure Center (RIC). According to the above quoted Annual Report, in 2013, there were ten automatic reactor shutdowns, three of which were caused by operator error, six by disturbances of the linear channel switch, and one by primary water activity detector disturbances.
- The Central Interim Storage Facility (CISF BRINJE at Fig. 7) in Brinje is managed by the Agency for Radwaste Management (ARAO). It is for storing Low- and Intermediate-Level Waste (LILM) from small producers (about 130 industrial organizations and 7 hospitals). There are also still some temporary storage facilities operating under a special licence. The storage facility on the site of the Krško NPP accepts all LILW from the NPP. Its capacity will be probably filled out by 2020.
- In the area around Žirovski Vrh, the extraction of uranium ore had took place between 1982 and 1990. Mill tailings have been disposed of on the Jazbec mine waste pile and hydrometallurgical tailings – at the Boršt site. In 1990, after the extraction of uranium ore has been temporarily halted and a subsequent decision on permanent cessation has been taken, the process of remediating the mining and its consequences has begun.

Chemical and industrial accidents with ecological consequences

The chemical sector of Slovenia represents manufacturing of chemicals, chemical products and man-made fibres (about 2/3 of the Slovenian chemical industry's total income), as well as of rubber and plastic products (about 34 % of the total branch income). Manufacturing of pharmaceutical preparations and raw materials is indisputably the most important subgroup of the Slovenian chemical industry. As the range of the chemical industry's products is rather extensive, only the basic subgroups of products are listed below:

- Chemicals, chemical products and man-made fibres includes technical gases, dyes and pigments, inorganic chemicals, organic chemicals, basic polymer materials, pesticides and other agrochemical products, coatings, lacquers, printing inks, putties, sealants, pharmaceutical raw materials, pharmaceutical preparations, soaps, detergents, cleansers, polishes, cosmetic products, explosives, adhesives, essential oils, other chemical products, man-made fibres;

²⁰ Available at http://www.ursjv.gov.si/fileadmin/ujv.gov.si/pageuploads/si/Porocila/LetnaPorocila/2013/Ang._LP_2013.pdf

²¹ TRIGA reactor is the most widely used non-power nuclear reactor in the world. General Atomics (a division of General Dynamics) has sold 66 TRIGA reactors, which are in use or under construction at universities, government and industrial laboratories, and medical centers in 24 countries.

- Rubber and plastic products, includes tires and air-tubes for vehicles, reconditioned tires, other rubber products, plastic plates, tapes, foils, tubes, pipes, hoses, profiles, plastics packaging, plastic products for construction, other plastic products.

Figure 11 illustrates the scope of sources of technology hazards through out the territory of Slovenia. Obviously, areas under the most serious threats are the valleys of rivers Sava and Drina:

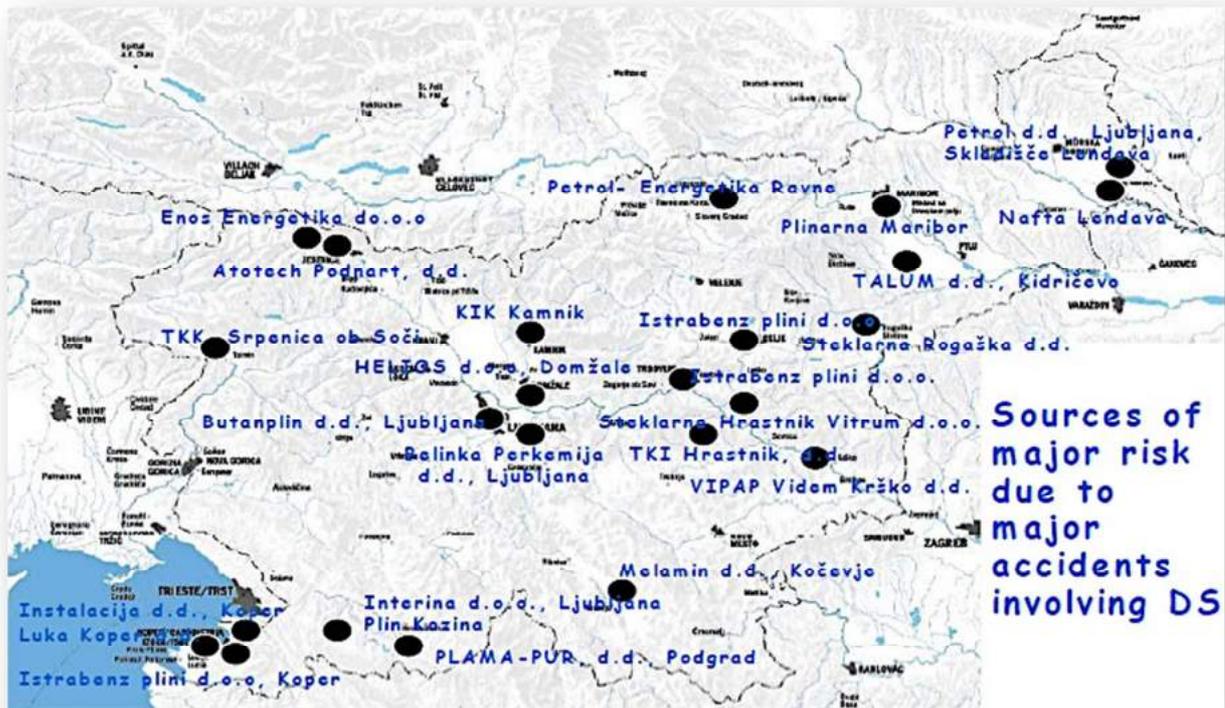


Figure 11. Main sources of risks due to major accidents involving dangerous substances (DS)²²

1.2 Policy and Governance

1.2.1 Strategy scope and focus

To continue the overall national security related legislative and organisational reforms, undertaken in Slovenia since 2001, the Government approved a package of principle documents: Law on Protection Against Natural and Other Disasters in 2001, Resolution on the National Security Strategy of the Republic of Slovenia in 2001, Doctrine on Protection, Rescue and Relief in May 2002. This set framed the country's new approach towards comprehensive security in the 21st Century, civil protection included. The framework is innovative and with an ambition of being efficient and relevant.

²² Source: Presentation by Danica Babic from MoD/ACPDR "Emergency response in Slovenia", available at <http://www.unece.org/fileadmin/DAM/env/teia/ConsulationPoCII/Slovenia.pdf>

In the Resolution on the National Security Strategy of the Republic of Slovenia of 2001, the political statement was that the national security policy consists of the three “basic” policies plus the economic policy and policy of protecting and preserving the national environment and space.²³ Obviously, this overwhelming definition puts civil protection from natural and man-made disaster into a comprehensive context of “national environment and space.”

In 2010, the new National Security Strategy of the Republic of Slovenia introduced important changes. Accordingly, the overall approach to civil protection has been relatively narrowed as the document states that the national security policy “... consists of the foreign policy, the defence policy, the policy of ensuring internal security and the policy of protection against natural and other disasters.” Even more, the chapter “Policy of Protection against Natural and Other Disasters” utters that “[t]he policy of protection against natural and other disasters will remain to be focused on the comprehensive management of natural and other disasters.” As it is well-known, policy is about wider and important social relationships that are governed through variety of political, legal, organisational and other instruments, while management is the implementation of policy through the so-called ‘state administration.’

It is not clear, why the Slovenian authorities have decided to leave the comprehensive context and political approach and to focus on much more operational disaster management. The new approach builds an impression that the disaster management sector is too isolated and has more practical character than political one. However, this comparison is important, because definitions pave the way from political/institutional declarations towards instrumental legal regulations and the building of implementation architecture (in terms of organisation, procedures, and resources).

From one side, the country applies a comprehensive approach (NSS, 2010, art. 5.1) to security at all levels (international, national, societal and individual) and aspects (economic, social, environmental, medical, demographic, educational, scientific and technological...). If one adds to this list also the ‘standard’ aspects of foreign policy, defence and internal security, will see that the scope of security of Slovenia is extremely wide for a country in a relatively stable and secure international and internal environment. However, the National Security Strategy puts “...the protection of life and a high level of all forms of security for its people...” in a very broad context that definitely includes civil protection from natural and other disasters. Even more, the document entails an important political message that “[i]n the future, the fundamental purpose of the national security policy of the Republic of Slovenia will be to ensure the highest possible level of human security, ...”, as stipulated by art. 5.1 – so the paradigm shift from national towards human security is an impressive ambition and the civil protection policy is in its context.

From other side, it is obvious the strong emphasis on “management” instead of on “policy”. The chapter “Policy of Protection against Natural and Other Disasters” begins with the statement that in art. 5.1 that “[t]he policy of protection against natural and other disasters

²³ Mesko et al., 2010

will remain to be focused on the comprehensive management of natural and other disasters.” It is not clear, whether such a replacement of policy with management is a result of poor expression or behind this approach, there is a strong desire to make things more practical than political.

However, in summary, the key points of the recent Slovenian strategy towards civil protection include:

- Disasters – natural and man-made, are between the risk factors for the national security;
- All kinds of disasters are managed under integrated and co-ordinated policy;
- Disaster management policy is a civil one;
- The core political approach is to guarantee the balance and co-ordination between national and local authorities;
- The core strategic organisational approach is towards strengthening the capacity of local administration and communities and equalisation of the capabilities between different communities;
- The scope of disaster management includes preparedness, response and relief;
- The focus of the disaster interventions are rescue and relief;
- The human resources for disaster management is a rational combination between professional units and large number of volunteers;
- Raising citizen awareness and ability for providing personal, family and community protection;
- Budgets for disaster management are provided at national, ministerial and local level;
- Socialisation of risks and consequences is reduced through strengthening of the insurance policy and culture;
- Enhanced regional and bi-lateral co-operation in disaster management, contribution to the EU overall civil security mechanism and active engagement in the relevant international organisations and programmes.

1.2.2 Monitoring and analytical support to policy making; R&D

According to the Doctrine on Protection, Rescue and Relief (2002),²⁴ “[d]isaster preparedness consists of monitoring and researching dangers and methods for protecting against them.” Among the key instruments for providing protection, rescue and relief is the “monitoring, notification and warning system.” Art. 4 defines it as a “unified subsystem” that “consists of informational and telecommunication systems, notification centres and warning equipment.” In later documents, monitoring and warning are determined as components of the Slovenian “comprehensive management of natural and other disasters.”²⁵ Currently, the unified monitoring, notification and warning system in Slovenia comprises:

- Monitoring networks;

²⁴ On the Doctrine on Protection, Rescue and Relief see Chapter 2.1.

²⁵ National Security Strategy (2010), Art. 5.1.

- Notification centres;
- Computer support and telecommunications service;
- Warning system.

Slovenia's report of 2005 for the Hyogo Framework for Action explains the basic objectives of the system in the following way:

- monitoring of meteorological, hydrological, seismological, radiological, ecological, health and other conditions;
- collection of data on hazards, disasters and other phenomena and developments important to the protection system against disasters;
- organisation and maintenance of a data base of protection, rescue and relief units and their intervention and resources;
- provision of information to competent national, local community and other bodies and services responsible for the management and implementation of protection, rescue and relief operations;
- warning of the population of any imminent danger, and public alarm announcements;
- activation and co-ordination of rescue service operations;
- logistical and other forms of support in the provision of rescue services.²⁶

The monitoring, notification and warning sub-system has the following architecture:

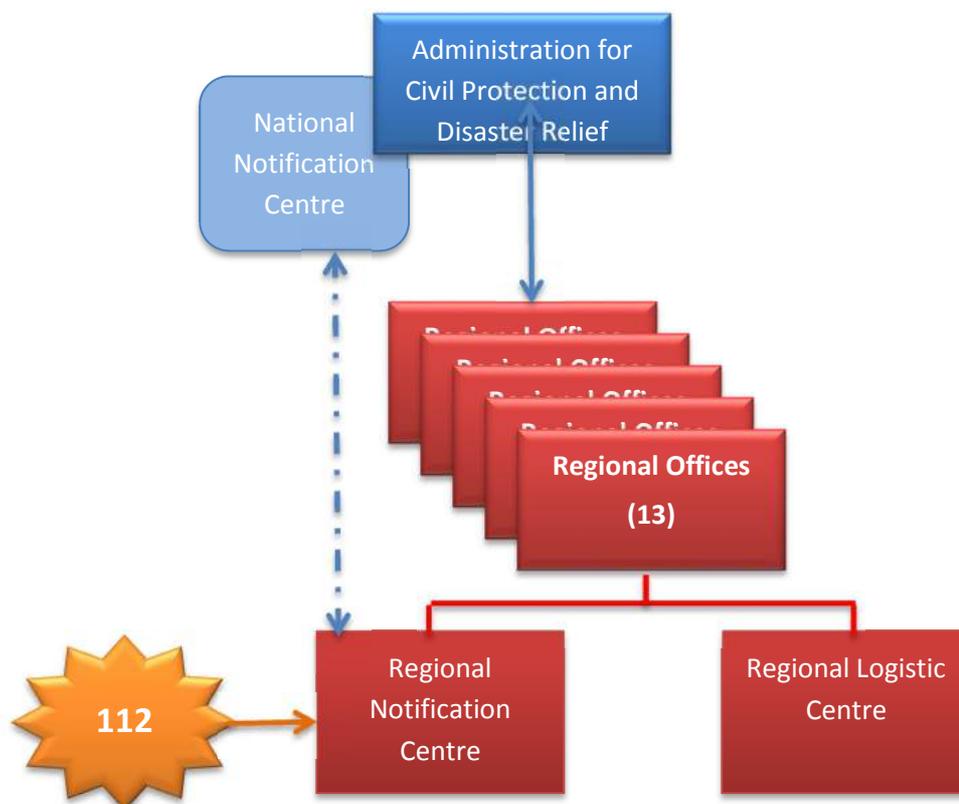


Figure 12. Monitoring, notification and warning sub-system

²⁶ (Hyogo, 2005), Art. 2.5, p. 15.

Monitoring of natural and other hazards is organised through institutionally based observation posts or networks, contributions from incidental informers and through horizontal exchange of information. Data are collected, processed, stored, and forwarded by the national and regional notification centres."In particular, data on meteorological, hydrological, seismological, nuclear, and environmental situations, threats to health, traffic events, obstruction of infrastructure systems, other dangers and threats, the conducting of protection, rescue and relief efforts, and damage are collected in permanent data bases."²⁷

- Monitoring is being performed by several agencies (e.g. on water levels, weather conditions is mostly done by the Environmental Agency and is available to other institutions and agencies). Notification centres that play a pivotal role in operation of the unified monitoring, notification and warning system have a direct link to the aforementioned monitors.
- Additionally, special monitoring around the nuclear power plant is also in place. A new 3D geographic information system was developed in 2010 and has been regularly updated ever since. After the M=5.8 earthquake on 12 April 1998 the Seismology Office has started to build a new national network. It operates 25 permanent seismological broadband stations. The Seismology Office also has a few portable stations and a small network of 8 digital strong motion instruments. Specific preparedness measures include monitoring and study of earthquake risks and providing standards for earthquake-safe construction.²⁸
- Recent programmes are aimed to further development of applications on the basis of central databases and technologies, which will allow secure internal and remote access, using especially the standard technologies of the internet network.
- A video system for wildfire control in the Obalnokraška, Severna Primorska and Notranjska region has been further developed, with the aim of monitoring approximately 40 000 additional hectares of fire-risk area as well as for monitoring the oil spills at the sea.

The network of notification centres is the core of the system: the National Notification Centre and 13 regional offices form the hub that connects the monitoring networks with the decision-making bodies. Each regional office of the ACPDR includes a regional notification centre and a regional logistic centre (warehouse). The National Notification Centre integrates different monitoring sources, manages the overall communication and information system, does the analytical and statistical work on collected data and has less operational duties. The regional centres, in addition to collecting data and responding to emergency 112 calls, are in charge of dispatches for fire-fighting, emergency medical aid, the mountain rescue service, the cave rescue service, the underwater rescue service, civil protection and other rescue services."²⁹ The regional centres are based in Ljubljana, Kranj, Trbovlje, Celje, Slovenj Gradec, Maribor, Murska Sobota, Ptuj, Krško, Novo mesto, Postojna, Koper, and in Nova Gorica.

²⁷ Doctrine on Protection, Rescue and Relief, Art. 9.

²⁸ More specialised information is available at http://www.fdsn.org/meetings/2004/Slovenia_FDSN_2004.pdf

²⁹ (Hyogo, 2005, Art. 2.5)

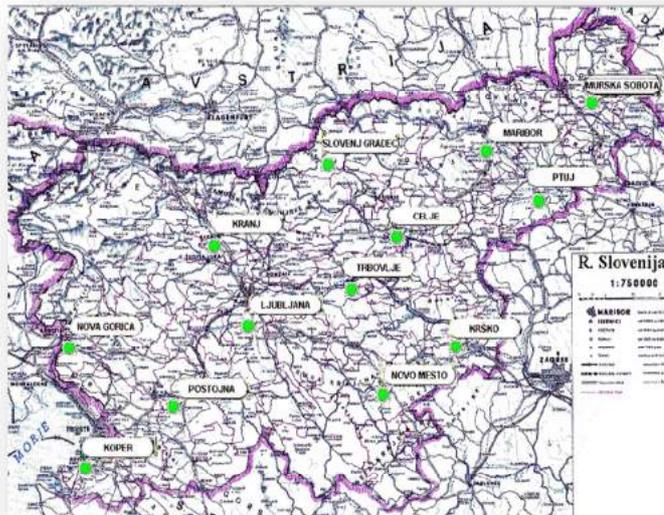


Figure 13. Regional notification centres³⁰

The 112 number has been used in Slovenia since the beginning of 1997. Ordinary citizens can call this number in an emergency or if they need a fire brigade, emergency first aid, or aid from any other rescue services. By dialling 112, people also can obtain critical information on weather, water, snow and other conditions, on disturbances and interruptions in the supply of potable water, electricity and gas and in other areas of life importance.

All 13 regional notification centres are integrated into computer network. Information support is provided through tailor made computer applications in the regional notification centres, such as the Geographic Information System (GIS-Ujme), the sound alarm management and triggering system (DUNJA), the system for the acceptance of telephone calls (ROK), the radio traffic control system (KC08), the radio network control system (Nadzor ZARE) and the pager system (ZAPP).³¹

In recent years, much attention has been devoted to the communication and information system upgrade of notification centres. The new services regarding the 112 emergency calls (application SMS112 for receiving text emergency calls and application video112 for receiving video emergency calls) have been introduced, and the public alert system has been reorganised.³²

In Slovenia, the civil protection is viewed as an interdisciplinary field in terms of research and scientific work, analysis, experimentation, and development. Academia, specialised institutes,

³⁰ Source: Presentation by Danica Babic from MoD/ACPDR "Emergency response in Slovenia", available at <http://www.unece.org/fileadmin/DAM/env/teia/ConsulationPoCII/Slovenia.pdf>

³¹ The Administration for Civil Protection and Disaster Relief of the Republic of Slovenia plans a gradual transition to a new beam radio communication system after 2010.

³² Detailed information on Slovenian communication and information system for civil protection is provided in Chapter 4.4.

private companies and individual researchers provide scientific support to disaster management. “The majority of work is accomplished in the following areas: civil engineering, chemistry and chemical technology, water resources management, forestry, geology, health, public relations, fire engineering, computer science, information systems, psychology and insurance companies.”³³

1.2.3 Policy for Prevention

According to the law, each ministry is in charge for prevention in its area of work. The Administration of the Republic of Slovenia for Civil Protection and Disaster Relief uses their monitoring for risk reduction. In terms of prevention, the administration is charged with the tasks related to spatial planning.

1.2.4 Policy for Preparedness

According to the concept of civil protection, recently applied in Slovenia, preparedness is the key function, performed at national, local, and individual level that provides effective protection of people and infrastructure from natural and other disasters.

The policy of preparedness policy builds on precise risk assessment and forecasting (including using modelling and simulations) of variety of natural and man-made hazards. An expanding monitoring, notification and warning system helps to integrate data and risk assessments through horizontal and vertical chains of communication and reporting. National and local contingency plans for emergency protection, rescue, and relief are drafted, based on this comprehensive picture. The power of these plans is the combination of specialised protection and rescue units and wide number of volunteers – both well trained and equipped. In parallel to the organisational and technical solutions, a system for education, training, and public awareness on hazards has been established. Relevant as size and components state and local reserves for protection, rescue and relief purposes have been provided and maintained.

1.2.5 Policy for Response

The policy for response in cases of emergency is based on three core principles. The focal point of any intervention, rescue and relief and other protection activities during natural and other disasters is to protect the life of the people: every person has the right to protection and his/her protection shall be priority over any other protection in case of emergency. Secondly, response to emergency shall be started by the affected local authorities and expand gradually, engaging neighbours, regions, and the state; the Armed Forces and their resources are the last resort. Thirdly, the central authorities provide co-ordinated response to the major disasters, assisting to local communities in emergency response, providing support to the Civil Protection Commander and guaranteeing that the basic conditions for life are provided.

For the success of the response policy, citizens also have a crucial role. The law obliges them to:

³³ Hyogo, 2005, Art. 3.2

- participate in the Civil Protection;
- provide material means (hereinafter referred to as material obligation);
- be trained and prepared for personal and mutual protection and implementation of required protective measures.³⁴

The overall responsibility for the co-ordination of disaster response preparedness and intervention is Administration of the Republic of Slovenia for Civil Protection and Disaster Relief.

1.2.6 Policy for Relief and Recovery

Conceptually, the Slovenian approach to post-emergency phases puts rescue and relief into a pair, while recovery is the last component of disaster management. This construct reflects the mechanism of decision-making and implementation, as well as the funding of recovery measures, programmes and policies. The Slovenian authorities believe that the focus on recovery is completely relevant and will provide more coherent and consecutive measures not only to return to function through rehabilitation of damages but for reconstruction and improvement. By law, the policy for recovery is one of the core responsibilities of the state. It shall provide “assistance in reconstruction and recovery from natural and other disasters in order to protect the life and health of people, property, cultural heritage and the environment, prevent further damage and provide basic living conditions.”³⁵

The Ministry of the Environment and Spatial Planning is the core state institution for recovery planning and management. Its operational body is the Natural Disaster Recovery Division, whose basic aim is to organise, co-ordinate and perform implementation of emergency works to stabilise and prevent the spread of the consequences of natural disasters. The Natural Disaster Recovery Division’s functions include also:

- Drafting programme proposals for elimination of disaster effects;
- Observation of potentially endangered areas;
- Experts identification and assessment of risks within the disaster impact area;
- Drafting proposals for relocation, expansion and other adjustments for the existing infrastructure facilities, affected by the disaster events;
- Preparation of national spatial plan for cases of major interventions;
- In case of emergency, implementation of works to stabilise and prevent the spread of damages and other consequences;
- Conducting of administrative procedure which deals with removing the aftermath of natural disasters;
- Monitoring of measures for removing the aftermath of disasters;
- Implementation of decisions for allocation of funds to or rebuilding for any beneficiary³⁶;

³⁴ Act on the Protection against Natural and other Disasters, Art. 15.

³⁵ Act on Protection, Rescue and Relief, Art. 36.

³⁶ For details see 1.3.2.

- Management of reconstruction works, based on the Removal of Consequences of Natural Disasters Act;
- Learning lessons and drafting legal and organisational proposals for further risk reduction.
- Database management as a basis for carrying out preventive measures and removing the aftermath of natural disasters as well as on the use of state aid-funds;
- Others.

The municipalities are also responsible to organise and conduct recovery activities in their respective areas.

The policy for recovery is regulated by the Act on the Recovery from the Consequences of Natural Disasters (Official Gazette of the Republic of Slovenia, 75/2003),³⁷ the Procedure for Damage Assessment in Case of Natural and Other Disasters (ACPDR nb.017-00-23/2005-2 of 09/27/2005), and the Decree on the Damage Evaluation Methodology.³⁸

Recovery and reconstruction are also objects for academic and engineering research, experimentation, and development.

1.3 Financing

1.3.1 Investing in preparedness

Despite that, Slovenia (followed by Bulgaria) has the largest emergency reserve fund in the Balkans – about USD 40 mln³⁹, the amounts allocated are grossly inadequate for funding a major disaster event. The administrative process involved in mobilising additional resources in cases of major disasters (e.g. when the size of damages by far exceeds the financial resources available) appears to be administratively cumbersome, lengthy and complex, and as a result rather time-consuming.

Planning for emergencies is an integral part of the government budgetary process. Annual budgetary allocations for emergencies are typically mandated by existing legislation on disasters caused by the impact of natural hazards and on other emergency. In addition, the Government may provide additional budgetary resources through several state agencies, which can be released in the case of a disaster. In cases of emergencies, the Slovenian authorities (Government and Parliament) can also increase the originally planned budgetary appropriations for disasters by passing special emergency legislation. Country disaster funds seem to be non-accruing budgetary funds, meaning that they maintain the same statutory size, and that in years when there are no losses they do not receive additional financial allocations.

³⁷ Available in Slovenian language at <http://www.uradni-list.si/1/objava.jsp?urlid=200375&stevilka=3620>

³⁸ Available in Slovenian language at www.uradni-list.si/1/objava.jsp?urlid=200367&stevilka=3224

³⁹ According to UN-WB study (Gurenko, Zakout, 2008). To compare: Bulgaria provides about US\$32 m.

Disaster management activities are financed through the national and municipal budgets, and through insurance payments and other funds contributed by commercial companies, institutions and other organisations. According to UN study,⁴⁰ “[e]very year the Government of Slovenia allocates approximately 0.4 per cent of the national budget to the disaster management system. Municipalities are required to earmark 3 per cent of their annual budgets to civil protection, although the average actual figure stands at just 2.1 per cent.”

Fire risk reduction activities are partly financed from a separate fire fund, which is generated from a tax on fire insurance.⁴¹ Currently, 5 per cent of all fire premiums are used for fire risk reduction activities.

The main financing body in terms of environmental protection and disaster prevention is the Investment Monitoring and Finance Division within the Ministry of the Environment and Spatial Planning. This directorate, among other functions, performs tasks related to the environmental protection public services and remediation of natural disasters. It provides cohesion policy for all kind of state investments in programmes and other measures aimed at reducing of natural hazards.

In addition to that, according to the Ecological Agency, there are six large-scale landslides in Slovenia, for which state aid for removal of consequences of landslides, prevention of their expansion and their stabilization is legally defined.

For this purpose following actions are defined:

- Prevention of spreading and stabilisation of landslide through construction of water management infrastructure;
- Restoration and replacement of damaged objects of local and state infrastructure, cultural sites, and protected natural sights;
- Renovation or replacement of residential and commercial buildings.

For state aid are entitled persons of public and private law (help for building replacement facilities which has to be removed from the influence area due to landslide risk), local communities and competent ministries (for the reconstruction of infrastructure facilities). The amount of funds is determined by a programme for removal of landslide consequences for each financial year and for each landslide separately.

Different institutions fund hazard mapping on a different scale, as an important component of disaster management preparedness:

- Slovenian Research Agency (ARRS) within the Ministry of the Environment and Spatial Planning;

⁴⁰ (UNISDIR, WB, 2008)

⁴¹ (Hyogo, 2005)

- “Geological Survey of Slovenia” (GeoZS);
- Faculty of Civil Engineering and Geodesy (FGG);
- “Anton Melik” Geographical Institute (GIAM);
- “Geolnženiring” (engineering geological mapping and rock classification, field and laboratory researches for underground structures, landslides and mineral resources for construction).

1.3.2 Investing in consequence management

The Republic of Slovenia has had detailed assessment procedures in place on the national, regional⁴² and municipal level since 2004. The Decree on the Damage Evaluation Methodology specifies a number of formulas for calculation of material and other losses. Moreover, it rates prices list are published annually on the ACPDR website.

According to the Act on the Removal of Consequences of Natural Disasters, beneficiaries of recovery funds and measures could be: national authorities; municipalities; persons of public law; persons of private law for the renovation of facilities in which activities are carried out; apartment owners; owners of the buildings, which have been declared cultural monuments or an object that is intended to safeguard the natural heritage.

Funds for removal of the consequences of the natural disaster are allocated to the municipality as a special transfer from the government for reconstruction of the following objects:

- Public infrastructure and facilities of local importance;
- Objects that are owned by municipality and are used for carrying out its activities and for local public service;
- Residential buildings, which are owned by municipality;
- Objects that are owned and used by persons of public law, of which the founder or cofounder is the municipality and for which investment, investment-maintenance or maintenance work are provided within municipality budget;
- Forest roads, in the case of co-financing of reconstruction, for which funds are provided in accordance with the regulations, governing the management of forests.⁴³

From their side, the municipality allocates funds for removal the consequences of natural disasters.

The Agency of the Republic of Slovenia for Agricultural Markets and Rural Development, subordinated to the Ministry of Agriculture, Forestry and Food, ensures proper and timely payment of the approved funds to final agriculture and food sector beneficiaries, suffered from natural and other disasters.

⁴² According to the Act on Protection Against Natural and Other Disasters “Region means a geographic, urban or otherwise integrated area comprising two or more local communities which, for the purposes of protection against natural and other disasters, represents a whole.” (Art. 8, p. 28)

⁴³ Large parts of the forests in Slovenia are private.

At individual level, insurance companies are providing evaluation of direct material damages due to the personal insurance policies.

1.4 Policy review, Evaluation & Organisational Learning

1.4.1 Post-Disaster Assessment

Post-disaster assessment is regulated by the Decree on the Damage Evaluation Methodology.⁴⁴ This Regulation sets out the methodology for determining, assessing and documenting damage and other consequences, caused by natural and other disasters such as earthquakes, floods, landslides, avalanche, high snow, strong winds, sleet, frost, drought, storm, as well as from industrial accidents.

Damages are quantified in five categories:

1. Land: Forests; Agricultural land; Land for construction.
2. Facilities: Buildings (residential and non-residential); Civil engineering - Transport infrastructure (roads, railways, bridges, etc.), Distribution piping for water and wastewater; Waterworks and others; Electricity and telecommunications networks.
3. Fixed and current assets: Fixed and current assets - movable property; The current agricultural production; Orchard.
4. Cultural properties: Cultural and religious buildings, memorials, museums and other; Movable heritage (and other artwork).
5. Other.

Damage is divided into two categories: primary and secondary. Primary damage comprises the main emergency and the attendant costs to restore and set up damaged items in the condition in which they have been initially and the cost of repair and replacement of damaged parts or assemblies. The primary damage also includes the cost of clearing the site of damage, demolition of damaged and unserviceable parts, their removal and the necessary start-up costs. The secondary damage comprises operating costs of protection, rescue and relief and emergency protective or preventive measures for the protection of human, animal and other damaged items. It covers essential safety work, such as buffer embankments, ditches, splints, pumping, removal, spraying, fertilizer and other similar measures.

For post-disaster or accident assessment, the government sets up regional and national damage assessment committees.⁴⁵ In the committees, judicial officers, insurance valuator and others authorised representatives of public institutions, professional teams or specialised services, and experts or members of professional associations and other institutions, may be appointed. At local level, competent regional committees make the damage assessments.

⁴⁴ Available in Slovenian language at <http://www.uradni-list.si/1/objava.jsp?urlid=200367&stevilka=3224>

⁴⁵ Law on Protection Against Natural and Other Disasters, Art. 97, p. 1

According to the established procedures⁴⁶, when an accident occurs, the local community immediately informs the regional notification centre and provides (no later than 24 hours) a written report to the ACPDR's regional branch. ACPDR experts together with local authorities, visit the damaged area and identify the scope and intensity of disasters; based on this assessment, ACPDR issues a resolution for damage assessment, in which the start and end date of the damage assessment are determined. Within this timeframe, local authorities invite affected people to report the damage, filling prescribed sheets, and form a commission to review presented sheets, to assess their objectivity and, if necessary, amend or supplement them. After the expiration of the period, the local commission sends the collected application sheets to the regional committee for review and evaluation. The Regional Damage Assessment Committee sends the applications to the National Damage Assessment Committee, which elaborate a report for the Government. The Government decides on the report and the reimbursement of costs.

1.4.2 Departmental lessons learned systems

The documentation on civil protection in Slovenia does not contain requirements for a specific mechanism for learning lessons from emergencies to be established. However, one of the tasks of the Administration for Civil Protection and Disasters Relief is to produce proposals for improvement of legislation, organisation and procedures, which represents a kind of informal lessons learned practice.

The Law on Protection against Natural and Other Disasters stipulates the rights and responsibilities of the national authorities and local community authorities to use "...data on resources, natural and other disasters hazards, the inhabitants in endangered areas, residential and other buildings, public services, associations and other non-governmental organisations, commercial companies, institutions and other organisations the activities of which are important for protection, rescue and relief, collected and recorded with statistical research programmes or contained in other statistical data bases, managed and provided by the national statistical agency and other authorised agencies, responsible for the implementation of mid-term and annual statistical research programmes..."⁴⁷ The data should be used for the purposes of threat assessment, planning and implementation of protection, rescue and relief. Despite that such a regulation does not formally establish uniformed lessons learned system, in practice the huge amount of information, organised as a database, could be successfully used for improving legislation and the organisation of the civil protection. The same law (Art. 51, (6)) defines the Administration of the Republic of Slovenia for Civil Protection and Disaster Relief as the main national source of information on emergencies. ACPDR shall collect and manage data in form of integrated central databases for the purposes of the preventive programmes planning, emergency management and post-disaster assessments. By law, these data should be sharable and made public, following prescribed procedures.

⁴⁶ Procedure for Damage Assessment in Case of Natural and Other Disasters (ACPDR nb.017-00-23/2005-2 of 09/27/2005)

⁴⁷ Law on Protection against Natural and Other Disasters, Art. 51, (1).

Information from emergencies is important also for the post-emergency assessments. The above-quoted Procedure for Damage Assessment in Case of Natural and Other Disasters requires general and technical databases to be established. The former include facts, such as location, type of damaged items, address or registered office, ownership, type and time of the accident, damage to property group, purpose and activities. The technical data from crisis events consists of description of the situation and its characteristics, explanation of damaged items depending on their purpose, type, age and technical parameters.

1.4.3 Centralised (national) lessons learned system

The Doctrine on Protection, Rescue and Relief determines the lessons learned from previous accidents as one of the basics for planning and conducting protection, rescue and assistance efforts. Together with the systematic interdisciplinary research of causes, forms of phenomena and consequences of disasters, lessons from each emergency are expected to provide ground for improving the overall civil protection system of the country and any particular hazard as well.

Recently, in Slovenia no institution is explicitly focused on learning lessons from emergency. However, the country's civil protection legislation, organisation, practice and traditions stimulate cross-sector learning from past events and provide access to facts, statistics and expertise within the area of learning from emergencies and disasters in order to improve safety work at national and local levels.

ACPDR has prerogatives to provide a collective overview and assessment of incident and accident trends and safety work in society, thus giving decision-makers and the public a broad and unbiased overview of both emergency and post-disasters situations in different sectors and areas.

Such task requires the ACPDR to develop and maintain a reporting system, databases and web applications to collect data, determined by law. As the law regulates the post-disaster assessment as well, the civil protection system also includes an estimation of the economic burden of injuries and damages.

Slovenia has reported that research methods and tools for multi-risk assessments and cost-benefit analysis are developed and strengthened.⁴⁸

1.4.4 International exchange for lessons learned

Slovenia has signed bilateral agreements on cooperation with neighbouring countries (Austria, Croatia, Hungary, cross-border protocol with Italy), and with Bosnia and Herzegovina, the

⁴⁸ According to the National Progress Report on the Implementation of the Hyogo Framework for Action (2011-2013), "Development research work in the area of disaster management has been performed on the basis of target research programme "Knowledge for Security and Peace for the period 2002-2010", technology programme "Technology for Security and Peace 2006-2012", individual researches and case studies in relation to the central activities and projects financed in the field of fire protection by the Fire Protection Fund."

Czech Republic, Germany, Macedonia, Montenegro, Poland, Slovakia and the Russian Federation. All the aforementioned agreements include provisions on mutual exchange of information and early warning in case of major disasters.

Slovenia, as a member of European Union, participates in the EU Civil Protection Mechanism and is also a signatory of the United Nations Convention on the Trans boundary Effects of Industrial Accidents.

In regional co-operation format, Slovenia participates in the Disaster Preparedness and Prevention Initiative for South Eastern Europe (DPPI SEE) and the Adriatic-Ionian Initiative. The country implements the Alpine Convention as regards disaster risk reduction.

1.4.5 Regular policy reviews

The policy for civil protection as regards disaster management and relief is embodied by the “national programme of protection against natural and other disasters”. The national programme “...shall be to set out the aims, policy and strategy of protection against natural and other disasters in the country for a minimum period of five years.”⁴⁹

According to the mechanism of programming (followed by annual planning), the policy review and amendment should be done within the frame of programme review and assessment (the same for the annual plans).

However, there is no available information about policy review in the form of an overall assessment. In some cases, reports on performance during particular emergencies are published – e.g. Annual Report 2013 on Radiation and Nuclear Safety in the Republic of Slovenia, Annual Report of the Ministry of Defence for 2011, and others.

1.5 Resilience

The concept of resilience in civil protection, in terms of country’s capacity to withstand shocks due to natural and other disasters, to rebuild itself with efficiency, and to improve on the pre-existing state wherever possible, has not been explicitly established in Slovenia by law or other normative acts.

However, the Slovenian approach towards civil protection from natural and other disaster is focused on four basic aims that form country’s resilience policy “by doing”:

- Effective decision-making – in Slovenia, it is based on a common understanding that the sectors at the highest risk should be the framework for prioritising the investment policy (in terms of financial, material, human, and political resources and the research agenda) in resilience.

⁴⁹ Law on Protection Against Natural and Other Disasters, Art. 41, (1).

- Efficiency – at this point of time, efficient disaster management steps on a national platform that centralises key data so all state and local institutions, society, the business, and the researchers as well, have access to information that is critical to protecting homes, property, community, regional, and national infrastructure.
- Transparency and openness – Slovenian disaster management framework is aimed to provide greater transparency and to build a culture of openness by removing restrictive barriers on accessing government and local administration plans, performance reports, and specialised database.
- Availability – the Slovenian approach towards civil protection is based on the universal right of all citizens and their property, as well as the national and local material values to be protected from natural and other disasters.

1.6 Information sharing and data protection

Collection and protection of personal data related to disaster management, including for preparation, disaster intervention, volunteers, and damage assessment are regulated by the Law on Protection Against Natural and Other Disasters. The law stipulates that the following personal data shall be collected, processed, used and kept by the administrative bodies, responsible for civil protection:

- Name and surname, date and place of birth, permanent and temporary residence address, date of birth of children, data on knowledge and skills relevant to protection, rescue and relief, education, employment, telephone number and mobile phone number of the members of the Civil Protection, civil servants in the field of protection and relief and citizens who voluntarily participate in the performance of protection, rescue and relief duties
- For the members of the Civil Protection additional data on the date of medical check-up of health and psycho-physical condition, responsibility within the Civil Protection for the purpose of ensuring up-to-date preparations, mobilisation and activation and provision of rights and obligations of the Civil Protection members and other protection, rescue and relief forces;
- Type, capacity and condition of means of transport and other means subject to material obligation as well as name, surname, home or business address of owners and users of such means, premises and buildings, for the purpose of completing headquarters, units and services;

The Law prescribes also that the relevant administrative bodies shall keep personal databases on members of the Civil Protection, civil servants in the area of protection and rescue, citizens who voluntarily participate in protection, rescue and relief and persons subject to material obligation. The institutions are responsible for the protection of personal data.

The civil protection administration is authorised by law to collect, keep, and communicate above-mentioned personal data to the responsible national or local authority at their request. The relevant commercial companies, institutions and other organisations may request personal data on members of the Civil Protection assigned to them. All authorities, commercial

companies, institutions and other organisations may use such personal data only for the purpose of organising protection against natural and other disasters and are responsible for the protection of personal data.

2 Legislation

Slovenia's legislation, related to disaster management, comprises conceptual, basic, specific, and emergency laws and acts. The legal framework in the field has been developed after the independence of the country and has been improved based on the accumulated experience in emergency response. Significant improvement of the package of laws has followed Slovenia's membership in European Union. However, as mentioned earlier, the Slovenian model has some specific aspects and differs from both the European and South-East European countries' civil protection systems. In any case, the legal framework in Slovenia provides systematic planning for risk reduction and relevant preparedness, comprehensive mechanism for monitoring and alerting, a mixture between professional and volunteer human power, adequate resources and reserves for intervention and recovery.

2.1 Crisis (emergency, disaster) management concept

The core conceptual document on crisis management in cases of natural and other disasters is the Doctrine on Protection, Rescue and Relief. It is a document of the Government of the Republic of Slovenia, issued pursuant to Article 93 of the Law on Protection Against Natural and Other Disasters and adopted at the government's 76th regular session on 30 May 2002. This document is conceptually linked to the country's founding act in the field of security – The Resolution on the National Security Strategy of the Republic of Slovenia, published in OJRS⁵⁰, 56/2001.

The Doctrine provides a set of common principles on how should protection, rescue and relief be organised within the civil protection system. It also stipulates operational guidance to all professional and volunteer, national and local, state and private forces that based on law or other forms of organised engagement contribute to all or some aspects of the protection against natural and other disasters.

The platform of the Doctrine is that protection against natural and other disasters is a part of the internal security of Slovenia and "...that protection and rescue is, organisationally and functionally, an independent and unified subsystem of Slovenia's national security."⁵¹ Out of this starting point, the Doctrine builds a system of integrated or co-ordinated preventive measures, protection operations, emergency services, and other efforts, which cope with the demands of the citizen for security against natural and man-made disasters and extreme conditions.

⁵⁰ OJ is abbreviation of the name of the Official Gazette of the Republic of Slovenia in Slovenian language.

⁵¹ Here and after in Chapter 2.1 all quotations are from the Doctrine on Protection, Rescue and Relief as it is published at <http://www.sos112.si/db/priloga/p4359.pdf>

“The basic goal of protection, rescue, and disaster relief is to protect people, animals, material and other goods, as well as the environment, against disasters or destruction, damage and other consequences of disasters and to alleviate the consequences.” Despite that the Doctrine does not strictly prescribe the most popular in Europe crisis management cycle – prevention and mitigation, preparation, response, and recovery, it includes core activities with similar content: preventive activities, preparedness for action, monitoring, notification and warning system, protection, rescue and disaster relief, and alleviation of the aftermath of disasters.

The Doctrine determines that the starting points for planning, organising and conducting protection, rescue and relief efforts and operations should be “...the dangers and threats posed to people, animals, property, cultural heritage, and the environment.”

In terms of disaster management preparedness, the concept includes “...monitoring and researching dangers and methods for protecting against them”, notification and warning, organising, equipping and training of specialised forces and volunteers as well as training of the population for personal and collective protection. Preparation also includes provision of any kind of material and equipment that could be necessary in cases of emergency. Planning at all levels – national, institutional, local, and business, is also an important component of the country’s preparedness.

The principles of organising and providing civil protection are a combination of bottom-up and top-down approaches. First, in case of emergency everyone is obliged to provide information to and about the others and to offer assistance to others (based on the Slovenian culture of volunteering). Still, the state and local authorities are obliged to provide the necessary preventive measures and preparation efforts, and, in case of emergency, to conduct protection, rescue and relief operations.

From organisational point of view, the Doctrine introduces a mixed system of professional permanent civil protection units and comprehensive network of volunteers – organised and individual. There is a single chain of command system for any rescue and relief operation. “Armed forces and defence assets can be used for protection, rescue and relief efforts if the forces and assets available are not sufficient for emergency rescue and relief and if the armed forces are not needed to conduct defence missions.”

The Police is also engaged in the mechanism of civil protection to “...prevent, detect and investigate criminal offences and violations, detect and apprehend perpetrators and other wanted persons and deliver them to competent bodies, maintain law and order, control and organise traffic and the movement of persons, participate in securing dangerous areas or accidents, conduct certain missions concerning foreigners and, if required, participate in rescue missions.”

2.2 General crisis (emergency, disaster) management law

The new legislation that framed Slovenia's policy and organisation for disaster management was adopted after 1992 and has been conceptually and operationally amended after 2000. The number of legal acts has "...separated the system of protection against natural and other disasters from the defence system in order to organise it as an integral interdisciplinary activity based on common goals and principles, and to merge all rescue services and other protection, rescue and relief forces into an organisationally and functionally unified system."⁵² This approach has been applied to make the previous highly centralised and militarised system more flexible for inter-agency co-operation, more decentralised between the state and local authorities, and more open for extensive engagement of volunteers, NGOs and the business. Formally and legally prevention has become the fundamental guideline and major task of this system with implementation being carried out mainly by the local communities.

Recently, the protection from natural and other disasters in Slovenia is governed through a package of legal acts – laws (acts), different Government decisions (decrees), and variety of sector-specific regulations. The most important between them is the Act on the Protection Against Natural and other Disasters (Published in the Official Gazette of the Republic of Slovenia No 64/94, dated 14 October 1994). It has been approved by the Parliament on 3 May 2006 and since then serves as a hub between the conceptual Doctrine on Protection, Rescue and Relief and variety of sector-specific regulations as the Fire Protection Act,⁵³ the Fire Service Act, the Recovery from the Consequences of Natural Disasters Act, the Environment Protection Act, the Protection Against Drowning Act, and others, as well as several general laws as Public Administration Act, Material Obligation Act, and others.

The Act on the Protection Against Natural and other Disasters sets the principles, architecture and key procedures for disaster management in a systematic manner:

- The scope of protection, provided through the Law, includes "...people, animals, property, cultural heritage, and natural environment." (Art. 1)
- In protection, priority is given to the "risk reduction" (despite that the Law does not use the term), achievable through measures to reduce both the number of disasters and the number of casualties and other consequences.
- The established system for civil protection comprises programming, planning, organisation, implementation, supervision, and financing of measures and activities in implementation of Government's policy and strategy on protection against natural and other disasters.
- The Law defines variety of basic tasks of the protection system that make it comprehensive and complicated, including detection, monitoring and research of natural and other disaster hazards, prevention measures, notification and warning of people, education and training, organisation of Civil Protection, mechanism for

⁵² Hyogo, 2005

⁵³ Available at <http://www.sos112.si/db/priloga/p4361.pdf>

mobilisation in cases of emergency, rescue and relief, recovery, post-disaster damage assessment, as well as participation in international disaster management efforts.

- Civil Protection is both a service and an institution. The service might be mandatory, volunteer, and by contract. Mandatory service starts at 18 and ends at 55 for women, and at 63 for men, while the volunteer starts at age of 15. The contract service is in the Civil Protection units or is performed by individual contract for people that have been designated for highly specialised subject-matter duties. The organisation comprises of management bodies, protection, rescue and relief units and services, protection and rescue equipment and facilities for protection, rescue and relief. Thus, Civil Protection is “a special-purpose element of the system of protection against natural and other disasters.” (Art. 3)
- The core principles of providing protection include the right of every person of receiving protection, requirement for mutual assistance in emergency, the right of people to be timely and consistently informed about hazards and emergencies, dominant prevention and risk reduction measures, the principle of personal, corporate and official responsibility for implementation of protection measures and activities, gradual deployment of units and resources in emergency, and relevance of all protective legislation and practice to the international humanitarian law and international law on the protection of people, animals, cultural heritage and environment against harmful effects of natural and other disasters and pursuant to the accepted international obligations.
- The Law determines the responsibilities of the state, local authorities, commercial subjects, institutions, and private persons (as owners and users of buildings and other infrastructure).
- Long-term planning for disaster management is arranged through national programme for a minimum period of five years and an annual plan. The local communities adopt their own programmes and plans of protection against natural and other disasters, which must not be in contradiction with the national programme.
- Emergency plans are elaborated at national level by the Administration for Civil Protection and Disaster relief, and at local level by the relevant authorities. Commercial units also prepare such plans.
- The notification and warning system is comprehensive and includes state, ministries and agencies, regional, and local elements, supported by all-citizen contribution. At the head of the system is the Emergency Notification Centre of the Republic of Slovenia, supported by regional notification centres.
- Implementation of protection policy is performed by “...units, services and other operational structures of associations and other non-governmental organisations; commercial companies, institutions and other organizations; Civil Protection units and services⁵⁴; the Police; the Slovenian Armed Forces in accordance with the law.” (Art. 72)
- The Law prescribes wider role to civil society volunteer organisations and associations and commercial entities in each aspect of the civil protection.

⁵⁴ Civil Protection units and services include: technical rescue units, first aid veterinary units, radiological, chemical and biological protection units and services, protection against unexploded ordnance units, shelter use services, logistic and information centres, support services and other units and services based on threat assessment. (Art. 76)

- The administrative and technical duties relating to protection, rescue and relief and other duties within the protection against natural and other disasters are dedicated to the Administration of the Republic of Slovenia for Civil Protection and Disaster Relief and its regional branches.
- National commander, to whom local commanders are subordinated, commands Civil Protection through a single chain of command.
- Post-disaster damage assessment is organised at national and local levels.
- The Law stipulates variety of requirements for providing safety at work and home.
- Education and training on protection is comprehensive and includes schools and all people, institutions and formal units. Training Centre for Civil Protection and Disaster Relief of the Republic of Slovenia is established.
- Funding of civil protection is provided through the state and local budgets, insurance premium, financial resources of commercial companies, institutions and other organisations, as well as by voluntary contributions and international aid.
- Penalty provisions are determined for violation of civil protection rules.
- The Law also introduces several EU directives.⁵⁵
- Control over the implementation of laws governing the protection system is executed by the constituent body of the Ministry of Defence: the Inspectorate of the Republic of Slovenia for Protection against Natural and Other Disasters, and its branch offices.

2.3 Emergency rule

The Law on Protection Against Natural and Other Disasters does not treat the emergency rule issue, as it is regulated by the Constitution. According to art. 92:

“A state of emergency shall be declared whenever a great and general danger threatens the existence of the state. The declaration of war or state of emergency, urgent measures, and their repeal shall be decided upon by the National Assembly on the proposal of the Government.

The National Assembly decides on the use of the defence forces.

In the event that the National Assembly is unable to convene, the President of the Republic shall decide on matters from the first and second paragraphs of this article. Such decisions must be submitted for confirmation to the National Assembly immediately upon its next convening.”

The Constitution (Art. 16) regulates the scope of limitations on individual rights and liberties during a “state of emergency” in the following way:

“Human rights and fundamental freedoms provided by this Constitution may exceptionally be temporarily suspended or restricted during a war and state of emergency. Human rights and fundamental freedoms may be suspended or restricted only for the duration of the war or state of emergency, but only to the extent required by such circumstances and inasmuch as the measures adopted do not create inequality based solely on race, national origin, sex, language, religion, political, or other

⁵⁵ The EU Council Directives are 89/391/EEC, 89/618/EURATOM, 96/29/EURATOM, and 96/82/EC.

conviction, material standing, birth, education, social status, or any other personal circumstance.”

2.4 Specific, department/agency-level legal arrangements and regulations on emergency and disaster management

To ensure the implementation of the above mentioned sector-specific laws, the Government issues decisions, including the following: Decree on Fire Insurance Tax, Decree on Protection from Fire in a Natural Environment, Decree on Shelter Construction and Maintenance, Decree on the Organisation and Functioning of the Monitoring, Notification and Alarm System, Decree on Providing Protection, Rescue and Relief from Aircraft, Decree on the Organisation, Equipment and Training of Protection, Rescue and Relief Forces, and others.

The operational document that integrates the implementation of all legal acts into a civil protection effect for the people and the state is The Resolution on the National Programme of Protection Against Natural and Other Disasters for 2009-2015.

2.5 Specific to the regional and local authorities legal arrangements and regulations on emergency and disaster management

All issues, related to the regional and local authorities obligations and rights are regulated by the Act on the Protection Against Natural and Other Disasters. According to art. 37, local communities shall be responsible for the implementation of protection against natural and other disasters on their territories. They may co-operate with each other including sharing resources and capabilities and for protection, rescue and relief operations.

The local communities are responsible for:

- Management of all systems for civil protection on their territory;
- Systematic monitoring of all hazards;
- Notification and warning of the population;
- Drafting, resourcing and implementing of all required by Law plans and co-ordinating them with the neighbouring communities;
- Establishment of relevant to the hazards organisation for civil protection;
- Providing those organisations with resources, equipment and training;
- Providing basic conditions of living for affected by natural and other disasters people;
- Participating in international co-operation in protection, rescue and relief.

2.6 Legal regulations on the involvement of volunteers and specialised NGOs

The commercial companies, private institutions and other organisations have legal obligations according to art. 38 of the Law on Protection Against Natural and Other Disasters. Especially those that operate with hazardous substances shall elaborate a threat assessment, draft emergency response plans and implement them on their own expenses. This includes responsibilities to organise necessary rescue and relief forces, ensure notification and warning of employees and the surrounding population of danger and co-finance preparatory activities of the local community proportional to the extend and degree of threat constituted by their activity. The local authorities determine the type and the proportional scope of preparations in emergency response plans of commercial entities. They are also obliged to engage the personnel in relevant to the case specific hazards training.

The same requirements are spread also over any educational institution.

The Law on Protection Against Natural and other Disasters regulates all issues, related to the organisation and engagement of volunteers in any rescue and relief operations. Volunteerism is a national tradition in Slovenia and volunteers and other non-professional contributors have important role within the overall civil protection system. Reasonably, their status in case of emergency is equalised with those of the members of the Civil Protection service. Those that formally, through the planning process, are engaged in civil protection organisations as fire brigades, Red Cross organisations, Mountain Rescue Service, speleologists clubs, diving clubs, canine clubs, scout organizations, radio-amateurs clubs and other organisations) shall not be assigned to defence duties or Civil Protection operations.⁵⁶

Concerned the role of the NGOs in civil protection there two basic acts: the Act on Slovenian Red Cross (published in OJ RS, 7/93) and the Societies Act (published in OJ RS, 61/06).

2.7 Legal regulations for international engagements of first responders and crisis managers

Both the Law on the Protection Against Natural and other Disasters and Doctrine on Protection, Rescue and Relief regulate the international contributions and engagements of Slovenia in form of international aid.

Assistance to other countries is carried out by designated units. However, the Law provides an opportunity a separate operational structure to be organised for the performance of protection, rescue and relief in other countries. In both cases the Administration for Civil Protection and Disaster Relief is mandated to make proposals to the Government.

⁵⁶ In time of war these units, together with Civil Protection units, perform civil defence functions.

The decision to assist other countries is mandated to the Government on the proposal of the Civil Protection Commander of the Republic of Slovenia or the Minister of Defence, if it is related to international obligations of the state. However, they must perform duties that only correspond to the international and legal status of the Civil Protection.

Members of such units must be informed (through the contract) of the possibility that they might be deployed to other countries to perform their duties. Insurance for cases of death, permanent loss of general ability to work and temporary inability to work have to be provided for all of them.

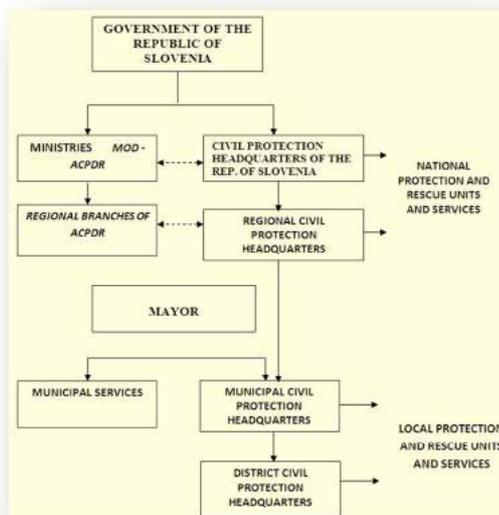
3 Organisation

3.1 Organisational chart

The fundamental tasks of the protection system of Slovenia are 1) prevention, 2) warning, and 3) protection against natural and other hazards through 4) rescue and relief operations during disasters, 5) provision of basic living conditions after disasters and 6) reconstruction measures.

The system has been built and includes the whole range of activities carried out on the national and local (municipal) levels.⁵⁷ Between, there is a regional level of administrative structures (so called urban municipalities, which are 13), aimed to provide better co-ordination when more than two local areas are affected by any kind of disaster. Moreover, beyond this structure, obligations to commercial companies, institutions and other organisations that, within the scope of their activities, are responsible for implementing emergency measures, and to citizens for their private protection have been established by above mentioned legal act.

At the state level, obligations and rights to introduce measures and take interventions have been assigned to the Government as a whole and to particular ministries. The leading role between them is for the Ministry of Defence – within its structure, the Administration of the Republic of Slovenia for Civil Protection and Disaster Relief (ACPDR) has been established by law in 1991 as the main national administrative body for disaster management.



⁵⁷ Municipalities in Slovenia are 211.

Figure 14. Organisational chart of the Slovenia’s disaster management system⁵⁸

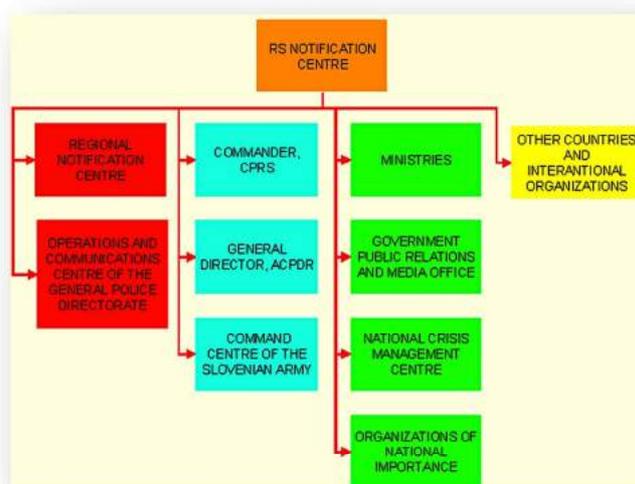
According to Slovenia’s report to the World Conference on Disaster Reduction,⁵⁹ the management and administration of the system has been layered the following way:

“The National Assembly lays down the basic guidelines for organising and implementing protection against natural and other disasters at the national level, adopts the national programme of protection against natural and other disasters and supervises its implementation, and secures funds for the reparation of the effects of major natural disasters.

The government guides and co-ordinates the organisation, preparation and implementation of protection against natural and other disasters at the national level, adopts the annual plan of protection against natural and other disasters and national protection and rescue plans, manages the protection, rescue and relief and reparation of the effects of major natural and other disasters, and regulates international disaster relief. The government also guides and co-ordinates the operations of the Ministries responsible for the implementation of measures and the prevention of natural and other disasters and their consequences, along with states of readiness and the adoption of measures in the areas under their jurisdiction.

Operational management of civil and other protection, rescue and relief forces is organised and carried out as a uniform national system. Civil Protection commanders, headquarters and heads of intervention and rescue units carry it out. The municipalities operate and manage the system of protection against natural and other disasters independently in their areas. Professional protection, rescue and relief tasks are carried out by the municipal administration.”

Within this architecture, the lines of command, control and reporting have been organised the following way:



⁵⁸ Source: EC Vademecum – civil protection, available at http://ec.europa.eu/echo/files/civil_protection/vademecum/si/2-si-1.html#orga

⁵⁹ Hyogo, 2005

Figure 15. Lines of communication⁶⁰

As a permanent co-ordinating body at national level, the Administration of the Republic of Slovenia for Civil Protection and Disaster Relief (ACPDR) is charged with the following administrative and technical duties:

- “Elaboration of proposals of research and development projects relating to the protection against natural and other disasters;
- Elaboration of the proposal of the national programme and plan of protection against natural and other disasters;
- Providing for the organization and operation of the monitoring, notification and warning system;
- Elaboration of threat assessments and other technical documents for the planning of protection, rescue and relief and directing and coordinating of measures for the prevention and mitigation of consequences of natural and other disasters;
- Monitoring and announcing of danger of natural and other disasters and giving instructions for handling;
- Elaboration of national emergency response plans in co-operation with ministries and governmental services;
- Organisation, equipment and training of national Civil Protection units and services and other protection, rescue and relief forces and provision of conditions for the work of the commander, the Headquarters of the Civil Protection of the Republic of Slovenia and the national and regional damage assessment committee;
- Monitoring and co-ordination of the organisation of the Civil Protection and other protection, rescue and relief forces;
- Elaboration of programmes as well as organization and delivery of education and training for protection, rescue and relief;
- Creation and maintenance of national material reserves for the case of natural and other disasters.”⁶¹

ACPDR is divided into six units and is based in Ljubljana:

- Office for Prevention and Operations:
 - Sector for monitoring and alarming, including National Notification Centre;
 - Sector for Planning, Operations and Damage Assessments;
 - Sector for Fire Prevention, Protection and Fire-fighting;
- Office for Education and Training:
 - Sector for Education and training;
 - National Training Centre for Civil Protection and Disaster Relief and Fire-fighting school;
- Sector for Information and Communication;

⁶⁰ Source: EC Vademecum – civil protection, available at http://ec.europa.eu/echo/files/civil_protection/vademecum/si/2-si-1.html#orga

⁶¹ Law on Protection Against Natural and Other Disasters, Art. 102.

- Department for General Affairs;
- Department for International co-operation and EU affairs.

The ACPDR has subordinated 13 other ACPDR-branches operating throughout Slovenia. Within each branch, there is a regional notification centre that performs a 24-hour duty service. Altogether, 300 people are employed at the ACPDR branches and notification centres.

Protection, rescue and relief forces at various levels (municipal, regional and national) are professional and volunteer and include also Civil Protection and certain companies, institutions and other organisations, which are, given the nature of their activities involved in this system:

- The volunteer forces are the volunteer fire brigade, Red Cross, Slovenian Caritas, divers, dog-handler units, girl and boy scouts, scouts, amateur, broadcasters, Mountain Rescue Service, Cave Rescue Service and others.
- Professional emergency services include professional fire-fighters, public health services, public social welfare services, public veterinary services, environmental laboratory, mine rescue units, emergency rescue for disasters connected to corrosive substances, mobile meteorological unit, public utilities, regional and government public services and contract organisation.
- Civil protection is organised as a specific and deliberate part of protection and relief system and includes first aid teams, units for veterinary first aid, technical rescue units, units for radiological, chemical and biological defence, services for maintenance and usage of shelters, unit for protection against unexploded ordnance, unit for triggering avalanches, rescue unit for rapid intervention and support services.

Duty bound units and services for the protection, rescue and relief operations are organised on the basis of civic duty (units and departments of Civil Protection service). According to the Regulation on Organising, Equipping, and Training Forces for Protection, Rescue and Aid the following structure has been established:

- Units for first aid;
- Units for the first veterinary assistance;
- Technical rescue units;
- Units for radiological, chemical and biological (RCB) protection;
- Units for protection against unexploded ordnance;
- Units for use shelters;
- Service triggering avalanches;
- Support Services;
- Civil Protection commanders and their deputies and staffs of the Civil Protection;
- Commissioners for Civil Protection and their deputies;
- Information centres;
- Logistics centres;
- Other units and departments.

Civil Protection itself is organised at the national level, regions, municipalities, institutions and commercial companies. At the state level the Headquarters of the Civil Protection of the Republic of Slovenia and the National Unit for Rapid Intervention (in Slovenian – EHI) have been established. The latter is designed to perform specific difficult tasks in the field of protection and rescue in Slovenia, and for providing international assistance to other countries in need. At the level of municipalities, staffs, units and departments of Civil Protection are organised differently. The structure depends of dominant regional threats, protection and rescue plans and the number of members of professional and volunteer units.

The Police and Slovenian Armed Forces are seen as “the last resorts” for natural and other non-violent disasters. According to the Law⁶², the Police participate in the tasks of protection, rescue and relief in accordance with the law, particularly in providing security, public order, public peace and cooperation in rescue operations by helicopters and other forces. Slovenian Armed Forces participate in the tasks of protection, rescue and relief in accordance with the law, their structure, equipment and ability. In carrying out the tasks aviation units, units for nuclear, chemical and biological defence, engineering units, medical service and other units (if they are not engaged in carrying out defence duties) are involved.

3.2 Organisational co-operation

At international level, in Slovenia, the importance of cross-border cooperation is considered in the five-year National Programme as the highest policy and planning document for disaster management, and defined in the main legislative act – the Law on Protection against Natural and other Disasters.

According to an official report, “Joint bilateral committees and sub-committees for cooperation between Slovenia and neighbouring countries have been established, such as joint committees led by directors-general of the competent national organisations and experts” sub-committees (i.e. for the prevention and preparedness of forest fires; early warning and notification, including the emergency call number 112; emergency response plans for joint risks at bordering regions; education and training).” Joint project teams have been established as well.⁶³

The principal areas of international organisational co-operation include:

- Early warning and notification on emergencies;
- Information exchange on hazards and emerging threats;
- Sharing of knowledge and experience;
- Joint education, training and exercises;
- Mutual assistance in case of disasters;
- Co-operation in international disaster response interventions;

⁶² Law on Protection Against Natural and Other Disasters, articles 14 and 79.

⁶³ Jeraj (2014) provides information on seven international projects.

- Co-operation within EU and NATO, and others.

Bilateral agreements have been signed with the neighbouring Austria, Croatia, Hungary, and Italy, as well as with the Czech Republic, Poland, Slovak Republic, Russian Federation. In addition, intensive bilateral co-operation, particularly in the field of education and training, is ongoing with France, Germany, Sweden and the United States of America. Standard operating procedures for fighting open space fires with Croatia are under development. In the SEE region, bilateral agreements have been signed with Bosnia and Herzegovina, Macedonia and Montenegro, and an agreement is negotiated with Serbia. Co-operation has been arranged also with Albania and Kosovo.

Slovenia is also very active in the regional DPPI SEE and, together with Croatia, led the Disaster Management Training Programme, in which more than thousand participants from South-Eastern Europe have been educated and trained in disaster management.

In Slovenia, the Administration of the Republic of Slovenia for Civil Protection and Disaster Relief is responsible to develop projects and research activities in support of the civil protection system improvement. It delivers a special emphasis on building capacity for mutual reinforcement at both horizontal (interagency) and vertical (state-regions-municipalities) operational levels.

The Administration is also co-ordinating and implementing the international co-operation activities of Slovenia in disaster management with neighbouring and other countries, as well as with regional initiatives, international organisations and the EU. It provides and co-ordinates rescue assistance in the event of major disasters abroad.

The 13 regional offices are the reference points of the Administration for specific regions of the country, defined on the basis of their natural and other hazards characteristics. They build the horizontal network for emergency co-ordination in normal situations, during emergencies, and for relief efforts. Notification Centres, that are components of each regional office, respond to emergency 112 calls and can activate all protection and rescue units, including the special units of the Fire Brigades in case of a need to provide technical rescuing in emergencies such as road traffic accidents, fires in tunnels, accidents with chemicals or other dangerous components, and so on.

4 Procedures

4.1 Standing Operating Procedures (SOPs) and Guidelines

The principal source of standing operating procedures (SOPs) is the Ministry of Defence of Slovenia as disaster management is under its supervision.

SOP for fire-fighting has been developed in 2011, when a document Operativni Taktični Postopki⁶⁴ (Tactical Operational Procedures) was adopted. It is about 13 professional fire departments, 1299 active volunteer fire fighting societies and 68 volunteer industrial fire fighting societies. They are linked in 120 local and regional fire-fighting associations, which are all covered by the umbrella organisation, the Fire Fighting Association of Slovenia. Every fire department has operational units, which are classified into a range of categories according to the risks of fire in concrete areas.

SOP for nuclear, radiological, chemical, and biological protection (Standardni operativni postopek (SOP) za jedrsko, radiološko, kemično, biološko (JRKB) zaščito) was adopted in 2007.

Under the umbrella agreement between the governments of Slovenia and Croatia on cooperation in protection against natural or civil disaster, signed in 1997, standard operating procedure for the Administration of the Republic of Slovenia for Civil Protection and Disaster Relief and National Protection and Rescue Directorate of the Republic of Croatia was introduced in 2014. SOP is about providing assistance with aircraft in cases of fires in open space. The document guides information sharing and co-operation procedures for providing cross-border assistance with specialised aircraft. It is aimed to allow faster and more co-ordinated response to potential fires, especially in the border area.

Other forms of SOPs are the plans for emergency response that are developed at state level and for each region. (See Chapter 4.2)

SOPs are provided also through officially issued by the Administration for Civil Protection and Disaster Relief instructions for citizens:⁶⁵

- Emergency food supply;
- Measures to take in the event of an earthquake;
- Measures to take in the event of a flood;
- Measures to take in the event of heavy snowfall;
- Protection against avalanches;

⁶⁴ The document is available in Slovenian language at <http://www.gasilec.net/modules/simplemod/datoteke/0-Operativno%20takticni%20postopki/RRN%20OTP.pdf>

⁶⁵ Hyperlinks to the instructions are provided.

- Protection against lightning;
- Measures to take in the event of a fire in the natural environment;
- Measures to take in the event of a fire in a building;
- Measures to take in the event of the use of chemical weapons;
- Measures in the event of an accident involving chlorine;
- Protection against radiation;
- Measures to take in the event of the outbreak of a communicable disease;
- Measures to take in the event of an airstrike;
- How to prepare and use a shelter/refuge;
- Measures to take if you encounter unexploded ordnance;
- First psychological aid;
- Giving first aid;
- How to ensure healthy drinking water.

SOPs have been tested by both national and international exercises and through international exchange in forms of seminars and conferences.

4.2 Operations planning

State bodies, local communities, commercial companies and other public organisations (schools, institutions caring for special groups of people, medical institutions, institutions for the protection of cultural heritage, etc.) draw up protection and rescue plans. The plans have to be drawn up in accordance with the Decree on Content and Drawing up of the Plans for Protection and Rescue. The relevant responsible bodies must adopt the plans – the Government adopts national protection and rescue plans, and local community plans – by mayors. The adopted protection and rescue plans have to be made public, particularly to threatened people and to other publics with a vested interest.

Protection and rescue measures must be drawn up for each individual type of disaster. The plans should define:

- Individual type of disaster for which plan is elaborated;
- Extent of planning;
- Concept of protection, rescue and disaster relief for the disaster for which plan was elaborated;
- Management and leading;
- Measures and tasks of protection, rescue and relief;
- Personal and mutual protection;
- Explanation of terms and abbreviations;
- Necessary forces and means and resources available;
- Organisation and implementation of monitoring, warning and alarming;
- Mobilisation of forces and resources.

Supplements and attachments to the plan are:

- Plans of activities of executors of the protection and rescue;
- Database needed for implementation of the plan;

- Program of qualification, training and exercises;
- Instruction for maintenance and distribution of protection and rescue plan

The national protection and rescue plans are drawn up by the Administration of the Republic of Slovenia for Civil Protection and Disaster Relief in co-operation with the ministries and other national bodies. On the national level, protection and rescue plans for the potential large-scale disasters are drawn up that could affect several communities or regions. The following plans have been prepared:⁶⁶

- Emergency Response Plan in the event of Aircraft Accident;
- Emergency Response Plan in the event of an Earthquake in the Republic of Slovenia;
- Emergency Response Plan in the event of Floods;
- Nuclear Emergency Response;
- Emergency Response Plan in the event of Railway Accident;
- Emergency Response Plan in the event of Accidents at Sea;
- Emergency Response Plan in the event of Terrorist use of Weapons or Means of mass Destruction and/or in the event of Terrorist Attack with Conventional Means;
- Protection and Rescue Plan in a case of multiplicative appearance of contagious disease at animals;
- Military Aggression Protection and Rescue Plan.

Plans are drawn up based on the following information:

- Risk assessments;
- Analysis of vulnerability;
- Studies.

Planning scheme reflects the levels of the civil protection system and includes:

Table 3. Levels of disaster management planning⁶⁷

Threat, disaster	Company	Municipality (local)	Urban municipality (region)	State (national)
Earthquakes	-	X	X	X
Floods	-	X	X	X
Heavy snow	-	X	X	X
Fires	X	X	-	-
Landslides and avalanches	-	X	X	-
Nuclear accidents	X	X	X	X
	X	X	X	X

⁶⁶ Hyperlinks to the available plans are provided.

⁶⁷ Sources: Hyogo, 2005, p. 25 and website of the Administration of Civil Protection and Disaster Relief <http://www.sos112.si/eng/page.php?src=na1.htm>

	X	-	X	X
	X	X	X	-
	-	X	X	-
	X	-	-	-
	X	-	-	-
Contagious disease at animals	X	X	X	X
	-	X	X	X

4.3 Logistics support in crises

The Slovenian authorities see logistics as one of the emergency management systems along with monitoring, information, and communication systems. It is determined by the Law on Protection Against Natural and Other Disasters and has been established through the mechanism of the National Programme of Protection Against Natural and Other Disasters (Art. 41).

The Law prescribes eventual military logistics support from the Slovenian Armed Forces under the following conditions: “Where the available forces and resources are insufficient in order to carry out the necessary rescue and relief operations, armed forces and defence resources may be deployed, provided that such armed forces are not indispensable for defence operations.” (Art. 14)

Administration of the Republic of Slovenia for Civil Protection and Disaster Relief is responsible for organisation and equipping of national civil protection units and services, provision of guidelines for the development and readiness of all public rescue services within national jurisdiction and co-funding of fire-fighting units that are of great importance for society and other organizations and societies. Under its command, the National Logistic Centre is dedicated to create and maintain relevant as quantity and specifications national reserves of material assets for protection, rescue and relief purposes.

The Slovenian Armed Forces include a Logistics Brigade (deployed in the town of Kranj), which is able to provide logistics support in case of any type of natural or man-made disaster. It includes two logistics regiments and a Military Medical Unit. Despite that the brigade itself is not deployable abroad, the Slovenian military are engaged in an active international co-operation with the US and other NATO forces on emergency logistics not only for wartime, but also for delivery of humanitarian support abroad.

4.4 Crisis communication to general public; Alert system; Public Information and Warnings

The monitoring, notification and warning system is comprised of monitoring network, notification centres, computer support and telecommunications service and warning. The Administration for Civil Protection and Disaster Relief is the headquarters of the communications and information support.

The Slovenian national report and information on disaster reduction for the world conference on disaster reduction provides the following information about the country's crisis communications:

“A uniform (autonomous) system of operational radio communication (ZARE) and personal calls (pagers) is used in the administration of protection, rescue and relief operations. The ZARE is used by all rescue services. The communication centres of this system are located in regional information centres and are used to connect users to public and other telecommunication systems.

The ZARE radio communication system operates in the VHF range. There are 32 semi-duplex channels available for over 40 upper transmission layer repeaters and 36 simplex channels for direct connections. The pagers system consists of 40 upper layer transmitters and 50 lower layer transmitters. The ZARE system provides adequate protection against disturbance (sub-tone) and abuse (ID code). Plans for a gradual transition to a new beam radio communication system have been established.

Computer network and information support integrate all 13 regional notification centers and the Education, the Training Center, and the Administration for Civil Protection and Disaster Relief into one computer network. It serves the needs of the centers so they can ensure protection against natural and other disasters. For major connections, we use leased virtual transmission ways via the Internet, which allow for a smooth increase in transmission speed on an as needed basis. Information support is provided through tailor made computer applications in the regional notification centers, such as the Geographic Information System (GIS-Ujme), the sound alarm management and triggering system (DUNJA), the system for the acceptance of telephone calls (ROK), the radio traffic control system (KCO8), the radio network control system (Nadzor ZARE) and the pager system (ZAPP). All the systems are linked into a uniform application used for the management of interventions (SPU112). There are also web applications available in the computer network, such as GIS and hazardous materials.”⁶⁸

The 112 emergency call number has been used in Slovenia since the beginning of 1997. All citizens can use this number in an emergency or if they need a fire brigade, emergency first aid or aid from any other rescue services. In addition, by dialling this number, people can obtain other important information on weather, water, snow and other conditions, disturbances and interruptions in the supply of potable water and electrical and other energy sources and other areas of life importance. According to the Slovenian Ministry of Defence's annual report for

⁶⁸ Hyogo, 2005, p. 16-17

2011, a StatKlic application was introduced in 2011 and the E-CALL upgrade should have been completed in 2012.

5 Capabilities

5.1 Human resources

Human resources for civil protection in Slovenia are managed under the Government's Decree on the Organisation, Equipment and Training of Protection, Rescue and Relief Forces of 2007 (amended in 2009 and 2011) and the Decree on Service in Civil Protection (2008).

According to the Ministry of Defence, at the end of 2011, the Civil Protection had listed a total of 43 675 members of the Protection, Rescue and Relief forces (PRR). Of them, there have been 25 560 members of duty units and 18 115 volunteers. National PRR forces have consisted of 840 professionals, 1 200 volunteers and more than 1 450 members of duty units.

At the state level, the number of personnel of the Headquarter of the Civil Protection of the Republic of Slovenia and the National Unit for Rapid Intervention (See Chapter 3.1.) is as follows:

Table 4. State level Civil Protection personnel⁶⁹

Structure		Number of personnel
Headquarter of the Civil Protection of the Republic of Slovenia		21
National Unit for Rapid Intervention		176
From them	Command	7
	Unit for Technical Rescue	73
	RCB Protection Unit	23
	Unit for First Medical Aid	8
	Unit for Technical Diving	20
	Unit for Supplying	39
	Section for Electricity	4
	Section for water	2

The members of the Civil Protection are delivered through the regions in the following way:

Table 5. Civil Protection members by regions (2008)

Region	Number of contractors
Brežice	115
Celje	132

⁶⁹ Source: Sistem Varstva Pred Naravnimi in Drugimi Nesrečami, www.sos112.si/db/priloga/p6709.doc

Koper	102
Kranj	117
Ljubljana	120
Maribor	121
Murska Sobota	104
Nova Gorica	124
Novo Mesto	100
Postojna	103
Ptuj	100
Slovenj Gradec	107
Trbovlje	106

However, the report states that due to budgetary constraints, the Administration for Civil Protection and Disaster Relief is far from providing the necessary highly qualified professional staff even for the most critical duties.

Protection, rescue and relief tasks are performed by volunteer and other nongovernmental organisations and their operational units in response to decisions made by the competent body at local or national level if they meet the required personnel and material/technical conditions. According to the national report and information on disaster reduction for the world conference on disaster reduction, these organisations include:

- Slovenian Fire-fighting Association: There are approximately 1,300 volunteer fire brigades in Slovenia, with approximately 120,000 members. All fire brigades include a fire-fighting unit trained and equipped to extinguish fires and provide rescue services in the event of a fire or other disaster. The fire-fighting units include 40,000 operational volunteer fire-fighters, nearly 500 professional fire-fighters and 300 professional fire-fighters that work in industrial institutions. Fire brigades are linked together by municipal and regional fire-fighting associations, which together form the Slovenian Fire-fighting Association. The Slovenian Fire-fighting Association became a member of CTIF (International Technical Committee for the Prevention and Extinction of Fire), the international fire-fighting organisation in 1992.
- Slovenian Red Cross: As a non-governmental, non-political non-profit humanitarian organisation, the Slovenian Red Cross is primarily responsible for the areas of health and social welfare. Its volunteers see to the implementation of social welfare, health education and first aid programmes, blood donation, investigation services, and assistance to high-risk groups within the population. The law authorises the Red Cross to provide first aid training for Civil Protection staff members, and, in the event of natural and other disasters, blood donation, investigation services, and providing accommodation and care for homeless and other people at risk. The Slovenian Red Cross is comprised of 800,000 volunteers and supporting members. It has been a member of the international Red Cross Movement since 1993 and is a member of the International Committee of the Red Cross and the International Federation of Red Cross and Red Crescent Societies.

- **Caritas of Slovenia:** Caritas of Slovenia is a charity institution of the Roman Catholic Church in Slovenia. Its activities are distributed among diocese and parish Caritas organisations. Its purpose is to perform charity and social welfare activities within the Slovenian Church and society, particularly related to response to the results of natural and other disasters both in Slovenia and throughout the world. Caritas of Slovenia is a member of both the international and European Caritas organisations.
- **Slovenian Mountain Rescue Service:** The Slovenian Mountain Rescue Service is established by law as a public rescue service of national importance. It is organised in the form of 17 stations that cover the entire Slovenian Alpine and Sub-Alpine regions. More than 660 volunteer mountain rescuers operate the stations. The Slovenian Mountain Rescue Service was formally recognised by the International Mountain Rescue Commission (IKAR) in 1992, although the Slovenian Mountain Rescue Service has co-operated actively with this Commission and was the representative of all Yugoslav mountain rescuers from 1955 on.
- **Slovenian Cave Rescue Service:** The Slovenian Cave Rescue Service is organised in seven Rescue Centres and a Republic Rescue Centre through the Slovenian Speleological Association. The law has also established the Slovenian Cave Rescue Service as a public rescue service at the national level. It is comprised of 53 cave rescuers. It became a member of the International Speleological Association – Cave Protection Commission (UIS) in 1993.
- **The Slovenian Canine Association and the Slovenian Federation of Associations of Rescue Dog Handlers:** In Slovenia, there are 62 sport and 18 hunting canine associations, with a total of 7,500 members. These associations are linked to the Slovenian Canine Association and the Slovenian Federation of Associations of Rescue Dog Handlers. More than 150 rescue dog handlers, members of canine associations, are involved in rescues from rubble and landslides. The Slovenian Canine Association was accepted into the International Canine Federation (FCI) in 1992. The Slovenian Federation of Associations of Rescue Dog Handlers became a member of the International Rescue Dogs Organisation (IRO) in 1995.
- **Slovenian Federation of Divers:** There are 21 associations with 1,200 volunteer divers, of whom 62 are instructors and 27 specialist physicians. The associations and their federation have jointly organised an underwater rescue service, intended to provide rescue services from and on water. More than 90 volunteer divers are involved in underwater rescue activities. The Slovenian Federation of Divers became a member of the World Underwater Association (CMAS) in 1993.
- **Slovenian Scout Association and the Slovenian Association of Catholic Scouts:** Scouts are organised in branches and other organisational forms of camping and Scouting associations, and are linked to the Slovenian Scout Association and the Slovenian Association of Catholic Scouts. All together, they include 12,000 Scouts. Through their activities, scouts systematically develop their level of preparedness to help people in the event of natural and other disasters. Their task is primarily to set up tents and other temporary shelters for people who are left without safe accommodation in the event of a disaster. Slovenian Scout Association was accepted into the World Organisation of Scouting Movements (WOSM) in 1994.

- Association of Slovenia Radio-Amateurs: In Slovenia, there are 90 amateur radio-operator clubs with a membership of more than 7,000 volunteer amateur radio operators. Amateur radio operators can provide supplementary radio communications systems in municipalities for protection and rescue needs in the event of a mass disaster. They can also participate in providing information to the international public of the consequences of the disaster and the aid needed. The Association of Slovenian Radio-Amateurs became a member of the International Amateur Radio Union (IARU) in 1992.”⁷⁰

5.2 Materiel (non-financial) resources

Material resources for civil protection and disaster relief are provided under the Decree on Minimum Personal and Collective Protection Resources and Equipment in the Event of Natural and Other Disasters and War of 1992. Head manager of the material reserves is the Administration of the Republic of Slovenia for Civil Protection and Disaster Relief. In the last decade, the Administration systematically enhanced the national commodity reserves, which according the Law, are provided through the Institute for Commodity Reserves. Those resources are stored in the National Logistics Centre in Roje in Ljubljana and in the warehouse of commodity reserves in Zalog. In the National Logistics Center in Roje the following equipment has been accumulated as state commodity reserve: readers, dosimeters, special suits, safety masks, safety, respirators, gloves, special protective boots, water containers, decontamination means and equipment, etc.

In the context of the national commodity reserves, the Government of Slovenia has implemented a program to ensure the nuclear, biological, and chemical protective equipment for the population in the years 2008 to 2013 and provides funding for the stocks of medicines and the necessary quantity of potassium iodide tablets. For example, in 2011 a total of € 713 191 were spent for the purchase of masks for children and youth, protective gowns, dosimeters with readers, decontamination assets, devices and tools, radiological detectors, mobile medical unit equipment, and other means of protection.

According to the Law on Protection Against Natural and Other Disasters available defence resources might be used to carry out the necessary rescue and relief operations if the civilian resources are insufficient and the military are not indispensable for defence operations. (Art. 14)

Article 85 of the Law on Protection Against Natural and Other Disasters regulates the special powers, mandated to the Civil Protection commanders in cases of emergencies. It states (between others) that in the course of protection, rescue and relief the Civil Protection commander or incident commander shall have the right to order that:

⁷⁰ Hyogo, 2005

- “... private means of transport be made available and used for the transportation of injured persons or required means of protection, rescue and relief;”
- “private premises be used for the purposes of protection, rescue and relief;”
- “premises be used as a temporary storage site for debris, soil and other material produced during the performance of protection, rescue and relief duties aimed at provision of basic living conditions;”
- “buildings be demolished or trees be cut.”

Table 6. Education and training on protection against natural and other disasters

Education (As part of the educational process)		Training	
Elementary schools	Basic knowledge about natural and other disasters and protection against them.	Training of the citizens for personal and mutual protection	<p>Training and preparation on personal and mutual protection and implementation of the required protective measures is a legal duty of citizens;</p> <p>Training of residents on personal and mutual protection and on implementation of the required protection measures is conducted as an optional form of training, particularly through educational radio and television broadcasts, news and educational materials received at home, public presentation of plans for protection and rescue, and monitoring of practical exercises.</p> <p>This training is organised by the competent national authorities and municipalities in accordance with the threat of the environment.</p>
Secondary and university education	Knowledge on protection against natural and other disasters in accordance with educational objectives and learning content of the programmes.	Training of volunteers in rescue services	<p>- Training of volunteers in the fire brigade, mountain rescue service, cave rescue service, underwater rescue and other services is organized and conducted by voluntary organizations that organize this services.</p> <p>This training is conducted with accordance to the programs, prescribed by the Minister of defence.</p>
		Training of Civil Protection (CP) units	<p>- Training of the CP comprises introductory, basic and advanced training. Introductory and basic training should not exceed 15 days, while advanced must not last more than five days (usually in non-working days).</p> <p>- Advanced training is done through practice as well as examination of the participants’ skills.</p>

			- Training is conducted in accordance to the programs, prescribed by the Minister of defence.
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Such measures “...may only be ordered, where no other measures can ensure the protection of people and property and the performance of protection, rescue and relief, and shall apply no longer than absolutely necessary.”

The responsibility of the Civil Protection commander for using private and corporate assets is regulated by paragraph 5 of the same Article in the following way:

“Normally, records shall be kept of decisions made by a Civil Protection commander or incident commander. For decisions with bigger financial implications, written orders shall be issued. Circumstances permitting, the written order shall be issued as soon as possible. In urgent cases Civil Protection commander or incident commander shall have the right to order owners or users of residential and other accommodation facilities that they provide temporary shelter and care for threatened persons until a decision has been made by the Mayor.”

5.3 Training

Education and training on behaviour in cases of different emergencies is a national priority as a core component of disaster preparedness and nation’s resilience. It well regulated by the Law on Protection Against Natural and Other Disasters where a special Chapter (XIII) with six articles is dedicated to education and training. Organisation of education and training includes the following elements:

The main training institution is the Centre for Civil Protection and Disaster Relief of the Republic of Slovenia – a division of the Administration of the Republic of Slovenia for Civil Protection and Disaster Relief. Being operational since 1993, the Centre is responsible for the development and evaluation of training programmes and prepares training materials for Civil Protection members, members of units, services and other operational systems of associations and other non-governmental organizations, commercial companies, institutions and other organisations. It also organises training forms within international organisations, mostly NATO, EU, UN and in regional format. It provides professional publishing support for the “Ujma” national magazine, which addresses issues of disaster management. The Training Centre has a legal mandate to engage in testing of protection and rescue equipment.



Figure 16. Pictures from training polygons at the Centre for Civil Protection and Disaster Relief of the Republic of Slovenia⁷¹

5.4 Procurement

5.4.1 Procurement regulation

Slovenia's public procurement policy has been progressively harmonised with both EU directives and World Trade Organisation Government Agreement (GPA) since 2000. Recently, public procurement in Slovenia is regulated by the following legislation:

- The Public Procurement Act which lays down the procedures for the procurement of goods, services and works, which must be obeyed by public procurement authorities and providers, who submit a bid.
- The Public Procurement in the Water, Energy, Transport and Postal Services Sector Act covering procedures for public purchasing in the water, energy, transport and postal services sector, and
- The Review of the Public Procurement Procedures Act which lays down the laws and other regulations relating to procedures concerning the award of public contracts and the means of implementing EU legislation.

Applied to all state institutions and local administration, public undertaking and utilities, including those related to protection against natural and other disasters, "... the Public Procurement Act has increased protection for bidders, unified all procedural requirements and eliminated the 10% preference for domestic bidders. The Act established an independent

⁷¹ Source: web site of the Administration of the Republic of Slovenia for Civil Protection and Disaster Relief, <http://www.sos112.si/eng/page.php?src=iz1.htm>

body, the National Review Commission (NRC) whose members are appointed by Parliament to ensure their independence.”⁷²

According to the Law on Protection Against Natural and Other Disasters (Art. 102) for the aims of providing protection, rescue and relief the Administration for Civil Protection and Disaster Relief has the right to provide the affected population with relief resources, specific protection and rescue equipment and tools free of charge. It also permitted by that Law, selected protection and rescue equipment and tools to be reassigned free of charge to units, services and operational structures. However, for any free of charge delivery the Government or the Minister of Defence and other ministers should take decision.

5.4.2 Procurement procedures

The legislation on public procurement in Slovenia provides several options for the contracting authorities to open up a public procurement using one of the following procedures:

- Open procedure;
- Procedure with prior verification of eligibility (qualitative selection);
- Competitive dialogue;
- Negotiated procedure without publication of a contract notice;
- Negotiated procedure with prior publication of a contract notice;
- Procedure for collecting bids after prior call for competition;
- Procedure for collecting bids.

According to the legislation, any contracting authority must send notification of an intended procurement to the Office of the Official Publications of the European Communities, which will publish it, and to the Public Procurement Portal, if a procurement without VAT amounts to the following values:

- EUR 133,000 for procurement in goods and services, if the contracting authorities are State authorities or local councils,
- EUR 206,000 if goods and services are purchased by another contracting authority,
- EUR 5,150,000 for public procurement in construction works.
- For public procurement in the water, energy, transport and postal services sector the threshold amount for goods and services is EUR 412,000 and for construction works EUR 5,150,000.

However, the thresholds are different for each procedure, and for each type of public procurement, in particularly in the field of defence. Detailed provisions are laid down in the Public Procurement Act and in the Decision on the publication of thresholds for public procurement procedures.

This Act also created a single central administration for public procurement – Public Procurement Office. It is in charge for implementation of all kind of procurement procedures,

⁷² OECD, 2009

provides analyses of the procurement situation in the country and abroad and co-operates with EU, WTO and other international governmental organisations as well as with the NRC.

Slovenia has a completely developed and fully operational single information portal on public procurement managed by the Ministry of Finance. The state and local authorities are obliged by the Law to publish on that portal all public tenders- related information. The portal provides standardised web application and variety of administrative elements in electronic format as receipt-and-delivery system application, e-payments, e-serving, e-signature, e-awarding of contracts and e auction. According to web-based information,⁷³ on the procurement portal have to be published announcements for:

- Procurement of goods and services by Public Procurement Act subject, with a value equal to or greater than EUR 20,000;
- Works contracts awarded by Public Procurement Act subject, with a value equal to or greater than € 40,000;
- Procurement of goods and services by Public Procurement in the Water, Energy, Transport and Postal Services Sector Act subjects, whose value is equal to or greater than € 40,000;
- Works contracts awarded by Public Procurement in the Water, Energy, Transport and Postal Services Sector Act subjects, whose value is equal to or greater than € 80,000.

Announcements should include:

- Prior information notice or periodic indicative notice
- Contract notice small value,
- Contract award notice small value,
- Notice of contract by tendering procedure with prior publication,
- Notice of award of the contract by tendering procedure with prior publication,
- Contract notice,
- Contract award notice,
- Notice of competition,
- Results of the competition,
- Voluntary ex ante transparency notice,
- Simplified contract notice on a dynamic purchasing system
- Notice of the system of qualification
- Notice of award of individual contracts based on framework agreement
- Notice for additional information, information on incomplete procedure or corrigendum.

In terms of exception from the general public procurement regulations, the Law on Protection Against Natural and Other Disasters (Art. 85, paragraphs 4 - 6) provides a Civil Protection commander or incident commander with the right to order urgent construction, technical and other works to commercial companies, institutions or other organisations with which the national or local authority has signed a contract on the performance of specific operational

⁷³ Available in Slovenian language only at <http://www.enarocanje.si/?podrocje=portal>

protection and rescue duties. In the absence of such entities, a Civil Protection commander or incident commander might order that private or legal subjects, who have adequate equipment or capabilities, perform these duties. The order shall be written, or if the circumstances do not allow, in exceptional circumstances, oral. In this case a written order shall be issued as soon as possible. The order shall determine the type and scope of work that needs to be done. For decisions with bigger financial implications, written orders shall be issued.

5.5 Niche capabilities

The Slovenian civil protection system has specifics that make it different from the European experience, but they reflect the country's realities and traditions. There are several principal areas of excellence that may be used within EU context and format:

- Slovenia has a well-established disaster management planning process for the nine separate hazards, based on scenarios. Especially advanced is the emergency response plan covering disasters.⁷⁴
- Public engagement on regular and uniformed bases in disaster preparedness and response is a national tradition and value. Legal acts, guides and instructions support the specific focus on both individual capacities and collective assistance.
- Education and training on behaviour in emergency is life long and well managed. The European Emergency Number association has acknowledged the training in Slovenia on the use of 112.
- The communication and information sharing and the alerting systems are at highest European level of quality.
- Slovenia has well established and maintained capacity for mountain and cave rescue operations.

⁷⁴ UNISDIR, 2008

Resources

Legislative acts

Act amending the Act on the Protection against Natural and other Disasters. Official Gazette of the Republic of Slovenia No 28/06

Act on the Protection against Natural and other Disasters. Official Gazette of the Republic of Slovenia No 64/94. Available at <http://www.sos112.si/db/priloga/p4360.pdf>

Constitution. Official Gazette of the Republic of Slovenia Nos. 33/91-I, 42/97, 66/2000, 24/03, 69/04, 68/06, and 47/13. Available at <http://www.us-rs.si/media/constitution.pdf>

Environment Protection Act. Official Gazette of the Republic of Slovenia No 41/04

Fire Protection Act (official consolidated text). Available at <http://www.sos112.si/db/priloga/p4361.pdf>

Material Obligation Act. Official Gazette of the Republic of Slovenia No 87/01, 08. 11. 2001, Spatial Planning Act (Zpnačrt), www.uradni-list.si/1/objava.jsp?urlid=200733&stevilka=1761

Public Administration Act. Official Gazette of the Republic of Slovenia No 52/02

Public Procurement Act (ZJN-2). Available at <file:///Users/valeriratchev/Downloads/PPA-2.pdf>

Removal of Consequences of Natural Disasters Act. Available at www.uradni-list.si/1/objava.jsp?urlid=200375&stevilka=3620

Other normative acts

Decree on Fire Insurance Tax. Official Gazette of the Republic of Slovenia No 34/06

Decree on Minimum Personal and Collective Protection Resources and Equipment in the Event of Natural and Other Disasters and War. Official Gazette of the Republic of Slovenia No 32/92

Decree on Protection from Fire in a Natural Environment. Official Gazette of the Republic of Slovenia No 4/06

Decree on Providing Protection, Rescue and Relief from Aircraft. Official Gazette of the Republic of Slovenia No 46/98

Decree on Shelter Construction and Maintenance. Official Gazette of the Republic of Slovenia No 57/96

Decree on the Organisation and Functioning of the Monitoring, Notification and Alarm System. Official Gazette of the Republic of Slovenia No 105/07

Decree on the Organisation, Equipment and Training of Protection, Rescue and Relief Forces. Official Gazette of the Republic of Slovenia No 92/07, amended in 2009

Regulation of Fire Order. Official Gazette of the Republic of Slovenia No 52/07

Regulation on Fire Safety in Buildings. Official Gazette of the Republic of Slovenia No 31/04, amended in 2005 and 2007

Regulation on Protection from EOD – Explosive Ordnance Disposal. Official Gazette of the Republic of Slovenia No 21/03

Regulation on the Conditions which must be met by Educational Institutions Providing Training in Protection Against Natural and Other Disasters. Official Gazette of the Republic of Slovenia Nos 16/96 and 31/97

Regulation on the Methodology of Assessing Damage, www.uradni-list.si/1/objava.jsp?urlid=200367&stevilka=3224

Resolution on The National Programme of Protection Against Natural and Other Disasters 2009-2015, http://zakonodaja.gov.si/rpsi/r05/predpis_RESO65.html

Official documents (white papers, strategies, etc.)

Annual Report of the Ministry of Defence for 2011 (Ljubljana, 2012). Available at http://www.mo.gov.si/fileadmin/mo.gov.si/pageuploads/pdf/javne_objave/2013/AR_MOD_2011.pdf

Doctrine on Protection, Rescue and Relief. Government of the Republic of Slovenia, 2002. Available at <http://www.sos112.si/db/priloga/p4359.pdf>

Operativni Taktični Postopki, Ministry of Defence (2011) <http://www.gasilec.net/modules/simplemod/datoteke/0-Operativno%20takticni%20postopki/RRN%20OTP.pdf>

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Standardni operativni postopek (SOP) za jedrsko, radiološko, kemično, biološko (JRKB) zaščito, Ministry of Defence, 2007.

Online resources (e.g. websites of key CM organizations)

Administration of the Republic of Slovenia for Civil Protection and Disaster Relief (ACPDR), <http://www.sos112.si/eng/>

Agency for Radwaste Management (ARAO), <http://www.arao.si/resolutions>

Agency of the Republic of Slovenia for Agricultural Markets and Rural Development, www.arsktrp.gov.si/en

Anton Melik Geographical Institute (Scientific Research Centre of the Slovenian Academy of Sciences and Arts), <http://giam.zrc-sazu.si/?q=en>

Building and Civil Engineering Institute (ZRMK Institute), Department of Geotechnical Engineering and Geology, <http://www.gi-zrmk.si/CZGG/Default.aspx>

EHO project, http://ehoprojekt.si/component/option,com_frontpage/Itemid,1/

Elektro-Slovenija, d.o.o. (ELES), www.eles.si/en

Faculty of Civil Engineering and Geodesy, www2.fgg.uni-lj.si/

GeolInženiring, www.geo-inz.si

Geological Survey of Slovenia, www.geo-zs.si/podrocje.aspx?langid=1033

Institute for Water of the Republic of Slovenia, www.izvrs.si

Ministry of Defence, <http://www.vlada.si/en/>

Ministry of the Environment and Spatial Planning, www.mop.gov.si/en

Public procurement portal, <http://www.enarocanje.si/default.asp?podrocje=portal>

Slovenian Nuclear Safety Administration's (SNSA), <http://www.ursjv.gov.si/en/>

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Expert interviews



Driving Innovation in Crisis Management for **European Resilience**

SPAIN

Capabilities, Organisations, Policies, and Legislation (COPL) in crisis management and disaster response

Responsible Partner: ATOS (Adem Yaşar Mülayim)

Scope and limitations

This study serves as supporting information for further work within DRIVER.

Only limited time and budget has been available for this first general survey, which needs to be considered in terms of scope and completeness of the respective studies.

The author/s of this study is/are responsible for its content and quality.

Overview

Spain has 17 autonomous regions and 2 autonomous cities; Andalusia, Aragon, Asturias, Balearic Islands, Ceuta, Canary Islands, Cantabria, Castilla-La Mancha, Castilla y Leon, Catalonia, Valencian Community, Extremadura, Galicia, La Rioja, Madrid, Melilla, Murcia, Navarra and Basque Country.

In Spain, civil protection is defined as the physical protection of the population and goods in cases of severe risk, public calamity, or extraordinary catastrophes in which the lives and physical integrity of the people are endangered. The national civil protection authorities are responsible for the overall coordination of emergencies.

Under law 2 of 21 May 1985, civil protection is a public service requiring the participation of the citizens, as well as the cooperation of the different administrations at the local, regional (provinces and autonomous regions) and state levels. Civil protection is meant to take necessary action in order to avoid, reduce or repair the potential effects on people, property and the environment, of situations of disaster or major collective risks. The structure of the Central Administration of Civil Protection is in the 2/85 Law on Civil Protection

In 2006, the Military Emergencies Unit was created by the Real Decreto 416/2006 (Royal Decree 416/2006) on April 11, 2006. The Military Emergencies Unit (Unidad Militar de Emergencias, UME) is a branch of the Spanish Armed Forces responsible for providing disaster relief throughout Spain mainly and abroad if required.

National crisis management & disaster response concept:

The civil protection structure coincides with the administrative structure. The Spanish system consists of three main components:

1. The Delegate Commission of the Government for Crisis Situations (CDGSC or the Crisis Cabinet);
2. The National Civil Emergency Planning Committee (NCEPC), an inter-ministerial support body; and
3. The Department for Civil Defence.

The Delegate Commission of the Government for Crisis Situations was established in 1986. It consists of the Prime Minister and the Deputy Prime Ministers. The task of the Crisis Cabinet is to direct and coordinate all actions related to the prevention, control and management of crises. Decision-making responsibilities lie with the Prime Minister.

The National Civil Emergency Planning Committee (CNPCE), an inter-ministerial support function to the Crisis Cabinet, is mainly concerned with tasks related to the provision and implementation of resources in situations of crisis or emergency. The CNPCE has a coordinating role in Spanish Civil Protection and sits at the top of Civil Defence's organisational structure. The Committee is composed of the Crisis Cabinet Secretary (President), the Director General for Defence Policy (First Vice President), the Director General for Civil Protection and Emergencies (Second Vice President) and the Under Director for Civil Preparedness (Secretary). Some of the other members are the Director of the Crisis Staff Department and the Committee President's Advisor on Defence and Security.

The Civil Protection structure at the state level starts at the Directorate General of Civil Protection and Emergencies (Dirección General de Protección Civil y Emergencias -DGPC), under the Minister of

the Interior. The DGPC is the State administrative unit in charge of the preparedness and response in case of natural and technological disasters.

At the National Civil Protection System, the Military Emergency Unit (UME) plays a key role as a joint force, organized on a permanent basis, whose mission is to intervene anywhere in the national territory in the event of serious risk, catastrophe or public calamity.

Spain has bilateral agreements with Portugal, France, Morocco, Tunisia, Argentina, Mexico, Uruguay, Ecuador

Key stakeholders: CDGSG, CNPCE, GDPC, UME, Civil Protection Agents (e.g. fire brigades, security forces, armed forces, maritime and aeronautical authorities, health services, etc.), Red Cross, Public governance, autonomous communities and municipalities, volunteer organisations.

Niche crisis management capabilities of interest to the EU and other MSs:

RENEM: REd Nacional de Emergencias (<http://portal.renem.es/default.aspx>) national emergency network which integrates emergency systems in Spain

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List of Abbreviations

CDGSC	The Delegate Commission of the Government for Crisis Situations
NCEPC	National Civil Emergency Planning Committee
DGPC	Directorate General of Civil Protection and Emergencies (Dirección General de Protección Civil y Emergencias)
ENPC	National Civil Protection School (Escuela Nacional de Protección Civil)
UME	Emergency Military Unit (Unidad Militar de Emergencias)
UN	United Nations
UNISDR	The United Nations Office for Disaster Risk Reduction

1 Policy

1.1 National Strategy

The protection from emergencies and disasters is defined as one of the priority areas of actions within the 2013 National Security Strategy¹. The objective in this area is to establish a National Protection System for citizens that guarantee a suitable response to different types of emergencies and disasters stemming from natural causes or from human action, whether accidental or deliberate.

The following lines of action are defined in order to provide a framework for the specific actions required to preserve national security related to the protection from emergencies and disasters:

1. Adopt an approach that integrates and strengthens the actions of the Central Government, Autonomous Regions and Local Authorities – particularly in the detection, planning and development of actions vis-à-vis emergencies and disasters – in order to ensure preventive action, an appropriate response and an efficient use of the limited resources available. These actions will be based on the principles of caution and prevention, collaboration and cooperation, coordination, inter-territorial solidarity, subsidiarity, efficiency, participation and equality.
2. Establish a frame of reference in this field that is conducive to promoting and coordinating efforts, establishes priorities and optimises resources in order to achieve common objectives.
3. Update and improve the legal framework for protection from emergencies and disasters, with emphasis on the preventive approach in order to avert or mitigate the possible adverse impact of these situations.
4. Establish protocols for coordinated action for the different parties involved.
5. Establish a national warning network for natural (including seismic), environmental, epidemiological and technological risks in order to improve the coordination of the different early warning organisations under a multi-risk approach. The ultimate aim is to create an intelligent network system for planning that allows the different risks to be identified, assessed, prevented and mitigated.
6. Maintain directories of resources for effectively managing the healthcare response in emergency and disaster situations.
7. Promote a culture of prevention among citizens, including self-protection knowledge and attitudes, in order to strengthen resilience to sudden and unexpected emergencies. Prevention education programmes for schools will also be promoted.
8. Contribute to greater European and international cooperation. Spain will maintain and increase its involvement in the different European plans and mechanisms for preparing for and responding to emergencies and disasters.
9. Adopt plans for preparing for and responding to pandemics under the principle of coordination between the Central Government and Regional Authorities and with international bodies such as the World Health Organization and the EU's European Centre for Disease Prevention and Control.

¹ The National Security Strategy. Presidency of the Government, Madrid, Spain, May 2013

10. Adopt management and communication protocols for food crisis situations in coordination with the EU and other major international bodies

1.2 Risk Assessment

In Spain key risks areas of concern are; Droughts, forest fires, strong storms and flash floods, nuclear, chemical and biological accidents, oil pollution and spills.

The Delegate Commission of the Government for Crisis Situations (CDGSC) or the Crisis Cabinet is responsible for directing and coordinating all actions related to prevention, control and management of crises. Decision-making responsibilities lie with the Prime Minister

The National Civil Emergency Planning Committee (NCEPC) is responsible from tasks related to the provision and implementation of resources in situations of crisis or emergency. NCEPC issues planning directives for different emergency plans, related to objectives, alternatives, and determination of time limits in order to plan for the different hypothetical crisis situations that have been formulated by the CDGSC. NCEPC provides provision of information to the Crisis Cabinet periodically about the state of preparedness for crisis or emergency situations.

Table 1 includes major disasters occurred in Spain.

Table 1. Major disasters in Spain.

Year	Disasters
2011	Earthquakes, Lorca, Murcia Region, 9 dead
2011	Volcanic eruptions, El Hierro, Canary Island
2009	Storm, 14 dead
2009	Wildfire, 6 dead
2008	Fatal aerial crash, 153 dead
2006	Extreme temperature, 21 dead
2005, 2005	Forest fires.
2004	Extreme temperature, 26 dead
2003	Extreme temperature
2003	Wildfire, 5 dead
2002, 2001, 2000	Floods in the Spanish East Coast
2001	Storm, 10 dead
1996	Mass movement wet, 84 dead
1985	Tanker explosion in Algeciras, 32 dead

1.3 Policy and Governance

The civil protection structure coincides with the administrative structure. The civil protection organisational structure is outlined as such:

The task of the Crisis Cabinet is to direct and coordinate all actions related to the prevention, control and management of crises. Decision-making responsibilities lie with the Prime Minister.

The National Civil Emergency Planning Committee (NCEPC), an inter-ministerial support function to the Crisis Cabinet, is mainly concerned with tasks related to the provision and implementation of resources in situations of crisis or emergency. The Committee is subordinate to the Ministry for Governmental Presidency. The National Civil Emergency Planning Committee has the following functions:

- issuing of planning directives for different emergency plans, related to objectives, alternatives, and determination of time limits in order to plan for the different hypothetical crisis situations that have been formulated by the Delegate Commission of the Government for Crisis Situations (the Crisis Cabinet)
- coordination of the different plans for resource contribution formulated by the Sectorial Committees, and dispatch of these to the Crisis Cabinet for approval
- provision of information to the Crisis Cabinet periodically about the state of preparedness for crisis or emergency situations
- Representation of Spain in NATO's Senior Civil Emergency Planning Committee (SCEPC) and participation in their work. Nationally, the NCEPC functions as an intermediate organisation, with the Crisis Cabinet on the one side, from which it receives directives and crisis hypotheses, and the Sectorial Committees on the other side, which it directs and controls.

The NCEPC has a coordinating role in Spanish Civil Protection and sits at the top of Civil Defence's organisational structure. It can meet either in plenary or permanent sessions. The Committee is composed of the Crisis Cabinet Secretary (President), the Director General for Defence Policy (First Vice President), the Director General for Civil Protection and Emergencies (Second Vice President) and the Under Director for Civil Preparedness (Secretary). Some of the other members are the Director of the Crisis Staff Department and the Committee President's Advisor on Defence and Security.

The Civil Protection structure at the state level starts at the Directorate General of Civil Protection and Emergencies (DGCP), under the Minister of the Interior. The representation of this structure in the Autonomous Communities is the responsibility of the delegations and sub-delegations of the Government. Each of them has a Civil Protection Unit.

Most competences in civil protection (except for nuclear issues) are transferred to the autonomous communities (regions) and municipalities, which have their own structure for the protection of citizens and goods. The communities and municipalities are responsible for integrated civil protection planning including risk assessment plans and for operational units.

There are no variations in the civil protection structure across types of disasters. The Joint Operation Centres are established to handle emergency situations on a case-to-case basis.

1.3.1 Strategy scope and focus

Civil protection activities mainly concern the provision or mobilisation of civil resources and services that are needed to respond to an emergency in any autonomous community.

There are two main areas of support:

- protection of the population and
- protection of specific resource sectors.

Support to the specific resource sectors can be activated on a day-to-day basis and mobilised immediately in the case of catastrophes or natural or manmade disasters.

The civil protection plans are approved at the different levels: the state, the autonomous communities and the local authorities. The role of the competent national civil protection authority is to verify the drawing up of the plans and the updating of them.

Contingency and preparedness planning methods including approval procedures are:

- Risk-based planning
- Holistic preparedness planning
- National contingency planning (central /national)
- Planning methodologies
- Risk analysis and risk assessment methodologies.

1.3.2 Monitoring and analytical support to policy making; R&D

The National Civil Protection School (ENPC) is a reference training centre, which provides training to any institution related to or interested in civil protection matters

DGCP manages implementation of theoretical and practical training courses and workshops related to disaster risk prevention, risk analysis and emergency management via National Civil Protection School (ENPC).

1.3.3 Policy for Prevention

DGPC is the State administrative unit in charge of the prevention, preparedness and response in case of natural and technological disasters. With this regard DGPC aims to:

- Be informed about criteria, directives and initiatives of the public administrations related to disaster risk prevention and mitigation.
- Promote initiatives from the different public administrations and the private sector to implement actions, which contribute to the improvement of disaster risk prevention and mitigation.
- Promote the development of a preventive social culture related to disaster risk.
- Be informed about and disseminate information on the programmes, reports, directives and recommendations issued by the institutions of the UN or ISDR.
- Promote the participation and coordination of different public administrations, private entities and specialized personnel in international cooperation projects related to disaster prevention and mitigation

DGPC manages the following activities in this context:

- Preparation of construction norms and guidelines for behaviour aiming at prevision, prevention, civil protection and emergency planning with respect to different hazards (heat/cold waves, thunder storms, droughts, inundations, storms, earth/seaquakes, volcanic eruptions).
- Risk mapping
- Development of studies and programmes with respect to information of the population, promotion of self-protection capabilities, and support of civil participation in civil protection activities and development of school education programmes regarding disaster prevention.
- Implementation of theoretical and practical training courses and workshops related to disaster risk prevention, risk analysis and emergency management via National Civil Protection School (ENPC).
- Development of a simulation programme for earthquake impacts on a municipal basis (SES 2002) in cooperation with the National Geographic Institute.
- Implementation of an education programme for forest fire prevention focusing on young people at school age (component of the worldwide disaster prevention campaign of ISDR "Disaster Reduction begins at school 2006-2007") including online material for professional training of teachers.

1.3.4 Policy for Preparedness

Every year, the Directorate General of Civil Protection and Emergencies/the Under Directorate of Plans and Operations prepares and coordinates an exercise programme. This is done independently or with the support of the National Civil Protection School. Exercise planning is based on risk analysis and prevention.

Table top, field and international exercises are conducted on a regular basis (yearly). These include: EU emergency and crisis coordination arrangements (EU-CCA) (EU Council); EU Crisis Management Exercise (CME) (EU Commission/Council); Crisis Management Exercise (CMX) (NATO/OTAN). National exercises vary.

The National Civil Protection School (ENPC) is a reference training centre, which provides training to any institution related to or interested in civil protection matters: police, fire fighters, volunteers, technicians involved in chemical, biological, radiological or nuclear activities (CBRN) etc.

1.3.5 Policy for Response, Relief and Recovery

In 2006, the Military Emergencies Unit was created by the Real Decreto 416/2006 (Royal Decree 416/2006) on April 11, 2006. The Military Emergencies Unit (Unidad Militar de Emergencias, UME) is a branch of the Spanish Armed Forces responsible for providing disaster relief throughout Spain mainly and abroad if required.

2 Legislation

2.1 Crisis (emergency, disaster) management concept

The civil protection plans are approved at the different levels: the state, the autonomous communities and the local authorities. The role of the competent national civil protection authority is to verify the drawing up of the plans and the updating of them.

Contingency and preparedness planning methods including approval procedures are:

- Risk-based planning
- Holistic preparedness planning
- National contingency planning (central /national)
- Planning methodologies
- Risk analysis and risk assessment methodologies.

2.2 General crisis (emergency, disaster) management law

- At national level
 1. Law 2/1985 of 21 may 1985 Law on Civil Protection, and the legal arrangements derived of that act:
 - Defines the Civil Protection concept
 - Establishes guidelines for planning.
 2. Prime Minister's National Defence Guideline 1/1986:
 - Creates a Crisis Management National System and a Civil Preparedness National System, compatible and comparable with those of the Atlantic Alliance.
 3. Royal Decree 2639/1986:
 - Creates the Crisis Cabinet, its composition and its functions. The Crisis Cabinet is the leading authority of the Crisis Management National System.
 4. Royal Decree 163/1987:
 - Creates a Crisis Management Directorate, as a working support of the system.
 5. Ministers Council Agreement, dated 15 January, 1988:
 - Creates the National Civil Emergency Planning Committee, its composition and functions
 - Creates the Sectorial Working Committees, dependent upon the CNPCE, for the following sectors: food and drinking water, industry and raw materials, energy, health, civil landing, shipping and aerial transports, civil communications and shelter (protection of the population).
 6. Law 5/2005, of 17 November on National Defence
 7. Royal Decree 416/2006, of 11 April
 - Establishment of the Unidad Militar de Emergencias (UME)

8. Royal Decree 1097/2011, of 22 July
 - UME Intervention protocol
 9. Real Decree 454/2012, of 5 March
 - Organic structure of the Ministry of Defence
 10. Royal Decree 1883/1996:
 - Establishes the new structure of the Ministry of Defence. This document defines the functions of the Policy of Defence Directorate, i.e., concerning Civil Preparedness, Civil Emergency Planning and the Armed Forces cooperation in disaster relief operations.
 11. Decree 1125/1976 :
 - Establishes civil-military cooperation rules during emergencies
 - Settles procedures of request for the cooperation of the Armed Forces
 - Specifies that the Military Authorities are to be informed of and participate in the emergency plans produced by the Civil Authorities (at state, regional and local levels) and that they shall have prepared response plans.
 12. Organic Act 1/1980 on National Defence:
 - Stipulates that the Government shall arrange the contribution of whatever kind of resource that is necessary (human, material, etc., public or private)
 - Defines the Civil Defence concept (Civil Preparedness), i.e. the standing availability of all human, material and non-military resources in order to manage major disasters
 - Establishes that the Armed Forces will cooperate at the request of civil authorities.
 13. Organic Act 4/1981 about warning, exceptions and siege situations:
 - Defines the above-mentioned situations, establishing the procedures for declaring those situations and the measures that are to be taken in each case.
- Ministerial level
 - Government decisions and regulations concerning management of emergency situations.
 - Inter-ministerial cross-cutting coordination
 - Same as ministerial level
 - Regional level
 - Royal Decree 407/1992 of 24 April that approves the basic norm on Civil Protection which includes the regulatory framework and competencies at regional level.
 - The autonomous regions have their own legislation.
 - Local level
 - The municipalities have their own legislation.
 - International level
 - International intervention is governed by political agreements.

2.3 Specific to the regional and local authorities legal arrangements and regulations on emergency and disaster management

In the Spanish Civil Protection system, every administrative level (local, regional, central) needs to have in place a preparedness plan for its focus area. In respect to the local and regional plans, the central government sets minimum criteria for their drafting. This fact is a clear evidence that even though local and regional level have some sort of autonomy, the main responsibility lies with the central government and specifically with the Ministry of Interior.

2.4 Legal regulations on the involvement of volunteers and specialised NGOs

Please refer to Section 2.2

2.5 Legal regulations for international engagements of first responders and crisis managers

Please refer to Section 2.2

3 Organisation

3.1 Organisational chart

The civil protection structure coincides with the administrative structure. The Spanish system consists of three main components:

1. The Delegate Commission of the Government for Crisis Situations (CDGSC or the Crisis Cabinet);
2. The National Civil Emergency Planning Committee (NCEPC), an inter-ministerial support body; and
3. The Department for Civil Defence.

The Delegate Commission of the Government for Crisis Situations was established in 1986. It consists of the Prime Minister and the Deputy Prime Ministers. The task of the Crisis Cabinet is to direct and coordinate all actions related to the prevention, control and management of crises. Decision-making responsibilities lie with the Prime Minister.

The National Civil Emergency Planning Committee (CNPE), an inter-ministerial support function to the Crisis Cabinet, is mainly concerned with tasks related to the provision and implementation of resources in situations of crisis or emergency. The CNPE has a coordinating role in Spanish Civil Protection and sits at the top of Civil Defence's organisational structure. The Committee is composed of the Crisis Cabinet Secretary (President), the Director General for Defence Policy (First Vice President), the Director General for Civil Protection and Emergencies (Second Vice President) and the Under Director for Civil Preparedness (Secretary). Some of the other members are the Director of the Crisis Staff Department and the Committee President's Advisor on Defence and Security.

The Civil Protection structure at the state level starts at the Directorate General of Civil Protection and Emergencies (Dirección General de Protección Civil y Emergencias -DGPE), under the Minister of the Interior. The DGPE is the State administrative unit in charge of the preparedness and response in case of natural and technological disasters.

In Spain, civil-military cooperation is undertaken in cases of emergency and upon request by civil authorities (Real Ordinances Act and Basic Judgement Act from the National Defence). A request for cooperation can be made by civil authorities through the Minister of the Interior. In cases of emergency, the request can be made verbally, but needs subsequent written confirmation. Refusal to cooperate is regarded as a criminal offence (Military Penal Code).

The Spanish contribution to the international humanitarian assistance and disaster relief operations is provided through the Monitoring and Information Centre (MIC) operated by the European Commission in the framework of the Community Mechanism to facilitate reinforced cooperation in civil protection assistance interventions and the Euro Atlantic Disaster Response Coordination Centre (EADRCC NATO).

The Directorate General of Civil Protection and Emergencies is responsible for these matters, including the bilateral agreements with France, Portugal and Morocco in general civil protection items. International assistance is offered/requested on a case-by-case basis.

Figure 1 gives an outline of the organisational structure of the disaster relief in Spain.

DISASTER RELIEF IN SPAIN

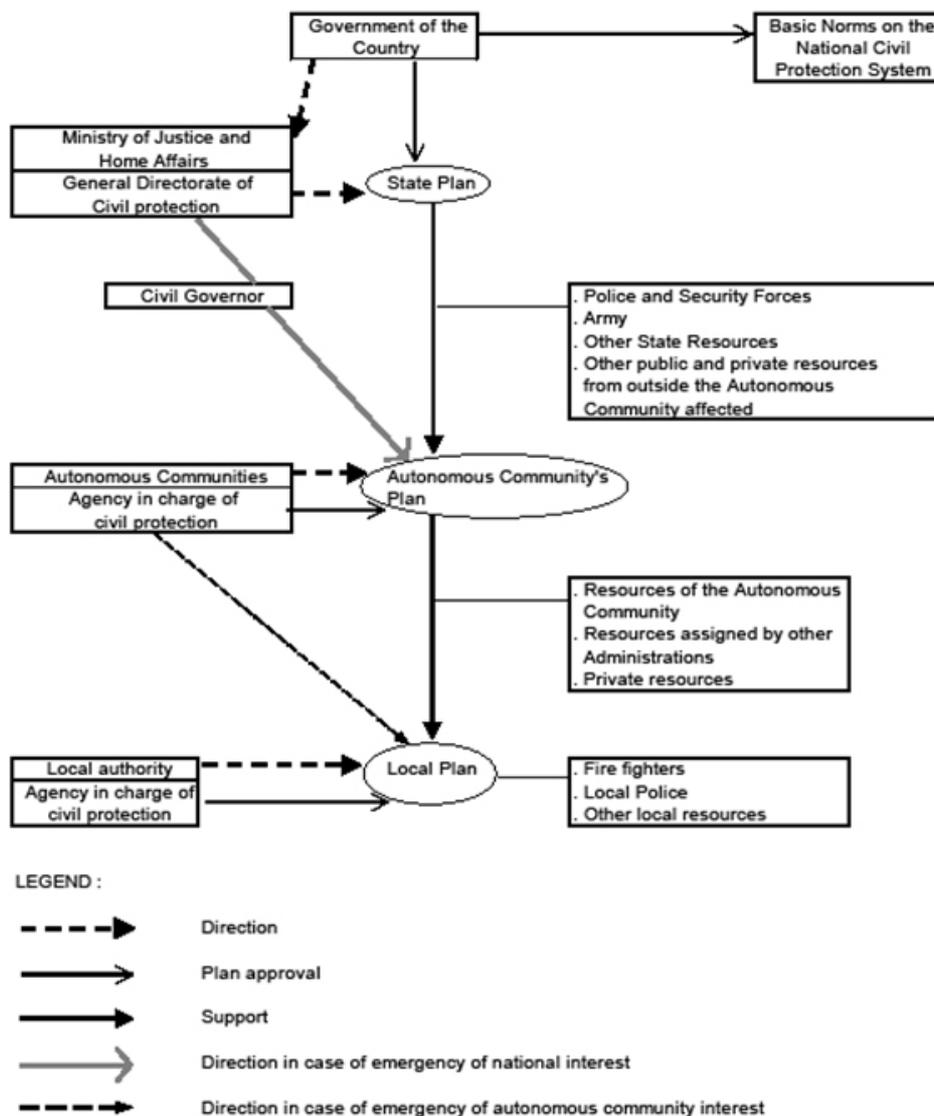


Figure 1. Organizational chart of the disaster relief in Spain.

3.2 Military Emergency Unit (Unidad Militar de Emergencias –UME)

At the National Civil Protection System, the Military Emergency Unit (UME) plays a key role as a joint force, organized on a permanent basis, whose mission is to intervene anywhere in the national territory in the event of serious risk, catastrophe or public calamity. The UME is responsible for providing disaster relief throughout Spain mainly and abroad if required.

Emergency situations in which their intervention is planned are basically those caused by natural hazards (earthquakes, floods, etc., to which are added forest fires) and those arising from technological risks (nuclear, radiological, chemical and biological), whether accidental or intentional. In the most extreme case of an emergency declared as «national interest», the general commanding the UME is assigned to exercise the responsibility, under the higher authority of the Minister of Interior, of the Operative Direction of the Emergency.

The missions of the UME are the following:

- Intervention during emergency situations that have their origin in natural hazards; among these are floods, spill-overs, earthquakes, landslides, large snow storms and other adverse weather conditions.
- Intervention fighting forest fires.
- Intervention during emergency situations derived from technological hazards; among which are chemical, nuclear, radiological and biological hazards
- Intervention during emergency situations as a consequence of terrorist attacks or illicit or violent acts, including those acts against critical infrastructures, dangerous installations or with nuclear, biological, radiological or chemical agents.
- Intervention during situations of environmental contamination.
- Intervention during any other emergency situation deemed appropriate by the Prime Minister of Spain.

The UME does not perform tasks of prevention and its troops act always framed in the unit to which they belong and directed by their military commanders.

4 Procedures

4.1 Standing Operating Procedures (SOPs) and Guidelines

In Spain, the operation of the emergency plans of civil protection includes a pre-emergency phase, an emergency phase, divided into four situations and a restoration phase.

The pre-emergency phase is characterized by the existence of information on the possibility that an event capable of producing damage occurs. The authorities and services involved are alerted and the potentially affected population is informed.

The emergency phase is initiated when the disaster is imminent or has already started and will continue throughout the course of the event, implementing all necessary measures for the protection of persons and property and the restoration of basic services in the affected area.

In this phase the following situations are distinguished:

- Situation 0: events may occur imminently that endanger people and property. Local or municipal emergency plan is activated.
- Situation 1: damage has occurred in localized areas, whose attention can be ensured by employing the means and resources available in the affected areas. Depending on its territory plan local, municipal, provincial or regional emergency is activated.
- Situation 2: damage has occurred beyond the available resources and means and it is also expected an extension or significant aggravation thereof. The regional emergency plan is activated, incorporating state means.
- Situation 3: emergencies that put into risk the national interest. Situation 3 can only be declared by the Ministry of Interior.

Once the emergency is overcome, it is necessary to restore the minimum essential conditions for the return to normalcy in the affected areas. During this restoration phase, the first rehabilitation tasks are made in order to restore the operation of essential services such as water supply, electricity, sanitation, water, telecommunications, etc.

4.2 Operations planning

In the Spanish Civil Protection system, every administrative level (local, regional, central) needs to have in place a preparedness plan for its focus area. In respect to the local and regional plans, the central government sets minimum criteria for their drafting. This fact is a clear evidence that even though local and regional level have some sort of autonomy, the main responsibility lies with the central government and specifically with the Ministry of Interior.

4.3 Logistics support in crises

At the National Civil Protection System, the Military Emergency Unit (UME) plays a key role as a joint force, organized on a permanent basis, whose mission is to intervene anywhere in the national territory in the event of serious risk, catastrophe or public calamity. The UME is responsible for providing disaster relief throughout Spain mainly and abroad if required.

The UME does not perform tasks of prevention and its troops act always framed in the unit to which they belong and directed by their military commanders. Their resources for intervention include air means, ambulances, fire engines, mobile shelters, boats, snow removal vehicles, vehicles of transport, material CBRN-E and specific means for flooding and communications.

The deployment of UME is done in seven bases throughout the Spanish geography: Torrejón de Ardoz (Madrid), Morón de la Frontera (Seville), Bétera (Valencia), Zaragoza, San Andrés de Rabanedo (Leon), Gando (Las Palmas) and Los Rodeos (Tenerife).

The operational management of emergencies when they are declared of national interest corresponds to the UME.

In emergency situations of a serious nature, which are not declared of national interest, the civil protection authorities may request of the Ministry of the Interior the collaboration of UME.

4.4 Crisis communication to general public; Alert system; Public Information and Warnings

One of the tasks of the Armed Forces is to create a national alarm network in coordination with the different bodies within the Ministry of Defence (Civil Protection Act). The Armed Forces can be employed to support any public service. Responsibility for the execution of such support action rests with the military command, but this does not extend to the preparation of the support action. Currently, there is an Emergency Military Unit (UME), under the Ministry of Defence, which is a government tool for civil protection activities.

The early warning system is administered by the national authority and supplemented by additional information provided by other ministries such as the Ministries of Health, Environment and other agencies. Coordination is undertaken through a joint web page.

The public information systems include the systems mentioned above as well as announcements from spokespersons and live transmissions from disaster scenes.

Between operational forces involved in interventions, the communication systems are: Private Mobile Radio (PMR), Global System for Mobile Communications (GSM), Terrestrial Trunked Radio (TETRA), SATELLITE.

5 Capabilities

5.1 Human resources

The different local and regional government have their own resources and means to tackle emergency situation.

However in this section we will focus on the means and resources of the Emergency Military Unit (UME) as it aims to intervene anywhere in the country and in foreign operations, to contribute to the safety and welfare of citizens in the event of serious risk, catastrophe, calamity or other public needs, in support of civil authorities.

The UME is composed by the following:

- Headquarters, located in Torrejón de Ardoz (Madrid) (Unidad de Cuartel General, UCG),
- Support and intervention Regiment for emergencies (Regimiento de Apoyo e Intervención en Emergencias; RAIEM)
- A telecommunication bataillon (Batallón de Transmisiones (BTUMEA)
- Five emergency intervention battalions (Batallón de Intervención en Emergencias, BIEM),
- A support group for emergencies (Grupo de Apoyo a Emergencias (GAEM)
- An intervention group for Techological and Environmental emergencies (Grupo de Intervencion en Emergencias Tecnológicas y Medioambientales (GIETMA)

Each BIEM group is composed by two intervention groups and one of engineers; each RAEM regiment is composed by four groups: support, maintenance, transport and supplies.

Together with the functional units of the UME, two units of the Earth Army and Air Force also intervene in emergencies, when so required under operational command of General Chief of the Military Unit of Emergency (GEJUME): the Emergency Helicopter Battalion II (BHELEME II) belonging to the Army Airmobile Forces (FAMET), based in Bétera (Valencia); and 43 Group of Aerial Air Force, based at Torrejon Air Base.

In total, 3,987 UME officers and staff troop and seamen, with qualification specified for the fulfillment of its mission as of December 2013.

5.2 Materiel (non-financial) resources

The resources of the UME for intervention include air means, ambulances, fire engines, mobile shelters, boats, snow removal vehicles, vehicles of transport, material CBRN-E and specific means for flooding and communications.

5.3 Training

The National Civil Protection School is a reference training centre, which provides training to any institution related to or interested in civil protection matters: police, fire fighters, volunteers, technicians involved in chemical, biological, radiological or nuclear activities (CBRN) etc.

Every year, the Directorate General of Civil Protection and Emergencies/the Under Directorate of Plans and Operations prepares and coordinates an exercise programme. This is done independently

or with the support of the National Civil Protection School. Exercise planning is based on risk analysis and prevention.

Exercise facilities exist mainly at the National Civil Protection School and other institutions where general courses and exercises in disaster prevention are also conducted.

Table top, field and international exercises are conducted on a regular basis (yearly). These include: EU emergency and crisis coordination arrangements (EU-CCA) (EU Council); EU Crisis Management Exercise (CME) (EU Commission/Council); Crisis Management Exercise (CMX) (NATO/OTAN). National exercises vary.

5.4 Niche capabilities

RENEM: Red Nacional de Emergencias (<http://portal.renem.es/default.aspx>) national emergency network which integrates emergency systems in Spain.

Following systems are integrated into the national civil protection system:

- European Community Urgent Radiological Information Exchange System (ECURIE) (Radiological/Nuclear)
- The Common Emergency Communication and Information System (CECIS)- Monitoring and Information Centre (MIC)
- Rapid Alert System used for exchanging information on health threats due to deliberate release of chemical, biological and radio-nuclear agents (RAS BICHAT)
- Industrial Accident Notification System (IAN) (UNECE- Industrial accidents)
- Emergency Notification and Assistance Convention (ENAC) (Atomic Energy).

Resources

- The National Security Strategy. Presidency of the Government, Madrid, Spain, May 2013
- Cuadernos de Estrategia 165, España ante las emergencias y catástrofes. Las Fuerzas Armadas en colaboración con las autoridades civil, Instituto Español de Estudios Estratégicos, Ministerio de Defensa, Secretaria General Técnica, Madrid, Spain, 2013.
- ORDEN DEF/1766/2007, de 13 de junio, por la que se desarrolla el encuadramiento, organización y funcionamiento de la Unidad Militar de Emergencias.
- Carta de Servicios, Dirección General de Protección Civil, Administración Pública, May 2009
- Protocolo CESAR: Coordinación De Emergencias y Seguimiento De Actividades Y Recursos
- Sistema español de protección civil, Escuela Nacional de Protección Civil, DG de Protección Civil, Madrid, 2013.

Online resources (e.g. websites of key CM organizations)

- <http://www.proteccioncivil.org/en/>
- <http://www.ume.mde.es/>
- <http://portal.renem.es/default.aspx>
- <http://www.preventionweb.net/english/hyogo/regional/platform/efdr/2014/>
- <http://www.aemet.es/es/portada>
- <http://www.magrama.gob.es/es/>
- <http://www.dgt.es/es/>
- <http://www.cruzroja.es/principal/web/cruz-roja/>
- <http://www.defensa.gob.es/>



Driving Innovation in Crisis Management for **European Resilience**

SWEDEN

Capabilities, Organisations, Policies, and Legislation (COPL) in crisis management and disaster response

Responsible Partner: MSB (Marie Norrby)

Scope and limitations

This study serves as supporting information for further work within DRIVER.

Only limited time and budget has been available for this first general survey, which needs to be considered in terms of scope and completeness of the respective studies.

The author/s of this study is/are responsible for its content and quality.

Overview

Sweden has three level of governance:

Local level with 290 municipalities

Regional level with 21 counties. County boards are the government's regional representatives. County Councils are independent elected bodies

National level with the Swedish parliament and the government

All three levels have their own elected political assemblies. One level has no jurisdictions over another.

Three main principals:

The responsibility principle

The persons or organisations that are responsible for an activity under normal conditions are also responsible for such operations in an emergency situation.

The equality principle

Operations should, as far as possible, be organized in the same way during emergency situations as under normal conditions.

The proximity principle

Emergencies should be handled at the lowest possible level in society. On a central level the Government is the body responsible for this area, on the regional level it is the County Administrative Board and on the local level it is the municipalities.

First responders

Each of the three first responder organisation have their respective mandate and responsibility during an incident. They have to cooperate.

Police

The Police are a Governmental organisation and responsibility, which is also represented at the regional level. The Police's responsibilities include to prevent and detect criminal activity and other disruptions of public order or safety, monitor the public order and security and intervene when disturbances have occurred, investigation and prosecution of criminal offences which fall within the General prosecution, provide public health, information and other assistance, when such assistance is best given by the police.

Fire and Rescue service

The Fire and Rescue Service are a local and municipality responsibility. Some municipalities cooperate and have a common Rescue Service. The incident commander has the mandate to call in all the resources that he or she needs to handle the incident to save life, environment and properties as long as it is in proportion to the incident.

Ambulance and healthcare

Health care is a County councils responsibility.

MSB's role

MSB role, as a governmental agency, is to support and develop the Fire and rescue area. MSB, along with all the other agencies, is also responsible to facilitate and cooperate to improve emergency response.

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List of Abbreviations

ABBR	Spell the abbreviation here
MSB	Swedish Civil Contingencies Agency
JRCC	Joint Rescue Coordination Centre
SSRS	Swedish Sea Rescue Organisation (Society)
SSM	Swedish Radiation Safety Authority

1 Policy

1.1 Risk Assessment

Risk assessments are done by all public sectors.

Local level: 290 municipalities

Regional level: 21 County Boards, 21 County Councils and 21 Regional Police authorities

National level: 250 governmental agencies

Risk assessments are also done by the private sector in sectors that can affect the population like Seveso and Energy sector.

1.2 Policy and Governance

Three main principals roll the Swedish way to handle an incident. It can be small or a large scale incident.

The responsibility principle

The person who is responsible for an activity under normal conditions should also be responsible for such operations in an emergency situation.

The equality principle

Operations should, as far as possible, be organized in the same way during emergency situations as under normal conditions.

The proximity principle

Emergencies should be handled at the lowest possible level in society. On a central level the Government is the body responsible for this area, on the regional level it is the County Administrative Board and on the local level it is the municipalities.

Handling the incident

The incident commander at the local The Fire and Rescue Service has the mandate to call in all the resources that he or she needs to handle the incident to save life, environment and properties as long as it is in proportion to the incident. If more than one municipality are affected, the Incident commanders can ask the Regional County Board to appoint a common incident commander for the major incident.

1.2.1 Strategy scope and focus

All citizens, public and private sector are obliging by law, to prevent, prepare, response and recover from accidents and incidents. It is an all hazardous approach. On the other hand the quality is entire up to each and every one. The municipality have the main responsibility for the people staying in

their area, permanent and temporary. They also audit the private sector to ensure that they have sufficient CM.

The County Board is responsible for auditing Seveso plants and other more dangerous industries in their geographical area including the municipalities to ensure that they have sufficient CM.

MSB, as a governmental agency audit the county boards and also arrange exchange of experience activities among the county boards.

1.2.2 Monitoring and analytical support to policy making; R&D

Monitoring and analytical support is organised at respective level and actor. In the public sector there are channels for reporting incidents from the municipalities to the County Board to MSB to the Ministry of Defence and the Prime Ministers Crisis Coordination Secretariat. Every national agency reports to their respective ministry. If any actor in an incident needs help they just need to ask for it.

Examples of funding opportunities:

-from MSB funding for research project in the area of Crisis Management, approx. 2 m€/year.

-from MSB project funding for national agencies and county boards aiming to improve cooperation and methods to improve the ability to coop with major incidents, approx. 100m€/year.

1.2.3 Policy for Prevention

Public Sector

Local level:

The 290 municipalities are responsible to do preventive action and ensure common safety for the population. The area of responsibility goes from safe drinking water, sanitation, schools, elder care, local roads to Fire and Rescue Services. The municipalities are also responsible to audit the private sector.

Regional level:

The 21 County Councils are responsible to do preventive action and ensure common safety for the population in the area of health care.

The 21 County Boards are responsible to audit the municipalities within the county and the private sector that has a higher risk category like Seveso plants. They are also responsible to help and support the municipalities and coordinate prevention action in the region.

The Police are a Governmental organisation and responsibility, which is also represented at the regional level. The Police's responsibilities include to prevent and criminal activity

National level:

The 250 national agencies are responsible for respective area of responsibility. All agencies and that affect or can affect the environment, people or properties shall have activities that aim to reduce the risks. All agencies are responsible in their respective area.

Private sector

All companies and organisation that affects or can affect the environment, people or properties shall have prevention activities that aim to reduce the risks.

Voluntary sector

All organisations that affects or can affect the environment, people or properties shall have prevention activities that aim to reduce the risks from their activities. Some voluntary organisations are active in preventing activities towards the general public such as giving first aid courses, swimming lessons and safety on water.

1.2.4 Policy for Preparedness

Public Sector

Local level:

The 290 municipalities are responsible to do preparedness action and ensure common safety for the population. The area of responsibility goes from safe drinking water, sanitation, schools, local roads to Fire and Rescue Services. The municipalities are also responsible to audit the private sector.

Regional level:

The 21 County Councils are responsible to do preparedness action and ensure common safety for the population in the area of health care.

The 21 County Boards are responsible to audit the municipalities within the county. They are also responsible to help and support the municipalities and coordinate prevention action in the region.

The Police are a Governmental organisation and responsibility, which is also represented at the regional level. The Police's responsibilities include detecting criminal activity and other disruptions of public order or safety.

National level:

The 250 national agencies are responsible for respective area of responsibility. All agencies and that affect or can affect the environment, people or properties shall have activities that aim to reduce the risks. All agencies are responsible in their respective area

Private sector

All companies and organisation that affects or can affect the environment, people or properties shall have activities that aim to reduce the risks and have preparedness to handle known risks.

Voluntary sector

All organisations that affects or can affect the environment, people or properties shall have preparedness activities that aim to reduce the risks and handle the consequences. Some voluntary organisations are prepared to act in case of emergency both with personal and other recourses like SSSR, Swedish Sea Rescue Organisation that handle 70% of the rescue operations at sea in Sweden.

1.2.5 Policy for Response

Public Sector

Local level:

The 290 municipalities are responsible to respond to accidents and incidents Fire and Rescue Services.

Regional level:

The 21 County Councils are responsible to respond to accident and other health related issues and incident to ensure the emergency capacities for the population.

The 21 County Boards are responsible to audit the municipalities within the county. They are also responsible to help and support the municipalities in the region during an incident.

The Police are a Governmental organisation and responsibility, which is also represented at the regional level. The Police's responsibilities include monitor the public order and security and intervene when disturbances have occurred, provide public health, information and other assistance, when such assistance is best given by the police.

National level:

The 250 national agencies are responsible for respective area of responsibility. All agencies and that affect or can affect the environment, people or properties shall have activities that aim to reduce the risks. All agencies are responsible in their respective area.

Private sector

All companies and organisation that affects or can affect the environment, people or properties shall have activities that aim to reduce the risks. Seveso plants needs to be able to respond to known risks. It can be organised like as a rescue service brigade in the industry.

Voluntary sector

All organisations that affects or can affect the environment, people or properties shall have ability to handle known risks that their own activity causes. Some voluntary organisations act in response to emergency both with personal and other recourses like SSSR, Swedish Sea Rescue Organisation that handle 70 % of the rescue operations at sea in Sweden.

1.2.6 Policy for Relief and Recovery

Public Sector

Local level:

The 290 municipalities are responsible to have pre planned actions and ensure common safety for the population after an incident. The area of responsibility goes from safe drinking water, sanitation, elder care, schools, local roads to Fire and Rescue Services. The municipalities are also responsible to audit the private sector that can affect the population and nature negative, for example Seveso plants. Temporary shelters or housing to the effected and help for recovery are also part of the responsibility of municipalises.

Regional level:

The 21 County Councils are responsible to do preventive action and ensure common safety for the population in the area of health care.

The 21 County Boards are responsible to audit the municipalities within the county. They are also responsible to help and support the municipalities and coordinate prevention action in the region.

The Police are a Governmental organisation and responsibility, which is also represented at the regional level. The Police's responsibilities include to investigate and prosecution of criminal offences which fall within the General prosecution.

National level:

The 250 national agencies are responsible for respective area of responsibility. All agencies and that affect or can affect the environment, people or properties shall have activities that aim to reduce the risks. All agencies are responsible in their respective area

Private sector

All companies and organisation that affects or can affect the environment, people or properties shall have activities that aim to reduce the risks.

Voluntary sector

All organisations that affects or can affect the environment, people or properties shall have prevention activities that aim to reduce the risks.

1.3 Financing

1.3.1 Investing in preparedness

At the national level the investment in preparedness is mostly done by education, training and pre arrange cooperation, and sharing of knowledge. The state own material resources have to a large extent been phased out. Some of the agencies have duty officers that can be reached 24/7, like the police and 112 –Alarm Centres.

At the local level the investment in preparedness is in the Rescue services and the technical department, to be prepared to deal practical to incidents.

1.3.2 Investing in consequence management

The management the consequences of incidents is a logical part of being prepared. The major responsibility is at the local level in the municipalities and the rescue services. The investments are in the employees and the resources they need, to be able to handle the risks that exists in the municipality. Exercise and training is the main tool to be prepared.

1.4 Policy review, Evaluation & Organisational Learning

1.4.1 Post-Disaster Assessment

Individuals receive help from the municipality and the county council. POSOM groups and other personal help are organised so that, if need, the affected get for example a temporary shelter.

1.4.2 Departmental Lessons Learned systems

The municipalities and county council have a common organisation the share different experience.

1.4.3 Centralised (national) Lessons Learned system

There is not one centralised system. Every sector and agency has their own responsibility. SCB, Statistics Sweden, is the national agency that collects statistics from a variety of sectors. Some sectors like dangerous goods have several agencies and actors that collect statistics and experiences. Below are some examples.

In the spectra of social and health care there is a national lessons learned system, both for the municipalities and county councils.

To investigate major accidents and incidents there is a special agency, Swedish Accident Investigation Authority. They provide reports and recommendation to improve and provide opportunities for lessons learnt.

MSB has a project going on called After Action Revue towards the Rescue Service Sector, which has been well received. The result will be voluntary for the municipalities to implement.

1.4.4 International exchange for Lessons Learned

Some examples:

MSB, together with other governmental agencies, arrange observation studies when they identify incidents of interest to learn from.

The Nordic countries have ongoing cooperation in different areas. Nordred Agreement, HAGA declaration, Nordhels are some of them.

CTIF is an international organisation that has national sub-organisation. The purpose is to learn from each other and incidents that has append, from fire to hazardous materials. <http://ctif.org/>

1.4.5 Regular policy reviews

After every election there is a review of the Risk and vulnerability analysis and action program. The level of ability is then reviewed and the new policies are set at the local level.

1.5 Resilience

The implementation of the concept resilience is done in Sweden.

Responsible for working with the protection of vital services and critical infrastructure rests in accordance with the principle of responsibility of each sector, as well as the owners and proprietors of businesses.

At the national level a national strategy and action plan for the protection of vital infrastructure as well as guidelines has been produced. A committee has also been established with representatives from local, regional and national level to share experience and evolve the resilience in the society.

Swedish Standard Institute SS-ISO 22301 decision in SIS/DK 494 based on ISO 22301 has been adopted as a Swedish standard.

1.6 Information sharing and data protection

1.6.1 Please describe whether the country/ IO have adopted specific policies, measures or derogations from EU law with regard to data protection to enable:

- the sharing of personal data during crises [in 'extreme cases'] or for crisis management purposes, e.g. data on people with particular disabilities

- the sharing of classified information (internally and with third states/ organisations), e.g. data about specific vulnerabilities or about terrorist threats

Personal information Law (PUL) and Inspire directive are implemented.

Each municipality have responsibility to ensure the safety of it citizens. The Social office, in the municipality is always involved when evacuation needs to be done.

Each sector is responsible to arrange within the law how information can and need to be chaired.

Even when there is a crisis the sharing of personal data is still restricted. There for the responsible agency is a vital actor in the handling the incident.

Each citizen has the right to know what kind of threats that normally exist within the municipality, like the risks for flooding or Seveso plants.

1.6.2 Does the country/IO have registers/databases of volunteers? If yes, under what circumstances can data be used/ shared? e.g. particular capabilities, level of readiness/ availability, contact information;

Every Voluntary organisation in itself has its own register of members.

One example is FRG, Voluntary Recourse Group, that organizes several voluntary organisations in each municipality. Local FRG have signed an agreement with 125 of the 290 municipalities. The agreement is about how and when the FRG group can assist during an incident.

1.6.3 Does the country have or plan to use data gathered from social media during crisis? If so how? (e.g. "crowd sourcing" and "crowd tasking", "citizen as a sensor")

There is no national plan to gather information during crisis from social media. Krisinformation.se that MSB host does however scanning as a way to update the information on the web site on regular bases.

2 Legislation

2.1 Crisis (emergency, disaster) management concept

The foundation of CM manifested in the Swedish law.

The responsibility principle

The persons or organisations that are responsible for an activity under normal conditions are also responsible for such operations in an emergency situation.

The equality principle

Operations should, as far as possible, be organized in the same way during emergency situations as under normal conditions.

The proximity principle

Emergencies should be handled at the lowest possible level in society. On a central level the Government is the body responsible for this area, on the regional level it is the County Administrative Board and on the local level it is the municipalities.

In the different legislation rolling at all levels and sectors, the means to coop with a major incident are cooperation.

2.2 General crisis (emergency, disaster) management law

During peacetime

Extra Civil Protection Act and ordinance [LSO, FSO]

Act and ordinance on municipal and county council measures prior to and during extra-ordinary events in peacetime and during periods of heightened alert [LEH, FEH]

Emergency Management and Heightened Alert Ordinance [KBF]

2.3 Emergency rule

During peacetime

Municipalities' Rescue Services always have to have an incident commander. The incident commander has, according to Extra Civil Protection Act, LSO, far reaching powers to engage people and resources that he/she need to handle the incident, but not without paying for it.

The County Councils' representative in the health care authorities during a pandemic or for specified dangerous diseases also have far reaching powers to for example isolate people.

2.4 Specific, department/agency-level legal arrangements and regulations on emergency and disaster management

During peacetime the society's institutions have the same mandate regardless if it is a crisis, large scale incident or a minor incident.

2.5 Specific to the regional and local authorities legal arrangements and regulations on emergency and disaster management

During peacetime the society's institutions have the same mandate regardless if it is a crisis, large scale incident or a minor incident.

2.6 Legal regulations on the involvement of volunteers and specialised NGOs

There is no specific legislation regarding NGO's involvement during a crisis. The municipalities and the volunteers can cooperate if they find a mutual understanding. There are many volunteer organisations in Sweden with a vast variety of capacities and interests. The municipalities have a good local knowledge and a lot of what the inhabitants do during their spare time is done in one of the local voluntary organisation.

2.7 Legal regulations for international engagements of first responders and crisis managers

To engage first responders in the Nordic countries have already been dealt with through multilateral agreements. Cross border cooperation is done on regularly bases directly between the municipalities and the County Councils. Some regions also have Cross boarder councils including County boards and municipalities, rescues services and healthcare.

Point of Contact for EU/ERCC is MSB and the Swedish Coast Guard. If an incident commander needs these recourses they need to contact MSB. MSB needs to inform the government before contacting ERCC.

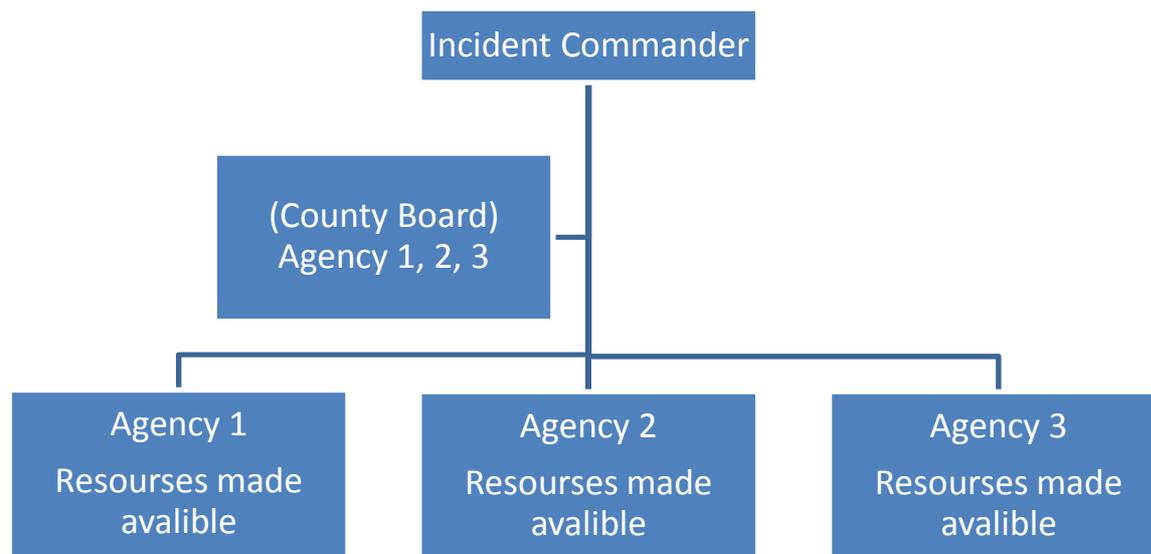
If UN needs to be invited to assist Sweden, both of the government and the municipality needs to agree on the invitation.

The incident commander and the municipality still have the responsibility for the incident.

3 Organisation

3.1 Organisational chart

A schematic skis of how a major rescue operation can be organised

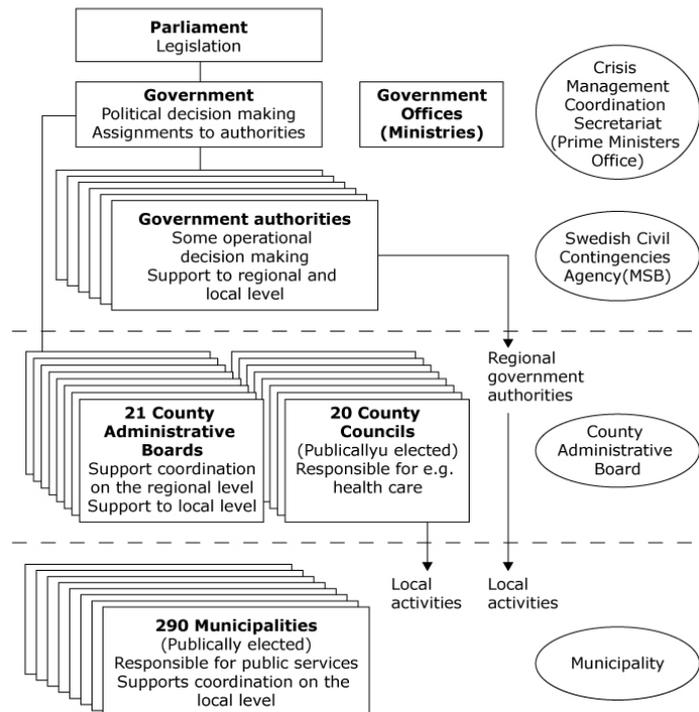


- National/ IO authority for emergency and disaster management; chain of command and high-level decision-making:
The incident commander is the commander during a rescue operation. The Commander can request more recourses and help. All tactical and operational decisions rest at the local level even when there is a crisis. The politicians may need to make funding available to handle the incident.
- Interdepartmental (inter-ministerial) emergency and disaster management authority:
The ministries have a group to keep them informed. MSB and other affected agencies inform the government on regular base during a major incident. The government can decide, if needed, to allocate more resources, if necessary.
- National permanent emergency and disaster management unit(s)/ formations; first responders:
There are no national First responders, except for Special police forces, mountain rescue, sea rescue, nuclear plants accidents and maritime environment rescue operation.
- Planned/ anticipated use of specialised military assets :
Civil agencies and rescue service can ask for the recourses that the military have, but it needs to be approved by the military. The local first responder's organisations may also have pre planned cooperation, and then the military, if they agree to help, is under the command of the incident commander.
- Departmental emergency and disaster management arrangements:

Each department need to have their own disaster management arrangement, including pre planned cooperation with others. It is each organisations own responsibility.

- Other national civil service organisations:
MSB is appointed to coordinate and encourage cooperation between national civil service organisations: special police forces, mountain rescue, sea rescue, nuclear plant accident and maritime environment rescue operation.
- Provincial (regional) authorities and arrangements for emergency and disaster management (e.g. crisis HQ):
County Boards, Hospital Areas and municipalities are obliging to plan. Local (municipal, town) authorities have arrangements for emergency and disaster management County Boards, Hospital Areas and municipalities are obliging to plan. Local (municipal, town) authorities have arrangements for emergency and disaster management
- Local (municipal, town) authorities and arrangements for emergency and disaster management:
County Boards, County Councils and municipalities are obliging to plan. Local (municipal, town) authorities have arrangements for emergency and disaster management.
- Volunteers and volunteer organisations; specialised NGOs
FRG, Voluntary resource Group organises voluntary organisations, as well as voluntary civil defences group. They have capacity to be engaged in search and rescue operations both on land at sea. They also have flying capacities. SRSS handle 70 % of the sea rescue operations.
- Private businesses:
As privet business you are oblige to protect yourself and your property. You are also obliged to prevent further damages, if possible.
In some sectors there are more regulations, transport of dangerous goods, Seveso plats, energy sector etc.

Below is a scheme of the society. The support is going towards the incident commander at the local level. The levels are not chain of command or a hierarchy it is a way of describing local, regional and national agencies and their respective responsibilities.



3.2 Organisational cooperation

- Operational cooperation (e.g., coordinated CM operations planning and response at national level, cross-border operational cooperation, operational cooperation within the EU)
 - How priorities are assigned in the case of simultaneous occurrence of events?

Each incident commander prioritises within the municipality. The County Board may prioritise national and international resources that is available.
 - How cross-border collaboration is organized? Please identify procedures used by stakeholders for cross-border cooperation (e.g., how is it initiated)

- Nordred agreement is a foundation for Nordic cooperation. The municipalities on both side of the border do in a practical way. Examples of local agreements and procedures are found at www.norred.org
- Cooperation and coordination in CM capability development (coordinated departmental CM capability planning, nationally centralized CM capability planning, multi-nation/ EU-level coordination of capability planning and capability development)

Cooperation is vital to handle all incidents. The incident commander is responsible to organise the cooperation and all parties are responsible to cooperate and make resources available for the incident commander. Every sector is responsible to handle their part of the incident. Cooperation is a vital part of the legislation in the Nordic countries legislation. The Nordred agreement and Haga declaration means that there exists several on going cooperation, both at local regional and national level. CM is a challenge since the decentralised local CM system. There is an ongoing exchange of experience and sharing of knowledge.

On EU-level MSB is represented in the Module group discussing mainly HNS and the Voluntary Pool.

4 Procedures

4.1 Standing Operating Procedures (SOPs) and Guidelines

Depending on the risk and responsibility each organisation has SOPs or not. There are guidelines and handbooks that MSB produce for the municipalities rescue service to use. Other sectors have their governmental agencies that produce handbooks and guidelines. First Responders organisations have also several common guidelines and handbooks, due to their obligation to cooperate.

4.2 Operations planning

Depending on the risk and responsibility each organisation has its own operations planning. The auditing that the County Boards and MSB do of the plans for operation, highlight the organisations that don't meet a minimum level of safety that the public can expect.

4.3 Logistics support in crises

Depending on the risk and responsibility each organisation has plans for their own needs of logistics support.

4.4 Crisis communication to general public; Alert system; Public Information and Warnings

Each municipality, county board and governmental agency has to plan and implement their own crisis communication plan.

At the local level, the municipality has a Crisis Board. They also have a command centre; which can be used during a crisis.

At the regional level, the County Board has a command centre. The County Board have a telephone- or video conference with the municipalities in the region at regular intervals, to test the systems and to keep one on other informed.

Emergency alerts can be sent out through the radio and television, both locally and nationally. MSB have a website for crisis communication and an e-mail tool to facilitate sharing of information.

MSB host a web site, with www.krisinformation.se, collect information from the municipalities' web pages. The web site can also host information during major incidents, to help municipalities and county boards since it is more robust and built to withstand crisis.

The local incident commander has access to use the emergency alert system via media. Alerts can be sent out through television and radio. The system is tested 4 times a year. (VMA – Warning Messages to the Public)

MSB and The Swedish Coast Guard is point of contact to EU/ERCC. MSB is also responsible to have equipment to facilitate telephone conference among effected agencies.

Other sectors have their respective focal point. For example is SSM focal point for new clear plants accident through to IAEA and

5 Capabilities

5.1 Human resources

5.2 Materiel (non-financial) resources

- What specific non-financial resources (dedicated equipment etc.) have been allocated to crisis management (central, regional, local preparedness and response)?
 - All sectors and levels have their own pre planning to handle an emergency. Municipalities, county boards, county councils, emergency hospitals, appointed governmental agencies; all have a secure command centre that can operate during a crisis.
 - Some examples:
 - MSB has some specific recourse for flooding, forest fires, chemical accidents and oil spill.
 - The energy sector has their recourses, like personnel on call.
- Permanent reserve stocks (fuel, food, medicines, tents, blankets, etc.)
 - Stock of medicines (National founded)
 - Municipalities and County Council may have their own.
- Planned /anticipated/ involvement of specific military assets (e.g. reconnaissance assets, search and rescue helicopters, fire-fighting planes/helicopters, CBRN, etc.)
 - These assets exist among civil agencies like the Swedish Coast Guard, Police, and Swedish Maritime Administration. The military is not allowed to act in the civil domain.
- Is provision made for governments to mobilise or commandeer private assets during crises?
 - No it is provision made for the local municipality and the incident commander during a rescue operation, to mobilise or commandeer private assets during crisis.

5.3 Training

- National, local and departmental exercises:
 - MSB organise a table top crisis management exercise every third year for national agencies.
 - Every County Board organise on regularly base table top exercise in their respective region.
 - Every municipality organise on regularly base table top exercise in their respective region.
- Centralised specialist training:
 - MSB organise training for UN, EU, Swedish national, regional and local agencies.
- Training of volunteers and NGO personnel
 - FRG among other voluntary organisations organises training, with funding from MSB. SSSR have regular training for their volunteers.
- Cross-border and multinational training activities

-Barents Rescue is a major exercise between Sweden, Norway, Finland and Russia every third year. There are many exercises done every year.

- Is there a certification system? What standards are used to define specialists' training requirements?
 - Sweden don't have a certification system for specialists training requirement. The employer may implement ISO standards if they find it appropriate.
- Are there specialised training programmes for high-level decision makers?

One example is the course called "Solbacka kursen" that engage High Level decision makers in Crisis coordination and cooperation.

<http://www.fhs.se/sv/utbildning/uppdraagsutbildningar/krishantering/solbackakursen/>,
- Training centres

MSB have two training colleges. The Police College, Swedish Coast Guards training center and the national Defence College are some of the others.

5.4 Procurement

5.4.1 Procurement regulation

- What needs to be procured? E.g. goods or services, including trainings?

Procurement regulation in the public sector is strict. Best value for many is the basic rule. Cooperation between the different agencies in the public sector is however encouraged
- Which EU directive on procurement is applicable on procurement of CM tools and related?

Are all articles of the directive applicable or are some articles not implemented?

-All articles are implemented and needs to be followed. If it is a sudden unexpected crisis you are allowed to buy what you need to handle the situation.

5.4.2 Procurement procedures

The public sector at all levels has their own procurement organisation that deals with procurements. A common web site www.avropa.se is available for national an agency that contains all the available already done procurements.

5.5 Niche capabilities

JRCC has flying and sea going capacities for sea rescue operations.

The police have Special Forces for rescue operation in mountainous areas.

The Swedish Coast Guard has ships and flying capabilities for environment operations at sea.

Resources

Legislative acts

During peacetime

Extra Civil Protection Act and ordinance [LSO, FSO]

(http://www.riksdagen.se/sv/Dokument-Lagar/Lagar/Svenskforfattningssamling/Lag-2003778-om-skydd-mot-ol_sfs-2003-778/)

Act and ordinance on municipal and county council measures prior to and during extra-ordinary events in peacetime and during periods of heightened alert [LEH, FEH]

(http://www.riksdagen.se/sv/Dokument-Lagar/Lagar/Svenskforfattningssamling/Lag-2006544-om-kommuners-oc_sfs-2006-544/)

Emergency Management and Heightened Alert Ordinance [KBF]

(http://www.riksdagen.se/sv/Dokument-Lagar/Lagar/Svenskforfattningssamling/Forordning-2006942-om-krisb_sfs-2006-942/)

Other normative acts

The national agencies can write normative act in their area of competence.

For example MSB gives out recommendations MSBFS:

<https://www.msb.se/sv/Om-MSB/Lag-och-ratt/Gallande-regler/Skydd-mot-olyckor/MSBFS-20125/>

Socialstyrelsen –The National Board of Health and Welfare has recommendation in a series SOSFS.

<http://www.socialstyrelsen.se/sosfs>

Official documents (white papers, strategies, etc.)

<http://www.sou.gov.se/> collects all the finished and ongoing policy investigation ordered by the government.

Online resources (e.g. websites of key CM organizations)

www.msb.se

<https://www.msb.se/en/Products/Support-systems/>

www.socialstyrelsen.se

www.polisen.se

www.skl.se

www.government.se

Publications

Video and publication library:

<https://www.msb.se/en/Products/90-Sekunder/>

<https://www.msb.se/en/Products/Publications/>

Some examples of publications:

- A first step towards a national risk assessment

- Swedish national risk assessment 2012

(<https://www.msb.se/en/Prevention/National-risk-and-capability-assessment/>)

- Uncertain futures

- Five challenging future scenarios for societal security,

- Strategic challenges for societal security

<https://www.msb.se/en/Prevention/Strategic-Foresight/>

The Swedish model of government (www.government.se/sb/d/2858)

How public agencies are governed (www.government.se/sb/d/575/a/127133)

Protection and preparedness for accident (www.government.se/sb/d/12126/a/21967)

Emergency preparedness (www.government.se/sb/d/12126)

Who does what? (www.government.se/sb/d/12127)

The national level- the Riksdag and Government (www.government.se/sb/d/2858/a/16192)

Crisis Management in the Swedish Government Office (www.government.se/sb/d/12126/a/89625)

The regional level (www.government.se/sb/d/2858/a/16193)

The local level (www.government.se/sb/d/2858/a/16196)

Local authorities (www.government.se/sb/d/2102/a/20611)

Crises and emergency management in Värmland (www.lansstyrelsen.se/varmland/En/manniska-och-samhalle/krisberedskap/)

The role of county councils and the region's

(www.skl.se/tjanster/englishpages/municipalitiescountycouncilsandregions)

The role of the municipalities

(www.skl.se/tjanster/englishpages/municipalitiescountycouncilsandregions/theroleofthemunicipalities)

Expert interviews

5 different interviews with MSB experts (Swedish Civil Contingencies Agency)



Driving Innovation in Crisis Management for **European Resilience**

TURKEY

Capabilities, Organisations, Policies, and Legislation (COPL) in crisis management and disaster response

Responsible Partner: ECORYS (Laura Birkman, Linette de Swart)



Scope and limitations

This study serves as supporting information for further work within DRIVER.

Only limited time and budget has been available for this first general survey, which needs to be considered in terms of scope and completeness of the respective studies.

The author/s of this study is/are responsible for its content and quality.

Overview

Turkey is prone to a range of complex emergencies – including both natural and manmade (industrial) disasters, due to its tectonic, seismic topographical and climactic structure. Turkey is subject to floods, landslides, avalanches, forest fires and, most importantly, earthquakes. In Turkey, the policy framework concerning natural disasters was conceived in the aftermath of the Erzincan Earthquake of 1939 with the "Measures and Assistances to Be Put into Effect Regarding Natural Disasters Affecting the Life of the General Public" no.7269 of 1959. The disaster management structure of Turkey underwent an important shift in 2009 with the establishment of the Disaster and Emergency Management Presidency (AFAD), the national level competent authority concerning disasters and emergencies. The AFAD Presidency undertakes the coordination function at the centre, while the responsibility for implementing the policies and operations lies with the provincial organisations – the Provincial Disaster and Emergency Directorates. AFAD is responsible for coordinating nearly all phases of disaster management including disaster risk reduction (DRR) at the national level, and installs rules, regulations, and guidelines for preparation of DRR plans at sub-national levels. The operating administrative level becomes higher as the extent and severity of disaster grows in scale and scope. While the reforms introduced in 2009 transferred significant responsibility for DRR and disaster response to the provincial and municipal levels, both of which now come under the responsibility of the province and district, this has not been implemented in practice. The system may therefore be termed both central and decentralized but is coordinated from central bodies and functions through AFAD. The state has no legal responsibility to fund the costs for national investments in preparedness, whereas investments in consequence management come directly from the AFAD budget (response and relief) and the national compulsory earthquake insurance scheme. Niche crisis management capabilities include campsite construction and canine-assisted search and rescue for earthquakes and avalanches.

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List of Abbreviations

ADM	Disaster and Emergency Management Directorate
AFAD	Disaster and Emergency Management Presidency
AFAYBIS	Disaster Emergency Management Information System project
AFEM	European Natural Disaster Training Centre
AKOM	Istanbul Metropolitan Municipality Disaster Coordination Center
AKUT	Search and Rescue Team
BSEC	Black Sea Economic Cooperation Organisation
BU	Bosphorus University (BÜ)
DAK	Natural Disasters Search and Rescue Battalion
DMI	Turkish State Meteorological Service
DPRoT	Turkey Disaster Response Plan
DSI	Turkish State Hydraulics Works
EIE	General Directorate of Electrical Power Resources Survey and Development Administration
İDMP	Earthquake Master Plan of Istanbul (İBB)-
IMM	Istanbul Metropolitan Municipality
ISMEP	Istanbul Seismic Risk Mitigation and Emergency Preparedness Project
JICA	Japan International Co-operation Agency
KIZILAY	Turkish Red Crescent Society
KOERI	BU Kandilli Observatory and Earthquake Research Institute
MEF	Ministry of Environment and Forest
METU	Middle East Technical University (ODTÜ)
MoH	Ministry of Health
Mol	Ministry of the Interior
MPWS	Ministry of Public Works and Settlements
NCIP	The National Catastrophic Insurance Program
NDV	Neighborhood Disaster Volunteer
NESAP	National Earthquake Strategy and Action Plan
NGO	Non Governmental Organization
SAR	Search and Rescue
TABB	Turkish Disaster Databank
TABIS	Turkey Disaster Information System

TAGEM	General Directorate of Agricultural Research
TCIP	Turkish Compulsory Insurance Pool
TDV	Earthquake Foundation of Turkey
TEMAD	Turkey Emergency Management General Directorate (TAY)
TUBITAK	Turkish Scientific and Technical Research Institute
TUGEM	General Directorate of Agricultural Production and Development
UDAP	National Earthquake Investigation Programme
UN-OCHA	The United Nations Office for the Coordination of Humanitarian Affairs
UNDP	United Nations Development Program
WMO	World Meteorological Organization

1 Policy

The Crisis Management and related¹ Policy is designed to effectively coordinate the use of national and community, public and private resources, as well as those provided through international co-operation, to protect life and property before, during and immediately following a major crisis triggered by natural disasters or man-made catastrophes. It is placed into operation whenever an emergency affecting the country, regions or locals cannot be controlled through routine, daily and normal channels and procedures.

1.1 Risk Assessment

1.1.1 Key Risk Areas

Turkey is prone to a range of complex emergencies – including both natural and manmade (industrial) disasters, due to its tectonic, seismic topographical and climactic structure. Turkey is subject to floods, landslides, avalanches, forest fires and, most importantly, earthquakes. Table 1 summarises the record of natural disasters in Turkey during the last 30 years, including the human impact and economic damage, where available. Figure 1 shows the percentage breakdown of these natural disasters.

Table 1. Summary of Natural Disaster, human impact and economic damage.

Type of disaster	No. Events	No. Killed	Total affected (4)	Damage (000 USD)
Earthquake (seismic activity)	35	19841 (566.9)	4387715	\$24,509,800
Epidemic (1)	3	35	380	-
Extreme Temperature (2)	7	100	8450	\$1000 (5)
Flood	29	508	1715320	\$2,180,500
Mass movement dry	1	261	1069	-
Mass movement wet (3)	9	332	13487	\$26,000
Storm	7	70	1639	-
Wildfire	5	15	1150	-

Source: Source: EM-DAT: The OFDA/CRED International Disaster Database, www.emdat.be - Université catholique de Louvain - Brussels – Belgium.

(1) Include Bacterial and Viral Infections diseases

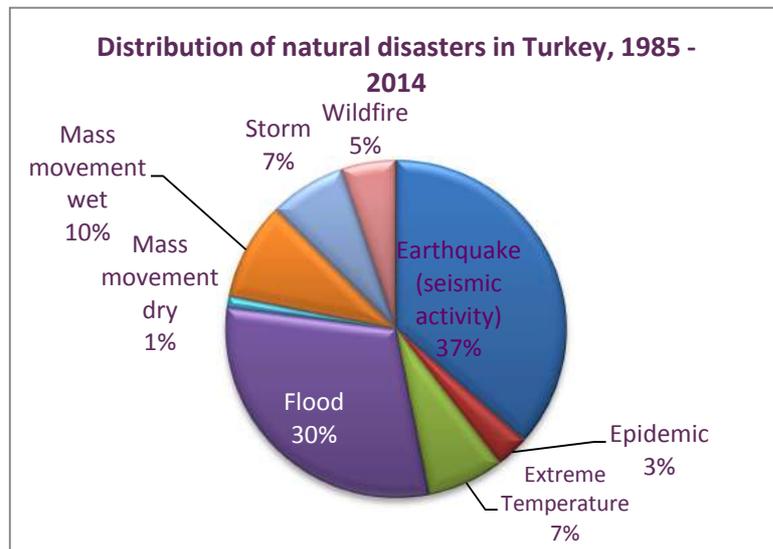
(2) Includes cold waves, heat waves and extreme winter conditions

¹ E.g. in Germany the responsibility for crises of different types is defined by the “Grundgesetz” (German Constitution).

(3) Includes avalanches and landslides

(4) Refers to Sum of injured, homeless, and affected (People requiring immediate assistance during a period of emergency; it can also include displaced or evacuated people).

(5) Amount includes only heat waves.



Earthquakes have, by far, the greatest impact to the population and infrastructure of Turkey. Turkey ranks third in terms of human losses resulting from earthquakes, and eighth in terms of the number of individuals impacted by earthquakes. According to the Earthquake department database (<http://www.deprem.gov.tr>), there have been more than 10,000 events with a magnitude greater

Figure 1: Distribution of Natural Disasters by Type of Occurrence, 1985-2014
Source: EM-DAT: The OFDA/CRED International Disaster Database, www.emdat.be - Université catholique de Louvain - Brussels - Belgium

than 4 from 1900 to 2011 as shown in Figure 2 below.



Source: Disaster and Emergency Management Presidency (AFAD).
Note: M = magnitude.

Figure 2: Earthquakes with magnitude ≥ 4.0 in Turkey from 1900 – 2011 (Source: AFAD).

The most important events in recent history are the 17 August 1999 and 12 November 1999 earthquakes, which occurred in the highly populated and industrial north-western areas of Turkey, with magnitudes of 7.4 and 7.2, respectively. According to official data, the 1999 earthquakes resulted in more than 18,000 fatalities, more than 43,000 injuries, 114,000 collapsed or damaged buildings, and 600,000 individuals made homeless covering an area of 30,000km².² The most recent

² See the Joint UNEP/OCHA Environment Unit (2007), Environmental Emergencies Capacity Assessment in Turkey: workshop results and recommendations, Ankara, Turkey, 20-25 January 2007. Report also includes information on the major industrial accidents which have occurred in Turkey.

significant earthquake occurred in November 2011 in the Van province, in which over 600 people died and over 4,000 were injured.³ On average, Turkey experiences at least one earthquake each year with a magnitude between 5 and 6. Economic losses caused by natural disasters, either directly or indirectly, underscore the necessity of effective disaster management in Turkey.

Given the size of Turkey and the fact that the main hazard type is earthquake, most disasters are localized in certain provinces and do not affect the entire country. However, 66% of the country is located on active fault zones. In terms of direct economic losses, natural disasters have, on average, accounted for 1% of GDP. The majority of the population (70%) lives in seismically active, earthquake-prone areas, where major economic investments and significant vital infrastructure (75% of the country's industrial plants) and related construction take place. (AFAD 2013). The major risk zones are shown in Figure 3 and Table 2.



Figure 3: Turkey Earthquake Zoning Map, (Source: AFAD)

Table 2. Distribution of major seismic risk zones in Turkey.

Earthquake zone	Population (%)	Surface Area (%)	Major Industry Centers (%)	Dams (%)
Zone I	45	42	51	46
Zone II	26	24	25	23
Zone III	14	18	11	14
Zone IV	13	12	11	11
Zone V	2	4	2	6

Source: Adapted from Ganapati (2008), as adapted from JICA (2004) Country Strategy Paper for Natural Disasters in Turkey, based on data from the General Directorate of Disaster Affairs (GDDA).

³ UN-OCHA website, Turkey. Accessed 25 September 2014: <http://www.unocha.org/romena/about-us/about-ocha-regional/turkey>.

The zones listed in the above table are defined according to the identified active faults in the country. These have been combined with the catalogue of previous earthquake occurrences to develop the map as shown in Figure 3. Zone I, which is coloured in red, represents the highest hazard potential, which also represents the largest portion of Turkey that is prone to seismic risk. In Turkey 70% of the total surface area and 76% of its industrial facilities are on first and second degree seismic hazard zones.

Turkey is also prone to floods, which are the most frequent and costly natural disasters in Turkey in terms of human impact and economic loss. According to the historical flood database, 4,067 flood occurrences in Turkey have been recorded between 1955 and 2009, causing 1,400 deaths and serious damage to 30,800 dwelling units. Landslides, rock-falls and avalanches have also caused significant human and economic loss during the last 50 years. From 1955 to 2009, landslides affected 5,472 settlements and killed 200 people. In this period 68,300 dwelling units were relocated to safer places. Landslides frequently affect inner and eastern Anatolia, and particularly the Black Sea regions in Turkey. According to AFAD data in 2013, 25% of the country is exposed to landslide hazards, with 11% of the population located in landslide areas. Finally, extreme winter conditions, cold waves and heat waves have affected thousands of people and killed several hundred during the years. The direct economic losses of such weather conditions (heat waves) are not taken into account in the EM-dat database.

Sources: (WMO, 2012; AFAD)

1.1.2 Risk assessment mechanism and procedures

The Disaster and Emergency Management Presidency (AFAD), the national level competent authority concerning disasters and emergencies, is responsible for preparing multi-hazard assessments, including maps and micro-zoning mapping studies, which are then developed at the regional level and in particular for urban areas. The government has invested significant resources in a number of projects aimed at determining the natural and man-made risks that threaten the country and on how to manage them. An important step in this regard occurred with the establishment of the Turkish Disaster Data Bank in 2014. The Turkish Disaster Data Bank project, conducted by the Middle East Technical University (METU) Disaster Management Centre and AFAD, aggregates data on historical risks to demonstrate the nation's vulnerabilities in order to identify strategic priorities for future risk mitigation. A second important project, the Disaster Risk Modelling project, was launched in early 2014. This project will use mathematical models to perform predictions of probable disasters.⁴

Numerous risk assessments exist, however they focus primarily on geophysical hazards - and generally limited to earthquakes - and on the Marmara region. Regarding floods, hazard maps have only been prepared for West Black Sea Region based on the floods of 2010. These maps were produced by Turkish State Hydraulics Works (DSI). Moreover, no national level multi-hazard risk assessments have been developed to date with a common methodology available to inform planning and development. According to current legislation and strategic planning, AFAD has commenced

⁴ Statement by H.E. Ambassador Mehmet Ferden Cariki, Permanent Representative of the Republic of Turkey to the UN Office at Geneva and Other International Organisations in Switzerland (2014). First Preparatory Committee of the 3rd World Conference on Disaster Risk Reduction, 14-15 July 2014, Geneva.

efforts towards the development of the definition of risk assessment standards for the full spectrum of disasters. Moreover, AFAD is tasked with developing risk assessment guidelines for local governments and providing technical support to local authorities to carry out risk assessments in their jurisdiction. These local risk assessments are then provided to AFAD by the local governments that have launched risk assessment studies at the local level. AFAD has acquired technical capacities in GIS and databases development and management (Department of Data Processing). (WMO, 2012)

Similarly, a number of structural vulnerability assessments exist but there is a need to strengthen socioeconomic vulnerability assessments. In addition, data production is not standardised at all levels. To this end, the Mineral Research and Exploration Institute updated the Turkey Active Fault Map beginning in 2012, which has provided the basis for updating the Turkey Earthquake Zonation Map, completed by AFAD in 2014. According to the official *HFA Monitor* report (2011-2013), AFAD is working on the preparation of Turkey Integrated Disaster Hazard Maps .

The UNDP/WMO IPA Beneficiary Needs Assessment of Turkey report (2011) indicates that the following hazard maps and risk scenarios are available.

- The National Seismic Zoning Map of Turkey (Earthquake Research Department). See Figure 3 below.
- Earthquake Prediction Models (Laboratory Division of the Earthquake Research Department, developed with the support of Germany).
- GIS for assessing the potential extent of floods and the scope of earthquake related damage based on fully digitalised nationwide geological maps⁵ (General Directorate for Mineral Research and Exploration).
- Hydrometeorological hazard risk maps, which are not systematically produced over the entire country but developed by the DMS and DSI when requested by a community.
- Forest fire susceptibility maps at the national level (General Directorate of Forestry).
- Maps showing the distribution of landslides, rock falls and snow avalanches affecting residential areas at the national level.

Several databases are available in Turkey which are important for characterizing the earthquake risk. The following databases contain the geological, geotechnical and structural engineering data provided by GIS systems and are used in order to carry out a detailed mitigation study:

- **Earthquake Source Database:** Identifies the seismic sources, characterized by their geometry, maximum magnitude, recurrence relationship, and attenuation from source to site, that define the earthquake threat for the region (e.g. Istanbul). Data may include probability of rupture on a fault segment conditional based on the timing of previous ruptures thus providing time-dependent hazard estimates.
- **Geotechnical Hazard Database:** Comprises a soil classification scheme and site characteristics, including the potential for liquefaction, landslide, and fault rupture in the study region.

⁵ *Recent Natural Disasters in Turkey: An Overview of the National Technological Capacity and Its Utilization*. 2000, <<http://reliefweb.int/node/68026>>.

- **Vulnerability Database:** Defines the engineering principles that relate ground motion characteristics and damage ratio for different types of structures in the study region. (UNDP/WMO, 2011)

Concerning floods, AFAD has access to two different databases for hazards. The first, developed by the Turkey National Disaster Archive Project – TUAA - former General Directorate of Disaster Affairs, is the National Disaster Inventory System. This database has been developed according to the EM-DAT criteria and includes (i) date and place of the event, (ii) affected area, (iii) affected buildings, and (iv) affected people (number of dead, number of injured people). It does not record geographic references, except the name of the locality. The second database is an archive of the data collected since 2009. These data, which has been collected in collaboration with the Turkish State Hydraulics Works (DSI), also contains geographic reference as well as a wealth of information related to the September 2010 floods that occurred in the black sea region.⁶ Since 2011, AFAD and DSI have been working together to develop a systematic approach to flood data collection and hazard mapping. AFAD uses this data to determine the country-level strategy for disaster and emergency situations.

Risk assessments with higher resolution are limited to the Greater Municipality owing to the high seismic risk in Istanbul. The disaster risk reduction (DRR) plan of the Istanbul Metropolitan Municipality (IMM) encompasses a comprehensive assessment of the current seismic risk situation, legal and social aspects and the regulations concerning land use, finance and education. The UNDP/WMO IPA Beneficiary Needs Assessment report indicates that

In order to prioritise interventions detailed vulnerability assessments for the health, education, energy and transportation sectors and loss estimates for each district are based on different earthquake scenarios,⁷ developed with particular attention to the assessment of the building stock and the potential impact on essential facilities including the emergency response centres. Landslide and soil liquefaction susceptibility maps are available for the entire City. The disaster impact assessment software HAZTURK, based on the American Earthquake Platform (MAEviz), has been under development since 2008 and will provide a valuable tool for determining where to allow new settlements and investment. Eventually, the HAZTURK programme will cover the whole territory of Turkey.⁸

1.2 Policy and Governance

In Turkey, the policy framework concerning natural disasters was conceived in the aftermath of the Erzincan Earthquake of 1939 with the "Measures and Assistances to Be Put into Effect Regarding Natural Disasters Affecting the Life of the General Public" no.7269 of 1959. The law attempted to fill the legal gaps in this area and established the legal basis for different phases on disaster management and the establishment of relevant state organisations (See Chapter 2). The Marmara

⁶ For more information on hazard analysis and mapping for hydrometeorological risk assessment, see WMO (2012), "Meteorological, Hydrological and Climate Services to Support Disaster Risk Reduction and Early Warning Systems in Turkey." In *Strengthening Multi-Hazard Early Warning Systems and Risk Assessment in the Western Balkans and Turkey: Assessment of Capacities, Gaps and Needs*, 211-212.

⁷ Earthquake Risk Assessment for the Istanbul Metropolitan Area developed by Bogazici University: *Earthquake Risk Assessment for Industrial Facilities in Istanbul*.

⁸ Mikdat Kadioğlu, "IPA Beneficiary Needs Assessment – Turkey," (UNDP / WMO, 2011), 7.

Earthquake of 17 August 1999 and 12 November 1999 was a watershed moment in the evolution of Turkey's disaster management system and coordination structures. The huge loss of life and large scale devastation resulting from the Marmara Earthquake made clear the need to review the state of disaster management in the country (AFAD website).

The disaster management structure of Turkey underwent an important shift in 2009. A new department called “Disaster and Emergency Management Presidency” (AFAD) under the Prime Ministry was established merging under one umbrella organisation the former three main organisations responsible for disaster management, all of which belonged to different ministries. Prior to this, the three main actors responsible for disaster management in Turkey were:

- The General Directorate of Disaster Affairs under the Ministry of Public Works and Settlement,
- The General Directorate of Civil Defence under the Ministry of Interior, and
- The General Directorate of Turkey Emergency Management under the Prime Ministry.

The activities of those three departments have since been moved to the new Presidency, which became operative since 17 December 2009. In a disaster and emergency situation, AFAD is now the only responsible organisation and functions like an umbrella organization, working with the Turkish General Staff, the Ministry of Foreign Affairs, the Ministry of Health (MoH), the Ministry of Environment and Forests (MEF) and other relevant ministries as well as non-governmental organizations, depending on the nature and magnitude of the disaster or emergency (AFAD website). The Crisis Management Centre in the Prime Minister’s Office (PMCMC) and provincial crises centres were also revoked under the new law; The PMCMC, which was previously the highest body in terms of taking and implementing resolutions related to the events covered by the concept of “crisis”, officially ceased to operate on 19 February 2011.

The AFAD Presidency undertakes the coordination function at the centre, while the responsibility for implementing the policies and operations lies with the provincial organisations – the Provincial Disaster and Emergency Directorates. AFAD is responsible for coordinating nearly all phases of disaster management including disaster risk reduction (DRR) at the national level, and installs rules, regulations, and guidelines for preparation of DRR plans at sub-national levels. It also has a coordination role between institutions and organisations. The operating administrative level becomes higher as the extent and severity of disaster grows in scale and scope. Moreover, each ministry to which reference is made in the parent law has a unit responsible for disaster management rather than there being one national coordinating agency with a more complete proper legal mandate and power. Moreover, while the reforms introduced in 2009 transferred significant responsibility for DRR and disaster response to the provincial and municipal levels, both of which now come under the responsibility of the province and district (See chapter 3), this has not been implemented in practice. The system may therefore be termed both central and decentralized but is coordinated from central bodies and functions through AFAD (WMO, 2012: 198).

1.2.1 Strategy scope and focus

Since the early 1960’s, Turkey had in place a range of regulations and implementation arrangements concerning disaster and crisis management which referred to all phases of the disaster and crisis

management cycle, however disaster and emergency management policies have been more reactionary in nature, resulting in a strategy focused on response and recovery, rather than prevention and reduction. The experience of the 1999 Marmara Earthquakes made clear the insufficiency of existing arrangements. Prior to 1999, the focus was primarily on the response and the recovery and rehabilitation phases. Since then, the focus has begun to shift to risk mitigation and prevention. This can be seen in through the two main waves in regulatory activity that have occurred over the last 15 years.

First, in 2001 the Council of Ministers enacted a series of regulations that incorporated for the first time prevention, mitigation, preparedness and response elements. These include the Building Inspection Law (No. 4708), “Building Audits”, “Implementation of Building Audits Regulations”, “Building Materials”, “Building and Development in the areas which are out of the metropolitan municipalities” (Kadioğlu, 2011), as well as regulations aiming for more effective and efficient land-use. Please refer to section 2.2 for further discussion of relevant legislation applicable to the disaster and crisis management structure of Turkey.

The second important shift in the disaster management structure of Turkey occurred on 16 December 2009 with the establishment of the new department called “Disaster and Emergency Management Presidency” (AFAD) under the Prime Ministry (Law No. 5902). AFAD was established to take necessary measures for an effective emergency management and civil protection issues Turkish nationwide. AFAD is authorized to act in all disasters and emergencies situations in the country. It has the mandate to produce and implement policies on: (i) pre-incident: preparation, mitigation and risk management before the occurrence of events, (ii) during incident: response during the event, (iii) post-incident: recovery and reconstruction after the event, and (iv) and for the effective implementation of these activities across the country.

Moreover, Law No.5902 establishes eight departments at the central level, which, in nominal terms, cover all phases in the management cycle. These are (i) the Planning and Mitigation Department, (ii) the Response Department, (iii) the Recovery Department, (iv) the Civil Defense Department, (v) the Earthquake Department, (vi) the Administrative Services Department, (vii) the Department of Information Technologies and Communication and (viii) the Department of Strategy Development.

The AFAD Strategic Plan 2013-2017, adopted in 2013, introduces a new disaster management model in Turkey, shifting the priority from “Crisis Management” to “Risk Management”. The new model, today called the “Integrated Disaster Management System”, “provides for identification of hazards and risks in advance to mitigate the losses caused by disasters and emergencies, taking measures to prevent or minimize possible losses before the disaster takes place, ensuring effective response and coordination, and carrying out post-disaster recovery works in an integrated manner.” (AFAD website). The Plan has been developed by

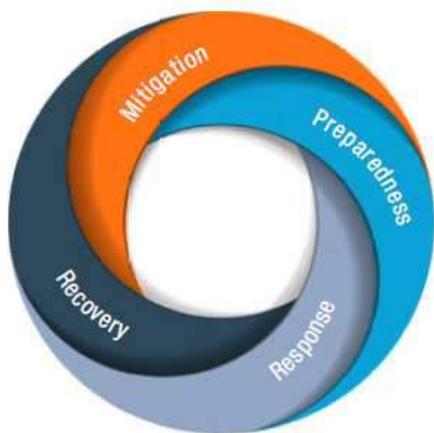


Figure 4: Integrated Disaster Management Cycle.
Source: AFAD Strategic Plan, 2013-2017.

the Presidency as required by Law No.5018 on Public Financial Management and Control. In accordance with the law, the plan details the medium- and long-term goals of public administrations, their main principles and policies as well as their goals, priorities, performance criteria, methods to be used to achieved the aforementioned goals and resource distribution.⁹

The integrated disaster management system consists of 4 axis: **Mitigation, Preparedness, Response, Recovery**. The activities and outputs for each of the axes are presented in Table 3. The Integrated disaster management system is coordinated with sustainable development efforts as in the UN Millenium Development Goals and the HYOGO Framework for Action.

Table 3. Integrated Disaster Management Cycle: Actualizing the integrated disaster management system (Source: AFAD Strategic Plan, 2013-2017).

Mitigation axis...	Preparedness axis...
<p>Covers activities oriented to reduce or eliminate the likelihood of loss or lessen its intensity through risk evaluations. Under this axis raising public awareness on disaster risk, developing organizational structures and legislation implemented before and after disasters, and developing research and development policies and strategies in line with needs and priorities are actions covered. In this framework, the following outputs constitute the basis of mitigation activities:</p> <ul style="list-style-type: none"> • Risk management and mitigation plans based on disaster and emergency studies implemented at country level, • National Disaster Management Strategy and Action Plan, • Determination of possible disaster and emergency regions and announcement of preventive measures, • Plans, projects and zoning principles for areas likely to suffer damages, • Information and evaluation reports on disasters and emergencies taking place in the country and abroad, • Principles of in-kind, in-cash and humanitarian aid, • International exchange of information, • Arrangements oriented to inform, educate and raise awareness of the public on disasters and emergencies, and • Standards of disaster and emergency services 	<p>Implicates the preparation and training activities for intervention in disasters through coordination of people and institutions. In this phase AFAD’s purpose is to ensure full scale preparedness against disasters. In this framework, the following outputs constitute the basis of disaster preparedness activities:</p> <ul style="list-style-type: none"> • Arrangements oriented to inform, educate and raise awareness of the public on disasters and emergencies, • Emergency aid and logistic service plans, • Disaster and emergency plans for miscellaneous groups, • Information, communication, forecasting and early warning systems, • Resource management system, • Risk maps, • Research and development activities, • Training of response teams, • Exercises concerning disasters, • International cooperation, • Generalizing insurance services, • Ensuring conformity of NGOs to disaster-related service standards, and • Ensuring conformity to standards of disaster and emergency management centers’ common communication and information systems
Response	Recovery
<p>Covers the activities to determine and meet all necessities that may arise as a result of disasters and emergencies, as fast as possible. In this framework, the following services are crucial in ensuring coordination and effective job distribution by AFAD for quick delivery:</p> <ul style="list-style-type: none"> • Communication • Transportation, • Protection from fire and hazardous substances, • Search and rescue, • Safety and traffic, • Health and sanitation, 	<p>Covers activities to normalize and, if possible, further improvement of all life systems that have been disrupted due to disaster or emergency, in the fastest and most accurate way. In this fframework, the following outputs and services are essential in ensuring return to normal social life and increasing disaster resilience:</p> <ul style="list-style-type: none"> • Measures to normalize life after disaster and emergency, • Safe site selection, • Disaster housing, • Credit to those building their homes,

⁹ AFAD Website, accessed 25 September 2014.

<ul style="list-style-type: none"> • Damage assessment, • Infrastructure reparation, • Safety of food, agriculture and animal, • Emergency shelter, • Nutrition, • Interment, • Debris removal, • Social support, • Logistics and maintenance, • Information management, and • Emergency aid funding 	<ul style="list-style-type: none"> • Zoning, planning and project arrangements for disaster prone locations • Post-disaster safe re-building
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In addition to the AFAD Strategic Plan, the Presidency has developed and begun implementation of three additional national strategic and action plans (all of which are inter-related with the AFAD Strategic Plan), which together build Turkey's road map until 2023.¹⁰ These plans are:

- National Earthquake Strategy and Action Plan (2013-2023)
- National Climate Change Strategy / National Climate Change Action Plan (2011-2023)
- AFAD Strategic Plan (2013-2017) [As above]
- Turkey Disaster Response Plan

AFAD's Recovery department has drafted a National Recovery Plan that is waiting to be confirmed as of the HFA NPR 2011-2013 report.



Figure 5: Mechanism for DRR in Turkey
 Source: AFAD Presentation at the 5th International Disaster and Risk Conference IDRC 2014, 24-28 August 2014, Davos, Switzerland

1.2.2 Monitoring and analytical support to policy making; R&D

Disaster mitigation activities and studies on current or possible natural disasters in Turkey are carried out according to the Act No: 7269. The AFAD Strategic Plan 2013-2017 identifies monitoring of disaster losses and hazards, and related R&D as critical to its approach to disaster risk reduction. The provincial directorates can develop project plans and submit them to the Ministry of Development for Projects, but the Presidency is the main responsible body for the development of Projects. According to the Plan, AFAD fulfils its duties in this regard by:

¹⁰ Statement by the Ambassador M.F. Cariki to the UN, July 2014.

- Collecting necessary basic data on disaster risks and developing the necessary planning tools in order to monitor the relationship between the development policy and disaster risk,
- Collecting and disseminating data required for making timely and effective development plans and policies to reduce disaster risk,
- Re-orienting disaster risk reduction sectors, mobilizing and warning the public.

At the national level, Turkey has in place a number of systems for systematically reporting, monitoring and analysing disaster losses and hazards: the National Earthquake Observation Network, operated by AFAD, produces data that is stored within the National Earthquake Data Center's database and shared with the public; The Flash Flood Early Warning Project, which covers 6 countries (Turkey, Azerbaijan, Armenia, Georgia, Bulgaria and Syria) in the Black Sea and the Middle East is being conducted in cooperation with the World Meteorology Organization (WMO) and the American Hydrology Research Centre (HRC). The output is the Flash Flood Early Warning System test products; Finally, fires are monitored by the Fire Operations Centre.

In 2012, Turkey initiated a National Earthquake Investigation Programme (UDAP). With this programme, AFAD will fund earthquake investigation projects of universities and governmental institutions between 2012 and 2023. The Annual budget for 2012 was set at 1.000.000 USD, and will increase annually. The budgets for 2013 and 2014 were 1.076.000, 1.654.000, respectively; and the budget for 2015 is set at 1.815.000 USD. In addition to this, international financial resources have been provided by World Bank, EU, JICA and Islamic Development Bank, etc. to be used in the DRR projects. Regarding the UDAP program, 6 projects (implemented by academics) had already been launched by the end of 2012. Moreover, a number of universities, particularly Karadeniz Technical University, were involved in more than thirty research projects and studies between 2011 and 2013 on reducing the disaster risks. One such project is the Disaster Emergency Management Information System (AFAYBIS) project that is being carried out by YTU. The AFAYBIS project aims to support both disaster management and e-Government studies in Turkey. During the analysis stage of the project, approximately 50 institutions related to disaster management are under examination (HFA Monitor, 2013).

At the local level, research studies have been carried out in, e.g. Istanbul which provide estimated risk parameters to the population, buildings, transportation systems, and lifelines. Parameters have also been developed to estimate the potential impact of risks on essential facilities, services and emergency response. Inventory data on urban elements at risk have been obtained from a range of sources, including from relevant state/public institutions, private companies, specific studies and from satellite imagery, and are used in the following projects and studies:

- Disaster Prevention / Mitigation Basic Plan in Istanbul including Seismic Microzonation in the Republic of Turkey – (JICA – IMM).
- Earthquake Risk Assessment for Istanbul Metropolitan Area – Bogazici University (supported by the American Red Cross) (BU – ARC).
- Earthquake Risk Assessment for Industrial Facilities in Istanbul – Bogazici University (supported by Munich-Re Group)

- Turkish Improvement of Natural Hazard Insurance and Disaster Funding Strategy (TEFER) Project – Turkish Treasury (supported by the World Bank and conducted by Cordis-Willis with the assistance of CAR and Bogazici University).

A number of R&D projects linked to the development and implementation of early warning systems in Turkey are under way. These include:

- Disaster Management and Decision Support System R&D Project (AYDES R&D)
- Disaster Management and Decision Support System Project (AYDES) – GIS Based
- Secure and sustainable communication project

1.2.3 Policy for Prevention

The policy for prevention in Turkey falls under the Mitigation axis as described above and outlined by the to the AFAD Strategic Plan, the Mitigation phase within the integrated disaster management cycle covers the “prevention phase”, however the expected outputs (presumably) related to mitigation are either extremely vague (“Determination of possible disaster and emergency regions and announcement of preventive measures”; “Risk mitigation plans...”) or read more like a strategy for preparedness rather than mitigation (e.g., “Zoning, planning and project arrangements for disaster prone locations”; “Post-disaster safe re-building Plans, projects and zoning principles for areas likely to suffer damages”).

Notwithstanding the lack of clarity on the policy for prevention, several relevant players can be identified. The Earthquake Engineering Division established within AFAD is responsible for the development of building codes and standards for construction in disaster prone areas, aimed at increased resistance to earthquakes. The Ministry of Public Works and Settlement (MPWS) is another key actor in this phase, responsible for the monitoring of the aforementioned building codes (together with the municipalities). The MPWS is also responsible for retrofitting of large scale bridges. Implementation of the building code policies is done by the local, district and provincial governments. Local governments are tasked with enforcing building codes and related urban development and planning standards within their jurisdiction. Outside the municipal boundaries, however, enforcement and implementation of building codes and standards is left to provincial and district governments.

In addition to AFAD, several government ministries are responsible for improving disaster prevention and mitigation measures within their jurisdiction. The UNDP/WMO report (2011) indicates that

The MEF is tasked with the protection of surface and underground water, sea and land environments and the prevention of pollution..the DSI and the DMI make a great contribution to disaster prevention and mitigation through their modernisation of the flood management system and by repairing the hydro-technical infrastructure within the TEFER project.¹¹

The Ministry of Environment and Urban Planning is responsible for implementation of Law No. 6306 (2012) on restructuring of areas under the risk of natural disasters.

¹¹ Kadioğlu, “IPA Needs Assessment,” 19.

1.2.4 Policy for Preparedness

The most important organisational bodies involved in the development and implementation of disaster preparedness in Turkey are the provincial and district governments. At the provincial level, the Law on Municipalities No. 5272 (2004) mandates the provincial and district governments to prepare Emergency Assistance Plans. The provincial directorate of AFAD prepares the provincial plans, which are then submitted to the governorate for approval. There are 26 service group plans below it. Depending on the type of crisis/disaster situation, the relevant public agency is to take responsibility in line with its provincial plan and in compliance with the plan of the provincial directorate of AFAD. Out of those 26 service groups, 8 group plans are prepared by the provincial directorate of AFAD. The other 18 is prepared by the provincial directorates of other central institutions/ministries.

At the central level, the Department of Planning and Mitigation at AFAD is responsible for all coordination aspects of preparedness; In the event of an earthquake, Department of Earthquakes is also involved. The main tasks/responsibilities of the department of Planning and Mitigation include:

- To prepare disaster and emergency response, risk management and hazard reduction plans, which will be applied nation wide.
- To determine possible disaster and emergency areas and to pronounce preventive measures.
- To determine reconstruction, plan and project rudiments of disaster prone areas.
- To determine cash, goods and humanitarian aid rules.
- To work for informing and raising awareness of public about disasters and emergencies.
- To collect and evaluate information about disasters and emergencies occurred inside and abroad.
- To determine standards of common communication and data systems in Disaster and Emergency Management Centres and inspect them.
- To carry out the routine works of Disaster and Emergency Training Centre related to Disaster and Emergencies.
- To execute other tasks given by Director General.
- To determine administrative strategies.
- To establish and operate all kinds of communication, early warning, data and prediction centres.
- To suggest to related agencies about public investments and personnel requirements.
- To ensure improvements and generalize insurance services.
- To determine and supervise service and accreditation standards. [Source: AFAD website]

A number of projects have been implemented to enhance preparedness and response capacities at the national and provincial levels in Turkey. The Strategic Disaster Management in Urban Areas Programme, for example, covers a range of issues, including emergency management, infrastructure and lifelines, the superstructures of buildings, cultural/historical sites, legal issues and training with a focus on geologically weak zones and inappropriately constructed building districts. The programme is illustrative of the shift from emergency response towards disaster risk reduction. The Istanbul Seismic Risk Mitigation and Emergency Preparedness (ISMEP) Project is a another important project which aims to enhance emergency management institutional and technical capacities; increase public awareness in emergency preparedness and response; carry out feasibility studies in relation to the priority public buildings for retrofitting and the preparation of retrofitting project designs; and

provide support to municipal authorities responsible for enforcing building codes. As of 2012, 71 schools had been restructured and 413 schools were retrofitted against earthquake risk within the framework of the ISMEP project.¹²

Two other organisations play a role in disaster preparedness. These are the Turkish Red Crescent Society (TRCS) and the Turkish armed forces. The former formulates Disaster Preparedness and Intervention Plans at the national, provincial and local levels, while the latter develop their own Military Emergency Assistance Plans in coordination with the provincial and local governments. The plans reviewed and revised annually and approved by the Land Forces Command (Ganapati, 2008).

1.2.5 Policy for Response

Tasks, mandates and responsibilities concerning response are ascribed to AFAD under Law N. 5902 and specified according to Law N.7269 Article 4. At the central level, AFAD's Department of Response is the responsible entity for the coordination of all disaster response activities. In the event of an earthquake, the Department of Earthquakes is also involved. The Turkey Disaster Response Plan has been prepared and published, which outlines the types of events, their levels of impact and the due coordination responsibilities of other central and local bodies. For instance, the Ministry of Health will be responsible for the psycho-social support to be provided for the surviving victims. At the provincial and municipal level, the key organisational units involved in response operations are the provincial and district (municipal) governments through the implementation of the disaster response plans by the Provincial and District Rescue and Aid Committees (RAC) (See section 3.1.2). The provincial directorate is the lead organisation responsible for response operations at the provincial level. The directorate is tied to the Governorate and has the right to ask for the participation of all other public institutions in the province. Municipalities are also involved at the level of implementation; municipal bodies are not involved in the policy development, but rather through the provision of equipment and staff in the event of a crisis. In practice, a high level secretary of the deputy mayorship is invited to the provincial directorate and may contribute to coordination of the municipal team.

The main responsibilities ascribed to the Department of Response of AFAD according to the AFAD website include:

- During the disaster and emergency situations: to carry out works to resolve the effects of disaster and emergency situations by evaluating the any source belong to public, private and NGO, foreigners and organizations;
- To manage Prime Ministry Disaster and Emergency Situations Centre;
- To ensure the establishment and management of emergency management centres at governmental agencies and in provinces;
- To define the standards of Fire Brigade and SAR Teams and to cooperate with the agencies and institutions providing these services;
- To plan and conduct protective and rescuer activities;

¹² See Government of Turkey, "Disaster Risk Management in Turkey," In *Improving the Assessment of Disaster Risks to Strengthen Financial Resilience*, 234. Washington, DC: International Bank for Reconstruction and Development, Special Joint G20 publication by the Government of Mexico and the World Bank, 2012.

- To conduct missions given by the agreements related to disaster and emergency situations;
- To co-operate with the International Agencies and Foreign Governments in its own field.

[Source: AFAD website]

In addition to the central and local governments, the Turkish Red Crescent Society is involved in response and rescue activities. The TRCS provides first aid and health services, distributes tents, foods and blankets to victims on the basis of its preparedness and intervention plans (See 0). The armed forces are also involved through the implementation of their Emergency Assistance Plans (See 1.2.4). In addition, they carry out search and rescue activities and provide services related to security, health, shelters, transportation, communication, and service to basic needs of victims (Ganapati 2008).

1.2.6 Policy for Relief and Recovery

Tasks, mandates and responsibilities concerning rehabilitation and reconstruction are ascribed to AFAD under Law N. 5902 and specified according to Law N.7269 Article 4. At the central level, AFAD's Department of Recovery is the lead entity responsible for the coordination of relief and recovery operations. The Earthquake Engineering Division at AFAD is responsible for developing the basic principles for the rehabilitation of structures damaged by earthquakes. The MPWS is also a key player during relief and recovery operations. The MPWS is responsible for damage assessment and reconstruction and rehabilitation of damaged buildings. The Ministry of Education is responsible for damages to schools. The provincial level is also heavily involved in relief and recovery in their jurisdiction.

The main tasks/responsibilities ascribed to the Department of Recovery according to the AFAD website include:

- To take necessary measures for normalising life after disaster and emergency situations;
- To assure temporary settlement at disaster and emergency areas and to provide psychological support, social aid, food and medical treatment to effected people;
- To ensure coordination with other governmental authorities on the legal process of reconstruction, planning and projection work at disaster effected areas and to supervise the activities performed;
- To accept and provide international humanitarian aid;
- To prepare reconstruction and recruitment plans for post-disaster period in cooperation with Governmental Agencies, Local Authorities, Universities and Non-Governmental Organisations and to propound this plan to Supreme Committee of Disaster and Emergency Situations and to coordinate the application of approved plans, preparation of Expansion Reports related to application. [Source: AFAD website]

The Recovery approach in Turkey focuses not only on reconstruction of damaged buildings; rather, it engages in an integrated approach that covers the disaster area as a whole, including infrastructure, schools, hospitals, road, parks and physical and social environments. The recovery activities incorporate risk reduction measures for a resilient recovery and aim to reduce necessary recovery activities in the future through strengthening infrastructure and retrofitting (HFA Monitor, 2011: 26).

1.3 Financing

1.3.1 Investing in preparedness

According to official documents (HFA Monitor, 2011), one percent of the national budget is allocated for studies, in-service training, education and awareness-raising amongst public authorities, volunteers and the population related to disaster risk reduction in Turkey.¹³ The budget of the Province Governorships is directly transferred from the AFAD Presidency. The governorship is then similarly required to transfer a minimum of one percent of their budget to the Provincial Disaster and Emergency Directorates. On top of the budget allocated by AFAD to the Provincial Disaster and Emergency Directorates, additional funding sources are available in case of any need or implementation of capacity building projects. Yet although the State has a legal obligation (Law No. 7269) to fund the costs of reconstructing buildings after an earthquake, the State has no similar legal responsibility concerning DRR. There also appears to be a dearth of information regarding the exact budgeting for such resources.

International donations are the other principal funds contributing to the disaster related budget in Turkey. Over the last decade the World Bank provided over USD 1 billion for the improvement of infrastructure, emergency management and risk reduction activities and capabilities of the country; the Japanese International Cooperation Agency (JICA), the United Nations Development Programme (UNDP)¹⁴ and the Swiss Agency for Development and Cooperation provided USD 870,000 to support of the UNDP Local Capacity Building for Disaster Prevention Programme, while the European Commission Humanitarian Aid Office has also contributed towards DRR in Turkey.¹⁵

1.3.2 Investing in consequence management

Funding for relief in the aftermath of disasters comes directly from the central government. This comes, for instance, in the form of tents, the construction of temporary residences, and rubble clean up for the residents of damaged homes, as well as in the form of compensation funds during the rehabilitation phase. Following the earthquake in the Marmara Region, temporary residences were constructed by the MPWS. Supplying temporary residences required funding to cover the rental fee of land, the cost of infrastructure provision, and actual construction costs.

AFAD is authorized to allocate the disaster response and recovery budget to the related institutions and the local government in the scope of their needs. In addition to the AFAD budget, the Ministry of

¹³ See the National HFA Progress Report of 2009 and the Information Report on DRR issued by the Republic of Turkey; and the IPA Needs Assessment p. 12.

¹⁴ See Kadioğlu, "IPA Needs Assessment," 12. Contribution from the Target for Resource Assignment (core of USD 368,900) to support the National Programme for Disaster Prevention, aimed at improving public awareness, training, upgrading capacities in technological preparedness and impact mitigation.

¹⁵ Ibid. Funding provided for 32 emergency and humanitarian relief projects through a contribution of 380,000 Euros for a UNDP programme to strengthen the capacities to cope with earthquakes and a further 20 million Euros for the Marmara Earthquake Recovery Project. IPA Needs Assessment#2, p. 12.

Finance has a Disaster Reserve Fund which can be used for the disasters during the period of recovery (HFA Monitor, 2013:31).

Finally, in 1999, in the aftermath of the two major earthquakes that caused widespread destruction of the country's building stock, the Government of Turkey enforced compulsory earthquake insurance for residential buildings on a nationwide basis (Decree 587). The purpose was to privatize the risk in two steps: (1) by offering insurance through the Turkish Catastrophic Insurance Pool (TCIP, or DASK in Turkish – Do-al Afet Sigortalari Kurumu), (2) then by exporting large parts of the risk to the world's reinsurance and capital markets. To serve this purpose, the World Bank funded the creation of the Compulsory Earthquake Insurance Authority as a separate state owned entity to carry out the National Catastrophic Insurance Programme (NCIP). With this decree law, it is compulsory to take out insurance for all residential buildings that fall within municipality boundaries, effectively abolishing the obligation of the government to extend credit to the victims of an earthquake (previously a requirement under the Disaster Law). This program became part of a larger initiative known as the Turkish Emergency Flood and Earthquake Recovery Program (TEFER – Turkiye Acil Sel ve Deprem Iyilestirme Programi). TCIP is a legal public entity managed by the TCIP Management Board, which consists of representatives of the Prime Ministry, the Treasury, the MPWS, the Capital Markets Board, the Association of Insurers, an operational manager, and an earthquake scientist.¹⁶

Limitations of the programme:

Among the limitations to the current set up is that the compulsory scheme covers only residential buildings that fall within municipality boundaries, while dwellings in small villages are excluded; it does not coverage retrofitting nor promote renewal policies, and; the penalty for non-insurance is not sufficiently high. All of these drawbacks have been cited in reference to preventing the further productivity of the policy. In addition, as TCIP is a privately funded entity, its funding has been primarily dependent upon premium contributions made by homeowners under the insurance scheme.

1.4 Policy review, Evaluation & Organisational Learning

1.4.1 Post-Disaster Assessment

AFAD is formally charged with overseeing post-disaster assessments however there is no formal mechanism for assessing the experience of individual emergencies. The Presidency keeps records of events and prepares reports on particular emergencies or disasters where significant actions have been taken. For instance, the Presidency prepared a report (which included Lessons Learned) following the experience of the Van Province Earthquakes in 2011. The reports were then sent to all provincial directorates. These reports are also shared with other stakeholders to share experience and information with all relevant and involved stakeholders.

Methodologies are available for conducting damage and loss assessments, including procedures for collecting information and calculating compensation. New comprehensive guidelines incorporating

¹⁶ For more information on the insurance schemes in Turkey, see: Turkish Catastrophe Insurance Pool, <http://www.dask.gov.tr>; Government of Turkey, *Financial Resilience*, 2012.

the use of the Geographical Information Systems (GIS) as well as a new damage assessment form that includes additional technical and administrative details are currently being developed (See HFA Progress report for 2010).

In practical terms, there is no formal mechanism for post-disaster assessment at the provincial level. Following a response operation, the relevant authorities meet to discuss the adequateness and efficiency of the legislations and capacity. On this basis, new regulations and planning is introduced. However these discussions take place informally.

1.4.2 Departmental Lessons Learned systems

There are no formalised Lessons Learned systems. Lessons learned practices are incorporated informally into post-disaster assessments, in particular where significant actions have been taken.

1.4.3 Centralised (national) Lessons Learned system

There are no formalised Lessons Learned systems. Lessons learned practices are incorporated informally into post-disaster assessments, in particular where significant actions have been taken.

1.4.4 International exchange for Lessons Learned

Turkey is engaged in international activities at the multilateral, regional and bilateral levels and currently profits from know-how and technological transfer coming from the UNDP and the World Bank. Turkey is an active member of the Capacity for Disaster Reduction Initiative (CADRI) and is eligible for support coming from the Euro-Atlantic Disaster Response Coordination Centre as a NATO member. As a candidate country for EU accession, Turkey receives significant support from the European Union and participates in a range of projects and activities. These include: the Project on the Promotion of Volunteers in Civil Protection; the Open Partial Agreement on the Prevention of and Protection against and Organisation of Relief in Major Natural and Technological Disasters; and contribution to the elaboration of the assessment manual of best practice in various types of emergencies. The Ministry of Interior has participated in meetings of the EU General Directorate since 2000 and is eligible to participate in the EU Civil Protection Mechanism for Facilitating Cooperation in the event of Major Emergencies. (IPA Needs Assessment, 2011). In addition to these activities, AFAD signed a Plan of Action with UN-OCHA in March 2013 to strengthen the partnership between the two entities. The plan foresees greater cooperation in information management, strategic and operational coordination, advocacy and capacity-building. The two are also working with Turkish NGOs to promote better collaboration with the international humanitarian response system.¹⁷

AFAD is the “Country Coordinator” of the “Working Group on Cooperation in Emergency Assistance” and the “Working Group on Experts on Seismic Risks” under the Black Sea Economic Cooperation Organisation (BSEC). Moreover, Turkey is the “Chair” of the European Forum for DRR Working Group

¹⁷ UN-OCHA website, Turkey. Available <http://www.unocha.org/romena/about-us/about-ocha-regional/turkey>. Accessed 25 September 2014.

on Governance and Accountability and is also leading a project called “Celebrating HFA Achievement on School Safety” with the UNISDR, the results of which will be presented at the Sendai Conference¹⁸

In terms of regional cooperation, AFAD actively participates in the activities and projects of DPPI SEE, BSEC, ECO, NEAMTIC and EUROMED PPRD which are mostly based of disaster preparedness and prevention.

Specifically with the EU, AFAD shares information with EU Commission bodies (DG ECHO, ODDG, etc) and attends meetings of the Commission in which it shares information regarding its risk and damage mitigation experience. However there is no integrated system connecting AFAD with the EU.

1.4.5 Regular policy reviews

AFAD conducts regular policy reviews through the high council meetings/boards where AFAD functions as the secretary (see section 3.1).

There are provincial strategies and action plans (e.g. 2012-2023 Provincial Earthquake Strategy and Action Plan, Flood Action Plan, Response Plan) and regular information exchanges with relevant institutions are held regularly and evaluation meetings are convened at the end of each year.

Following the Van Earthquakes in 2011, the regulation on SAR operations was revised, damage assessment forms were renewed and the regulation on the site selection for disaster housing was revised.

1.5 Resilience

Turkey’s approach to the concept of resilience is based on increasing disaster awareness through education (educational campaigns in 2013) with the aim to build a more resilient society. This is considered to be an important component of Turkey’s overall approach to DRR. AFAD is responsible for education, training, and awareness-raising activities in the field of disaster risk reduction.

Regarding standard, no specific international standard is pursued; rather, standardisation is sought through the application of the relevant regulations and circulars. AFAD undertakes the role of accrediting the NGOs and organises awareness raising meetings with the private sector representatives. However, they do not have a regulatory or auditing power on the standards for different stakeholders.

Equipment that has been standardised includes: uniforms/service dressed were standardised, provincial duties, representation in protocols, indispensable equipment at the provincial directorates were standardized.

¹⁸ Statement by H.E. Ambassador Mehmet Ferden Cariki, Permanent Representative of the Republic of Turkey to the UN Office at Geneva and Other International Organisations in Switzerland (2014). First Preparatory Committee of the 3rd World Conference on Disaster Risk Reduction, 14-15 July 2014, Geneva.

1.6 Information sharing and data protection

Turkey does not have an updated database in use. While in the past there were obligations for civil defence that included registers, with the establishment of AFAD, civil defence records halted and it was turned into volunteering; They have the roster of NGOs but not the individual volunteers. So they do not share such volunteer information. Relevant regulation (for certification or standardisation) has not yet been prepared by AFAD. Studies on this issue are ongoing.

According to the HFA Monitor report (2011), “All the inventories and human resources of Provincial Disaster and Management Directorates are recorded to the system. On the other hand, the capacity and the resources of the volunteers are not reported, recorded or consolidated.” (p. 34).

The use of social media is not common practice for the purpose of crisis management in Turkey. No such plans in the making.

The provincial directorate is usually informed through calls/notification from the local people. Or other public units (such as law enforcement agencies) provide information. Then the provincial AFAD people go to the site and provide information to the directorate.

No such policy is in place regarding the sharing of classified information and the current regulations do not foresee sharing of classified information. The regulation is developed based on local experience.

2 Legislation

2.1 Crisis (emergency, disaster) management concept

Law no 7269 on Precaution and Aid Against Disasters Effecting Common Life, dated 15 May 1959, introduced the concepts of disasters such as earthquake, flood, landslide, rock fall, avalanche, fire and storm, and possible disasters, and covers the measures to be taken for the protection of lives and property before a disaster in settlement areas that are prone to disasters.

2.2 General crisis (emergency, disaster) management law

The current disaster legislation framework consists of a range of laws, decree laws, regulations, directives and circulars which date back to the late 1920's and 1930's since the Republic of Turkey was established in 1923. The evolution emergency and disaster management law can be viewed in four main phases: Period I (1923-1942), Period II (1943-1952), Period III (1953 – August 1999) and Period IV (August 1999 – present).

The first period is characterised by a reactive approach to disasters, whereby legislation was developed as a response to disasters on an ad-hoc basis. The first law on disasters, Law No. 3773 on “Assistance to Those Who Suffered from Damages in Erzincan and in Areas Affected by Erzincan Earthquake” was passed on 17 January 1940 in the aftermath of the Erzincan Earthquake of 1939. This law did not cover any aspects of preparedness or mitigation; rather, it provided victims with tax relief, financial aid, land and construction materials.

The second period (1943 – 1952) saw a flurry of activity, notably including the introduction of the first proactive laws on disasters in Turkey. Among these are the Law No, 4373 (1943) on “Precautions for Prevention of Floods and Underground Waters” and Law No. 4623 (1944) on “Precautions to be Taken Before and After Earthquakes”. The latter empowered local governments to take necessary measures in the event of an earthquake. Both pieces of legislation were introduced following major events that caused major deaths and infrastructural damage.

The third period (1953 – August 1999) saw the emergence of an organisational structure to cover all phases of disaster management in Turkey. Most notably, in 1958, Law No. 7126 on Civil Defense established the General Directorate of Civil Defense under the Ministry of Home Affairs. With this, the directorate and its local branches were tasked with disaster response and preparedness. One year later, 1959 witnessed a critical codification of the legal regulations in terms of disaster management in Turkey with the passage of Law no. 7269 on "Measures and Assistances to Be Put into Effect Regarding Natural Disasters Affecting the Life of the General Public". The law attempted to fill the legal gaps in this area and established the legal basis for different phases on disaster management and the establishment of relevant state organisations. The law has been amended

several times, though it is still the main legislative document on disasters in Turkey. Finally, the third major piece of legislation introduced during this time period is the Development Law No. 3194 (1985). The Development Law outlines the principles of preparation and implementation of plans for settlements, building construction and building permits by local and provincial governments, as well as the role of central government Ministries. Additional disaster-related laws introduced during this period can be found in the Table 4 below. (Ganapati, 2008).

The fourth period, in the aftermath of the 17 August 1999 earthquake, is characterised by several organizational and institutional reforms towards a more proactive (ie, a focus on disaster risk reduction) and decentralized disaster management system. This has occurred through two main waves of regulatory activity, which have effectively transformed the disaster management landscape in Turkey. First, in 2001, the Council of Ministers enacted a series of regulations that incorporated for the first time prevention, mitigation, preparedness and response elements. These include the Building Inspection Law (No. 4708), “Building Audits”, “Implementation of Building Audits Regulations”, “Building Materials”, “Building and Development in the areas which are out of the metropolitan municipalities”. The regulations are monitored and implemented by the Ministry of Public Works and Settlements (MPWS) (or its internal bodies related to the subject) at the central level, together with the municipalities, to which the MPWS assigns some of its responsibilities, at the local level. However no similar developments have occurred in the domain of hydrometeorological risks.¹⁹

The second important shift in the disaster management structure of Turkey occurred on 16 December 2009 with the establishment of the new department called “Disaster and Emergency Management Presidency” (AFAD) (*Afet ve Acil Durum Yonetimi Baskanligi*) under the Prime Ministry (Law No. 5902). AFAD was established to take necessary measures for an effective emergency management and civil protection issues Turkish nationwide. The new law combines under one roof the actors responsible for Disaster Management. The law describes the necessary administrative structure, its activities, responsibilities, relations with other units and running of tasks related to disaster and emergency management of natural technological and human originated hazards. The law aims: (1) To take necessary precautions and measurements on disaster and civil protection related services at country level; (2) to maintain coordination amongst the organisations that have a role in pre- and post- disaster activities; (3) to policy making and implementation on disaster management.

The law N.5902 defines the central and provincial level structure of the new unit. According to this law there are six departments at central levels. In each city, there is a provincial disaster and emergency management directorate that is directly attached to the governor of the city. The six central level departments are:

- Department of Planning and Mitigation
- Department of Response
- Department of Recovery
- Department of Civil Protection [Also referred to by AFAD as “Civil Defense”]

¹⁹ For more on Building-related legislation in Turkey, see Government of Turkey, *Financial Resilience*, 2012.

- Department of Earthquakes
- Department of Administrative Affairs/Services
- Department of Legal Consultancy [Added 24 October 2011]
- Department of Information Technologies and Communication [Added 24 October 2011]
- Department of Strategy Development [Added 24 October 2011]

The duties and responsibilities of the departments as set out in the legislation are outlined in Chapter 1. The Table 4 below summarises the main disaster-related laws and regulations in place in the Republic of Turkey.

Table 4. Relevant legislation, Laws
(Sources: AFAD Strategy, 2013; Ganapti, 2008; Ural 2005a)

Name of Law	Law Number / Year Official Gazette	Details
Civil Defense Law	Law No. 7126 / 1958 Official Gazette No. 9931	Establishes the General Directorate of Civil Defense under the Ministry and describes the responsibilities of the directorate and its local branches in relation to disaster response and preparedness; Addresses issues of training on civil defense
Measures and assistances to be put into effect regarding disasters affecting the life of the general public	Law No. 7269 / 1959 Official Gazette No. 10213	Confers extraordinary powers to provincial governors and district heads and details responsibilities of these and other key players in disaster scenarios; includes statements on relocation of settlements.
Decree on Basic Principles Related to Disasters Affecting the Life of the General Public	1968, Official Gazette No. 13007	Outlines the basic criteria to be used in declaring disasters
Extraordinary Situation Law	Law No. 2935 / 1983	Provides the legal basis for action to the respective bodies in a state of emergency (together with the 1984 Decree on State of Emergency Council (No. 84/7778))
Development Law	Law No. 3194 / 1985 Official Gazette No. 18749	Outlines principles for preparation and implementation of plans for settlements, building construction, and building permits by local and provincial governments; outlines role of MPWS concerning settlement plans, and that of State Planning Organization concerning regional plans.
Regulation on Emergency Response Organizations and Planning Principles for Disasters	No. 12777 / 1988	Establishes the central and provincial organizations and the fundamental principles of the plans with regard to emergency management; specifies the duties and cooperation of the governors, affiliates, military organizations which take part in the management of emergency services and emergency relief plans of the Red Crescent. (Ural) *REPEALED BY 5703/2014
Execution of services related to damage and disruption caused by natural disasters	Law No. 4123 / 1995	Outlines procedures of distribution of financial aid to areas affected by disasters
Regulation on Management of Prime Ministry Crisis Center	No. 8716 / 1997	Outlines the structure, duties and responsibilities of the Central Crisis Management Center.
Regulations on Disaster Mitigation	Decree No. 582 / 1999	Provides information concerning debris removal following a disaster. According to the Decree, the Prime Ministry, and the Local Government support an Emergency Fund Program that provides resources from the Ministry of Finance in disaster

Name of Law	Law Number / Year Official Gazette	Details
		response(Ural)
General Directorate of Turkish Emergency Management	Decree No. 583 / 1999 *REPEALED AS OF 2009 (Law no. 5902)	Establishes a unit called the General Directory of Emergency Management under the Prime Minister's Office to undertake disaster mitigation measures. The unit was established with a staff of 16 and was soon after promoted to a General Directorate responsible for high level coordination. The functions of the General Directorate include; (1) coordination of post disaster activities; (2) formation of emergency management units in public organizations; (3) promoting and supporting disaster mitigation measures; (4) short-term and long-term planning of related tasks; (5) formation and management of data banks; (6) coordination of relief equipment and vehicles; (7) formation of technical committees." (Ural) Repealed
Regulation on Civil Defense and Municipality Law	Decree Law No. 586 and 596 / 1999 and 2000	Enhances response capacity of the Ministry of the Interior (where the government's search and rescue teams are located) with the establishment of provincial directorates of civil defense in 11 provinces. These are equipped with necessary vehicles and devices recruiting 2500 personnel and 300 on a contractual basis, to prepare detailed local plans for their training and exercises; the SAR teams are to be created within hours.
Decree Law on Mandatory Earthquake Insurance	Decree No. 587 / 1999 Official Gazette No. 23919	Establishes the responsibilities of the Natural Disasters Insurance Administration and details how it is governed; provides information on the earthquake insurance regulation for residential buildings located in urban areas; Public buildings and buildings in rural areas fall outside the scope of the decree.
Law on Building Inspection	Law No. 4708 / 2001 Official Gazette No. 24461	Establishes responsibilities of Building Inspection Firms (BIFs) and inspection Committees regarding construction inspection.
Mandate on the Establishment of the Independent National Earthquake Council	No. 2000/9 / 2000	Establishes the independent National Earthquake Council to identify priority research areas for disaster mitigation and to scientifically assess earthquake predictions *CLOSED in 2007; now replaced by EAB of AFAD
Decree Law on Changes Related to Laws Concerning Engineering and Architecture and Turkish Union of Chambers of Engineers and Architects	Decree Law No. 601 / 2000	Enhances the professional competence standards of engineers and architects involved in construction
Decree on Working Procedures and Principles of Natural Disasters Insurance Administrations	2001 Official Gazette No. 24600	Outlines the responsibilities, procedures and working principles of the Natural Disasters Insurance Administration

Name of Law	Law Number / Year Official Gazette	Details
Law on Municipalities	Law No. 5272 / 2004 Official Gazette No, 25680	Establishes the responsibilities and describes the organisational structure of municipalities ; provides details on their budget arrangements. It is the main legislation that gives additional power and responsibilities to Municipalities, previously limited to mitigating disasters
Disaster Insurance Law	Law No. 6305/ 2006	Determines the procedures and principles for the compulsory earthquake insurance to cover the financial losses which may arise in buildings due to earthquakes and for the insurance and reinsurance coverages to be presented in order to cover the material and physical damages which may arise as a result of various disasters and risks which cannot be covered by insurance companies, or which bring about challenges with regards to offering coverage.
Restructuring [Transformation] of areas under risk of disasters	Law No. 6306 / 2012	Responsible for determining the procedures and principles regarding recovery, resettlement, renewal to provide healthy and safe living environments in the areas under the risk of disaster and in the other areas and fields where risky constructions exist .
Organization and Functions of the Disaster and Emergency Management Presidency	Law No. 5902 Official Gazette No.	Lays down the provisions to be implemented where there is a need for a declaration of a state of emergency in cases of serious disturbances of public order by epidemics, serious economic recessions, and comprehensive terrorist acts in order to distort the democratic order established by the Constitution and to eliminate fundamental rights and freedoms.

2.3 Emergency rule

The conditions for extraordinary situations resulting in a state of emergency are described in Art. 4 of the Law No. 7269. The 1983 Law on State of Emergency (No. 2935) and the 1984 Decree on State of Emergency Council (No. 84/7778) provide the legal basis for action to the respective bodies in a state of emergency. Under the law, a state of emergency can be announced by the Prime Minister only. If a state of emergency is declared by the Council, Governors and district heads are mandated to implement it. Under Law No. 2935, personal rights may be restricted with the decision of the Cabinet and Council of Ministers.

At the regional level, the law stipulates that the regional governor has the authority to request help from government agencies and may establish State of Emergency Bureaus in the provinces (Ganapati, 2008). The Governorate/Provincial Directorate prepares a report to identify the “regions exposed to disaster”. The region exposed to disaster might be small (as 3-4 dwellings) or large as size of a neighbourhood, or a flood plain. Then the report is submitted to the AFAD Presidency and the Presidency submits it to the Council of Ministers for approval. The province where the disaster takes

place is then declared as “disaster region”. This is a broader concept which also includes the neighbouring provinces/governorates and creates obligations for them to provide support. In the disaster region, different response actions may be taken due to the nature of the disaster.

The 1988 Decree on Emergency Assistance Organisation and Planning Related to Disasters (No. 88/12777) confers extraordinary powers to both provincial governors and district heads to cope with an emergency. These powers could be exercised within 15 days of the disaster and include the following mandates:

- (i) to mobilize and assign tasks to men between the age of 18 and 65 (except military officers and judges);
- (ii) to confiscate public and private land, buildings, vehicles (including live animals), equipment or any other needs of the public (e.g., food, medicine, clothes); and
- (iii) to utilize necessary equipment for emergency communication and mobilization of emergency assistance, such as phones, radios and TV stations. (Ganapati, 2008).

The 1988 Decree has been repealed in 2011 by the implementation of Law No. 5902.

Expert interviews reveal that the conditions vis-à-vis the concept of urgency as laid out in Law no 7269 are vague and not clearly defined.

2.4 Specific, department/agency-level legal arrangements and regulations on emergency and disaster management

In Turkey there is no national body responsible for the multi-sector coordination of DRR activities, and institutions are oriented historically mainly towards response. Moreover, there is no one national coordinating agency with a complete proper legal mandate and power (Kadioğlu, 2011: 9). Under the new Law No. 5902 (2009), AFAD has the mandate to coordinate the institutions which are responsible for different types of disasters. This includes the Forestry and Hydraulics Ministry for floods, the Environment and Urbanization Ministry for climate change, and the Food, Agriculture and Livestock Ministry for droughts. However, according to Law No. 7269 of 1959, which is the main legislative document and relates to all disaster-related activities and responsibilities at country level, MPWS is the coordinating governmental body. Both legislative acts are in operation, which means the coordination itself has not been identified very clearly by related legislation.

As for specific roles of the different organisations involved as set out in the legislation,

- According to Law No. 7269, MPWS is the main body responsible for the coordination of disaster response activities;
- According to Law No. 5902 AFAD is responsible for coordinating nearly all phases of disaster management, including DRR at the national level, and for instigating the rules, regulations and guidelines for the preparation of DRR plans at the sub-national level;
- According to Law No. 8716, the PMCMC is responsible for managing (natural) crisis situations, including emergency communications services, and for directing all preparations and activities for prevention and mitigation and for coordinating the work of all ministries.

Although the Law No. 5902 greatly improved the efficiency of the different phases of the disaster management cycle, official documents report that the coordination mechanisms between AFAD, MPWS, PMCMC and the ministries, and between public authorities and other actors remain insufficient. Moreover there are still “conflicts between laws governing sectoral responsibilities and

the Disaster Law as well as what type of planning processes are necessary for DRR which need clarification.” (Kadioğlu, 2011: 9)

2.5 Specific to the regional and local authorities legal arrangements and regulations on emergency and disaster management

The objective of decentralisation in the post-1999 period is supported by a number of laws and regulations. To this end, the latest legal arrangements regarding local governments in Turkey are the Special Provincial Administration Law No. 5302, Municipality Law No. 5393 and Metropolitan Municipality Law No. 5216.

In terms of the institutional setup, Law No. 5902 defines the central and provincial level structure of the new unit, which translates into a structure that involves all concerned governmental bodies and is replicated almost identically at the central (Prime minister), provincial (Governor) and local (Sub-governor/Qaimaqam/District Governor) levels.²⁰ Prior to 1999, the local governments did not have a legal role to play in disaster preparedness. Laws and regulations have since been introduced to formalise their participation. The Municipality Law No. 5393 is the main legislation that gives additional power and responsibilities to municipalities. According to this law, a municipal administration can be established in localities of more than 5,000 inhabitants with a referendum. As to provinces and districts, municipal administration has to be instituted irrespective of their population. Metropolitan municipalities are defined as "Cities which comprise more than one district within their own boundaries". This concept was introduced by the Act of Metropolitan Municipalities (No: 5216).” (Ural 2005a)

Concerning disaster management, according to the Law on Municipalities (No. 5272, 2004), local governments are now responsible for making disaster and state of emergency plans, as well as public awareness programmes. The law states:

Bearing in mind the characteristics of the town, the municipality shall draw up the necessary disaster and emergency plans to protect the town from fire, industrial accidents, earthquakes and other natural disasters and reduce the damage caused by such disasters, and prepare the necessary teams and equipment for the purpose.

In the preparation of emergency plans, coordination shall be ensured with other provincial-scale emergency plans if any, and the opinions of relevant ministries, public organizations, professional organizations, universities and other local governments shall be consulted.

Necessary measures shall be taken to educate the public in accordance with the plans, and joint programs may be drawn up with the authorities, entities cited in the second paragraph. In the event of a fire or natural disaster outside the municipal boundaries, the municipality may provide the necessary assistance and support to the regions concerned. (Art. 53)

²⁰ Local authorities in Turkey are of three types: Municipalities, Special Provincial Administrations, and Village Administrations. (Source: IPA Needs Assessment p. 9). More details on the institutional structure of the system can be found in chapter 3.

Expert interviews further indicate that the provincial directorate has no real autonomy and capabilities to take initiative at all levels are limited. The provincial directorates do not have financial capacity to intervene on their own; rather, additional financing must be requested from the Presidency, and then it may be allocated to the province.

For more on relevant legislation to the provincial and municipal levels, see:

- Law on Special Provincial Administrations No. 5302: See Article 69
http://www.migm.gov.tr/en/Laws/Law5302_SpecialProvincialAdmin_2010-12-31_EN_rev01.pdf
- Municipality Law No. 5393, Art. 53 http://www.migm.gov.tr/en/Laws/Law5393_Municipality_2010-12-31_EN_rev01.pdf ;
- Metropolitan - Law on Metropolitan Municipalities No. 5216
http://www.migm.gov.tr/en/Laws/Law5216_MetropolitanMunicipalities_2010-12-31_EN_rev01.pdf
- Municipality Law No. 5272
http://www.cevreselgurultu.cevreorman.gov.tr/dosya/legislation/Turkish_legislation/english_version/Municipality_Law_No.5272,_2004.pdf

2.6 Legal regulations on the involvement of volunteers and specialised NGOs

Prior to 1999, NGOs other than the TRCS did not have a legal role to play in disaster preparedness. Laws and regulations have since been introduced to formalise their participation. For example, under the Directive on Conditions of Participation of Volunteers in Civil Defense Service (Ministry of Home Affairs, 2000), volunteer search and rescue teams can participate in training and drills undertaken by the General Directorate of Civil Defense. The Regulation on Voluntary Participation in Services of Special Provincial Administrations and Municipalities (2005, Official Gazette Issue: 25961, Art 5) states that “Special provincial administrations or municipalities may, depending on their purview, employ volunteers” for the purpose of “Inspection and emergency services such as traffic, fire fighting, search and rescue”²¹

Specific provisions for the involvement of the NGOs however are mainly foreseen in the provincial plans prepared by the provincial directorates. No specific rules or policies on liability or insurance regarding their involvement are in place. It is anticipated that this issue will be handled together with the regulation of volunteer participation.

²¹ Regulation on Voluntary Participation in Services of Special Provincial Administrations and Municipalities (2005, Official Gazette Issue: 25961, Art 5). Accessed 12 November 2014. http://www.migm.gov.tr/en/Regulations/Reg_VoluntaryParticipationInSPA&MunicipalServices_2010-12-31_EN_rev01.pdf

2.7 Legal regulations for international engagements of first responders and crisis managers

The Presidency is authorised to establish connections for international engagement; In kind and in cash assistance or other technical support provided by the international organizations are coordinated through the Presidency. Law no. 7126 on Civil Defence (1959) regulates the rescue and first aid actions that are to be carried out during disasters. The provincial directorate are not capable to establish connections with the international organizations.

3 Organisation

As shown in the previous chapter, the current organisational structure of disaster management in Turkey is based on a number of different laws and regulations related to disasters. The range of actors that may be involved in a disaster or crisis situation in Turkey are many and wide-ranging. Different government units at the central, provincial and local (municipal, district) levels are involved in different aspects of disaster and crisis management. These include disaster- and crisis-related departments of certain ministries, the Prime Minister’s Office, provincial and local governments, NGOs and the Turkish armed forces (Ganapati, 2008). See, for instance, Figure 6 below.

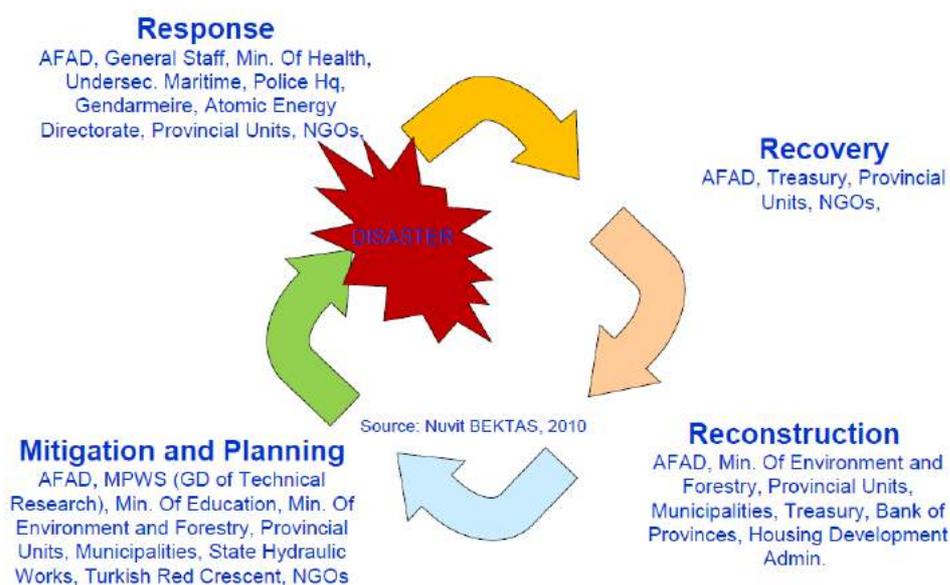


Figure 6: Crisis Management Cycle
(Source: EFDRR presentation)

In a disaster and emergency situation, AFAD is the only responsible organisation at the national level. AFAD functions like an umbrella organization; depending on the nature (type of disaster ranging from floods to extreme weather to earthquakes), the incidence level (local, provincial, national) and magnitude of the event, AFAD collaborates with the Turkish General Staff, the Ministry of Foreign Affairs, the Ministry of Health, the Ministry of Forests and Hydraulic Works and other relevant ministries as well as non-governmental organizations. At the local level, there are three types of authorities: Municipalities, Special Provincial Administrations, and Village Administrations. The IPA Needs Assessment report (2011) states that “[l]ocal administration is organised in a dual fashion with appointed governors acting as agents of the central authority in the eighty-one provinces. Vice and deputy-governors (Qaimaqams) are appointed by the governors in the districts, together with elected municipal officials.” (p. 8-9). Concerning crisis/disaster and emergency management, the 2009 reforms transferred significant levels of responsibility to local authorities. While the central government is responsible for reconstruction and rehabilitation, responsibility for mitigation, preparedness and response activities, such as the implementation of earthquake-resistant building codes for construction within their jurisdiction, come under the authority of the province (Governor)

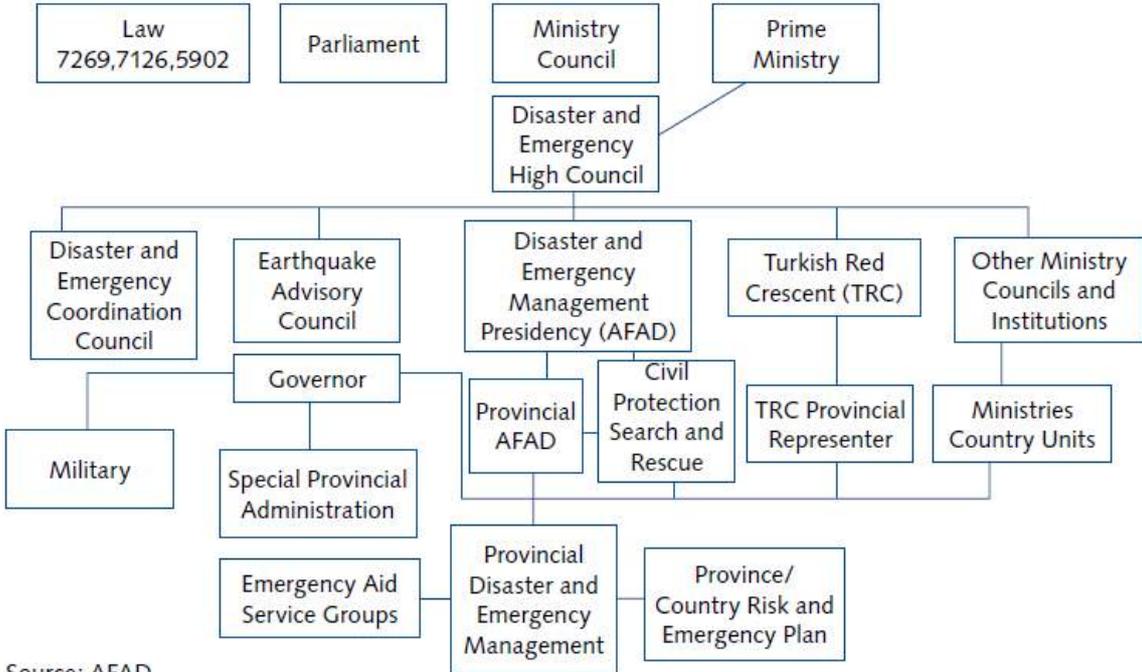
and District (Qaimaqam). Response to a disaster is under the responsibility of the Governor at the Provincial level and Qaimaqam at district level.

In practical terms, there remains a lack of clarity on the mandates of the different actors involved at the highest (central government/national) level and on the coordinating mechanisms between them and with other bodies (See Section 2.4). According to the extent and severity of disaster, the operating administrative level becomes higher. The system may be termed both central and decentralized but is coordinated from central bodies. The institutions involved may vary depending on the type and nature of the disaster or crisis, as well as on the phase in the crisis management cycle in which an activity occurs. The following sections present the main actors and organisations involved in the disaster and emergency management structure in Turkey at the national, provincial and local levels, respectively, as well as the chain of command and related arrangements.

Source: Kadioğlu, “IPA Needs Assessment,” 2011.

3.1 Organisational chart

With respect to institutions, the legal framework (see Chapter 2) translates into a structure that involves all concerned governmental bodies and is replicated almost identically at the central (Prime minister), provincial (Governor) and local (Sub-governor/Qaimaqam/District Governor) levels.



Source: AFAD

Figure 7: Organisational Management of Disaster and Emergency Management in Turkey
 [Source: Government of Turkey, *Financial Resilience*]

The disaster management structure of Turkey as shown in the above figure underwent an important shift in 2009 with the issuance of the Law No. 5902 establishing a new department called “Disaster and Emergency Management Presidency” (AFAD) under the Prime Ministry. Prior to this, disaster management in Turkey was governed by three actors. They were:

- The General Directorate of Disaster Affairs under the Ministry of Public Works and Settlement,
- The General Directorate of Civil Defence under the Ministry of Interior, and
- The General Directorate of Turkey Emergency Management under the Prime Ministry.

With this reform, the activities of those three departments have been moved to the new Presidency, which became operative since 17 December 2009. The Law no. 5902 defines the central and provincial level structure of the new organisation. Under this law there are eight departments at the central level. In each city, there is a provincial disaster and emergency management directorate that is directly subordinate to the Governor's Offices in the city.²² The Crisis Management Center in the Prime Minister's Office (PMCMC) and provincial crises centers were also revoked under the new law; The PMCMC, which was previously the highest body in terms of taking and implementing resolutions related to the events covered by the concept of "crisis", officially ceased to operate on 19 February 2011.

According to the extent and severity of disaster, the operating administrative level becomes higher. The system may be termed both central and decentralized but is coordinated from central bodies. The institutions involved may vary depending on the type and nature of the disaster or crisis, as well as on the phase in the crisis management cycle in which an activity occurs.

3.1.1 National level authorities and organisations

Disaster and Emergency Management Presidency (AFAD)

AFAD was established by the Law No. 5902 (2009) to take necessary measures for effective emergency management and civil protection issues nationwide. In a disaster and emergency situation, AFAD is the only responsible organisation at the national level. AFAD functions like an umbrella organization; depending on the nature and magnitude of the disaster or emergency, AFAD collaborates with the Turkish General Staff, the Ministry of Foreign Affairs, the Ministry of Health, the Ministry of Forests and Hydraulic Works and other relevant ministries as well as non-governmental organizations. Established in December 2009, AFAD is responsible for Disaster and Emergency Management of Turkey (excluding drought issues), for the provision of effective emergency management and civil protection nationwide and for coordination of other institutions at every phase of disaster management.

AFAD has the responsibility for coordinating nearly all phases of disaster and crisis management including disaster risk reduction (DRR) at the national level, and installs rules, regulations, and guidelines for preparation of DRR plans at the provincial (sub-national) levels. It also has a coordination role between institutions and organizations. AFAD is authorized to act in all disasters and emergencies situations in the country. It has the mandate to produce and implement policies on: (i) pre-incident: preparation, mitigation and risk management before the occurrence of events, (ii) during incident: response during the event, (iii) post-incident: recovery and reconstruction after the

²² Prime Ministry – AFAD, "A new change in the disaster management structure of Turkey," 17 December 2009, accessed 25 September 2014, <http://preventionweb.net/go/12840>.

event, and (iv) and for the effective implementation of these activities across the country. AFAD further has the mandate to:

- define the needs of in kind, in cash and humanitarian assistance;
- determine management strategies;
- establish and operate all kinds of information, communication, forecasting and early warning systems;
- make proposals to the relevant authorities with the need of public investment and personnel;
- implement training activities and exercises;
- take the recovery measures to ensure return to normal life after the disaster;
- provide temporary settlement in disaster areas.

The law N.5902 defines the central and provincial level structure of the new unit. According to this law there are eight departments at central levels. In each city, there is a provincial disaster and emergency management directorate that is subordinate to governor of the city.²³ The eight central level departments are:

- Department of Planning and Mitigation
- Department of Response
- Department of Recovery
- Department of Civil Protection
- Department of Earthquakes
- Department of Administrative Affairs/Services
- Department of Information Technologies and Communication [Added 24 October 2011]
- Department of Strategy Development [Added 24 October 2011]
- Department of Legal Consultancy [Added 24 October 2011]

The duties and responsibilities of the departments as set out in the legislation are outlined in Chapter 1.

²³ Prime Ministry – AFAD, “A new change in the disaster management structure of Turkey,” 17 December 2009, accessed 25 September 2014, <http://preventionweb.net/go/12840>.

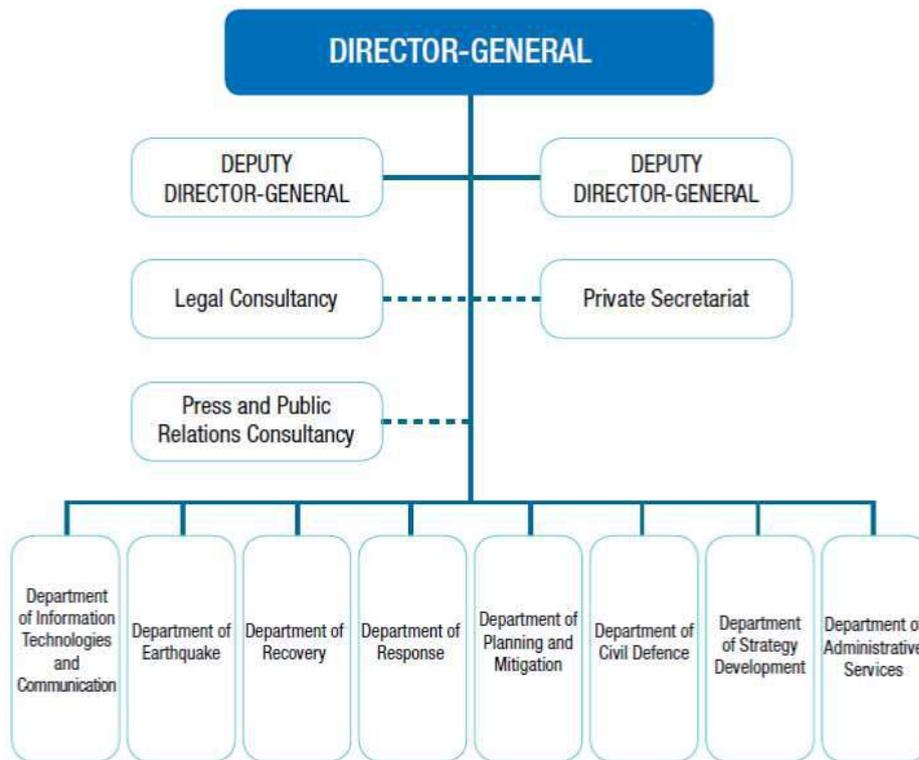


Figure 8: Organisational Chart of the Disaster and Emergency Management Presidency (AFAD)
 (Source: AFAD Strategic Plan 2013 – 2017)

The above figure illustrates the organisational chart of the Presidency. The law defines the duties and responsibilities of each department. These have been outlined in chapter 1 where relevant.²⁴ Under the eight departments, several working groups have been established to cover different topics as shown in Figure 9 below.

²⁴ For more information and the full descriptions of each of the departments identified in the Figure, please refer to the AFAD website at <https://www.afad.gov.tr/EN/Index.aspx>.

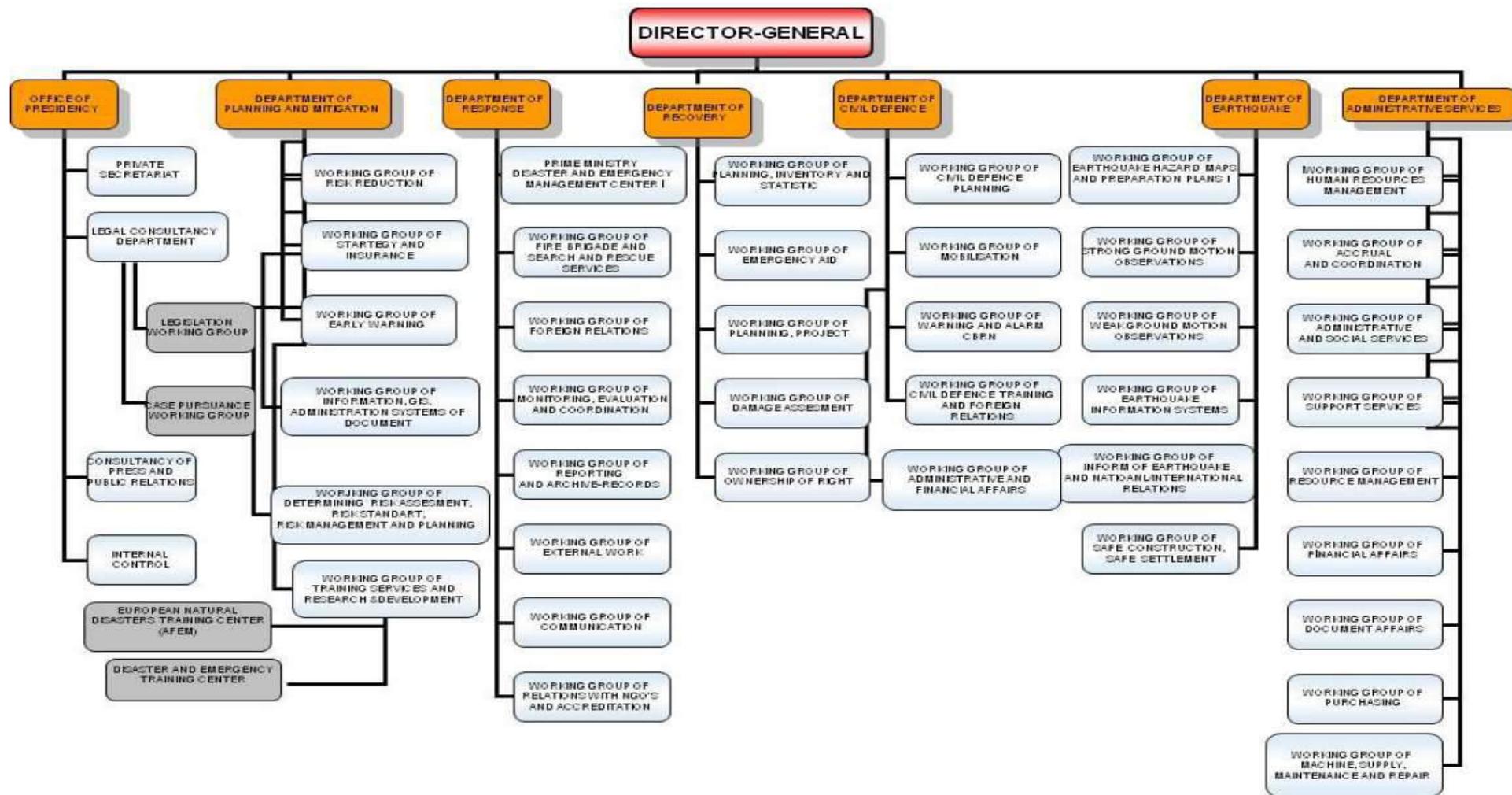


Figure 9: Working Groups under the Central Level Departments of the CM authority (Source: AFAD 2010, EFDRR presentation).

In addition to these departments there are three high levels boards/committees. The composition of these committees/boards is presented in Figure 10.

- **The Disaster and Emergency Management Higher Committee/Supreme Board**, consists of appointed ministers under the chair of the Prime Minister or his/her appointed Deputy Prime Minister. The board is tasked with the duty of approving the plans, programmes and reports related to disasters and emergencies. The Board convenes twice yearly, and may be summoned for an extraordinary meeting at the request of the chair. The Disaster and Emergency High Board consist of Undersecretaries of National Defence, Interior, Foreign Affairs, Finance, National Education, Health, Transportation, Energy and Natural Sources, Environment and Forest and Public Works and Settlement Ministries Undersecretary of State Planning Organisation, Director General of Disaster and Emergency Management Presidency, Head of Turkish Red Crescent .The Secretariat of the Board is conducted by the Presidency (AFAD).
- **The Disaster and Emergency Management Co-ordination Committee/Board**, is composed of the relevant undersecretaries and organization executives under the chair of Undersecretary of the Prime Ministry. The Board is responsible for evaluating information in cases of disasters and emergencies, determining measures to be taken, ensuring and inspecting their implementation, and ensuring coordination with agencies, organizations and NGOs. The Board convenes at least four times a year, and may be summoned for an extraordinary meeting at the request of the chair when needed.
- **The Earthquake Advisory Board** is comprised of the relevant representatives under the chair of AFAD and is responsible for presenting alternative policies for mitigating damages caused by earthquakes and setting priorities and policies for earthquake-related research. The EAB is a multi-stakeholder consultancy mechanism. The EAB provided support to the Earthquake Department in the Presidency in the preparation the National Earthquake Strategy and Action Plan that was launched in 2011. The secretariat of the Board is conducted by the Earthquake Department of the Presidency.

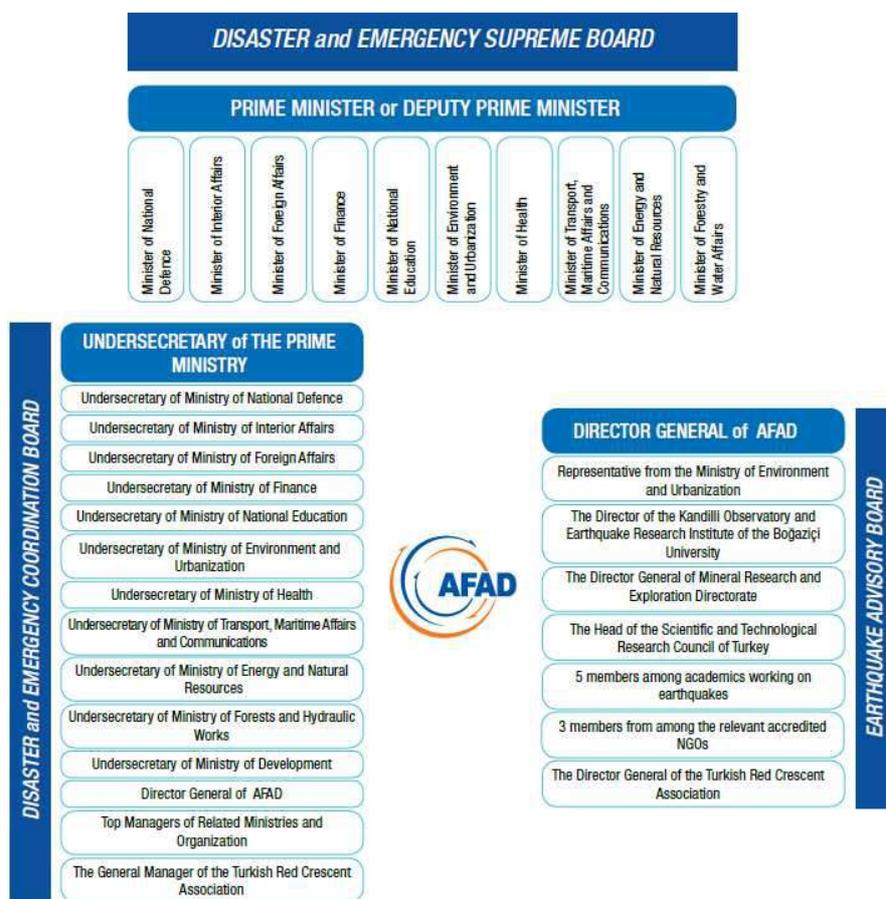


Figure 10: AFAD Disaster and Emergency High level boards/committees (Source: AFAD Strategic Plan 2013-2017).

Other ministries involved in crisis management/risk reduction and Inter-ministerial arrangements

The institutions involved may vary depending on type and severity of disaster/risk. In addition to AFAD, the relevant institutions include:

- **Ministry of Public Works and Settlement (MPWS)**, acts as the main body responsible for the coordination of disaster response activities²⁵ and develops the standards for seismic microzonation to guide safe construction within the regulations concerning “Specification for Structures To Be Built in Disaster Areas.” The MPWS is responsible for implementing and monitoring the regulations at the central level, while it is the responsibility of the municipalities to administer and enforce these regulations in practice (Kadioğlu, 2011).
- **Ministry of Environment and Forestry (MEF)**, comprises the bodies responsible for the national hydrological and meteorological services in Turkey:
 - o **General Directorate of State Hydraulic Works (DSI)**. The DSI operates the National Hydrological Observation Network through its 23 regional offices and is responsible for monitoring and hazard assessment of flood and hydraulic drought. Specific tasks include: managing the national hydrological database; producing annual and monthly reports, and; the provision of hydrological services to the agriculture, energy, environment and services sectors.

²⁵ According to Act No. 7269, “Measures and Assistance to be put into effect regarding Natural Disasters affecting the Lives of the General Public.”

- **General Directorate of State Meteorological Services (DMI)**. The DMI operates and maintains the National Meteorological Observation Network and is responsible for monitoring and hazard assessment of meteorological hazards. Specific tasks include: producing meteorological analyses, weather forecasts and warnings.
- **Ministry of Agriculture & Rural Affairs**, through the **General Directorate of Agricultural Production and Development (TUGEM)**, is responsible for the Agricultural drought management and coordinator of the Turkey Agricultural Drought Action Plan, specifically for the Monitoring and Early Warning Committee and the Risk Assessment Committee. The **General Directorate of Agricultural Research (TAGEM)** (also falling in the same Ministry) provides services and information to TUGEM and collaborates with DMI to develop R&D projects on agrometeorological early warning and crop simulation modelling.
- **Ministry of Energy and Natural Resources**, through the **General Directorate of Electrical Power Resources Survey and Development Administration (EIE)**, carries out engineering services for the production of electrical energy and is an investor public organisation. It is established under Law No. 2819 and has the status of a juridical person, governed by private law and administered in accordance with commercial methods.

(Source: UNDP/WMO, 2012; Kadioğlu, 2011)

Turkish Red Crescent Society

The Turkish Red Crescent Society (TRCS) is the main non-governmental organisation operating in the field of disaster management in Turkey. TRCS is supported by the International Federation of the Red Cross and the Red Crescent societies and forms an independent national organisation with strong legislative links to the Government and funding.²⁶ It has national, provincial and district level committees that are heavily involved in disaster preparedness through the conduct of public awareness and training activities. TRCS also actively operates in disaster areas through its search and rescue (SAR) activities. Other NGOs active in the field in Turkey are presented in Chapter 5.1.

Turkish Armed Forces

The Turkish Armed Forces are a part of central local disaster management in Turkey (though they do not play a role in DRR). During emergencies, authorities coordinate response activities with the Turkish Armed Forces. In the aftermath of the August 1999 earthquake, the Turkish Armed Forces made the decision to form a battalion size search and rescue Unit subordinate to Special Forces Command with intent to better cope with large-scale natural disasters. The special group is called “Natural Disasters Search and Rescue Battalion” (DAK) (Kadioğlu, 2011).

3.1.2 Provincial level organisations

The dual organization of local administration in Turkey that was mentioned in the introduction to this chapter, comprised of appointed governors on the one hand and elected municipal officials on the other, establishes the basis for distinguishing their different roles in disaster management. The IPA Needs Assessment Report (2011) states that,

²⁶ As referenced in Kadioğlu (2011). See also: MPWS 2008 *Interim National Progress Report on the Implementation of the Hyogo Framework for Action*. For more on TRCS, see <http://www.ifrc.org/en/what-we-do/where-we-work/europe/turkish-red-crescent-society/> ; <https://www.kizilay.org.tr/> (Turkish)

Provincial governors are agents of the central authority; therefore they perform in-line functions when managing emergency situations province-wide. This is achieved through powers provided in the 'Disasters Law' (7269). Accordingly, the governor assumes authority to act in extraordinary situations. The mayor and municipal bodies fall under the authority of the governor in these circumstances.²⁷

The organizational structure of crisis management and disaster risk reduction at the provincial level is under the authorization of the governor. The governor does not have an operational role but coordinates and mobilizes others. The governor may also demand assistance from other provinces, which have not been affected by a disaster. Figure 11 shows an example organisational chart of the provincial level for the Bursa province.

Provincial directorates

According to Law 5902, AFAD undertakes its responsibilities at the provincial level through the **Provincial Disaster and Emergency Directorates** and the **Provincial Civil Defense Search and Rescue Team Directorates** that have been established in 11 provinces. Each city/province has its own Provincial Directorate for Disaster and Emergency Management, which are directly attached to the city governors and responsible for:

- Determining hazards and risks at the provincial level;
- preparing provincial emergency aid and response plans for the province with the help of the Provincial Search and Aid Groups and in cooperation with the Provincial Red Crescent Units (Law No. 5902);
- implementing and monitoring emergency and response plans in times of disasters;
- managing the logistic services at the time of disaster and emergency;
- undertaking loss and damage assessments of the province;
- accrediting civil society organisations involved in disasters (e.g., search and rescue teams);
- managing the Provincial Disaster and Emergency Management Center; and,
- educating the public.

The Provincial Directors for Disaster and Emergency are the authorities responsible for the coordination and mobilisation of human, material and monetary resources inside and outside of the province (Law No. 7269). According to an official report, "A common problem is that provincial officials in charge of disaster management are in most cases unfamiliar with the reality on the ground, especially as the turnover of government officials can be high in certain provinces." (Kadioğlu, 2011).

Provincial Civil Defense Search and Rescue Team Directorate

While each city/province is required by law to have its own Provincial Directorate for Disaster and Emergency Management, only selected provinces are home to the Civil Defense Search and Rescue Team Directorates. The 11 provincial civil defense search and rescue directorates were established by Decree Law No. 586 and Decree 596 (2000). These are: Adana, Afyon, Ankara, Bursa, Diyarbakir,

²⁷ Kadioğlu, "IPA Needs Assessment," 9.

Erzurum, Istanbul, Izmir, Sakarya, Samsun, and Van. Each one is equipped with necessary vehicles and devices recruiting 2500 personnel and 300 on a contractual basis, to prepare detailed local plans for their training and exercises.

Provincial Rescue and Aid Committees (RACs)

Each governorship also has its own *Provincial Rescue and Aid Committee* and under this committee there are 9 service groups. The 9 service groups are responsible only for response and recovery activities. These include: communications, accessibility/transportation, search and debris removal, first aid and medical services, damage assessment and temporary shelter, security, purchase-rental distribution, agricultural services, and electricity-water sewer (Ganapati, 2008; WMO, 2012). Both the provincial and district levels are mandated by law to have rescue and aid committees (RACs). The 11 provincial civil defense search and rescue directorates described above were established to reinforce the provincial rescue and aid committees and local relief forces with more professional and alert reserves at strategically stationed regional centers.

Turkish Red Crescent

In addition to its activities at the national level, TRCS operates at the provincial and district levels as well. In every province and district, TRCS has its own branches for community participation; at the Provincial level, it has “Provincial Rescue and Aid Committees” that serve to foster community participation through volunteers and community leaders in each province and also has branches in most of the major cities.²⁸ TRCS provides blood transfusion services, first aid trainings and disaster preparedness training to support preparedness efforts. See also Chapter 4.3 and 5.1.

Military:

According to the IPA report, Although the military plays an important role in Turkey, the role of the Turkish Armed Forces in disaster management is limited to the coordination of response activities and the provision of support through provincial garrisons that are in direct contact with the governors.

²⁸ As stated in the IPA Needs Assessment Report (2011). See also: MPWS 2008 *Interim National Progress Report on the Implementation of the Hyogo Framework for Action*.

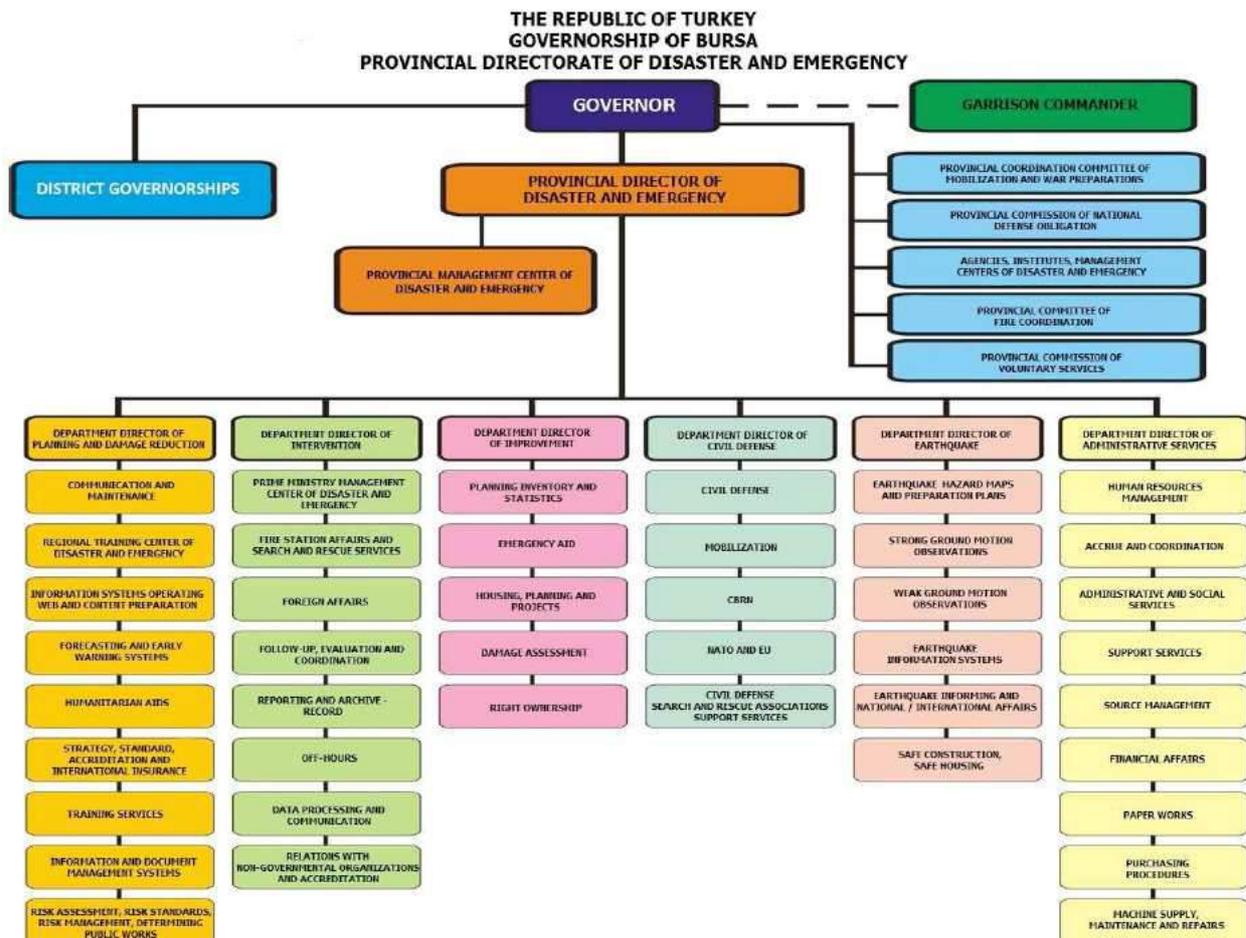


Figure 11: Example Organisational Chart of Provincial Directorate for Disaster and Emergency Management of Bursa Province (Source: Kadioglu, “IPA Needs Assessment”, 2011).

3.1.3 Municipal level authority and organisations

The Law No. 5209 also reorganised the local level arrangements regarding disaster management. The latest legal arrangements regarding local government in Turkey are the Special Provincial Administration Law (No. 5302), the Municipality Law (No. 5393) and the Metropolitan Municipality Law (No. 5216). Similar to provincial level, the governors of municipalities are responsible for the feasibility of local disaster and state of emergency management plans and compatibility with the provincial and national level plans. According to the Law on Municipalities (No. 5272/5393, 2004), “The Municipality shall make plans according to the characteristics of the territory in order to prevent fire, industrial accidents, earthquakes and other natural disasters and to minimise the risks of such events and prepare the teams and equipment for action” (Art. 53). These laws are discussed in more detail in Section 2.5.

At the district and municipal level, officials:

- organise disaster preparedness activities,
- control fire departments,
- implement and monitor regulations on MPWS building standards for seismic micro-zones, land use decisions, and
- make preparations for the development strategies (under the provisions of the 1985 Development Law).

In addition to preparing and implementing disaster and emergency plans for their jurisdiction, the municipalities are responsible for mitigation, preparedness, and response measures. This includes all of the local institutions (the Governorates, the District Authorities, the Special Provincial Administrations, the Metropolitan Municipalities and the other Municipalities). One issue that has been noted in official reports (WMO 198-202; “IPA Needs”; HFA Monitor) is that the mayors and municipal bodies are not held liable for DRR activities and come under the authority of the governors in extraordinary situations. It is the provinces that bear all responsibility. This constitutes a problem because the provinces are not involved in local DRR activities.²⁹

TRCS

TRCS has its own branches for community participation at the district/local level, similar to the province level. See 3.1.3 above.

3.2 Organisational cooperation

Turkish organisations and institutional bodies engage in organisational cooperation at the international level with their foreign counterparts. For example, the DMI is an active member of the WMO and is a founding member of a number of European meteorological organisations, such as the European Centre for Medium-Range Weather Forecasts, the European Organisation for the Exploitation of Meteorological satellites and the Economic Interest Grouping of the National Meteorological Services of the European Economic Area (Kadioğlu, “IPA Needs Assessment”, 2011). The same goes for the TRCS, which has developed strong relations with its foreign counterparts. The International Federation of Red Cross as well as the Red Cross Societies from the USA, Italy, Germany and Britain have established offices in Turkey. Both the IFRC and the individual societies mention “cooperate through coordination with the TRCS in the fields of community awareness, personnel and community training programmes, vulnerability and capacity analysis and capacity building.” (Kadioğlu, “IPA Needs Assessment”, 2011).

Interviews with key stakeholders indicate that in the case of simultaneous occurrences of events, there are bilateral MoUs signed and in place, where parties take action accordingly. Teams are mobilised immediately according to the e-mail or fax that comes from their stakeholders. Principal areas of international organisational cooperation are coordination in response and risk sharing.

Japan and Turkey are strong partners concerning DRR. Activities include:

- Training of more than 1,000 Turkish officials (e.g. The Disaster Management Training Project, the Disaster Mitigation Training Project and the Capacity Improvement Project on Seismic Observation).
- Joint academic programmes at the higher education level, (see Section 5.3)

²⁹ “The IMM is a special case due to the fact that the Istanbul Metropolitan Municipality Disaster Coordination Centre (AKOM) was established to act as the responsible head of the fire brigades, health, transportation, enterprises and civil defence departments when an emergency situation arises.”

- Joint projects (e.g., the Capacity Improvement Project on Seismic Observation (2010-2013) and the School-based Disaster Education Project (2010-2013)).

In terms of regional cooperation, the IPA Needs Assessment report states (2011),

Since 2008 Turkey has been represented at the regional level by the DEMP through the Disaster Preparedness and Prevention Initiative (DPPI) for South Eastern Europe and hosted the regional DPPI meeting in 2009. Furthermore, the country is involved in the UN Disaster Management Training Programme through the training of trainers and contacts for Turkish DRR experts stored within in the DPPI hosted database. Another form of regional cooperation concerning disaster management is Turkey's engagement within the Civil-Military Emergency Planning Council of South Eastern Europe, which encourages civilian control of military resources during disasters whilst building a multi-national "network of networks" that favours cooperation between neighbouring countries. Turkey and Greece signed the Protocol on the Formation of a Joint Hellenic-Turkish Standby Disaster Response Unit to improve cooperation and joint response mechanisms. A joint exercise was successfully conducted in Ankara in December 2006. The Black Sea Economic Cooperation Agreement signed by Turkey includes a clause for emergency assistance and emergency response to natural and manmade disasters. Hazard and risk assessments are developed jointly by the Mediterranean countries. A real-time flood forecasting and early warning system for the Maritsa and Tundzha rivers was developed jointly by Turkey and Bulgaria with French and Dutch support as a constituent of the European PHARE Project: Capacity Improvement for Flood Forecasting in the Bulgarian-Turkish Cross-border Cooperation Region.³⁰ A Data Exchange Tool for the DSI, the MEF and decision makers was created along with a dynamic website that is accessible to the general public.³¹

In addition to these activities, AFAD signed a Plan of Action with UN-OCHA in March 2013 to strengthen the partnerships between the two entities. The plan foresees greater cooperation in information management, strategic and operational coordination, advocacy and capacity building. The two are also working with Turkish NGOs to promote better collaboration with the international humanitarian response system.³² Other partners include FEMA, with which Turkey has initiated important hazard reduction related agreements (e.g., Cooperative Hazard Impact-reduction Effort via Education (ACHIEVE)).

³⁰ National Institute of Meteorology & Hydrology of Bulgaria, Flood Forecasting and Early Warning System for the Maritsa and Tundzha Rivers—Data Exchange Tool and Website <http://balwois.com/balwois/administration/full_paper/ffp-1760.pdf, as cited in Kadioğlu, "IPA Needs Assessment", 2011.

³¹ Kadioğlu, "IPA Needs Assessment", 2011, 23-24.

³² UN-OCHA, "Turkey." Accessed 25 September 2014. <http://www.unocha.org/romena/about-us/about-ocha-regional/turkey>.

4 Procedures

4.1 Standing Operating Procedures (SOPs) and Guidelines

At the central level, no such SOPs documents are adopted by AFAD. At the provincial level, response plans include such procedures. The unit which is responsible to manage the disaster response is defined as “solution partner” in the response plan. That institution also prepares its own provincial plan, and collects necessary capacity information from other relevant public offices in the province.

The SOPs include the following:

- Where the institutions will gather in the event of emergency or crisis
- How the aforementioned institutions will reach the disaster regions – plan is developed
- Service units plan how to locate their service groups in the region.

According to provincial level stakeholders in the country, the SOPs are not fully understood by all institutions, though they aim to assist the provincial institutions through meetings and trainings. The provincial plans include a section for regular tests and drills to be held, however this has not yet been implemented. A national CBRN (chemical, biological, radiological and nuclear) drill is planned in the coming months in Istanbul. Relevant staff from all 81 provinces will attend the drill.

4.2 Operations planning

Central government and provincial/district government bodies, the military and NGOs are responsible for drawing up emergency preparedness and response plans.



Figure 12: Mechanism for DRR in Turkey

Source: AFAD Presentation at the 5th International Disaster and Risk Conference IDRC 2014, 24-28 August 2014, Davos, Switzerland

The figure above outlines the main disaster management strategic and operational planning documents in Turkey. At the national level, a **National Disaster Management Strategy and Action Plan** is under preparation (as of the publication of the AFAD Strategic Plan 2013-2017) with the purpose of forming an effective and efficient management structure and high-level strategy that will ensure consistency and harmony between national plans. The national plans determine the duties, powers and responsibilities of all stakeholders involved in the national disaster management system. The national plans have been, or are in the process of being prepared. These are:

- **Turkey Disaster Response Plan (completed):** Finalized in 2013, the Turkey Disaster Response Plan (DRPoT) defines the roles and responsibilities of the service groups and coordination units that will take part in response operations related to disasters and emergencies and identifies the basic principles of response planning before, during and after disasters. It covers all the disasters as well as emergency situations (such as technological accidents, transportation, freeze etc. See **Box X.1 below**. The response plan will take effect in 2015.
- **National Recovery Plan (Planned / Waiting to be confirmed as of the HFA National Progress Report 2011-2013 report):** To be prepared by end of 2014, the National Recovery Plan will ensure that life returns to normal as soon as possible after a disaster. The plan aims to increase the speed of recovery by addressing several factors, such as social, economic, physical and environmental factors and IC technologies.
- **National Disaster Mitigation Plan (in development/planned):** To be prepared by end of 2015, the National Disaster Mitigation Plan constitutes an important step in the transition from crisis management to risk management. The plan aims to increase the public's capacity to cope with disasters by defining the activities carried out for the purpose of identifying disaster hazards and risks as well as for preventing or minimizing their impacts.

Source: Strategic Plan 2013-2017; HFA Monitor, 2013

BOX x.1: National Disaster Response Plan: The National Disaster Response Plan (UAMP) covers all the response activities necessary in case of any disaster or emergency and defines the processes, roles, duties, communication ways and logistics in the event of a disaster/crisis. The Plan has been prepared by AFAD with the support from all relevant actors that have a role in response phase. According to the HFA Monitor (2013),

The plan links completely the central and local management and the supporting actors. Geographical Information System based implementations that come into force for better management of the disasters and emergencies. Logistical needs are identified and steps taken for the creation of logistical centers. Special tents were designed which are proper for the Turkish families and for four seasons and stocked 65000 unit. Istanbul Civil Defense Search and Rescue Brigade is certified as a heavy class brigade by UN INSARAG and it is targeted that all the brigades will be certified in a few years. Together with the countries in the region, search and rescue exercises are performed in a planned way especially with NATO and European Union. For more effective coordination of civil and military assets, Turkey, Qatar and Dominican Republic initiated HOPEFOR initiative in 2010 and the Second International HOPEFOR Conference took place in Antalya in 2012 and an exercise took place in the scope of the conference which shows the effective coordination of civil and military assets. It is planned that Land Forces Command Natural Disasters Search and Rescue Troop will give trainings on natural disasters to Kyrgyzstan and Albania delegates. To reduce the loss of life and property in multi dwelling places like the institutions, the schools, the teacher guest houses, the club houses, the Ministry of Education issued a circular letter for performing 'Personnel Evacuation Exercise' to the central and local organization, the schools and the institutions during the Week of Earthquake between 01-07 March.³³

At the provincial level, the Law on Municipalities No. 5272 (2004) mandates the provincial and district governments to prepare Emergency Assistance Plans. The provincial directorate of AFAD prepares the provincial plans, which are then submitted to the governorate for approval. There are

³³ HFA Monitor, "Turkey," 30.

26 service group plans below it. Depending on the type of crisis/disaster situation, the relevant public agency is to take responsibility in line with its provincial plan and in compliance with the plan of the provincial directorate of AFAD. Out of those 26 service groups, 8 group plans are prepared by the provincial directorate of AFAD. The other 18 is prepared by the provincial directorates of other central institutions/ministries. The plans of the provincial directorate of AFAD are: (i) service logistics, (ii) sheltering services, (iii) CBRN service, (iv) search and rescue, (v) budget and accounting, (vi) procurement, (vii) resource management, (viii) information management. These plans are directly linked with the national level plans. The same plans are also prepared at the national level by the relevant central organizations/ministries.

However, the IPA Needs Assessment Report (2011), indicates that provincial level Disaster Emergency Relief Plans currently exist irregularly, depending on the type and magnitude of the disaster in the event of an earthquake. Moreover, the preparation of regional contingency plans remains optional. As a result,

*certain areas present a low level of preparedness, while areas of fast growing and illegal urbanisation lack emergency relief plans altogether. Plans prepared at different scales differ in their scope and strategy and create overlaps and contradicts. This is particularly the case in metropolitan areas, where government has charged different institutions with establishing local relief plans according to their realm of expertise.*³⁴

Moreover, early recovery vis-à-vis response operations often results in a combination of short-sighted isolated actions rather than providing the basis for sustainable long-term recovery. Insufficient human resources (see 5.1), including framework and coordination between public and civil organisations “often leads to the duplication of efforts and a waste of resources.” (ibid). The objective of the National Platform, launched in 2011, seeks to address this situation by making post-disaster assessments available more speedily so that action plans may be prioritised.

Two other organisations play a role in operations planning and disaster preparedness. These are the Turkish Red Crescent Society (TRCS) and the Turkish armed forces. See Section 1.2.4 for a description of their role.

No international standardisation approach is used or adopted. Standardisation in the operation planning process is limited with the exception of the provincial response plans. Provincial level stakeholders indicate that a higher level of detail and standardisation was foreseen at the beginning of the process, however this has not been pursued in practice.

4.3 Logistics support in crises

Logistics support in crises is provided through a number of sources, including private logistics providers, non-governmental logistics providers and military logistics support. The Turkish Armed Forces, for example, maintain logistic support coordination centres to ensure timely response in the

³⁴ Kadioğlu, “IPA Needs,” 19-20. It should be noted that the Disaster and Emergency Response Plan for Istanbul represents an extremely high level of preparedness within the IMM. For more information, see Istanbul DED, “Istanbul ADMIP: Disaster and Emergency Prevention, Response and Recovery Plan,” June 2014. Available <http://www.guvenliyasam.org/Contents/rehber-kitaplar/en/ADMIP-EN.pdf>.

event of emergencies. During the Van Earthquakes (2011) the use of military planes was made available for delivering SAR forces and other rescue workers, equipment and aid (e.g., blankets, tents, etc.). Military support is anticipated in all provincial plans for all emergency situations, as foreseen in the relevant regulations. See Chapter 3 for discussion of TAF involvement in Turkish disaster management.

In addition, TRCS has organised a rapid response operation to assist those affected by disasters by providing food, clothing, blankets and tents in disaster areas. TRCS has a disaster response and assistance unit consisting of 5 branches called; Disaster Preparedness and Planning Unit, International Disaster Response Unit, Operational Unit, Logistics Unit, Psycho-Social Support Unit. These units maintain several logistic depository facilities with stocks of tents, food and blankets in each province, airport and harbour that support its emergency operations. These include a tent production facility and storage facilities distributed around the country to provide logistics support in the event of a disaster (one central storage in Ankrara and satellite storages in seven other provinces). It also maintains emergency shelter products like food and blankets for disaster victims. (Ganapati, 2008).

In the aftermath of the October-November earthquakes in the Van region of the eastern part of Turkey, TRCS supplied 1,183 vehicles (including rented vehicles and trucks) and 78 airplanes were made available for use (TRCS, 2013). In the preliminary emergency appeal launched on 26 October 2011, TRCS outlined the following planned activities as part of its response operation:

- Work together with Global Logistics Services (GLS) to design and set-up a supply chain to effectively coordinate the movement of goods from point of dispatch to final distribution point including storage throughout as required. Monitor and evaluate the supply chain and provide reporting on performance.
- In-kind donation Mobilisation and procurement at international level will be coordinated by the Federation Global Logistics Service in agreement with the Turkish Red Crescent Society.
- Vehicle fleet activities & requirements coordinated through Global Logistics Service
- Liaise and coordinate any other appropriate key actors to ensure that the IFRC logistics operation uses all available information to be as efficient and effective as possible.

The Appeal further indicates that a detailed and up-to-date mobilization table was developed and made available on the International Federation's Disaster Management Information System (DMIS)³⁵. The International Federation worked on mobilizing specific relief items to respond to needs in the field, and assisted donors to coordinate with the Global Logistics Service regarding outstanding needs and updated shipping instruction. (TRCS, October 2011)

From the private sector, private sector facilities such as cool silos and other special facilities are anticipated for use in the event of an emergency. Other providers of logistics support include the Istanbul Bus Company (İETT) and Istanbul Sea Buses Company (İDO). The companies have made preparations for evacuating people from disaster areas to safe places (Kadioğlu, 2011: 27).

³⁵ https://www-secure.ifrc.org/DMISII/Pages/00_Home/login.aspx.

4.4 Crisis communication to general public; Alert system; Public Information and Warnings

The monitoring, notification and warning systems are comprised of several networks, notification centres and early warning. According to the UNDP Disaster Risk Reduction Capacity Assessment Report for Turkey (2011),

Warnings for the public are issued for a variety of parameters, all of which cause damage to life, property and infrastructure – examples of these are strong precipitation, hail, storms, cold and heat waves, coastal and sea area warnings, sand and dust storms, and forest fires. The messages outline possible risks such as flash flood, landslides, lightning and hail for a strong precipitation event.³⁶

A national coordination body has been established and early warning and communications systems that are in place for immediate threat of disaster are well developed.

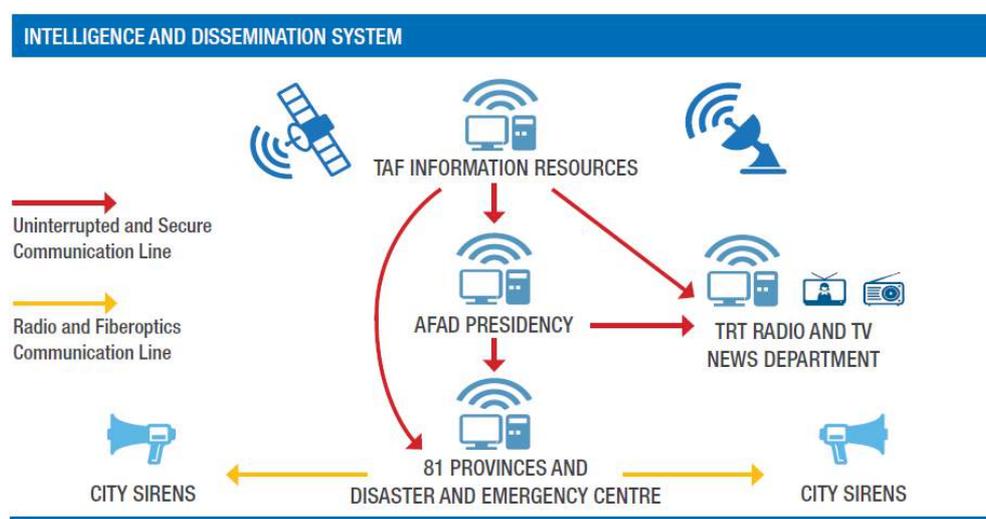


Figure 13: Intelligence and Dissemination System
(Source: AFAD Strategic Plan 2013-2017)

The figure above illustrates the intelligence and dissemination system as defined in the AFAD Strategic Plan 2013-2017. The following sub-sections outline the main crisis communication and warnings systems in use for earthquakes and hydro-meteorological disasters, respectively.

4.4.1 Networks and forecasting

Two main networks exist to record land deformations to forecast seismic risks. These are the **National Telemetric Earthquake Observation Network (TURKNET)** and the **National Earthquake Monitoring Network**. TURKNET is monitored by the Seismology Division housed in AFAD and consists of 24 stations dispersed across the country. Within the framework of the World Bank funded Turkey Emergency Flood and Earthquake Recovery Project (TEFER), several Doppler radar and satellite data receiving and processing stations were added to the programme.³⁷

³⁶ Hachim Badji, Armen, Grigoryan and Joakim Eriksson, "Disaster Risk Reduction Capacity Assessment Report: For Turkey," UNDP, Bureau for Crisis Prevention and Recovery, Capacity for Disaster Reduction Initiative, 2011.

³⁷ For more information, SEBA Hydrometric, Turkey Emergency Flood and Earthquake Recovery Project, <<http://www.seba-hydrometrie.de/en/reference-projects/tefer-turkey.html>>.

The second network, the National Earthquake Monitoring Network, is operated by KOERI and consists of 116 broadband and 22 short period seismometers and a satellite system, all of which support real-time communication. Additional data from 72 stations is provided through agreements with neighbouring countries.³⁸

Regarding hydro-meteorological risks, several governmental institutions operate early warning systems in Turkey – namely, the DMI and the DSI. The roles of each vis-à-vis the DRR management are defined in the Law No 5902. Both the DMI and DSI play a role in policy making on DRR planning through the Ministry of Environment and Forestry (MEF) as sources of basic hydro-meteorological information, though they do not have a role as integrated partners in policy making and strategy planning of the national DRR (WMO/UNDP, 2012).

The DMI is the only legal organisation which provides all meteorological information in Turkey. The main objective of the DMI is to: make observations, provide forecasts; provide climatological data, archive data and other information; communication of these to the public; provide meteorological needs for army and civil aviation. The DMI operates the national meteorological observation network discussed below, and formulates and disseminates hazards warnings and related information and services to authorities and the public. The DMI Observation Network prepares short and longer term weather predictions and is extremely dense, encompassing:

- 257 hydro-meteorological stations,
- 132 synoptic stations,
- nearly 500 automatically transmitting radio sonde stations,
- 118 lake observation systems,
- 150 snow stations,
- 330 meteorological stations; and,
- 1,000 water quality and sedimentation measurement stations

The DSI is the competent authority responsible for water resources management in Turkey. All water resources are managed according to Law No. 6200. DSI is responsible for the monitoring the whole country excluding the large urban areas where responsibility is held by the Municipalities. DSI operates the national hydrological observation network discussed below and takes the necessary precautions to warn the relevant organisations against floods. With 25 regional directors, DSI coordinates the preparation of the strategic and action plans for the water sector. (WMO/UNDP, 2012). The DSI network comprises:

- 710 precipitation stations,
- of which 357 are currently operational and

³⁸ Kadioğlu, 2011, 15-16. KOERI is also leading the operation of the Tsunami Warning System that is expected “to provide coverage for the Eastern Mediterranean, the Aegean Sea and the Black Sea with an additional ‘5 sea bottom observation systems in the Sea of Marmara, including broadband seismometers and differential pressure meters, pressure transducers, strong-motion sensors, hydrophones, temperature measurement devices and flow meters’ (Ozel et. Al, 2011). A tsunami model database, based on different scenarios, is currently being developed and warnings to the population will be differentiated through information, advisory and watch messages.”

- 1,176 discharge measurement stations.

The TEFER programme, implemented by DSI, DMI and the Electrical Power Resources Survey and Development Administration, has further enhanced the capabilities of the existing hydro-meteorological network, in particular its early warning capability, through the procurement of 363 additional fully equipped stations together with the necessary training to run the new stations. A national avalanche forecasting and early warning system is under development by AFAD and DSI.

4.4.2 Notification and Early Warning

For natural disasters of a meteorological nature, DG Meteorology is responsible for executing warnings to the public. When strong precipitation, hail, storms, cold and heat waves or flash floods are forecasted, “the DMI disseminates warnings directly to the population through the Voice of Meteorology (website and weather forecasts via Türksat) as well as through an SMS service for phones in hazardous regions.” (Kadioğlu, 2011, 15-16). The DMI developed the Meteorological Early Warning System (MEUS) to detect risky areas for forest fires three days in advance. Forest Fire Risk Maps are developed and provided to DG Forestry. The DSI disseminates warnings through its own website and through the DSI regional directorates when discharge measurements reach critical levels. The regional directorates then warn the local city governors if conditions necessitate it. In the case of forest fire risks, the risk of flash floods, landslides or lightning storms, the DSI, DMI and the General Directorate of Forestry warn the public on the DMI website as well as through the Voice of Meteorology and of METEOR FM systems.³⁹

4.4.3 Information technology and telecommunications capacities

The equipment used by DMI and DSI for data communication and dissemination of warnings is described in Table 5 below

Table 5. Equipment in use for data communication and warnings and other products dissemination (Source: UNDP/WMO, 2012)

³⁹ For more on hydro-meteorological forecasting and early warning systems, see UNDP/WMO, *Multi-hazard EWS*, 2012.

Telecommunication equipment	To receive data	To send data	To send warnings	To send products
Telephone				
Mobile Phone				
SMS			DMI	
GPRS	DMI			
PSTN	DMI			
Telefax				
Dedicated Leased Lines				
UHF radio transceiver				
High frequency/Single side band radio				
HF Radio Email				
Aeronautical Fixed Telecommunication Network				
Very Small Aperture Terminal				
Data Collection Platforms used to transmit data from AWSs				
Global Telecommunication system (WMO-GTS)				
Meteosat Second Generation Satellite system				
Other satellite systems				
Internet	DMI		DMI	
Email				
Post/mail				
Print media				
TV –national				
TV-commercial				
Radio			DMI	
Bulletins				
Printed text				
Manual collection	DMI			

5 Capabilities

5.1 Human resources

The number of personnel cadres assigned to the Presidency is 515. As of the writing of the AFAD Strategic Plan document 2013-2017, the total number of personnel employed in the Presidency is 447. Of this, 322 are permanent employees while the remaining 125 are temporary.

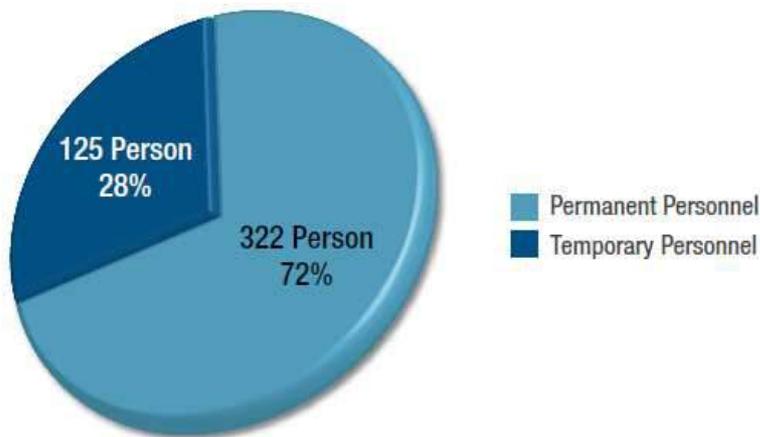


Figure 14: General Personnel Status of the Presidency (Source: Strategic Plan 2013-2017).

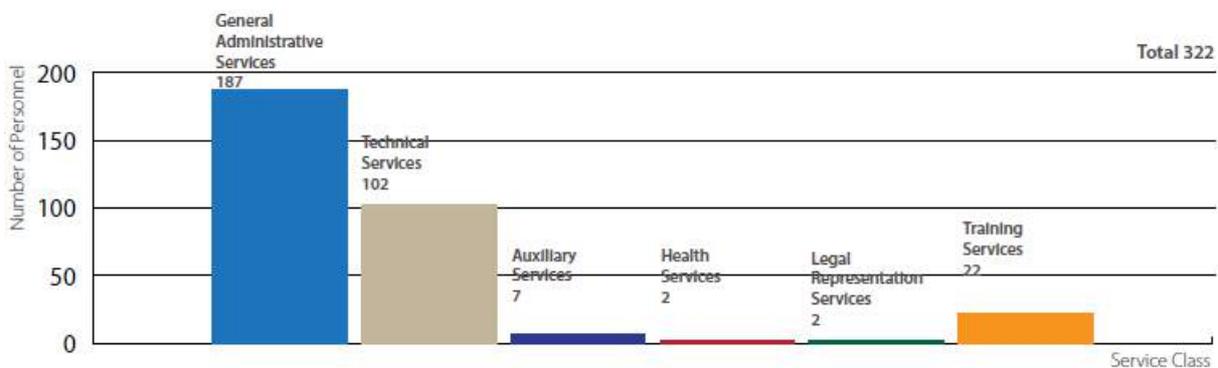


Figure 15: Distribution of Permanent Personnel as per Service Classes (Source: Strategic Plan 2013-2017)

The personnel composition structure of the Presidency is mainly comprised of disaster management experts, engineers from related disciplines, instructors, technical staff and administrative staff (AFAD 2014a). At the provincial level, staff is predominately comprised of search and rescue professionals and a smaller number of technical staff. ⁴⁰ Stakeholders in the country indicate, however, that the capacity to mobilize is dependent upon the situation.

In addition to the Presidency’s staff, “[a] stand-by operative network” comprised of well trained staff from the General Directorate of Civil Defence, the natural disasters search and rescue battalions,

⁴⁰ For example, in Ankara, the provincial directorate staff is made up of 100 search and rescue professionals and 20 technical staff (e.g., engineers, mechanics, health and administrative staff).

regional disaster commands and natural disaster assistance troops subordinate to the Turkish Armed Forces, as well as a network of volunteers from the TRCS and other NGOs is ready to intervene in the event of a disaster (Kadioğlu, 2011).

NGOs in Turkey are increasingly active in government activities, such as the preparation of projects like the Earthquake Master Plan for Istanbul and the National Disaster Management System in 2003 (Kadioğlu, 2011). Those established under the Law on Associations (Law No. 2908) come under the legal supervision of the Ministry of Interior. At the provincial level, NGOs are mainly involved in search and rescue operations. Among the major NGOs involved in the field of disaster and crisis management in Turkey are the search and rescue association AKUT, the Neighbourhood Disaster Support Group (MAG), the Disaster Preparedness and Earthquake Training Association and, most importantly, Turkish Red Crescent Society (TRCS).

- **AKUT** is the first volunteer search and rescue organisation in Turkey and has become the model for many volunteer search and rescue organisations. AKUT has 9 regional offices and is increasingly supported through volunteer participation and fund-raising activities.
- **The Disaster Preparedness and Earthquake Training Association** is the only organisation with a central focus on disaster prevention and mitigation rather than on protection and rescue. The association aims to increase community awareness through training activities that cover disaster awareness, environment and water awareness, fire prevention as well as first-aid and search and rescue training aimed at children, families and municipalities. The trainings are certified by the Ministry of Health.⁴¹ With the exception of the Disaster Preparedness and Earthquake Training Association, these organisations are primarily focused on SAR activities.
- **TRCS** is an NGO with a special status and strong legislative links to the Government and funding due to its role at the national, provincial and local levels.⁴² It has national, provincial and district level committees that are heavily involved in disaster preparedness through the conduct of public awareness and training activities. In October and November 2011, the TRCS successfully mobilized and deployed 986 of its staff for the response operation.

These NGOs are also members of the National Platform established in March 2011 (See also Section 3.1). The GEA Search and Rescue Group⁴³ is also members of the Platform.

Foundations, which are under the oversight of the General Directorate of Foundations, support the Government with research efforts, training and education, and public awareness activities. The Environment Foundation of Turkey⁴⁴ is particularly active in the field as a member of the National Platform, as well as through its dissemination of materials on public training and awareness and the organisation of national and international conferences.

⁴¹ AHDER, <<http://www.ahder.org/ahderorg/english.htm>>. As cited in Kadioğlu, 2011, 11-12.

⁴² As stated in Kadioğlu, "IPA Needs," 2011. See also: MPWS 2008 *Interim National Progress Report on the Implementation of the Hyogo Framework for Action*. For more on TRCS, see <http://www.ifrc.org/en/what-we-do/where-we-work/europe/turkish-red-crescent-society/> ; <https://www.kizilay.org.tr/> (Turkish).

⁴³ GEA Search and Rescue Group, , <http://www.gea.org.tr/?lang=en>>.

⁴⁴ Environment Foundation of Turkey, < <http://www.cevre.org.tr/>>.

Professional organisations which are active in disaster and crisis management include the Chamber of Geological Engineers, the Chamber of Geophysical Engineers, the Chamber of Civil Engineers and the Psychiatric Association of Turkey as well as the Chamber of Architects, the Chamber of Commerce and the Chamber of Medical Doctors.⁴⁵ The first four are also members of the National Platform.

From the private sector, the following are represented in the National Platform: the Turkish Industrialists' and Businessmen's Association, the Union of Chambers and Commodity Exchanges of Turkey, the Turkish Contractors Association as well as the General Directorate for Press and Information, the Turkish Association of Journalists and Turkish Radio and Television Cooperation. Commercial enterprises are increasingly investing in business continuity services designed to assess and then mitigate physical and or operational risks. The importance of public-private partnerships for disaster management has been stimulated by the combination of building codes and reinsurance rates. (Kadioğlu, 2011:11-12).

The *HFA Monitor* report (2013) also indicates the “need for the central DRR with the assistance of the Red Crescent Society to develop and conduct a programme to create and strengthen the local volunteer capacities such as NDV to support the relief efforts and improve efficiency of post-disaster operations.” (HFA, 2013: 30).

5.2 Materiel (non-financial) resources

AFAD has warehouses and equipment available from the moment an earthquake hits. At the provincial level, a number of provinces have established large warehouses for the storage of necessary stock and equipment, such as containers, tents, blankets, kitchen utensils, clothing, etc. In Istanbul, for example, a year's supply of medicine and equipment is ready on stand-by and replenished annually; portable toilets procured, and; tent areas identified and water and sewage infrastructure completed. The Istanbul Emergency Aid and Lifesaver Directorate put together 2,500 emergency aid kits to use in the early stage of response. IMM's Emergency Aid and Lifesaver Directorate also has 20 emergency response stations and 29 ambulances available to it. Ankara does not yet have such a warehouse as described above, but plans are ongoing.⁴⁶ The exact levels (numbers) of provincial stocks are not publicly available.

Provision is made in administrative law for the mobilisation or commandeering of private assets during a crisis. Certain provisions are made for governments to mobilise or commandeer private assets during crises, as in Law no. 7269. Assets can be mobilized in a number of ways, such as through hiring and appropriating.

Regarding the involvement of military assets, in Ankara, for example, the provincial level has access to the aerial capacities of the law enforcement agencies in Ankara through the governorate. The planned use of other military assets, either at the national, provincial or municipal levels, is not clear.

⁴⁵ See MPWS 2008 *Interim National Progress Report on the Implementation of the Hyogo Framework for Action*.

⁴⁶ For information on the resources and trainings made available in the Istanbul province, see ISMEP, “Enhancement of Emergency Preparedness Capacity,” ISMEP Guide Books No. 7, 2014.

At the central level, AFAD has been developing projects with the National Police for the visual local identification and damage assessment.

In addition to the resources provided through the government, Turkey has available many resources through the TRCS. TRCS has organised a rapid response operation to assist those affected by disasters by providing food, clothing, blankets and tents in disaster areas. TRCS has a disaster response and assistance unit consisting of 5 branches called; Disaster Preparedness and Planning Unit, International Disaster Response Unit, Operational Unit, Logistics Unit, Psycho-Social Support Unit. TRCS maintains several facilities that support its emergency operations. These include a tent production facility and storage facilities distributed around the country to provide logistics support in the event of a disaster (one central storage in Ankara and satellite storages in seven other provinces). It also maintains emergency shelter products like food and blankets for disaster victims. (Ganapati, 2008).

In October and November 2011, the TRCS successfully mobilized and deployed its disaster response teams within two hours of the earthquake occurrences in the Van Region. The Preliminary Emergency Appeal (TRCS 2011) states

the TRCS alarmed all its units in the country in order to meet the urgent shelter and food needs of the victims, and dispatched the relief items [...] from Ankara, Elazığ, Erzurum, Adana, Muş and Manisa Regional Disaster Management Centers and also deployed 167 disaster specialists (including 30 volunteers), 37 vehicles. TRCS also deployed volunteers, composed of mukhtars, clergies, police forces and teachers that were trained within the framework of the project on "Organizing Community Leaders" for this kind of disaster situations.⁴⁷

During the emergency phase of the operation, the TRCS

dispatched blankets, sleeping bags and sheltering units (tents and Mevlana houses) to meet the immediate needs of the population and to provide them with temporary accommodation. The TRCS also provided cooked meals in the camps and adjoining areas in Van province and Erciş district. In total, 3,410,195 portions of cooked meals were distributed since the beginning of the operation. As of 01.03.2012 this activity was terminated.... Based on the detailed need assessments and the mid- and long-term plans of the government authorities, the Turkish Red Crescent decided to provide 2,000 container houses for the most vulnerable people in the district of Erciş, the epicentre of the quake.[...] Out of those 2,000 container houses the Federation supported the procurement of 500 container houses, and another 1,500 were financed by other national and international donors. By the end of January 2012, all 2,000 container houses were installed and furnished for more than 10,100 beneficiaries.⁴⁸

⁴⁷ TRCS, "Preliminary Emergency Appeal. Turkey: Van Earthquake," Preliminary Emergency Appeal No. MDRT002, GLIDE no EQ-2011-000162-TUR, 26 October 2011.

⁴⁸ TRCS, "Revised Emergency Appeal Preliminary Final Report. Turkey: Van Earthquake," Emergency Appeal No. MDRT002, GLIDE no EQ-2011-000162-TUR, 8 February 2013.

NAME OF THE AFFECTED AREA	TENT	MEVLANA HOUSE	BLANKET	MULTIPURPOSE TENT	90 m ² TENT	TENT INFLATED 55 m ²	CONTAINER WC	CONTAINER WC SHOWER	CONTAINER SHOWER	CONTAINER WC-SHOWER 13 M ² (GROUP)	HEATER	SLEEPING BAG	MOBILE KITCHEN	BODY BAG	KITCHEN SET	S3 COOKER	LPG	GENERATOR	ENLIGHTENING BALLOON	FOOD PARCEL	SANDWICH	ASSORTED FOOD KG	OFFICE CONTAINER	KITCHEN CONTAINER	LIVING CONTAINER	MATTRESS	CARAVAN TOWED PREFABRICATED CONTAINER			
ERCIŞ	11,184	580	37,469	5	2	0	9	7	5	22	2,904	15,978	9	1,000	4,725	0	110	5	0	35,530	12,000	656,507.97	1	0	36	1,756	0	0		
VAN	41,657	3,064	175,216	374	26	2	17	10	4	44	3,927	7,834	3	1,958	16,771	20	2,000	32	6	39,099	11,944	1,392,067.42	12	4	22	13,661	32	1		
ADILCEVAZ	150	0	625	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
OZALP		150																												
PATNOS	35	0	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BİTLİS	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MALAZGİRT	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	53,126	3,794	213,390	379	28	2	26	17	9	66	6,831	23,612	12	2,958	21,496	20	2,110	37	6	74,629	23,944	2,048,595.39	13	4	58	15,417	32	1		

Figure 16: The Breakdown of overall distribution of resources in the affected area following the 2011 earthquakes (Source: TRCS 2013)

A bread distribution organization plan has been developed for use during an earthquake. The plan is based on the results of studies on production, storage and distribution of 5 million loaves of bread “with high calories and good nutrition” (Kadioğlu, 2011:27). Istanbul Public Bread factories are able to make production with LPG.

5.3 Training

AFAD is responsible for education, training, and awareness-raising activities in the field of disaster risk reduction with the aim to target all relevant stakeholder groups at all levels, including decision makers, national and local officials from directors-general to experts working on disaster and emergency management, NGOs and the general public.

Provincial level directorates conduct and participate in provincial and departmental training exercises; centralised specialist training; training of volunteers and NGO personnel; and multinational trainings (see section 1.4), and provide regular trainings on search and rescue and civil defense for relevant public officials, as well as earthquake simulation exercises for professionals and the wider public.

The following table summarises the educational programmes at the primary, secondary and tertiary levels as well as the different forms of training programmes available in country, ranging from training of citizens for personal and mutual protection to training of civil protection officials.

Table 6. Education and training on protection against natural and other disasters

Education (As part of the educational process)		Training	
Elementary Schools	- Basic education on protection against earthquake risks	Training of citizens	- Earthquake simulations for the wider public; - Individual/family disaster preparedness training program; - Disaster preparedness training programs for schools, hospitals, business communities; Awareness of compulsory insurance; - Non-structural risk awareness training program;
Secondary education	- Basic education on the causes for earthquakes, protection of the community and mitigation and response activities	Training of volunteers	-Neighbourhood Disaster Volunteer Programme - disaster preparedness training program
Higher level education	- PhD Training Program, "Strengthen Disaster Research Capacity," (launched 2009) in cooperation with JICA - The Earthquake Risk Mitigation Master's Programme, offered by Bogazici University and Texas A&M; - The Emergency Management Masters Programme, offered by Istanbul Technical University and Oklahoma State University	Training of civil protection units/officials	- Basic Disaster Awareness Training; - Training of officials through the AFAD Disaster and Emergency Training Centre (e.g., SAR trainings, earthquake simulations) - Urban planning and construction for disaster mitigation (for local decision makers, technical staff and community representatives); - Retrofitting of public buildings;

5.3.1 Training of public officials

Within the framework of regular training for national level officials, provincial and district governors, an official report states

the General Training Department of the Ministry of Interior, in cooperation with the Japanese International Cooperation Association (JICA) and Turkish universities, has initiated seminars on disaster management for government officials. Officials are also trained through the [AFAD] Disaster and Emergency Training Centre. An agreement was signed between Istanbul Technical University and the Ministry of Interior of Turkey in 2001 for four projects: (i) Training on Emergency Management, (ii) Development of Turkish Fire Brigades, (iii) Development of an Emergency Management System and (iv) GIS Standards Based on Emergency Management. Moreover, the University has cooperated with the Ministry of Interior's Strategic Research Unit to develop training that is targeted at provincial and district governors. The Turkish Emergency Management General Directorate (now integrated into the DEMP) carried out three International Disaster Management Courses aimed at managers in government ministries, the police, the military, emergency services, non-governmental institutions and industry in partnership with Bournemouth University. Many new projects are currently in the start-up

*phase, two of them being the National Exercise Simulation Centre at the DEMP headquarters and the Centre of Excellence for the Training of Fire Brigades.*⁴⁹

Certification is provided for relevant public officials and public employees, especially in the fields of search and rescue. This certification is also sought for public institutions to take part in drills and tests. No international standards are pursued; national rules and regulations are applied.

5.3.2 Training of volunteers

The training of volunteers at the local and provincial level is held in SAR, non-structural mitigation and first-aid. For example, the Neighbourhood Disaster Volunteer (NDV) Programme was implemented by the Neighbourhood Disaster Volunteer Association with support from the government. As of 2011, more than 3,472 Neighbourhood Disaster Volunteers from 85 neighbourhoods located within the provinces of Kocaeli, Istanbul, Yalova and Izmir had completed the standard basic training programme and signed cooperation protocols with Civil Defence.⁵⁰

The “Safe Life Volunteers Campaign”, implemented within the framework of the Istanbul Seismic Risk Mitigation and Emergency Preparedness Project, offered 15 different training modules on disaster preparedness, including one child-friendly programme. More than 26,000 people have been reached since 2008 and all of the training material is made available to the public.⁵¹

Since 2012, AFADDEM offers a training for ‘Basic Disaster Awareness Trainers’ aimed at presenting a very systematic approach on top of previous efforts. The personnel of AFAD local organizations, Provincial Directorates of the Ministry of Youth and Sports and the municipalities have been trained under this programme. As of the HFA Monitor 2011-2013, trainings are planned for social services, the Turkish Red Crescent and the Union of Psychosocial Services in Disasters workers in order to reach vulnerable areas after disasters and to inspect disturbed psychosocial structure. (HFA Monitor 2013:20)

5.3.3 Training of citizens for personal and mutual protection

In Turkey education of the public on disaster preparedness and mitigation has been the responsibility of the central government under the Department of Civil Defence and the Ministry of National Education. The provincial authorities organise extensive awareness raising campaigns, such as the 112 celebration days campaign within the scope of the 112 Single Emergency Call Number Project that was launched by the Ministry of the Interior in 2005. Campaigns involve the distribution of DVDs and promotional material like magnets and visits to schools, The Project aims to establish 112 as the single call number for the ambulance, police, gendarmerie, fire brigade, coast guard and Civil Defence services in ten provinces each year up until 2018.

⁴⁹ Kadioğlu, “IPA Needs,” 2011, 17-18.

⁵⁰ www.mag.org.tr/eng/proje2.html

⁵¹ www.guvenliyasam.org ; www.beyazgemi.com.tr ; All of these projects have been conducted by Beyaz Gemi Training and Consulting, as cited in Kadioğlu, “IPA Needs,” 2011, 17-18.

The TRCS is heavily involved in activities aimed at raising awareness. In 2007 it initiated the Mobilisation of Community Leaders in Disaster Risk Mitigation Programme aimed at developing disaster awareness and interagency cooperation in the local community and the media. Concerning the latter, television and radio play an important role in warning the population about the gradual onset of hazards and in disseminating public information and educational programmes aimed at improving the population’s knowledge and behaviour in the face of hazards and risks. Their low capacity to develop their own programmes limits the ability of the national media and broadcast services to fulfil a more important role in raising disaster awareness.

Finally, AFAD aims to foster disaster awareness through training programs designed for various age groups.⁵² A campaign has been launched called the Disaster-Prepared Turkey Training and Awareness Raising Program. It consists of four pillars:

- Disaster Prepared Family
- Disaster Prepared Business
- Disaster Prepared Youth
- Disaster Prepared School.



The aim of the program is enhance the role of civil society, the academic community and NGOs in achieving DRR targets by simultaneously distributing responsibility while also developing partnership,

Figure 17 Disaster Prepared Turkey Project (Source: AFAD Strategic Plan, 2013-2017)

communication and collaboration among different groups within the community. The programme consists of disaster awareness trainings followed by sensitization trainings, “with the purpose of informing our society about natural, technological and man-made disaster, protection from disasters and minimization of loss so as to build a culture of ‘disaster sensitive living’ at all levels of society.”

5.3.4 National academic programmes

Since the 1999 earthquakes, basic education on protection against earthquake risks has been incorporated into school curricula at the primary school level (ages 6 – 14), and basic education on the reasons for earthquakes, protection of the community and mitigation and response activities has been included in school curricula at the secondary level (ages 14 – 17).

At the tertiary level, KOERI and Istanbul Technical University (ITU-AYM) are the two most active academic organisations in Turkey working on emergency and disaster preparedness and training. Universities offer formal programmes related to disaster risk management, frequently in cooperation with foreign universities. The Earthquake Risk Mitigation Master’s Programme offered by Bogazici University in collaboration with Texas A&M University, and the Istanbul Technical University Emergency Management Masters Programme, run in cooperation with Oklahoma State University, are two examples. The Earthquake Risk Mitigation Master’s Programme concentrates on

⁵² Statement by H.E. Ambassador Mehmet Ferden Cariki (2014).

engineering, urban planning and the evaluation of earthquake risks (IPA Needs #2, p. 17-18). A third programme at the higher education level is the long-term PhD Training Program that was launched in cooperation with JICA in March 2009. The program, entitled “Strengthen Disaster Research Capacity” provides higher level education and training in the field of Disaster Prevention Strategies and Urban Planning. The courses are held in Japan.

The status of Disaster and Emergency Management education programmes around the world as of 2010, and Turkey’s position in relation to them, is shown in Figures 5 and 6⁵³. The United States leads with the highest number of programs and number of Universities offering disaster management programmes, followed by Canada, Australia, the United Kingdom and Turkey.

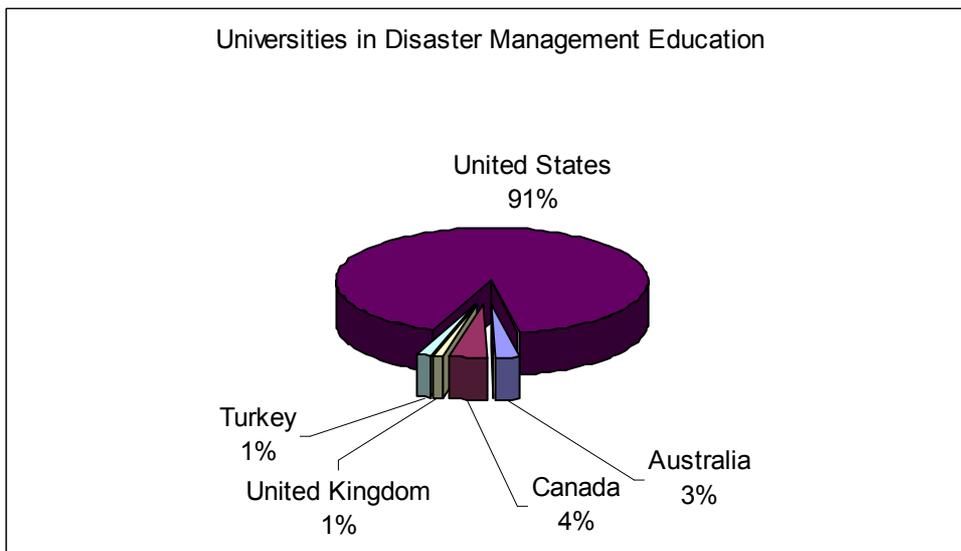


Figure 18: Percentage of Universities offering degree programs in disaster management, as of 2005 (Source: Derin N. Ural “International Disaster Management Cooperation: A Case Study for Turkey & the USA,” ITU, 2005)

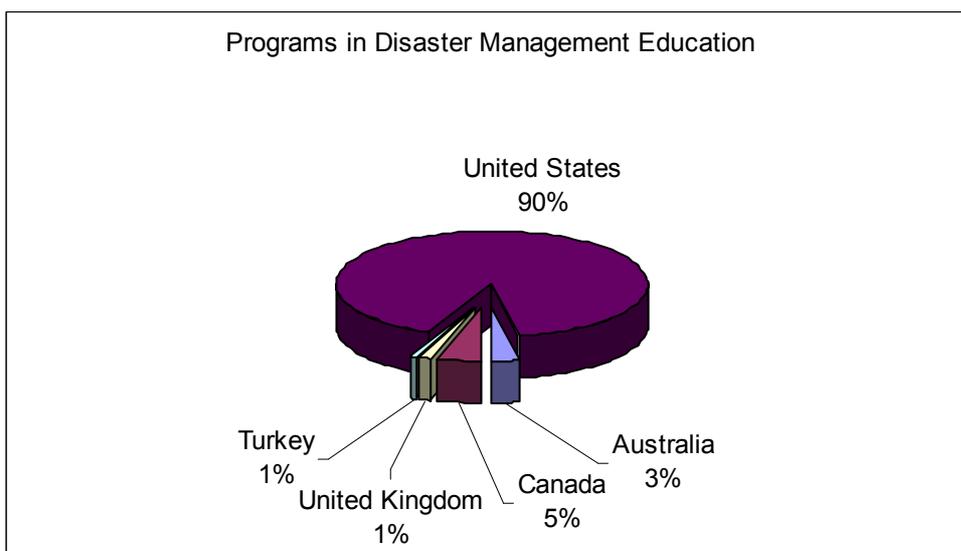


Figure 19: Global distribution of degree programs in disaster management, as of 2005

⁵³ Figures and table adapted from Ural, “International Disaster Management Cooperation: A Case Study for Turkey & the USA,” ITU, 2005.

(Source: Derin N. Ural “International Disaster Management Cooperation: A Case Study for Turkey & the USA,” ITU, 2005)

The second figure shown above shows the global distribution of programs offered in disaster management. Note that data is based on figures through 2003. However of the 132 certificates and degree programmes offered worldwide as of 2003, Turkey accounts for 2 offered at 1 university (out of 79 institutions).

Table 7. Global Distribution of Emergency Management Programs and Number of Universities Offering Programs
Source: Derin N. Ural “International Disaster Management Cooperation: A Case Study for Turkey & the USA,” ITU, 2005)

Country	Programs					Total	#University
	Certificate	Associate	Bachelor	Master	PhD		
Australia	-	1	1	1	-	3	2
Canada	2	1	2	-	-	5	3
UK	-	-	-	1	-	1	1
Turkey	1	-	-	1	-	2	1
USA	41	27	15	32	6	121	72
Total	44	39	18	35	6	132	79

5.4 Procurement

5.4.1 Procurement regulation

Background

Within the European legislation three different procurement directives apply, which are mutually exclusive, meaning that only one of the directives apply to public procurement. Two of the three directives are topic specific, the first relating to the procurement of energy, water, transport and postal goods and services and the second one relating to the procurement in the defence and security industry. If none of the specific directives apply the general public procurement directive will apply. It is vital to know which of the three directives apply to the procurement of CM tools and services as the three directives have different procedures and thresholds.

Not all goods and services need to be publicly procured. First of all, contracts with values below the specified thresholds do not have to be procured. The thresholds differ between the directives as well as between goods and services (including trainings). Also some of the articles are not compulsory and Member States can choose not to implement these articles. On the other hand the directives provide minimum rules and Member States can opt to maintain stricter rules as long as the stricter rules are non-discriminatory. Therefore quite some differences might exist between the procurement schemes within Member States and this can influence the adaptation of CM tools and services in the different MS.

This project revolves around the procurement related to crisis management. This is for example the procurement of ambulances, emergency packs or training. In Turkey there is a procurement law

which applies to the procurement of goods and services. This section will explain the scope of the procurement law, the award procedures and the evaluation of tenders.

Scope

The Turkish public procurement law applies to the procurement of goods, services or works of which the costs are paid from resources of the public administrations included in the general budget, state economic enterprises and social security establishments etc. that are assigned with public duties (article 2). This is only the case if the estimated value of the project is above the threshold value. The threshold values are:

- Three hundred billion Turkish Liras for procurement of goods and services, operating under the general or the annexed budget;
- Five hundred billion Turkish Liras for procurement of goods and services by other contracting authorities within the scope of the PPL;
- Eleven trillion Turkish Liras for the works by any of the contracting authority covered by the procurement law.

Furthermore, the procurement law does not apply to all goods, services and works of these public organisations. Article 3 makes an exception for several types of procurement, for example: procurement related to defence, security or intelligence that need to be treated confidentially; procurement which is pursuant to international agreements and have foreign financing and the institutions covered by law; procurement necessary for research and development projects, executed or supported by national research and development institutions; drafting emergency response plans and procurement of services etc., which are urgently needed to decontaminate the sea environment. Furthermore the procurement law does not apply when there is an urgent need that will come up in cases such as defence, security and humanitarian aid issues.

Award procedures

The contracting authorities are liable for ensuring transparency competition, equal treatment, reliability, confidentiality, public supervision, and fulfilment of needs appropriately, promptly, and efficient use of resources. The contracting authorities can divide the procurement into lots, but this can't be done with the purpose of avoiding threshold values (article 5).

In the procurement of goods, the contracting authority can apply the open procedure, the restricted procedure or the negotiated procedure.

In the open procedure, all tenderers may submit their tender (article 19). In the restricted procedure, only tenderers that are invited, following a pre-qualification by the contracting authority, can submit their tenders (article 20). This procedure can be used when the open procedure is not applicable, since the nature of the subject necessitates speciality and/or technology and in procurement works where estimated costs exceed half the threshold value. The pre-qualification shall be carried out in accordance with the qualification criteria.

The negotiated procedure may be applied when it is inevitable to conduct the tender procedures immediately, due to unexpected and unforeseen events or due to occurrence of specific events

relating to defence and security. More over the procedure can be used when the procurement is requiring a research and development process; the procurement has specific and complex characteristics or procurements with an estimated costs up to fifty billion Turkish Liras (article 21). In this procedure, the tenderers who are accepted as qualified, may submit their initial proposals. This does not include prices on aspects such as technical details and realization methods. The contracting authority shall then interview each tenderer on the best methods and solutions. After this interview, the tenderers will submit their proposal, including a price offer.

In several cases, the contracting authority can use direct procurement, for example when the goods and services can only be supplied by one natural or legal person; when the procurement has a low value or when the procurement is related to medicine (article 22).

Evaluation

The tenderers whose tenders are not in compliance with the requirements of article 36 shall be excluded from the evaluation proceedings (article 37). If the information is not crucial for the tender, the contracting authority may request the tenderer to complete the information. The tenderer shall be examined for their conformity with the qualification criteria, determining the capacity of the tenderer to perform the contract as well as the conditions set forth in the tender document. Tenders that are abnormally low shall be evaluated on economic nature of the manufacturing process and the methods of work; selected technical solutions and advantageous conditions utilized by the tenderer and the originality of the works proposed (article 38).

The tender shall be awarded to the tenderer with the economically most advantageous tender. This is determined solely on the basis of the price or together with the price by taking into account the non-price factors. When the price is the only determination factor and two or more tenderers have the same price, the evaluation will also take the non-price factors into account. If non-price factors play a role in the evaluation process, these factors must be expressed in monetary values (article 40).

5.4.2 Procurement procedures

Background

The European directives provide the legal boundaries for procurement, but they do not fully regulate the procedures followed. Other projects done show that the actual procedures can differ between Member States. It is important to understand whether the procurement activities are carried out by a civilian or military organisation. Also insight in their public procurement procedures (which are often defined at a national level) provides a good overview of the different practises.

Crisis management will not be limited to EU-28 countries and neighbouring countries might also be affected. Procurement in these countries is not covered by the EU directives and therefore it is important to have some insights in the procurement practices in these neighbouring countries.

5.5 Niche capabilities

Niche capabilities of Turkey's AFAD include: Campsite construction and canine-assisted search and rescue for earthquakes and avalanches.

Resources

Legislative acts

Decree on Basic Principles Related to Disasters Affecting the Life of the General Public [Afetlerin Genel Hayata Etkinligine Iliskin Temel Kurallar Hakkinda Yonetmelik] (effective by 21 September 1968), in *Kanunlar Yonetmelikler ve Kararnameler*. Afet Isleri Genel Mudurlugu, Ankara, 2000.

Decree on Emergency Assistance Organization and Planning Related to Disasters (No. 88/12777) [Afetlere Iliskin Acil Yardim Teskilati ve Planlama Esaslarina Dair Yonetmelik] (effective by 8 May 1988), in *Kanunlar Yonetmelikler ve Kararnameler*, Afet Isleri Genel Mudurlugu, Ankara, 2000.

Decree on State of Emergency Council (No. 84/7778) [Olaganustu Hal Kurulu ve Burolar-inin Kurulus ve Gorevleri ile Yukumluluklerinin Karsiliginin Tesbit ve Odenmesi Hakkinda Yonetmelik] (effective by 8 March 1984), in *Kanunlar Yonetmelikler ve Kararnameler*, Afet Isleri Genel Mudurlugu, Ankara, 2000.

Decree on Working Procedures and Principles of Natural Disasters Insurance Administration (No. 246000) [Dogal Afet Sigortalari Kurumu Yönetim Kurulu Çalış, ma Usul ve Esaslari Hakkinda Yönetmelik] (effective by 1 December 2001), Dogal Afet Sigortalari Kurumu. Available <http://www.dask.gov.tr/daskhakkinda/yonetmelik.htm>.

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Decree with the Power of Law on Changes Related to Laws Concerning Engineering and Architecture and Turkish Union of Chambers of Engineers and Architects (No. 601) [Muhendislik ve Mimarlik Hakkinda Kanun ile Turk Muhendis ve Mimar Odalari Birligi Kanununda Degisiklik Yapilmasina Dair Kanun Hukmunde Kararname] (effective by 22 November 2000), *Resmi Gazete* <http://rega.basbakanlik.gov.tr>.

Decree with the Power of Law on the Mandatory Earthquake Insurance (No. 587) [Zorunlu Deprem Sigortasi Hakkinda Kanun Hukmunde Kararname] (effective by 27 December 1999), Dogal Afet Sigortalari Kurumu <http://www.dask.gov.tr/daskhakkinda/mevzuat.htm>.

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Law on Building Inspection (No. 4708) [Yapi Denetimi Hakkinda Kanun] (effective by 13 July 2001), *Resmi Gazete* Available <http://rega.basbakanlik.gov.tr>.

Law on Civil Defense (No. 7126) [Sivil Savunma Kanunu] (effective by 13 June 1958), Sivil Savunma Genel Mudurlugu Available <http://www.ssgm.gov.tr/mevzuat/mevzuat.html>.

Law on Measures and Assistance to be Put into Effect Regarding Disasters Affecting the Life of the General Public (No. 7269) [Umumi Hayata Muessir Afetler Dolayisiyle Alinacak Tedbirlerle Yapilacak Yardimlara Dair Kanun] (effective by 25 May 1959), in *Kanunlar Yonetmelikler ve Kararnameler*, Afet Isleri Genel Mudurlugu, Ankara, 2000.

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Expert interviews

Expert Interview, Provincial Disaster and Emergency Directorate of the Ankara province, November 2014.

Please only mention here the organisation and month of the interview. Only refer to "expert interview" in the text.

Statement from the informed consent form to be sent to the interview partners: *"The results will be published with no possibility to trace the individual views and arguments from the participant. Only the organization name will be mentioned in a list under resources / expert interviews. The limited personal information gathered will be handled under confidentiality and will duly be respected."*

Please store any personal data separately from this survey, if it is confirmed by the interview partner to be included in the DRIVER community of interest.



Driving Innovation in Crisis Management for **E**uropean **R**esilience

UNITED KINGDOM

Capabilities, Organisations, Policies, and Legislation (COPL) in crisis management and disaster response

Responsible Partner: CIES (Ben Hayes)



PREPARING FOR EMERGENCIES
WHAT YOU NEED TO KNOW

Scope and limitations

This study serves as supporting information for further work within DRIVER.

Only limited time and budget has been available for this first general survey, which needs to be considered in terms of scope and completeness of the respective studies.

The author/s of this study is/are responsible for its content and quality.

Overview

Crisis management in the UK has grown and matured considerably over the last fifteen years, galvanised in part by the 9/11 terrorist attacks and 7 July 2005 London bombings which served to catapult the field up the political agenda.

The UK's approach to crisis management is founded on Integrated Emergency Management (IEM), a holistic approach to preventing and managing emergencies that entails six key steps: anticipation; assessment; prevention; preparation; response; and recovery.

IEM advocates a bottom-up approach, with operations managed and decisions made at the lowest appropriate level. Preparation, response and recovery should be undertaken as an extension of a local responder's normal day-to-day activities.

This principle underpins the Civil Contingencies Act 2004, which overhauled existing legislation to provide a single framework for civil protection. It divides local responders involved in crisis management into two categories. Category 1 organisations are "first responders" (emergency services, local authorities, NHS bodies etc.) and have substantial civil protection responsibilities including risk assessment, emergency planning, and warning and informing the public. Category 2 organisations are "co-operating bodies" (transport providers, utility companies etc.) that are involved in planning for and responding to emergencies that affect their sector.

Most emergencies in the UK are dealt with at local level, but if necessary the government's central response framework would be initiated. Cabinet Office Briefing Rooms (COBR) - comprised of ministers and senior officials from relevant UK government departments and agencies - would be activated to provide overall strategic planning. Overall crisis management is typically supervised by one Lead Government Department (LGD) which works closely with the Cabinet Office's Civil Contingencies Secretariat, the principal governmental authority responsible for coordinating crisis management.

Crisis management in the UK is of a civilian nature with military involvement sought only in extreme cases. Volunteer organisations play an important role in augmenting capabilities and are involved in Category 1 responder training exercises. There is minimal evidence of significant private sector involvement in crisis management in the UK, with ad hoc agreements signed as necessary when emergencies occur.

It is difficult to calculate the amount of money allocated for crisis management in the UK because budget issues are not centrally managed by the government. Funding streams are often diverse and there is significant variation in resources between counties. What is clear is that funding has increased since the 7 July 2005 London bombings. Local authorities are generally responsible for financing emergency preparedness, though may apply to the government for financial support in bearing the costs of emergency response and recovery.

It is uncommon for the UK to cooperate bilaterally with other countries; instead the UK participates in intergovernmental organisations and a limited number of multilateral frames of cooperation in crisis management, such as the EU Civil Protection Mechanism. The UK rarely seeks help from other

countries to manage internal emergencies, but is at the forefront of political initiatives in the EU context and is active in EU and NATO training and expert exchange programmes.

The Foreign and Commonwealth Office is responsible for managing the UK's relationship with other countries through its network of embassies and High Commissions, as well as the UK's overall relationship with international organisations such as the UN, NATO and the EU. However, the Civil Contingencies Secretariat is responsible for liaising with the civil emergency response and mutual aid systems of the EU and NATO. Government departments can also have bilateral relationships with specific international or multilateral institutions that will be used when appropriate.

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List of Abbreviations

BCM	Business Continuity Management
CCA	Civil Contingencies Act 2004
COBR	Cabinet Office Briefing Rooms
CPM	Civil Protection Mechanism
CCS	Civil Contingencies Secretariat
DCLG RED	Department for Communities and Local Government Resilience and Emergencies Division
EU	European Union
FCO	Foreign and Commonwealth Office
G8	Group of Eight
IEM	Integrated Emergency Management
LGD	Lead Government Department
LRF	Local Resilience Forum
MACA	Military Aid to the Civil Authority
MoD	Ministry of Defence
NATO	North Atlantic Treaty Organisation
NCC	News Co-ordination Centre
NGO	Non-Governmental Organisation
NHS	National Health Service
NOS	National Occupation Standards
NRA	National Risk Assessment
NRR	National Risk Register
RCG	Recovery Co-ordinating Group
SAG	Scientific Advisory Group
SAGE	Scientific Advisory Group for Emergencies
SARS	Severe Acute Respiratory Syndrome
SCG	Strategic Co-ordinating Group
STAC	Science and Technical Advisory Cell
UK	United Kingdom
UN	United Nations
WCCC	Wales Civil Contingencies Committee

1 Policy

1.1 Risk Assessment

Central government

The UK government conducts a National Risk Assessment (NRA) to monitor the most significant emergencies the UK could face in the next five years. This confidential assessment is conducted each year and utilises the expertise of a wide range of departments and agencies of government. It focuses on three broad categories of risk: natural events, major accidents and malicious attacks.

The National Risk Register (NRR) is the public version of the NRA. It was first published by the government in 2008, fulfilling a commitment made in the National Security Strategy, and last updated in July 2013. It was created to provide businesses and the public with information regarding how they should prepare for civil emergencies. Cabinet Office guidance published in February 2013 states that the government is conducting a review of the NRR in consultation with risk communication experts to improve these guidelines.¹

The risks posed to national security and human welfare by longer-term trends, such as technological advances and climate change, is considered by the classified National Security Risk Assessment, which informs the UK's National Security Strategy.

Local government

Different geographical areas of the UK face different risks. A person's likelihood of exposure to emergencies such as coastal flooding, industrial accidents or terrorist attack is obviously heavily dependent on where in the country they live. For that reason the government provides guidance on how to interpret the NRA and NRR to Local Resilience Forums, the principal mechanism for local multi-agency cooperation (LRFs, see section 3.1), so that they can produce specific risk assessments that reflect the unique characteristics of their surrounding area.

The Civil Contingencies Act also requires emergency responders in England and Wales to maintain a public Community Risk Register. These are approved and published by LRFs and made available on local council websites.

Key risks and areas of concern

The NRA estimates the likelihood of different emergencies, typically using a mixture of data

¹ Cabinet Office website: <https://www.gov.uk/risk-assessment-how-the-risk-of-emergencies-in-the-uk-is-assessed>

(including historical analysis and numeric modelling) and scientific expertise. The likelihood of terrorist or other malicious attacks is assessed more subjectively, with assessments focusing on the willingness and capabilities of those who might wish to carry out an attack, and the vulnerability of potential targets.

The NRR lists the highest priority risks (based on both likelihood and impact) facing the UK as: pandemic influenza, coastal flooding, catastrophic terrorist attacks, and severe effusive (gas-rich) volcanic eruptions abroad.

Other, less severe, risks include inland flooding, new and emerging infectious diseases, severe weather, severe space weather, wildfires, explosive volcanic eruption styles emitting mainly ash, animal diseases, major industrial and transport accidents, disruptive industrial action, malicious attacks and public disorder.

Pandemic Influenza

Pandemic influenza is considered by the government to be the most significant civil emergency risk facing the UK. The 2009 H1N1 influenza pandemic did not match the severity of the scenario the government plans for, and has no bearing on the probability of another, potentially more severe, pandemic occurring in the future. The three pandemics of the previous century (1918-19, 1957-58 and 1968-69) were all more deadly than the 2009 outbreak. The NRR anticipates that a severe pandemic could cause hundreds of thousands of deaths in the UK and would result in widespread social and economic disruption; significant threats to the continuity of essential services; lower production levels; shortages; and distribution difficulties.

Coastal flooding

The most severe example of coastal flooding occurred in 1953 – the last occasion a national emergency was formally declared in the UK – when a combination of high tides, a major tidal surge and onshore gale force winds devastated the east coast of England. While investment in coastal flood defences has reduced the risk of a similarly severe emergency occurring, the number of people living and working in east coast flood risk areas has increased, as has the range of critical infrastructure. The NRR warns that the impacts of overtopping and breaching of flood defences could be more serious than in 1953.

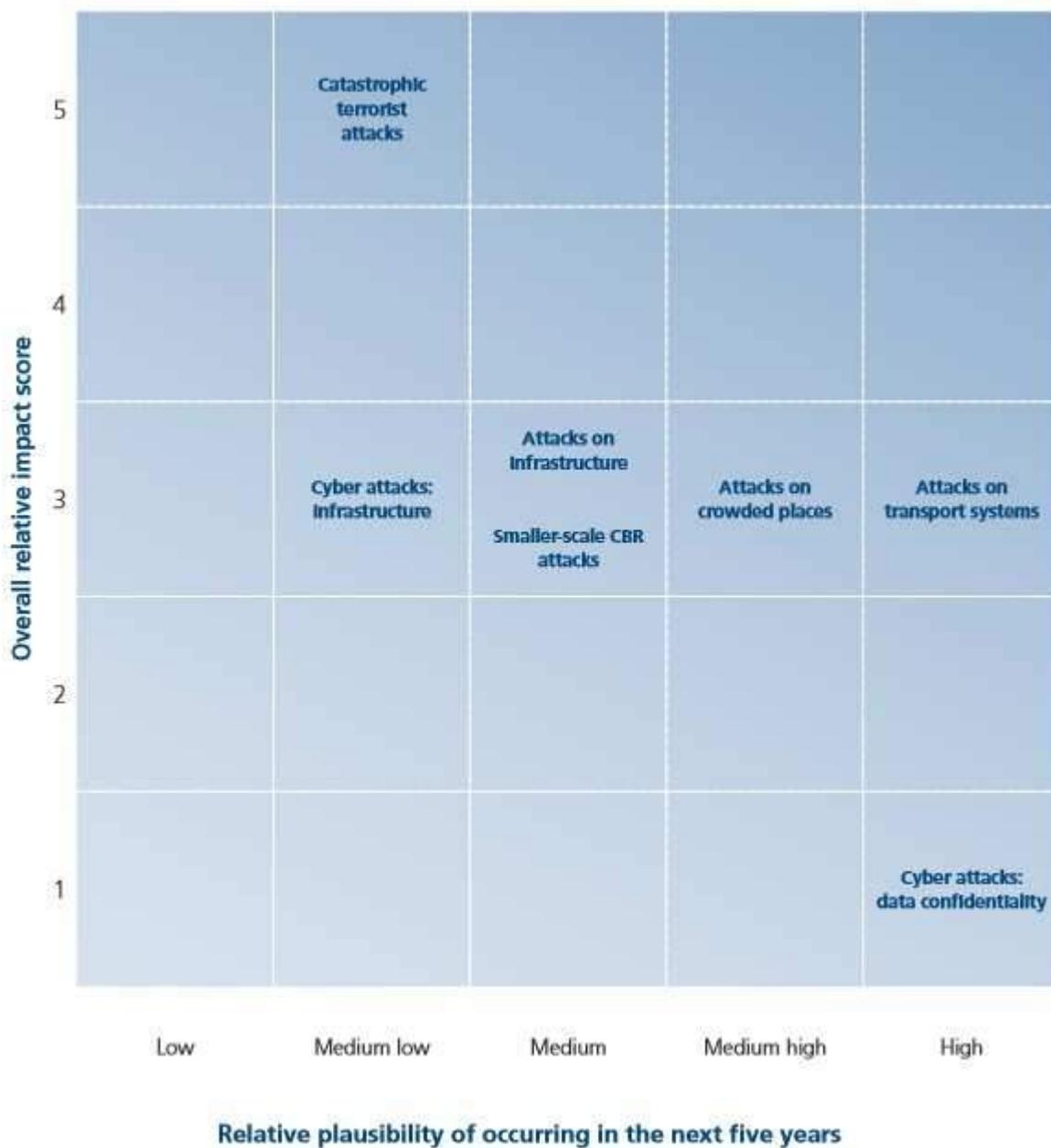
Catastrophic terrorist attacks

The NRR stresses that while major-impact terrorist attacks such as 9/11 are unlikely, they cannot be ruled out. The likelihood of terrorists obtaining effective mass impact biological agents or a functioning nuclear device is low, but not negligible. Accordingly, CONTEST, the Government's counter- terrorism strategy, is tasked both with stopping terrorists gaining access to the expertise and materials they need to deliver catastrophic attacks, and with preparing for the consequences should they succeed.

Severe effusive (gas-rich) volcanic eruptions abroad

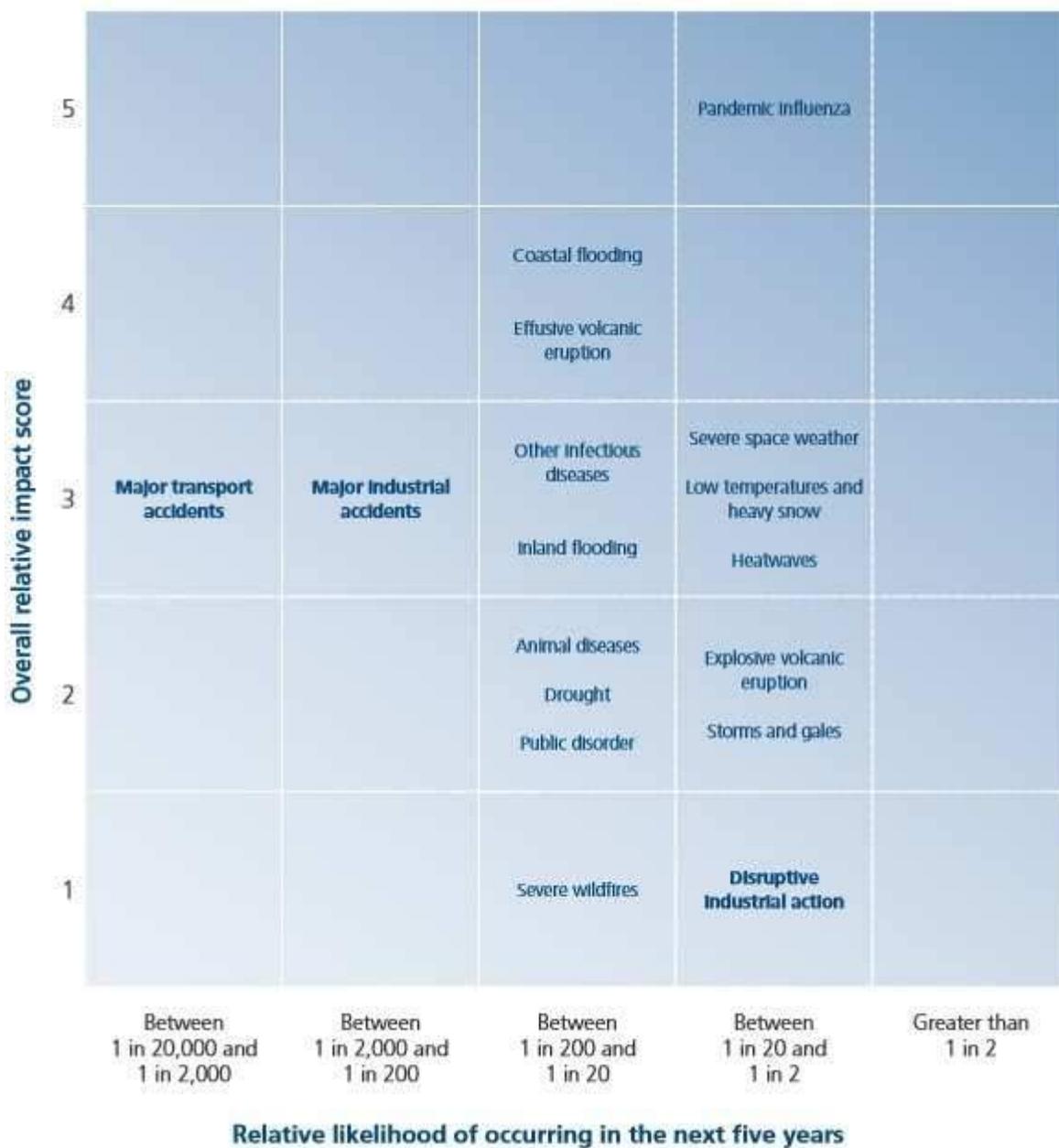
The 2010 eruption of the Eyjafjallajökull volcano in Iceland highlighted the disruptive consequences of a volcanic eruption abroad. Ash-emitting eruptions of this type remain a concern, but the NRA and NRR are significantly more concerned by the prospect of a major effusive volcanic eruption, which could emit large volumes of gases into the atmosphere over months or years, and the widespread impact on health, agriculture and transport this would have. The 1783-84 Laki eruption from Grimsvötn volcano in Iceland is the best understood example of this type of eruption, in which significant levels of sulphur dioxide, chlorine and fluorine were released. The effect was visible pollution across the UK and Northern Europe, mass crop failure and excess deaths, with the mortality rate in England for summer 1783 10-20% above average.

Figure 1: NRR Risk Matrix: Risks of terrorist and other malicious attacks



Source: National Risk Register of Civil Emergencies 2013 edition

Figure 2: NRR Risk Matrix: Other risks



Source: National Risk Register of Civil Emergencies 2013 edition

Table 1: Major civil security crises in the UK for the period 2000-2012

Date	Crisis description	Crisis category	Persons Killed	Persons injured	Persons affected
October 2000	Storm	Natural disaster	12		19,504
February 2001	Foot-and-mouth disease	Pandemics/infectious diseases			Whole society
February 2001	Transport accident	Industrial/transportation	13		70
July 2003	Extreme temperature	Natural disaster	301		
January 2004	Miscellaneous accident	Industrial/transportation	14		
November 2004	Transport accident	Industrial/transportation			150
January 2005	Storm	Natural disaster			3,000
December 2005	Buncefield depot explosion	Industrial/transportation			Not easily estimated
July 2005	London bombings	Terrorist attack	56	770	
January 2007	Storm	Natural disaster	13		
April 2007	Earthquake	Natural disaster			4,501
June 2007	Flood	Natural disaster			30,000
July 2007	Flood	Natural disaster			340,000
September 2008	Flood	Natural disaster			3,000
April 2009	Transport accident	Industrial/transportation	16		
May 2009	Swine Flu pandemic	Pandemics/infectious diseases	362		
November 2009	Flood	Natural disaster			3,900
April 2010	Volcanic Ash Cloud	Natural disaster/Critical infrastructure failure			Whole society

Source: ANVIL project country study: United Kingdom, February 2014

1.2 Policy and Governance

The UK's crisis management framework is premised on Integrated Emergency Management (IEM), a holistic approach to preventing and managing emergencies that entails six key steps: anticipation; assessment; prevention; preparation; response; and recovery. This section explains key terms, processes and principles.

Key terms

The terms 'emergency', 'response' and 'recovery' are used frequently in UK government guidance on crisis management. They are defined as follows:

Response

Response encompasses the decisions and actions taken to deal with the immediate effects of an emergency. It is the decisions and actions taken in accordance with the strategic, tactical and operational objectives defined by emergency responders. At a high level these will be to protect life, contain and mitigate the impacts of the emergency and create the conditions for a return to normality. In many scenarios it is likely to be relatively short and to last for a matter of hours or days – rapid implementation of arrangements for collaboration, co-ordination and communication are, therefore, vital. Response encompasses the effort to deal not only with the direct effects of the emergency itself (e.g. fighting fires, rescuing individuals) but also the indirect effects (e.g. disruption, media interest).²

Recovery

In contrast, recovery may take months or even years to complete, as it seeks to support affected communities in the reconstruction of the physical infrastructure and restoration of emotional, social and physical well-being. The process of rebuilding, restoring and rehabilitating the community following an emergency or disaster, continues until the disruption has been rectified, demands on services have been returned to normal levels, and the needs of those affected have been met. Recovery is defined as the process of rebuilding, restoring and rehabilitating the community following an emergency. Although distinct from the response phase, recovery should be an integral part of the response from the very beginning, as actions taken during the response phase can influence the longer-term outcomes for a community.³

Emergency

The Civil Contingencies Act 2004 establishes a coherent framework for civil security and civil protection in the UK. Part 1 defines an emergency as:

- *an event or situation which threatens serious damage to human welfare in a place in the UK;*

² Emergency Response and Recovery: Non statutory guidance accompanying the Civil Contingencies Act 2004, revised October 2013, p.10.

³ Ibid.

- *an event or situation which threatens serious damage to the environment of a place in the UK; or*
- *war, or terrorism, which threatens serious damage to the security of the UK.*⁴

The definition of 'emergency' is concerned with consequences, rather than the cause or source. Therefore, an emergency inside or outside the UK is covered by the definition, provided it has consequences inside UK territory (up to 12 nautical miles off the UK coast).

Government guidance uses the term emergency:

*...to encompass all challenges that require the use of assets beyond the scope of normal operations and require a special deployment. The term "major incident" is commonly used by emergency services personnel to describe events or situations which would constitute an emergency as defined in the CCA regime; this is the threshold of event or situation that will initiate a response under their major incident plans. These terms refer to the same threshold and are essentially interchangeable.*⁵

Integrated Emergency Management

The UK's crisis management framework is founded on Integrated Emergency Management (IEM), a holistic approach to preventing and managing emergencies that entails six key steps: anticipation; assessment; prevention; preparation; response; and recovery.

Figure 3: Integrated Emergency Management cycle

⁴ Civil Contingencies Act 2004, Part 1, Article 1, Paragraph 1.

⁵ Emergency Response and Recovery: Non statutory guidance accompanying the Civil Contingencies Act 2004, revised October 2013, p.11.



The principles of IEM were agreed upon following a spate of emergencies in the late 1980s and early 1990s, which included the London King's Cross underground station fire, terrorist bombings, air crashes, oil rig explosions, floods, the 1987 hurricane, the sinking of the *Machioness* pleasure boat and the 1989 Hillsborough stadium disaster.

Under IEM, the preparation for, response to, and recovery from emergencies focuses on the consequences and wider impacts of events rather than their causes. IEM emphasises the development of flexible emergency plans that enable organisations to deal effectively with an incident, whether foreseen or unforeseen.

Principles of effective emergency response and recovery

Accordingly, while the UK government has published a common set of underlying principles to govern emergency response and recovery in the UK at all levels (both local and national), it emphasises that arrangements must be flexible and that these guidelines are "not intended to be prescriptive or an operations manual as there is no single approach that will meet the needs of every area, nor is there one single set of organisational arrangements that will be appropriate to each and every type of emergency."⁶ Government guidance sets out eight principles to govern response and recovery efforts for every emergency in the UK:

Anticipation is crucial to both the pre-emergency and post-emergency phases. As with the first phase of the IEM process, it is important for organisations to actively 'horizon-scan' for risks and potential emergencies. During emergencies, it is important to anticipate the disparate direct and indirect impacts of emergencies may not be immediately apparent in high pressure, uncertain and

⁶ Ibid. p. 8-9.

demanding circumstances. Finally, an important aspect of anticipation is addressing recovery issues at the earliest possible opportunity, ensuring that the response and recovery effort is fully integrated.

Preparedness: All individuals and organisations that might play a part in the response and recovery effort should be appropriately prepared. They should have a clear understanding of their roles and responsibilities and how they fit into the wider, multi-agency picture.

Subsidiarity: The UK's approach to emergency response and recovery is founded on a bottom-up approach in which operations are managed and decisions are made at the lowest appropriate level. National and sub-national tiers often have little or no input and will become involved only when necessary.

Direction: During an emergency, those responsible for managing the response and recovery effort often face a plethora of competing demands and pressures. In some cases an array of organisations from across the public, private and voluntary sectors will be involved in responding to an emergency and their activities will need to be co-ordinated. It is therefore essential to establish clearly defined and unambiguous aims and objectives so as to create a shared set of priorities and focus resources. This is usually the responsibility of the Strategic Co-ordinating Group (SCG, see section 3.1).

Information: Maintaining the flow of information during an emergency (within organisations and also to partners and the general public) can be challenging but is crucially important to its successful resolution. The collation, assessment, verification, translation and dissemination of information should therefore be underpinned by appropriate information management systems. This will help decision-makers strike an appropriate balance between ensuring that decisions are well informed and acting swiftly and decisively. It will also help to furnish the public with appropriate advice, warnings and information to provide reassurance and a basis for any necessary action.

Integration: Responding and recovering from emergencies can involve multiple organisations and agencies from local, sub-national and national levels, each of which will have different roles and levels of involvement. It is therefore crucial that their contributions are integrated and clearly defined structures put in place to ensure that they combine and act as a coherent multi-agency group and are able to consult, agree and make decisions on key issues.

Co-operation: Emergency response and recovery brings together organisations with no formal or established relationship and it is therefore important to foster trust and understanding. Organisations must understand each other's functions, ways of working, priorities and constraints. Decision making should be inclusive and information sharing and openness encouraged.

Continuity: Emergency response and recovery should be grounded in tried and tested arrangements and established structures should be preserved as much as possible. Organisations working on a day-to-day basis in the relevant field have a large role to play because their experience, expertise and resources are invaluable.

1.2.1 Strategy scope and focus

The principles of IEM used to formulate the UK's strategic approach to crisis management recognise the importance of emergency prevention, preparedness, response, and recovery. This is reflected in the Civil Contingencies Act, which obliges local responders to have emergency plans in place for each of these phases.

The government has been criticised, however, for focussing insufficiently on the prevention and preparedness phases of emergency planning. Britain's level of participation in major EU and NATO exercises has been criticised in the past by the House of Lords European Union Select Committee as "unacceptably low" (see section 3.2). While in March 2011, the House of Commons Science and Technology Select Committee highlighted the volcanic ash emergency of April 2010 as "a clear example of how a lack of risk assessment and preparation can hamper the emergency response".⁷

The May 2013 peer review of the UK's implantation of the Hyogo Framework for Action - a ten-year guideline to reduce vulnerabilities to natural hazards - argued that the UK should strengthen both emergency prevention and preparedness: "A new momentum should enlarge the focus of the UK resilience approach from emergency preparedness and response towards more prevention and vulnerability reduction"⁸ (see section 1.2.3).

1.2.2 Monitoring and analytical support to policy making; R&D

When conducting risk assessment the government may elect to seek scientific expertise, both from internal and external experts. A combination of this advice, expert judgement and historical and statistical data can then be used to estimate the approximate likelihood of an emergency occurring (see section 1.1). Local responders and LRFs can also use local experts to help meet their CCA responsibilities to conduct risk assessment.

In the emergency planning phase, LGDs and the Devolved Administrations can use Science Advisory Groups (departmental or national led scientific or technical advisory groups focused on or used to inform emergency management) to commission new research and draw on a range of experts to ensure that their preparation is informed by science. As of 2011, every individual government department has a departmental Chief Scientific Adviser. They sit on the Chief Scientific Adviser's Committee, along with the Government's Chief Scientific Advisor (the personal adviser on science and technology-related activities and policies to the Prime Minister and the Cabinet; and head of the Government Office for Science).

SAGE can review and validate existing research and identify areas where new research should be commissioned. Cabinet Office *Enhanced Sage Guidance* states:

⁷ House of Commons Science and Technology Committee Report: Scientific advice and evidence in emergencies, March 2011, p.73: <http://www.publications.parliament.uk/pa/cm201011/cmselect/cmsctech/498/498.pdf>

⁸ Building resilience to disasters: Assessing the implementation of the Hyogo Framework for Action (2005-2015): Peer review report United Kingdom, May 2013, p.12. http://www.unisdr.org/files/32996_32996hfaukpeerreview20131.pdf

To ensure quality advice that can be provided in a timely fashion, the aim should be to avoid this situation by formulating scientific and technical advice during the planning phase. The commissioning of new research will need to be considered and authorised by the relevant department which will take in to account the provision of funds.⁹

The guidance also suggests that it is good practice for all scientific and technical advice to be frequently reviewed in order to reflect the latest evidence and lessons learned. “Where possible advice provided during an emergency should build - upon advice, evidence and research formulated during the risk assessment, planning and preparation phases and should be reviewed and incorporated into plans and guidance following the emergency.”¹⁰

However, the government has been criticised in recent years for failing to utilise scientific expertise in the preparation phase of emergencies. In March 2011, the House of Commons Science and Technology Select Committee published a report titled *Scientific advice and evidence in emergencies* which stated: “we are concerned that the Government's attitude to scientific advice is that it is something to reach for once an emergency happens, not a key factor for consideration from the start of the process. We conclude that scientific advice and an evidence-based approach must be better integrated into risk assessment and policy processes early on.”¹¹

Table 2: The role of scientific and technical advice in crisis management

Source: Cabinet Office Enhanced SAGE Guidance, October 2012

⁹ Cabinet Office Enhanced SAGE Guidance, October 2012, p.12.

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/80087/sage-guidance.pdf

¹⁰ Ibid. p.5.

¹¹ House of Commons Science and Technology Committee Report: Scientific advice and evidence in emergencies, March 2011, p.81: <http://www.publications.parliament.uk/pa/cm201011/cmselect/cmsctech/498/498.pdf>

Emergency management phase / level of decision making	UK Cross Government (i.e. level 2 and 3 emergencies)	Devolved Administration only and Departmental (i.e. Level 1 emergencies)	Local
Risk identification	Coordinated by: the Risk Assessment Steering Group. Informed by: SAGs and external experts	Coordinated by: Government departments and Devolved Administrations. Lead departments to identify and establish a network of scientific and technical contacts for particular emergencies.	Coordinated by: Local Resilience coordination mechanisms Informed by: the Local Risk Assessment Guidance (LRAG), the National Risk Register (NRR) and local experts / responders.
Risk Assessment			
Contingency building / planning	Coordinated by: the National Capability Programme and departmental led planning programmes coordinate cross-government planning. Lead departments to identify and establish a network of scientific and technical contacts for particular emergencies. Informed by: SAGs and external experts.	Informed by: Scientific Advisory Groups (SAGs) and external experts, as appropriate.	Coordinated by: Local Resilience coordination mechanisms Informed by: Local risk assessments
Response and recovery	Scientific Advisory Group for Emergencies (SAGE) OR advice from individual experts, as appropriate.		Scientific and Technical Advise Cells (STACs) OR advice from individual experts, as appropriate.

In terms of scientific support for other Crisis Management policy areas, the UK Economic and Social Research Council has funded academic research into various topics related to emergency prevention, preparedness, response, and recovery. This includes topics such as “Detecting Terrorist activity”, “Enhancing resilience across all aspects of national infrastructure”, “Global Uncertainties” and “Ritual, community and conflict”.¹²

¹² Economic and Social Research Council website: <http://www.esrc.ac.uk/research/major-investments/security-conflict.aspx>

1.2.3 Policy for Prevention

Like most facets of the UK's crisis management framework, emergency prevention is grounded on the day-to-day work of local responder organisations. The CCA requires Category 1 responders to maintain plans for preventing emergencies. This refers primarily to the sort of prevention possible during the short period of time before an emergency occurs when it might be averted by prompt or decisive action. CCA statutory guidance states:

“Plans should be maintained for the purpose of ensuring that if an emergency is likely to occur, the organisation can perform its functions to prevent the emergency...emergencies under this aspect of the Act should be ‘nipped in the bud’ in the way that fire-fighters stop a fire from spreading.”¹³

The other form of prevention included in the CCA is that based on pre-emptive actions, such as the emergency services' decision to mobilise proactively on New Year's Eve to deal with potential incidents. Public health organisations immunising the public against the spread of influenza is cited as another example of emergency prevention. The CCA does not impose a duty on Category 1 responders to prevent all emergencies, nor does it oblige organisations to undertake remedial works which might prevent future emergencies.

The May 2013 peer review of the UK's implantation of the Hyogo Framework for Action identified areas for improvement in the current crisis management framework's capacity to prevent emergencies. The report advised that “additional dissemination of information to the public would help to strengthen not only preparedness but also prevention”¹⁴ and proposed that:

A new momentum should enlarge the focus of the UK resilience approach from emergency preparedness and response towards more prevention and vulnerability reduction. In particular, risks with potentially large impacts and high likelihoods, especially when these are growing, could be better managed through vulnerability reduction than through preparing and responding to the event. Floods and droughts are examples of the types of risks that may require more long-term, whole-of-society approaches to their reduction, as climate change may have an impact on those in the future.¹⁵

1.2.4 Policy for Preparedness

The UK's crisis management framework emphasises local preparedness. Category 1 responders have comprehensive emergency planning duties under the CCA. They are required to: conduct risk assessment (through the Community Risk Register); formulate emergency plans and business

¹³ Emergency Preparedness, statutory guidance to Part 1 of the Civil Contingencies Act: Chapter 5 (Emergency Planning), October 2011, p.4.

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/61028/Emergency_Preparedness_chapter5_amends_21112011.pdf

¹⁴ Building resilience to disasters: Assessing the implementation of the Hyogo Framework for Action (2005-2015): Peer review report United Kingdom, May 2013, p.12. <http://www.unisdr.org/files/3299632996hfaukpeerreview20131.pdf>

¹⁵ Ibid.

continuity plans; regularly test the effectiveness of these plans through exercises; train key staff and the staff of appropriate voluntary organisations; and provide the public with information on the risks posed by emergencies. Local communities are also encouraged to make plans for emergencies that complement the role of the emergency services as part of community resilience.

The Cabinet Office's Civil Contingencies Secretariat (CCS), the principal governmental authority responsible for coordinating crisis management, has overall responsibility for ensuring emergency preparedness at both national and local level and manages the National Resilience Capabilities Programme (see section 1.5). It is tasked with improving government systems "for identifying new challenges, for assessing risks, for anticipating, planning, preparing and exercising for crises, for building up our resilience to them, and for systematically applying the lessons learned from particular incidents."¹⁶ The core function of the CCS is to enhance UK resilience by bolstering the national capacity and capability to deal with emergencies. It works in close partnership with government departments to:

- *enable and protect their own decision takers;*
- *develop their own early warning systems;*
- *prepare plans against various eventualities and make sure those plans are properly integrated with those of other departments and agencies;*
- *identify the training and exercises needed to test the plans and enable continuous improvements;*
- *build up the necessary management and professional expertise to maintain and activate the plans and to know where to turn for reinforcement and augmentation;*
- *learn, and share their learning, with other departments.*¹⁷

Government departments also have individual responsibilities for emergency planning, staff training and exercising, and may be the LGD for a National Resilience Capabilities Programme workstream.

¹⁶ The Role of the Lead Government Department in Planning for and Managing Crises, January 2011, p.3. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/61356/lead-government-department-framework.pdf

¹⁷ Ibid. p.4.

1.2.5 Policy for Response

The UK's approach to emergency response and recovery is bottom-up, with operations managed and decisions made at the lowest appropriate level. Government guidance emphasises that "local agencies are the building blocks of response and recovery operations" and indeed, most emergencies are dealt with at local level with little or no input from sub-national or national levels.

The role of central government and the devolved administrations is to support and supplement the efforts of local responders through the provision of resources and co-ordination. The central and sub-national tiers will only become involved in emergency response and recovery efforts where it is necessary or helpful to do so.¹⁸

See section 3 for detailed information on the organisational arrangements of emergency response.

1.2.6 Policy for Relief and Recovery

Guidance

The CCS's non-statutory guidance to the CCA, *Emergency Response and Recovery*, details the multi-agency structures and processes that can be used during the recovery phase of an emergency. It emphasises that recovery is a complex, long running and resource intensive process that requires the involvement of many more agencies and participants than the response phase. The recovery phase should be based on tried and tested structures and procedures and begins at the earliest possible opportunity, operating in tandem with the response phase to an emergency.

National Recovery Guidance aimed primarily at local responders was produced by the Cabinet Office's National Recovery Working Group in 2007. Updated frequently with recent case studies and new best practice policy, the guidance is developed in accordance with the CCA and contains topic sheets on a wide range of recovery issues, a recovery plan guidance template, and over 100 case studies from incidents and exercises.

Policy

Emergency Response and Recovery identifies recovery support as an enabling and supportive process designed to assist affected communities towards management of their own recoveries. It is most effective when conducted at the local level with the active participation of the private sector, the voluntary sector and the wider community. The Cabinet Office outlines four interlinked categories of impact that individuals and communities will need to recover from: environmental; economic; infrastructure; and humanitarian assistance (including health needs). Recovery capability, planning and training, is built around these four key themes.

¹⁸ Emergency Response and Recovery: Non statutory guidance accompanying the Civil Contingencies Act 2004, revised October 2013, p.18.



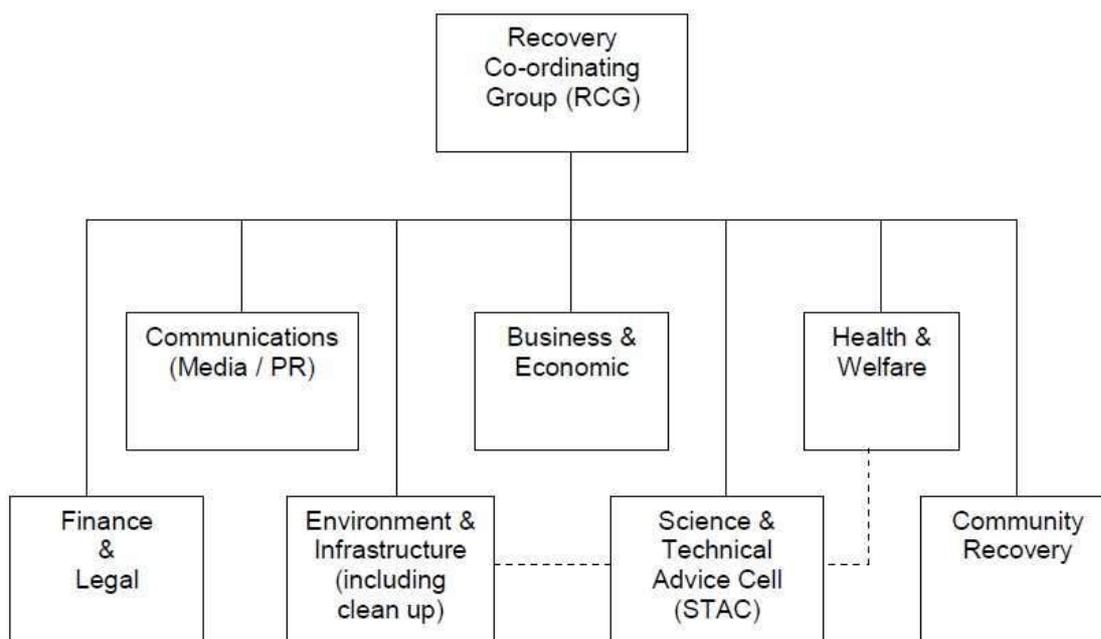
Organisational roles and responsibilities at local level

Local authorities are responsible for planning for the recovery of communities in the aftermath of emergencies. Government guidance recommends that a Recovery Co-ordinating Group (RCG) be set up by a local authority on the first day of an emergency to run in parallel with the SCG. The RCG is principally responsible for developing a recovery strategy and will report to the SCG. When the initial crisis response is complete, responsibility for coordinating the recovery phase will be passed from the SCG to the RCG at a formal meeting.

Local authorities are responsible for planning for the recovery of communities in the aftermath of emergencies. A local authority will usually chair and provide the secretariat for the RCG, coordinating the multi-agency response with help from Category 1 and 2 responders, voluntary organisations and any other relevant agencies via the LRF. Government guidance states that the size and organisation of an RCG varies according to the practicalities of each emergency, but suggests the structure shown in Figure 4.

Neighbouring local authorities are required to have organisational arrangements in place setting out how the recovery response will be coordinated for emergencies that cross local authority boundaries. Typically a single RCG will be created with a designated lead local authority acting as chair. Similarly, if an emergency crosses LRF boundaries guidance recommends that a Multi-LRF RCG be created to ensure “consistency of approach, reducing duplication of effort, minimising the burden on responders, and facilitating the sharing of information, support and mutual aid.”¹⁹ As with all crisis management arrangements in the UK, the RCG would observe the principle of subsidiarity whereby all recovery related decisions would be taken at the lowest possible level.

Figure 4: Recovery structures and organisations



Source: *Emergency Response and Recovery*, non-statutory guidance accompanying the Civil Contingencies Act 2004

¹⁹ Ibid. p.91.

Organisational roles and responsibilities at national level

If the Cabinet Office agrees that ongoing national support is required, a formal handover will take place between the LGD for response and the LGD for recovery. The same department may retain responsibility for both phases, but often the evolving nature of the challenge, the different issues that arise and the expertise required mean that a different department is better situated to lead the recovery phase. In emergencies that effect wide geographical areas it is possible that response and recovery activity will be occurring simultaneously in different parts of the country under the leadership of two different LGDs. Consideration can also be given for the establishment of Ministerial cross-departmental Recovery Group. As with crisis response, a Department for Communities and Local Government's Resilience and Emergencies Division or LGD liaison officer(s) will act as the main point of contact between local responders and central government.

When an emergency has occurred in, or affected, a devolved administration and the UK government has retained responsibility for leading the emergency response, the Cabinet Office and the LGD will agree with the affected devolved administrations how the recovery process should be managed.

1.3 Financing

1.3.1 Investing in preparedness

The government operates The Bellwin Scheme of Emergency Financial Assistance to Local Authorities to provide financial assistance for the costs incurred during the response phase of an emergency. Any local authority can claim under the scheme if they incur expenditure in the course of responding to an emergency that involved the destruction of or danger to life and property.²⁰ Enhancements were made to the scheme in 2014 "to reflect the exceptional nature of recent storms and the role councils play as first responders". Bellwin grants are now paid at 100 percent above threshold instead of 85 percent.²¹

The Bellwin scheme applies only to the response phase, with local authorities generally responsible for financing emergency preparedness themselves. The same is true for LRFs which are not fully staffed or supported by a secure funding stream, and in most cases must rely on a voluntary subscription scheme from its members if it is to appointment a full-time coordinator or manager (as CCA statutory guidance suggests).

With regard to total UK funding for emergency preparedness and response, the ANVIL study, an EU co-funded security research project, found that:

²⁰ Full details of how the scheme works are available on the Department for Communities and Local Government website: <https://www.gov.uk/government/publications/bellwin-scheme-2013-to-2014-guidance>

²¹ Department for Communities and Local Government, Flood Support Schemes - Funding available from central government, March 2014, p.8.

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/312180/Summary_of_Support_Guide.pdf

British policy-makers certainly agree upon one thing: that it is extremely difficult to calculate the exact amount of money allocated for civil security in the UK. None of the interviewees of the present study has presented us with a clear answer on this matter. This is mainly because budget issues on civil security are not centrally managed by the government. In each county, there is a certain amount allocated by the local authorities for crisis management and risk assessment. Apart from that, each category 1 responder can have funds coming from the government department to which they belong (for instance the police can be aided by the Home Office). This also means that funds for civil security may not come exclusively from the Home Office; for example, the Ministry of Defence sponsors ‘Search and Rescue’ (SAR) operations, which can be conducted not only abroad but also in the homeland. Last but not least, emergency services at the local level may be distinct legal entities with the ability to impose local taxation, a portion of which can be dedicated to emergency preparedness and response. All these result in a rich variation of the available resources and of respective civil security capacities from county to county in the UK.²²

What is clear to the study is that after the 2005 London bombings, government counter-terrorism funding increased significantly, and that this spilled over to civil security issues. Increased funding led to the modernisation of civil security infrastructure, “always with a high emphasis on preventing a major civil crisis due to a terrorist attack”.

Although not providing a breakdown of how resources are allocated between government departments, the ANVIL study cites national statistics for total government expenditure (expressed in GDP percentages) in fields associated with civil security as an indicator of total financing.

Table 3: Eurostat Indicators of government expenditures 2007-2011

Category of Expenditure	2007	2008	2009	2010	2011
Civil Defence	0	0	0	0	0
Public Order and Safety	2.5	2.7	2.8	2.7	2.6
Police Services	1.3	1.4	1.6	1.5	1.4
Fire-Protection Services	0.2	0.2	0.3	0.2	0.2
Environment Protection	1	0.9	1.1	1	1

Source: ANVIL project country study: United Kingdom, February 2014

²² Evangelos Fanoulis, Emil Kirchner and Han Dorussen, "Country Study: United Kingdom" Analysis of Civil Security Systems in Europe (FP7 ANVIL project, February 2014), p.33. http://anvil-project.net/wp-content/uploads/2014/02/United-Kingdom_v1.1.pdf

1.3.2 Investing in consequence management

An independent review of 2007's exceptionally severe flooding, chaired by Sir Michael Pitt, reaffirmed local authorities' responsibility to make arrangements to bear the costs of the recovery phase in the majority of emergencies. Councils are responsible for conducting their own risk assessments and putting in place the right balance of insurance, self-insurance and reserves, to provide both security and value for money for their communities.

However, in response to the Pitt Review the government did put together, for the first time, a financial package to assist affected local authorities with the costs of recovery in the event of an "exceptional emergency". In such circumstances, individual government departments (namely the Department for Communities and Local Government, the Department for Education, the Department for Environment, Food and Rural Affairs, and the Department for Transport) will consider at ministerial level whether to provide financial support for aspects of the recovery effort.

Recovery phase funding can also be applied for under the EU Solidarity Fund which was established in 2002 to provide financial assistance in the aftermath of major natural disasters. To be eligible for funding total direct damage caused by the disaster must exceed 3.2 billion euros or 0.6% of the country's gross national income, whichever is the lower. The UK has benefitted from the fund once, when it was granted 162.3 million Euros to help with damage caused by the June 2007 floods.

If the armed forces are called on to support the response and/or recovery phases of an emergency, Treasury rules stipulate that the cost of this activity cannot come from the defence budget and instead must be recovered by the Ministry of Defence (MoD). The only exception is that where there is a direct threat to life, MoD Ministers may, at their discretion, decide it is in the national interest to waive part or all of the costs incurred for assistance provided in the response phase. When human life is not at risk, civil organisations will be required to meet all or some of the MoD's costs. In some cases the MoD is only prepared to provide niche capabilities on the understanding that other departments or agencies are prepared to fund all or part of the costs (see section 4.3). Military assistance in the recovery phase will be charged for at rates determined by the MoD.

1.4 Policy review, Evaluation & Organisational Learning

Debriefing

Cabinet Office CCA non-statutory guidance emphasises the importance of record-keeping during emergencies to facilitate operational debriefing and provide evidence to any enquiries that may later be held. Single-agency and inter-agency debriefing processes should therefore be in place to capture information while memories are fresh. All debriefs should be effectively chaired, preferably by someone who has not been involved in the emergency or exercise. A secretary should also be appointed to ensure a record of the discussion is produced.

There should also be a continual process for debriefs throughout the recovery phase to capture issues identified, recommendations to be implemented, and planning assumptions to be reviewed. It

should identify issues from all partners involved in the recovery process and involve the local community (including businesses) at all stages. However, there is no specific guidance on how to carry out recovery debriefs. Instead the non-statutory guidance makes a series of general recommendations for good practice based on the experiences of recent emergencies. It suggests that internal debriefs within each organisations should be held first, with findings then brought together in a multi-agency debrief (at the RCG or LRF). A strategy for canvassing public opinion should be developed and agreed upon. This might include the use of questionnaires, focus groups, websites and existing networks (community groups and parish councils for example). Any documents produced should be held for five years and a recovery debrief report released into the public domain in a timely fashion.

Lessons learned

In January 2011, the Cabinet Office published the policy paper *Lessons identified from UK exercises and operations: a policy framework* to formalise existing arrangements for identifying, acting upon and implementing lessons learned from emergency operations and training exercises. How well these lessons are incorporated into civil contingency policy is uncertain and it is perhaps telling that government guidance generally refers to ‘lessons identified’ rather than ‘lessons learned’ (see below).

The policy framework reaffirms the CCA’s requirement of Category 1 responders to “capture and assess lessons emerging from exercises and emergencies” and recommends a formal role for LRFs “in reviewing on a regular basis lessons emerging from significant emergencies and exercises in their area.”²³ Accordingly, lessons learned from debriefing processes can be collated and distributed in a multi-agency environment at local and regional forums such as an LRF or Department for Communities and Local Government Resilience and Emergencies Division (DCLG RED). Lessons learned that are relevant at a national level can be passed by a DCLG RED to the CCS in the Cabinet Office where subsequent action by government departments can be coordinated.

Where lessons learned would be of interest to other LRFs or responders in other parts of the country, they can be flagged by the DCLG RED or relevant devolved administration authority and disseminated via their networks. The Cabinet Office policy framework suggests that “for emergencies of national significance, a lessons learned workshop or conference should be organised by either the local or regional resilience forum, as appropriate, in order to share learning with other responders.”

For emergencies that require intervention by central government, *The Central Government Arrangements for Responding to an Emergency - Concept of Operations* requires LGDs to “account to Parliament and lead in the submission of evidence to any subsequent Government-appointed or independent inquiry” and to “identify, learn and share the lessons” from the planning, response and recovery stages of an emergency. Following an emergency the LGD is required to produce a post-incident report within three months of the end of the response phase and should consider publishing a separate report on lessons learned from the recovery phase of the emergency.

²³ Cabinet Office policy paper - Lessons identified from UK exercises and operations: a policy framework, November 2011. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/61349/lessons-learned-exercises-framework.pdf

Where lessons are identified, all government departments have a responsibility to consider how the defined areas of policy, planning and procedure for which they are responsible might be reviewed and revised accordingly.

The CCS has overall responsibility for lessons learned at government level and, according to the Cabinet Office policy framework, should facilitate an annual lessons learned seminar with national, regional and local stakeholders. The seminar is designed to “present key lessons from exercises and operations in an environment that will facilitate learning and ensure lessons identified are shared as widely as possible.”

The policy framework also requires the CCS to establish a system for collating “strategic or cross-cutting” lessons learned that have been submitted by individual government departments. The system should allocate responsibility to “act upon, investigate or clarify individual lessons” and ensure that it is implemented at national level (by amending LGD plans and procedures and the Central Government Concept of Operations for the response to an Emergency) and at local level (through informal guidance, amendment to statutory guidance and the revision of training courses).

Examples of Lessons learned

The Pitt Review of 2007’s exceptionally severe flooding published its final report in June 2008. In April 2010 the government passed the Flood and Water Management Act 2010, which implemented many of his recommendations including the introduction of a strategic overview role for the Environment Agency and a new leadership role for local authorities.²⁴ His recommendation of greater oversight of flood risk plans by scrutiny committees was incorporated via the Local Democracy, Economic Development and Construction Act 2009, and was reaffirmed in the Localism Act 2011. The review also prompted considerable scrutiny of flood management plans at the local level, for example in Devon in 2009²⁵, in South Staffordshire in 2010²⁶, and in Gloucestershire in 2011.²⁷ Each county produced their own review, the findings of which were implemented.

The Pitt Review also led, for the first time, to government financial aid to assist affected local authorities with the costs of recovering from emergencies (see section 1.3.2). Sector Resilience Plans for UK critical infrastructure were also introduced under Recommendation 51 of the Pitt Review (see section 1.5).

²⁴ The UK government had implemented 43 of the Pitt Review’s 92 recommendations by January 2012. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69489/2012-01-31-pb13705-pitt-review-progress.pdf

²⁵ Devon County Council – Flooding in Devon, May 2009. http://www.devon.gov.uk/flooding_report_final.pdf

²⁶ South Staffordshire Council - A Review of Emergency Planning in South Staffordshire District Council. <http://www.cfps.org.uk/domains/cfps.org.uk/local/media/library/reviewofemergencyplanning.pdf>

²⁷ Gloucestershire County Council – Severn Estuary Scrutiny Task Group <http://glostext.gloucestershire.gov.uk/documents/s6082/A%20I%20A%20Final%20report%20091211.pdf>

Lessons identified after the 7 July 2005 London bombings found that the effectiveness of emergency response had been undermined by the misinterpretation and overzealous application of the Data Protection Act 1998. Accordingly, in February 2007 the Cabinet Office published detailed non-statutory guidance titled *Data Protection and Sharing - Guidance for Emergency Planners and Responders* to complement the CCA regime's existing statutory and non-statutory guidance for Category 1 and 2 responders.

Criticism

A November 2012 study by the National Institute for Health Research found flaws in the UK civil contingency system's capacity to transfer knowledge and experience and to implement lessons identified by debriefing processes. The study talked to 17 experts working in the field and found that:

"From the interviews, a common and recurrent theme was concern voiced with regards to whether the emergency planning community learnt from emergencies. For example, not all events were reviewed. Where some reviews are conducted following emergency events, some debriefing may occur and lessons are identified. However, these do not always translate into enduring organisational change."²⁸

Further, when lessons were considered to have been learned "there was little evidence of these lessons being revisited later to confirm changes in organisational or individual behaviour."²⁹ An emergency planning academic and technical expert interviewed by the study said:

"I was once interviewing an emergency planner as part of a panel for a job and he said, 'Lessons learned - we've dealt with all of them.' So I just looked at him and said, 'What do you mean you've learned the lesson?'
'Well we had an action plan.'
'But how do you know it was learned?'
'Well because we had an action plan.'
'No, how do you know that learning was embedded? How do you know that meant changed behaviour, changed attitudes, changed culture?'
'Ah well, erm' is what you got from them. So I firmly believe if you talk about lessons learned you embed this feeling that you've actually learnt the lesson when actually all you've done is identify it."³⁰

Explanations given for this lack of reflecting learning included lack of time, competing organisation pressures and attempts to avoid blame for operational failures. The report identifies the need for a "professional culture shift towards a much more evidence-based approach to emergency management" in which international evidence could be integrated to fill gaps in local knowledge.

²⁸ Andrew CK Lee et al. "Emergency Planning in Health: Scoping study of the international literature, local information resources and key stakeholders", National Institute for Health Research study. November 2012, p.76.

http://www.nets.nihr.ac.uk/_data/assets/pdf_file/0017/85112/FR-09-1005-03.pdf

²⁹ Ibid. p.156.

³⁰ Ibid. p.78.

Currently there is a “tendency to disregard knowledge from sources outside the UK as irrelevant to the local context. This view ignores a substantial body of knowledge on emergency planning from around the world, and in particular the United States.”³¹

1.5 Resilience

The government defines resilience as “the capacity of an individual, community or system to adapt in order to sustain an acceptable level of function, structure, and identity.”

The National Security Strategy states that one of the UK government’s key tasks is to improve the resilience of the infrastructure most critical to keeping the country running against attack, damage or destruction. Accordingly, Cabinet Office guidance promotes the building of a more resilient society that is better prepared for and more able to recover from emergencies. It emphasises the collective nature of this endeavour:

“This responsibility needs to be shared between central and local government and the emergency services, the private sector (particularly those providing essential services to the public), civil society and communities. Our efforts to improve our ability to prepare for, respond to, and recover from emergencies therefore go beyond those organisations with legal obligations in this area.”³²

The National Resilience Capabilities Programme is the core framework through which the government seeks to build resilience across all parts of the UK. It identifies challenges and monitors current levels of capability in policy areas covered by 22 different workstreams. A LGD is responsible for each workstream, with the CCS responsible for the overall management of the programme and oversight coming from the National Resilience Capabilities Programme Board and, ultimately, from the Ministerial Sub-Committee on Resilience, which is chaired by the Prime Minister. Each LGD must gather information available at local and national levels and assess the level of workstream capability, before reporting their findings to government ministers.

Infrastructure resilience

The Infrastructure and Corporate Resilience Programme was established in March 2011 under the remit of the CCS to enable public and private sector organisations to develop the resilience of their infrastructure, supply and distribution systems to disruption from all risks.

In October 2011 it published the guide *Keeping the country running: natural hazards and infrastructure* “to support infrastructure owners and operators, emergency responders, industry

³¹ BMC Public Health 2012: "Emergency management in health: key issues and challenges in the UK", p.9. <http://www.biomedcentral.com/content/pdf/1471-2458-12-884.pdf>

³² Cabinet Office website: <https://www.gov.uk/government/policies/improving-the-uks-ability-to-absorb-respond-to-and-recover-from-emergencies/supporting-pages/building-a-resilient-society>

groups, regulators, and government departments to work together to improve the resilience of critical infrastructure and essential services”.³³

Since 2009, the LGD sponsoring each infrastructure sector has been required to produce an annual Sector Resilience Plan, setting out the resilience of the UK’s most important infrastructure to the relevant risks identified in the NRA. The plans are then placed before ministers to alert them to any perceived vulnerabilities along with an action plan for improving resilience where necessary. Sector Resilience Plans were introduced under Recommendation 51 of the Pitt Review and “are now a key driver within Government to support and enable the continuous improvement in the resilience of critical infrastructure.”³⁴ Individual plans are classified, but the Cabinet Office produces an annual summary of all departments’ plans into one overall sector resilience plan for critical infrastructure³⁵:

- *In 2010, sector resilience plans focused on the resilience of the UK’s critical national infrastructure to flooding.*
- *In 2011, sector resilience plans extended the scope to allow assessment of other natural hazards and/or less critical assets.*
- *In 2012, sector resilience plans extended the scope to allow assessment of the sector’s most important infrastructure to all risks (hazards and threats)*

Community resilience

Community resilience involves “communities and individuals harnessing local resources and expertise to help themselves in an emergency, in a way that complements the response of the emergency services”.³⁶ Cabinet Office guidance proposes that by using local area risk assessments published by LRFs under the CCA to identify and plan for the risks posed by severe emergencies, communities can be better prepared, quicker to respond and in many cases better equipped to recover from an emergency. A community resilience programme has been in place since 2008 to support existing community initiatives, disseminate these successful activities in other areas and raise awareness and understanding of local emergency response capability.

The May 2013 peer review of the UK’s implantation of the Hyogo Framework for Action found that:

Despite efforts by the Government to educate and provide detailed information, changing people’s behaviour and making individuals personally responsible remains a challenge: the culture of prevention and risk awareness is still seen as low (reportedly around 12 per cent among the general population).³⁷

³³ Cabinet Office guidance - Keeping the Country Running: Natural Hazards and Infrastructure, October 2011, p.5. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/61342/natural-hazards-infrastructure.pdf

³⁴ Ibid. p.38.

³⁵ Sector resilience plans for the last four years can be viewed here: <https://www.gov.uk/government/collections/sector-resilience-plans>

³⁶ Civil Protection Lexicon 2010: www.cabinetoffice.gov.uk/cplexicon

³⁷ Building resilience to disasters: Assessing the implementation of the Hyogo Framework for Action (2005-2015): Peer review report United Kingdom, May 2013, p.23. http://www.unisdr.org/files/32996_32996hfaukpeerreview20131.pdf



Business Continuity Management

Business Continuity Management (BCM) involves identifying a business's main products and services, along with the critical activities necessary to produce them, and devising strategies to ensure continuity of service in the event of disruption caused by an emergency, and for effective recovery afterwards. Guidance emphasises the vital role businesses play in assisting the public during and after an emergency.

The government aims for all businesses to have a clear understanding of how they can become more resilient under BCM and has produced a BCM Toolkit³⁸ and a *Business Continuity Guide for Dummies*, in partnership with the Business Continuity Institute and Emergency Planning Society.³⁹ A Business Continuity Plan should be devised, frequently reviewed, and tested through regular exercises. The CCS's Corporate Resilience Strategy promotes effective but inexpensive ways for smaller businesses to implement BCM.

The CCA requires Category 1 responders to have Business Continuity Plans in place to ensure that they can continue to exercise all functions - not just those that relate to emergency planning - in the event of an emergency, so far as is reasonably practicable. The Act also requires local authorities to provide advice and assistance to businesses and voluntary organisations in relation to business continuity management - an integral part of the Act's wider contribution to building resilience in the UK.

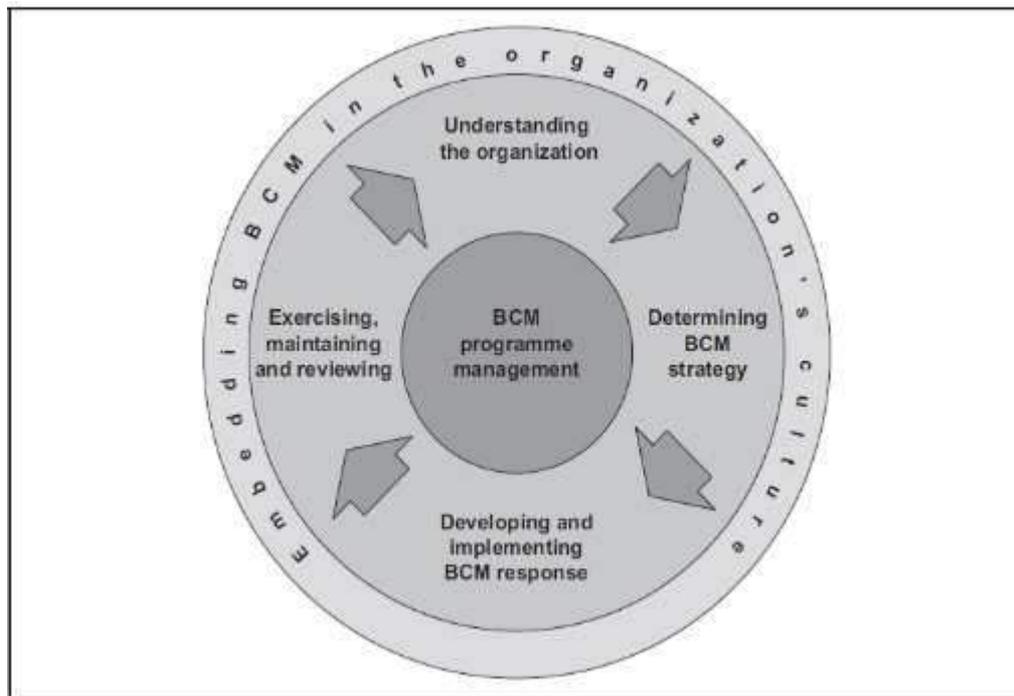
The Business Continuity Management standard ISO 22301:2012 (*Societal security - Business continuity management systems - Requirements*) is widely acknowledged as industry best practice and provides a generic framework that is applicable across the public, private and voluntary sectors. It is supported by ISO 22313:2012 (*Societal security - Business continuity management systems – Guidance*) which provides pragmatic guidance concerning the implementation of BCM. The standards, or their equivalent in the water industry, the Security and Emergency Measures Direction (SEMD), establish the process, principles and terminology of BCM.

³⁸ Business Continuity Management Toolkit:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/137994/Business_Continuity_Management_Toolkit.pdf

³⁹ Business continuity guide for dummies sample chapter: <https://www.gov.uk/government/publications/business-continuity-guide-sample-chapter--2>

Figure 5: the BCM lifecycle



Source: Cabinet Office website

1.6 Information sharing and data protection

Category 1 and 2 responders have a duty under the CCA and Contingency Planning Regulations to share information with each other in order to aid emergency planning, response and recovery. CCA statutory guidance considers information sharing to be “a crucial element of civil protection work, underpinning all forms of co-operation.”⁴⁰

*Information sharing is necessary so that Category 1 and 2 responders are able to make the right judgements. If Category 1 and 2 responders have access to all the information they need, they can make the right decisions about how to plan and what to plan for. If they do not have access to all the information, their planning will be weakened.*⁴¹

Guidance states that “the initial presumption is that all information should be shared”, but that Category 1 and 2 responders must, at all times, have regard for their responsibilities under relevant legislation, such as the Freedom of Information Act 2000 and the Data Protection Act 1998. This includes understanding what information should be controlled, how to obtain consent, how to categorise information, and what the limits of its disclosure are.

⁴⁰ Emergency Preparedness, statutory guidance to Part 1 of the Civil Contingencies Act: Chapter 3 (Information Sharing), March 2012, p.4. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/61026/Chapter-3-Formal-information-sharing-revised-March-2012.pdf

⁴¹ Ibid. p.5.

An appropriate level of understanding of these obligations was deemed to be lacking in the aftermath of the 7 July 2005 London bombings. The government's lessons learned programme found that in some parts of the emergency response the requirements of the Data Protection Act were either "misinterpreted or over-zealously applied".⁴² Accordingly, in February 2007 the Cabinet Office published detailed non-statutory guidance titled *Data Protection and Sharing - Guidance for Emergency Planners and Responders* to complement the CCA regime's existing statutory and non-statutory guidance for Category 1 and 2 responders.

During any emergency, Category 1 and 2 responders must balance the potential damage to the individual against the public interest in sharing the information. Inevitably the balance struck will depend on the specific nature of the emergency in question, and guidance notes that "in emergencies, the public interest consideration will generally be more significant than during day-to-day business."⁴³

The only circumstances in which the provisions of the Data Protection Act could be disregarded entirely would be through emergency regulations made under Part 2 of the CCA.

Social media

Social media plays an increasingly prominent role in emergency response, both as a means of warning and advising the public (see section 4.4) but also to "help responders gain a more accurate picture."⁴⁴ In policing terms this means using "monitoring tools currently available on the market ...to track online conversations, identify emerging issues and monitor the online communities most influential to the police."⁴⁵ National Police Improvement Agency guidance *Engage: Digital and Social Media Engagement for the Police Service* claims:

"These tools continue to help us to understand the policing issues that people are talking about online and how we can best engage with these communities to impact upon confidence in the police."⁴⁶

⁴² Data Protection and Sharing – Guidance for Emergency Planners and Responders, February 2007, p.4 https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/60970/dataprotection.pdf

⁴³ Ibid. p.10.

⁴⁴ Emergency Response and Recovery: Non statutory guidance accompanying the Civil Contingencies Act 2004, revised October 2013, p.139.

⁴⁵ National Policing Improvement Agency guidance - Engage: Digital and Social Media Engagement for the Police Service, May 2011, p.19 http://www.acpo.police.uk/documents/LPpartnerships/2010/20110518%20LPPBA%20dm_engage_v61.pdf

⁴⁶ Ibid.

2 Legislation

2.1 Crisis (emergency, disaster) management concept

The principle legal instrument in the field of crisis management is the *Civil Contingencies Act 2004*. This is supplemented by the *Emergency Response and Recovery Non statutory guidance accompanying the Civil Contingencies Act 2004*, published by the CCS. As explained in the previous section, the Central Government's *Concept of Operations* sets out crisis management principles and arrangements in the UK for responding to and recovering from emergencies.

2.2 General crisis (emergency, disaster) management law

Background to the Civil Contingencies Act (CCA) 2004

Following a series of emergencies in 2000-2001 (the fuel crisis and severe flooding in late 2000 and the outbreak of Foot and Mouth Disease in 2001) the government initiated a review of emergency planning regulations. It concluded that existing legislation no longer provided an adequate framework for modern civil protection efforts and that new legislation was required.

Following public consultation on a draft Bill from June to September 2003, the Civil Contingencies Bill was introduced to Parliament on 7 January 2004. The Bill received Royal Assent on 18 November 2004 and henceforth became known as the Civil Contingencies Act 2004.

Statutory basis of the CCA regime

The Civil Contingencies Act 2004 provides a single framework for civil protection in the UK. It sets out the relationship between the central, regional and local tiers within England, as well as covering the relationship between UK central government and the devolved administrations in Scotland, Wales and Northern Ireland.

Accompanying Regulations flesh out the detail of the Act, and it is also supported by statutory guidance *Emergency Preparedness*, published by the CCS and revised in 2012, which sets out how the CCA's duties and supporting regulations should be implemented. The Act, regulations and guidance are together referred to as the CCA regime.

The CCS has also published *Emergency Response and Recovery non-statutory guidance* "to establish good practice based on lessons identified from responding to and recovering from emergencies, both in the UK and internationally." The Cabinet Office has published many more official documents on crisis management and civil security stakeholders often create their own guidance relevant to their

particular field. For example, the London Emergency Services Liaison Panel has published eight editions of a Major Incident Procedure Manual to summarise the responses and responsibilities of each of the emergency services at a major incident in London.

To keep the CCA updated, the government created The Civil Contingencies Act Enhancement Programme. It assesses whether there are aspects of the Act where original intentions are not being met, whether the Act needs updating, how to reflect best practice in the Act and supporting guidance and whether the scope of the Act should be broadened. This has led on several occasions to *Emergency Preparedness Guidance* being updated.

Specialised legislation

Severe specialised risks are covered by Regulations that pre-date the CCA. These Regulations have established multi-agency emergency planning regimes in place. To avoid duplication, CCA Regulations stipulate that the duty to maintain plans under the Act does not apply to emergencies which are dealt with by these pieces of legislation.

- Control of Major Accident Hazards Regulations 1999 (as amended 2005 and 2008) impose requirements with respect to the control of major accident hazards involving dangerous substances. They implement Council Directive 96/82/EC on the control of major accident hazards involving dangerous substances (except Article 12 which relates to land use planning). Site operators are required to produce on-site emergency plans for establishments where a dangerous substance is stored.
- The Pipelines Safety Regulations 1996 are enforced by the Health and Safety Executive to ensure that Major Accident Hazard Pipelines are designed, constructed and operated safely. The Regulations task local authorities with the production of emergency plans or the modification of existing plans, to cover certain major accident hazard pipelines within their area.
- Radiation Emergency Preparedness and Public Information Regulations 2001 implement in Great Britain the articles on intervention in cases of radiation emergency in Council Directive 96/29/Euratom, except where they apply to transport by road, rail, air, sea or inland waterway. The Regulations also partly implement Council Directive 89/618/Euratom on informing the general public about health protection measures to be applied and steps to be taken in the event of a radiation emergency. The Regulations establish a framework of emergency preparedness measures to ensure that members of the public are properly informed and prepared, in advance, about what to do in the unlikely event of a radiation emergency occurring, and provided with information if a radiation emergency actually occurs.

The Energy Act 1976 also contains emergency power provisions which allows for the regulation or prohibition of the production, supply, acquisition or use of fuel during an emergency affecting fuel supplies.

Other legislation regarding industrial emergency planning and safety at sports grounds and events includes:

- Nuclear Installations Act 1965
- The Ionising Radiations Regulations
- The Energy Act (Carbon Capture and Storage) 2008
- Safety of Sports Grounds Act 1975
- Fire Safety and Safety of Places of Sport Act 1987
- The Health and Safety at Work Act 1974
- The Flood and Water Management Act 2010

2.3 Emergency rule

Part 2 of the CCA repeals the Emergency Powers Act 1920 and sets out the government's generic emergency powers legislation. It allows the government to create temporary special legislation (emergency regulations) as a last resort in the most serious of emergencies when both the CCA regime's legislative framework and the emergency provisions of other existing legislation are judged to be insufficient to respond to an emergency in the most effective way.⁴⁷

Emergency regulations can make any provision that could be made by an Act of Parliament or by exercise of the Royal Prerogative and can extend to the whole of the UK including devolved territories. The only Act of Parliament which may not be amended by emergency regulations is the Human Rights Act 1998. This means that, in theory, emergency powers could be used to suspend core constitutional legislation such as the Habeas Corpus Act 1816 and the Parliament Act 1911 (which restricts a parliament to five year terms). This concerned the House of Lords which in 2004 proposed without success an amendment to exempt important legislation from the CCA's emergency power provisions.

Section 22 of the CCA states that "emergency regulations may make any provision which the person making the regulations is satisfied is appropriate for the purpose of preventing, controlling or mitigating an aspect or effect of the emergency." However, the Act's non-statutory guidance emphasises that: "all those powers listed in Section 22 of the CCA will not be collectively available in any specific emergency; the powers actually used must be tailored to the emergency if they are to meet the robust legal tests and safeguards set out in the CCA".

Responsibility for proposing the introduction of emergency regulations and drafting their content falls to the LGD in collaboration with other government departments. The government must then satisfy itself that the conditions of the CCA are being met. The Act stipulates that emergency regulations can only be introduced if the UK or a devolved territory faces serious damage to human welfare, serious damage to the environment or a threat to security from war or terrorism. If these criteria are met the emergency must then satisfy the Act's two additional safeguards which state that emergency powers can only be considered if:

⁴⁷ Emergency powers exist in other UK primary legislation such as the Energy Act 1976 which allows for the regulation or prohibition of the production, supply, acquisition or use of fuel during an emergency affecting fuel supplies.

- it is necessary to make provision urgently in order to prevent, control or mitigate an aspect or effect of the emergency when existing powers are insufficient and it is not possible to bring forward a Bill in the usual way and there is a need to make the provision by other means;
- and emergency regulations must be proportionate to the aspect or effect of the emergency they are directed at.⁴⁸

Emergency Regulations are made by the Queen by Order in Council on the advice of her ministers. If this is not possible without serious delay, a senior minister may make the regulations by Order. A regulation must be presented to parliament and approved (with or without amendment) within seven days or it will be considered invalid and cease to have effect. If approved, a regulation stays in force for 30 days but can be renewed for a further 30 days at any point if it is considered necessary and proportionate to do so.

CCA guidance emphasises that the timescale for introducing emergency regulations is likely to vary dramatically depending on the scale of the emergency and the number of regulations it requires. In some cases complex legal issues surrounding liability, human rights protection and devolution may be raised, all of which would need to be resolved before emergency regulations could be made. For this reason guidance advises:

It should be assumed that it will take a minimum of six hours to bring the regulations into effect, or, more likely, a number of days. This must be borne in mind when considering whether it is appropriate to request the use of the powers - if the effects of an incident are expected to be felt in a matter of minutes or to be over in just a few hours, it is extremely unlikely that emergency regulations could be put in place quickly enough to be of any use. In these situations existing "normal" powers, or the Royal Prerogative, can provide legal cover for any action taken.⁴⁹

When emergency regulations are introduced, the CCA stipulates that the government must appoint a Regional Nominated Coordinator for each region in England to which the regulations relate, and an Emergency Coordinator for each of the relevant devolved administrations. Their primary role would be to facilitate coordination under the emergency regulations, although Coordinators could also be afforded special powers of direction over organisations and the general population and be allowed to requisition property. A body may need to be created to support them in the exercising of their duties.

⁴⁸ Emergency Response and Recovery: Non statutory guidance accompanying the Civil Contingencies Act 2004, revised October 2013, p.200.

⁴⁹ Ibid p.201.

2.4 Specific, department/agency-level legal arrangements and regulations on emergency and disaster management

As described in Section 3.1, the UK operates a Lead Government Department principle for emergencies that require intervention by central government. One department typically assumes overall responsibility for crisis management; assessing the circumstances of the emergency, ensuring that its ministers and other relevant ministers are briefed, handling media and parliamentary interest, and providing co-ordinated policy and other support as necessary to local responders. Other government departments, agencies and, if appropriate, the devolved administrations, provide support to the LGD as necessary to ensure a co-ordinated response. The LGD collaborates particularly closely with the Cabinet Office, and the News Co-ordination Centre when activated (see section 4.4).

Often the LGD for recovery is different to the LGD for response. In such cases government guidance emphasises that they would need to work closely from the outset to ensure a smooth transition of responsibilities and that objectives are shared. The LGD for recovery may call on other government departments for support, both for specialist technical and policy advice as well as local knowledge of the area and key contacts to augment their resources. During the transition from response to recovery, DCLG REDs – which advise the LGD, cabinet office and other relevant government departments and provide a liaison function on crisis management and resilience issues below the national level (see section 3.1) – play an important role in ensuring a smooth handover of information, contacts and ongoing actions.

2.5 Specific to the regional and local authorities legal arrangements and regulations on emergency and disaster management

While the principles of emergency response and recovery are the same throughout the UK, the management of emergencies that occur in Scotland, Wales or Northern Ireland varies according to the terms of each country's devolution settlement and local administrative arrangements. Consequence management and recovery is generally devolved to the relevant administration in the aftermath of all emergencies.

Each devolved administration has its own emergency planning and lead organisation arrangements including protocols for local responders and systems for coordinating a multi-agency response. Accordingly, even when the UK government reserves competency over an emergency they will typically liaise closely with the relevant devolved administration.

Part 1 of the CCA operates in Scotland and Wales much as it does in England, while in Northern Ireland the Act applies only to a limited number of organisations. Were emergency powers ever to be introduced under Part 2 of the Act, the UK government would be required to appoint an Emergency Coordinator for each of the relevant devolved administrations to facilitate coordination of emergency regulations (see section 2.3).

Scotland

Responsibility for civil protection is largely devolved in Scotland with responsibility resting with the Scottish Resilience Division of the Scottish government. If an emergency relates to an area of devolved responsibility (such as law and order or the environment), the Scottish government will lead the response, liaising as appropriate with the UK government. If the emergency relates to an area of reserved responsibility (such as national security or nuclear energy) the UK government's lead department will head the response, working closely with the Scottish government.

Even in cases relating to reserved matters, such as terrorism, the Scottish administration will play a full role in response and recovery because a range of devolved matters, such as the emergency services and the NHS, remain the responsibility of Scottish Ministers, and the prosecution of crime is a devolved responsibility of Scotland's Lord Advocate.

At local level, responder organisations coordinate under the auspices of eight SCGs, each formed on the basis of a Scottish Police Force area. They play a similar role to LRFs in England and Wales with responsibility for risk assessment, steering emergency planning initiatives, engaging with the community, running training exercises and overseeing the response to an emergency.

At government level, in the event of an emergency the Scottish Government Resilience Room would be established to inform decision making, ensure cross government coordination of the response and support responders as necessary. If the emergency is UK-wide the Resilience Room would coordinate closely with COBR.

Wales

Responsibility for civil protection is largely non-devolved in Wales, remaining primarily the responsibility of UK government departments. However, the Welsh government has functional responsibility for a number of policy areas (such as health, the environment and fire and rescue) and is primarily responsible for a number of Category 1 and 2 responders. There is a dedicated Welsh government team for handling multi-agency cooperation and engaging with the UK government on issues of emergency planning and response.

The objectives and arrangements for response at the local level in Wales match those in England but take into account devolved functions. LRFs remain the principle mechanism for multi-agency co-operation on civil protection issues.

At government level, Welsh government officials liaise with their UK government counterparts and act as the main point of contact with local responders and SCGs. This structure is set out in the Pan-Wales Response Plan.

When an emergency with a Level 1 impact has occurred or is likely to occur in Wales, the Welsh government will convene the Civil Contingencies Group to provide strategic leadership to emergency response, linking into both the local and national levels as appropriate. The group is chaired by a

senior Welsh Government official and comprised of Welsh Government department officials and representatives from organisations relevant to the emergency.

In the event of a Level 2 emergency, or if the Civil Contingencies Group decides that the emergency should be escalated to Level 2, the group will be re-constituted as the Wales Civil Contingencies Committee (WCCC). The WCCC is an advisory body comprising senior government officials and senior experts from Category 1 and 2 responders. Its functions include maintaining a strategic picture of the evolving situation within Wales, supporting the Government Liaison Team that by this time will have been deployed, and assessing and advising on issues that cannot be resolved at local level. The Welsh Government may also activate the Emergency Co-ordinate Centre (Wales) to link with SCGs and provide briefing and advice to the WCCC, LGD and any other Welsh or UK government department involved in the emergency.

The Welsh Resilience Forum - a non-statutory advisory body - provides a national forum for multi-agency strategic advice on civil protection and emergency planning. The forum meets quarterly and is chaired by the First Minister or the Minister for Social Justice and Regeneration. It provides collective strategic direction to the Wales Capabilities Programme and individual member leadership to the various capabilities sub-groups co-ordinated through a Wales Resilience Partnership Team. It also oversees the Wales Risk Assessment Group which undertakes risk assessment at a pan-Wales level.

A number of other groups provide forums for discussion and the co-ordination of emergency preparedness and response procedures in Wales, including: the Joint Emergency Services Group; the Welsh Borders Resilience Group; the Welsh Government Emergencies Branch and the Wales Media Emergency Forum.

Northern Ireland

Civil protection is largely devolved in Northern Ireland. Responsibility for the strategic coordination and management of most emergencies rests with Northern Ireland government departments (following the LGD principle – see section 3.1) and overall policy and strategy co-ordination lies with the Office of the First Minister and Deputy First Minister. This excludes emergencies relating to terrorism, policing, criminal justice and security, which remain the responsibility of the UK government's Northern Ireland Office. In emergencies of this nature the Northern Ireland Office would activate its Northern Ireland Office Briefing Room arrangements, although the Northern Ireland executive would also activate its own crisis management arrangements because many of the responses required in such emergencies fall within devolved responsibilities.

Emergencies in Northern Ireland are first dealt with locally by the emergency services, district councils and other public services organisations. If an emergency cannot be managed effectively at local level and requires cross-departmental strategic coordination, the Northern Ireland Crisis Management Arrangements will be invoked.

The Crisis Management Group is responsible for setting the overarching strategy of the Northern Ireland government's response to an emergency and has the power to direct the response and commit the resources of the Northern Ireland civil service. It is normally chaired by the First Minister and deputy First Minister acting jointly, and is comprised of other Executive Ministers and departmental senior officials.

The strategic direction set by the Crisis Management Group is supported by the Civil Contingencies Group (Northern Ireland), a pan-Northern Ireland multi-agency forum comprised of senior representatives from Northern Ireland government departments, the Northern Ireland Office, emergency services, district councils and other organisations relevant to the emergency. The group's functions also include periodically reviewing, researching and briefing member organisations on civil protection policy.

The Crisis Management Group and Civil Contingencies Group (Northern Ireland) are supported by a range of administrative and advisory groups, including a Central Operations Room, a scientific and technical advisory group and liaison arrangements with other co-ordination groups.

These strategic crisis management arrangements, together with provisions for emergency preparedness, are maintained by the Civil Contingencies Policy Branch, located in the Office of the First Minister and Deputy First Minister. The Branch also represents Northern Ireland in policy discussion at UK and international levels.

London

London's patterns of public service provision and government mean that some aspects of civil protection are organised differently. One pan-London LRF covers the whole city, incorporating the Metropolitan Police and City of London Police areas. Each London borough is represented on the LRF by a Borough Resilience Forum which facilitate co-operation and information sharing at the operational level between local authorities and the emergency services. Local authorities are supported in exercising their duties by the London Fire and Emergency Planning Authority which, among other things, helps to develop, maintain and exercise emergency plans for category 1 responders and trains their staff.

2.6 Legal regulations on the involvement of volunteers and specialised NGOs

A wide range of voluntary organisations and NGOs, both at local and national level, support the statutory services in the planning, response and recovery phases of most emergencies. These arrangements are generally ad hoc, although their role was clarified by Part 1 of the CCA which requires category 1 responders "to have regard to the activities of bodies whose activities are not carried on for profit" in the course of carrying out their emergency and business continuity planning duties.⁵⁰ CCA guidance states:

⁵⁰ Civil Contingencies Act, Part 1, 2, (2) (k)

Statutory responders should be aware of the capabilities and capacity of local voluntary organisations and the means of accessing their services, whether as individual volunteers or as members of local or national volunteer organisations. Statutory responders should develop and implement agreed processes for activating call-out mechanisms, and systems for organising, managing, briefing and debriefing volunteers. The voluntary sector should also be included in post-response review and evaluation activity.⁵¹

Category 1 responders are obliged to consider how the voluntary sector can be involved at every stage, including training and exercising for emergency preparedness. Cabinet office guidance emphasises that advance planning is essential if the voluntary sector's diverse array of skills and expertise is to be effectively integrated and utilised during the response phase of an emergency. *Emergency Preparedness* guidance states:

Sound co-operation through the Local Resilience Forum (LRF) processes and directly with individual Category 1 responders should be based on an agreed framework. This structure needs to suit local circumstances, be understood by all concerned and have clearly identified points of contact. These contact arrangements must be kept up to date by regular formal and informal dialogue between each of the participants at local level.⁵²

Statutory agencies that use volunteers may become responsible for their health and safety, and as such CCA guidance states that "volunteers should be appropriately equipped, trained, supervised and supported by their own organisations."⁵³ Agencies can use Service Level Agreements, Memorandum of Understanding or other forms of protocol to establish arrangements to identify the level of insurance cover provided by voluntary organisations, the training provided to voluntary sector personnel, or the use of Personal Protective Equipment. When involved in emergency response, the activities of voluntary organisations and NGOs will be subsidised by category 1 responders. *Emergency Preparedness* guidance states that a Memorandum of Understanding should be in place to describe financial arrangements.

The CCS and the British Red Cross established the to identify and maximise the voluntary sector's contribution to UK civil protection arrangements and to provide a framework for engagement between the government, emergency services, local authorities and voluntary organisations. The Voluntary Sector Civil Protection Forum is made up of representatives from the voluntary sector, central and local government, devolved administrations, statutory authorities and professional organisations.

⁵¹ Emergency Response and Recovery: Non statutory guidance accompanying the Civil Contingencies Act 2004, revised October 2013, p.142.

⁵² Emergency Preparedness, statutory guidance to Part 1 of the Civil Contingencies Act: Chapter 14 (The role of the voluntary sector), October 2011, p.5-6.

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/61037/Chapter-14-role-of-voluntary-sector-amends-10112011.pdf

⁵³ Emergency Response and Recovery: Non statutory guidance accompanying the Civil Contingencies Act 2004, revised October 2013, p.143.

2.7 Legal regulations for international engagements of first responders and crisis managers

There are no statutory regulations for deploying first responders and crisis managers overseas. The 2010 Strategic Defence and Security Review commits the UK to working “to ensure that EU civil protection arrangements focus on shared risk assessment and prevention, coordination of mutual assistance, and maximised awareness of critical infrastructure dependencies” (see further section 3.2).⁵⁴ In the event that UK civil servants or civilian experts are committed to overseas missions they are usually seconded, either directly to the governmental agencies of the country in which the programme is being carried out or to international organizations involved in the programme.

⁵⁴ Securing Britain in an Age of Uncertainty: The Strategic Defence and Security Review, October 2010, p. 63.

3 Organisation

England consists of 34 two-tier counties, 32 London boroughs and 1 City of London or Greater London, 36 metropolitan counties and 46 unitary authorities. Northern Ireland consists of 26 district council areas and Scotland and Wales has 32 and 22 unitary authorities respectively.

England is subdivided into nine administrative regions. Greater London has an elected Assembly and Mayor, but the other regions have a minor role, with unelected regional assemblies and Regional Development Agencies. Below the regional level and excluding London, England has two different patterns of local government in use. In some areas, there is a county council responsible for services such as education, waste management and strategic planning within a county, with several district councils responsible for services such as housing, waste collection and local planning. These councils are elected in separate elections. Some areas have only one level of local government, and these are dubbed unitary authorities. The City of London and the Isles of Scilly are sui generis authorities, predating recent reforms of local government.

3.1 Organisational chart

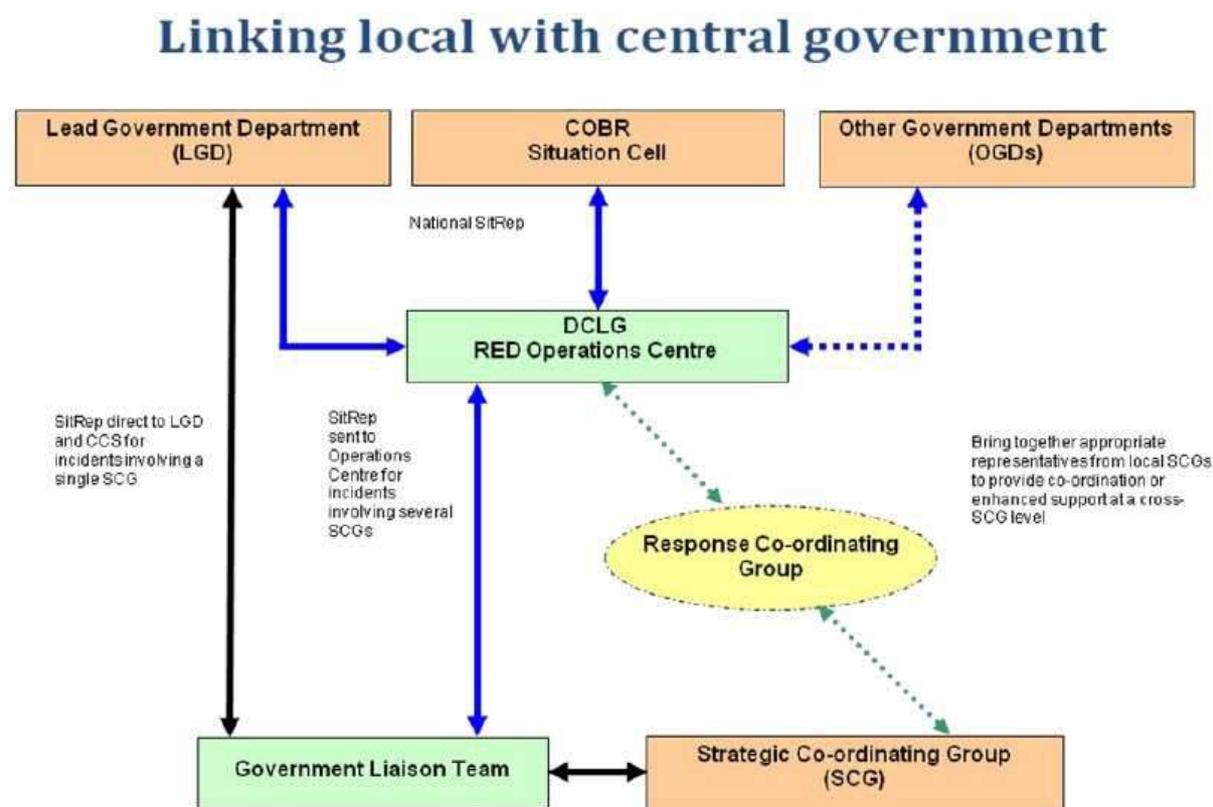


Figure 6: Linking local with central government

Source: Department for Communities and Local Government

Local arrangements for civil protection

Part 1 of the CCA, together with supporting regulations and statutory guidance, establish a clear set of roles and responsibilities for those organisations involved in emergency preparation and response at the local level. The Act divides local responders into two categories and imposes a different set of duties on each.

Category 1 responders are organisations that collectively form the core of the response to most emergencies. They include:

- Emergency services: police forces including the British transport police; fire services; ambulance services; HM coastguard
- Local authorities: all principal local authorities (i.e. metropolitan districts, shire counties, shire districts, shire unitaries)
- NHS bodies: primary care trusts; hospital trusts; foundation trusts (and Welsh equivalents); Health Protection Agency
- Government agencies: Environment Agency; Scottish Environment Agency

Given their front-line role, category 1 responders are subject to the full set of civil protection duties under the CCA. They are required to:

- assess the risk of emergencies occurring and use this to inform contingency planning;
- put in place emergency plans;
- put in place Business Continuity Management arrangements;
- put in place arrangements to make information available to the public about civil protection matters and maintain arrangements to warn, inform and advise the public in the event of an emergency;
- share information with other local responders to enhance co-ordination;
- co-operate with other local responders to enhance co-ordination and efficiency; and
- provide advice and assistance to businesses and voluntary organisations about business continuity management (Local Authorities only).⁵⁵

Category 1 responders are excluded from these CCA responsibilities in cases of severe specialised risks and emergencies that are covered by other legislation (for example, the Control of Major Accident Hazards Regulations 1999, the Pipelines Safety Regulations 1996 and the Radiation Regulations 2001), although their help could still be required if appropriate.

⁵⁵ Responding to Emergencies: The central government's concept of operations, April 2013, p.65.

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/192425/CONOPs_incl_revised_chapter_2_4_Apr-13.pdf

Category 2 responders are less likely to be involved in front-line response and planning work, but may be heavily involved in emergencies that affect their sector. They include:

- Utilities: electricity distributors and transmitters; gas distributors; water and sewerage undertakers; telephone service providers (fixed and mobile)
- Transport: Network Rail; train operating companies (passenger and freight); London Underground; Transport for London; Highways Agency; harbour authorities; Airport operators
- Health: NHS strategic health authorities; Health and Safety Executive

The CCA imposes two responsibilities on these responders: cooperation and information sharing with other category 1 and 2 responders.

The intention is to foster cooperation and understanding and cement local-level partnerships and accordingly senior representatives of category 1 and 2 organisations also come together to form Local Resilience Forums (LRFs), the principal mechanism for local multi-agency cooperation under the CCA. LRFs have no legal personality or powers to direct their members, but are obliged to meet at least once every six months and are expected to ensure effective delivery of CCA duties. They also provide specific risk assessments for their geographical area (see section 1.1).

The local response to an emergency

As outlined in Section 1.2, emergency management and response in the UK is founded on a bottom-up approach in which operations are managed and decisions are made at the lowest appropriate level. Local organisations are always the first responders and act as the “essential building block” for the response to an emergency.⁵⁶ Indeed, the Cabinet Office emphasises that:

Most incidents are handled at a local level by the emergency services and by the appropriate local authority or authorities with no direct involvement by central government (though government departments with a potential interest would keep themselves informed on developing events and the handling of the media).⁵⁷

Category 1 responders are required by the CCA to have procedures in place for determining whether an emergency has occurred. Once identified, if the scale and nature of an emergency is deemed to require strategic guidance, an SCG will be formed to coordinate the local multi-agency response. It is located in the Strategic Co-ordination Centre and comprised of senior representatives with executive authority from each of the key organisations involved in the local response. The chair of the group, typically a senior police officer but occasionally a Local Authority Chief Executive, is known as the Strategic Coordinating Group Chair (although this role is often colloquially referred to as a ‘Gold

⁵⁶ Ibid. p.13.

⁵⁷ The Role of the Lead Government Department in Planning for and Managing Crises, January 2011, p.1. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/61356/lead-government-department-framework.pdf

Commander'). The SCG will take strategic decisions on managing the emergency locally. The command structures of individual agencies operate alongside but separate from the SCG.

Three levels of command at single agency level operate below the SCG: operational (Bronze), tactical (Silver) and strategic (Gold). They can often be implemented without the need for multi-agency co-ordination through the SCG, with any necessary co-ordination taking place at silver or bronze level. Incidents are normally handled at the operational level, moving to the tactical or strategic level if required depending on the scale or nature of the incident.

The Central response framework

While most emergencies are managed at the local level, the government has identified three types of emergency that might necessitate the involvement of the sub-national tier in England, a devolved administration, or UK central government:

- *Significant emergency (Level 1) has a wider focus and requires central government involvement or support, primarily from a lead government department (LGD) or a devolved administration, alongside the work of the emergency services, local authorities and other organisations. There is however no actual or potential requirement for fast, inter-departmental/agency, decision making which might necessitate the activation of the collective central government response, although in a few cases there may be value in using the COBR complex to facilitate the briefing of senior officials and ministers on the emergency and its management.*

Examples of emergencies on this scale include most severe weather-related problems. In addition, most consular emergencies overseas fall into this category with the FCO providing advice and support to those affected alongside the authorities in the country affected.

- *Serious emergency (Level 2) is one which has, or threatens, a wide and/or prolonged impact requiring sustained central government co-ordination and support from a number of departments and agencies, usually including the regional tier in England and where appropriate, the devolved administrations. The central government response to such an emergency would be co-ordinated from the Cabinet Office Briefing Rooms (COBR), under the leadership of the lead government department. Examples of an emergency at this level could be a terrorist attack, widespread urban flooding, widespread and prolonged loss of essential services, a serious outbreak of animal disease, or a major emergency overseas with a significant affect on UK nationals or interests.*

Examples of emergencies on this scale, include the H1N1 Swine Flu pandemic, the 2007 summer floods, and the response to the 7th July bombings in London.

- *Catastrophic emergency (Level 3) is one which has an exceptionally high and potentially widespread impact and requires immediate central government direction and support, such as a major natural disaster, or a Chernobyl-scale industrial accident. Characteristics might include a top-down response in circumstances where the local response had been*

overwhelmed, or the use of emergency powers were required to direct the response or requisition assets and resources. The Prime Minister would lead the national response. Fortunately, the UK has had no recent experience of a Level 3 emergency, but it is important to be prepared for such an event should the need arise.⁵⁸

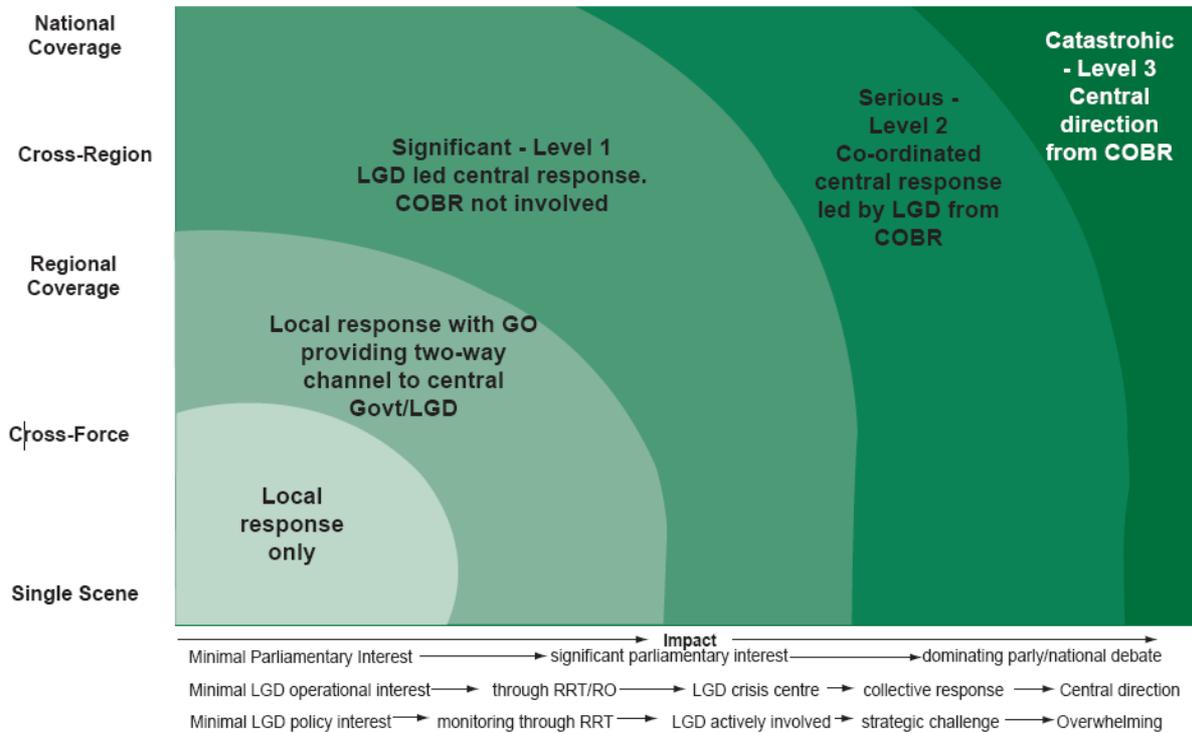


Figure 7: Likely form of central government engagement based on the impact and geographic spread of an emergency in England

Source: Responding to Emergencies: UK Central Government Concept of Operations

In the event of a Level 2 or 3 emergency, the government’s central response framework would be initiated. This would involve the activation of central government’s crisis management facilities - the Cabinet Office Briefing Rooms (COBR). COBR is comprised of ministers and senior officials from relevant UK government departments and agencies along with representatives from other organisations as necessary. COBR is responsible for overall strategic planning and its activation is intended to facilitate rapid co-ordination of the central government response and effective decision-making. It also provides an authoritative source of advice for local responders.

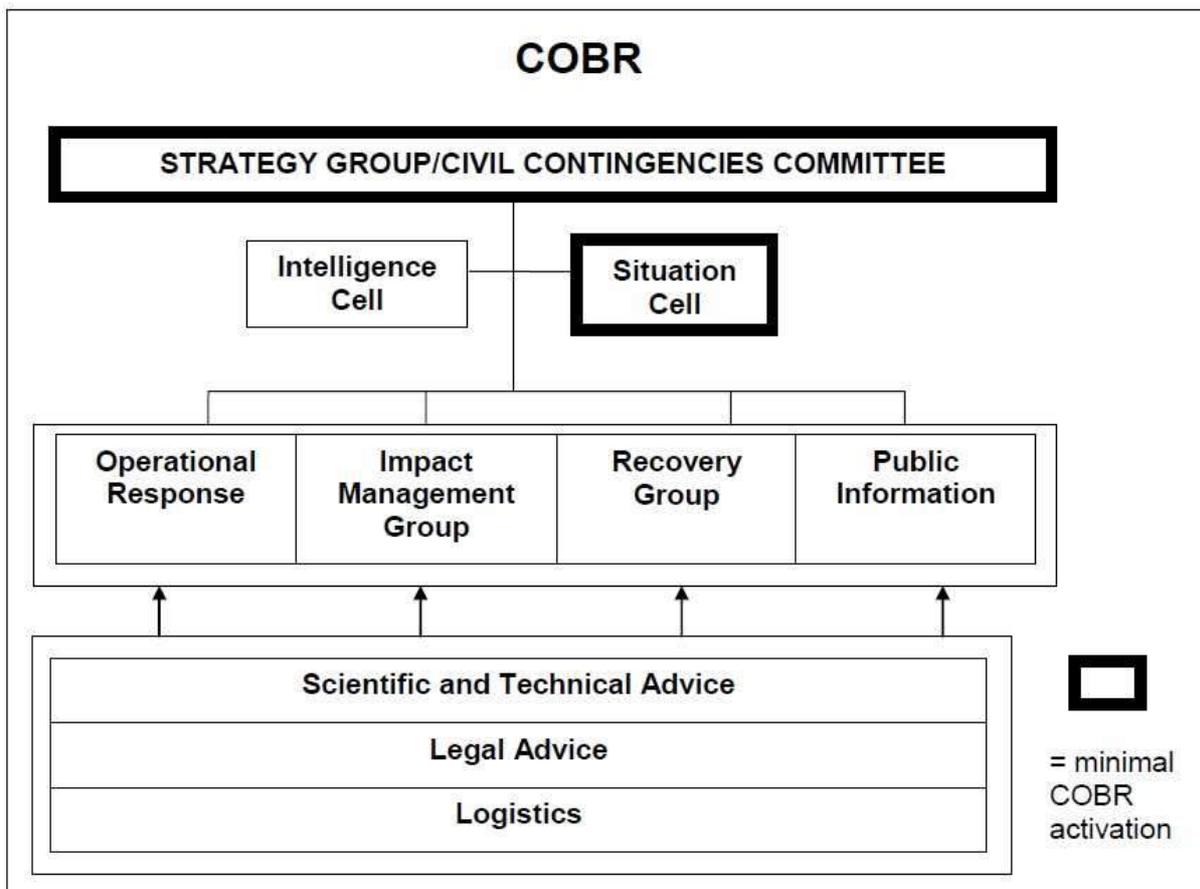
COBR is designed to be flexible to adapt to the specific circumstances of an emergency. Within COBR, a senior decision making body oversees the government’s response and is supported as necessary by a number of separate cells and supporting blocks of activities. These can be grouped into five broad areas and are supported by sources of specialist advice as required. There is often no need for all of the supporting structures to be activated; a full activation is likely only in the most complex emergencies, particularly where there is a need to manage a mix of highly and unclassified material

⁵⁸ Responding to Emergencies: The central government’s concept of operations, April 2013, p.8-9. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/192425/CONOPs_incl_revised_chapter_2_4_Apr-13.pdf

or there are potentially wide ranging consequences flowing from the initial event (some terrorist scenarios, for example). On many occasions, the senior decision making body is likely to meet with only the Situation Cell for support with operational response considerations the responsibility of the Lead Government Department (see below).

Examples of COBR being initiated within the last year include a series of meetings throughout February 2014, chaired by Prime Minister David Cameron, on the government’s response to severe weather and flooding. COBR also met to discuss the threat posed by the Ebola virus to the UK in July and October 2014.

Figure 8: Structure of Cabinet Office Briefing Rooms



Source: Responding to Emergencies: UK Central Government’s Concept of Operations

Overall crisis management is typically supervised by one government department: the Lead Government Department. The LGD takes overall responsibility for assessing the situation, ensuring that its ministers and other relevant ministers are briefed, handling media and parliamentary interest, and providing co-ordinated policy and other support as necessary to local responders. Other government departments provide support to the LGD to ensure a co-ordinated response.

The Cabinet Office publishes a list of pre-nominated lead departments for as many potential emergency situations as possible to ensure clarity in times of crisis.⁵⁹ In England, Scotland and Wales, the Home Office is the LGD responsible for terrorist related emergencies and assumes responsibility for all emergencies where the cause is uncertain or until such a time when terrorist activity can reasonably be ruled out.

The LGD is responsible for alerting the CCS as soon as it considers any incident (or potential incident) to likely require collective consideration by a range of departments. The CCS was created in July 2001 and is the cabinet office department responsible for emergency planning. It works under the leadership of the Civil Contingencies Committee, a cabinet office committee chaired by the Home Secretary, and in the event of an emergency its role is to provide central focus for cross-departmental and cross-agency commitment, coordination and cooperation (see section 1.2.4 for the CCS's role in orchestrating emergency preparedness).

When it is unclear which government department should take the lead, the CCS will take the immediate lead until the Prime Minister has endorsed its selection of LGD.

Liaison between local responders and central government

When an emergency requires central government intervention, a Government Liaison Officer is dispatched to act as the primary liaison between government departments and the SCG. The Government Liaison Officer is normally from the relevant government office or the LGD, and is supported when necessary by a Government Liaison Team.

If local responders are overwhelmed or an emergency affects a wide geographical area and would benefit from greater coordination, a multi-SCG Response Co-ordinating Group (RCG) may be convened to bring together representatives from different SCGs. Both SCGs and, when formed, the RCG, report to their local Department for Communities and Local Government Resilience and Emergencies Division (DCLG RED – England is divided into four REDs whose seats are in London, Birmingham, Bristol and Leeds) which acts as conduit for communications between central government and the local level.

REDs are responsible for supporting local response and recovery efforts, and ensuring that there is an accurate picture of the situation in their area (see Figure 6). They advise the LGD, cabinet office and other relevant government departments on what support is likely to be required by local responders to recover from an emergency. REDs are also responsible for liaising with government in emergencies below the national level that don't require intervention by central government and are the first point of contact between government and all LRFs in England.

Scientific support during emergencies

⁵⁹ A breakdown is available on the government website:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/61354/lead-government-department-march-2010.pdf

The effective management of most emergencies requires access to specialist scientific and technical advice, for example regarding the public health and environmental implications of a flood or the spread of a disease.

At local level, the SGC is advised to establish a Science and Technical Advice Cell (STAC) at an early point of the response phase to provide a common and coordinated source of scientific and technical advice. The STAC's designated lead usually comes from the health community and will work with the SCG to select the cell's core membership, typically from government agencies.

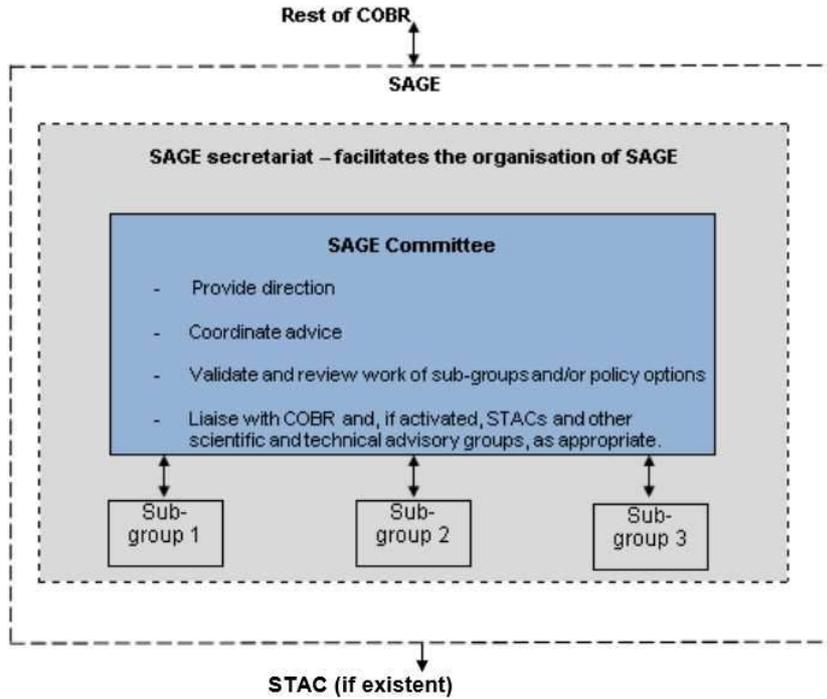
At national level, COBR and government departments receive advice from the Scientific Advisory Group for Emergencies (SAGE) which is responsible for coordinating and peer reviewing scientific and technical advice to inform evidence-based ministerial decision making. SAGE can be scaled up or down in size depending on the nature of the emergency (similarly to COBR) and is usually chaired by the Government's Chief Scientific Advisor.

SAGE representatives report to the ministerial and official groups within COBR. The Government's Chief Scientific Advisor usually represents SAGE at ministerial meetings. A SAGE committee oversees the work of SAGE's sub-groups - which can be many depending on the nature and scale of the emergency - established to focus on specific issues. A SAGE secretariat, typically provided by the LGD, has the role of activating and deactivating SAGE and supporting its functions.

To ensure consistency, SAGE will liaise with STAC(s). Interaction arrangements are defined by the LGD in consultation with the Cabinet Office and the Government Office for Science, and can vary depending on the nature of the emergency. The standard interaction model, designed to embed scientific advice provision into both local and central government decision-making is outlined in Figure 9.

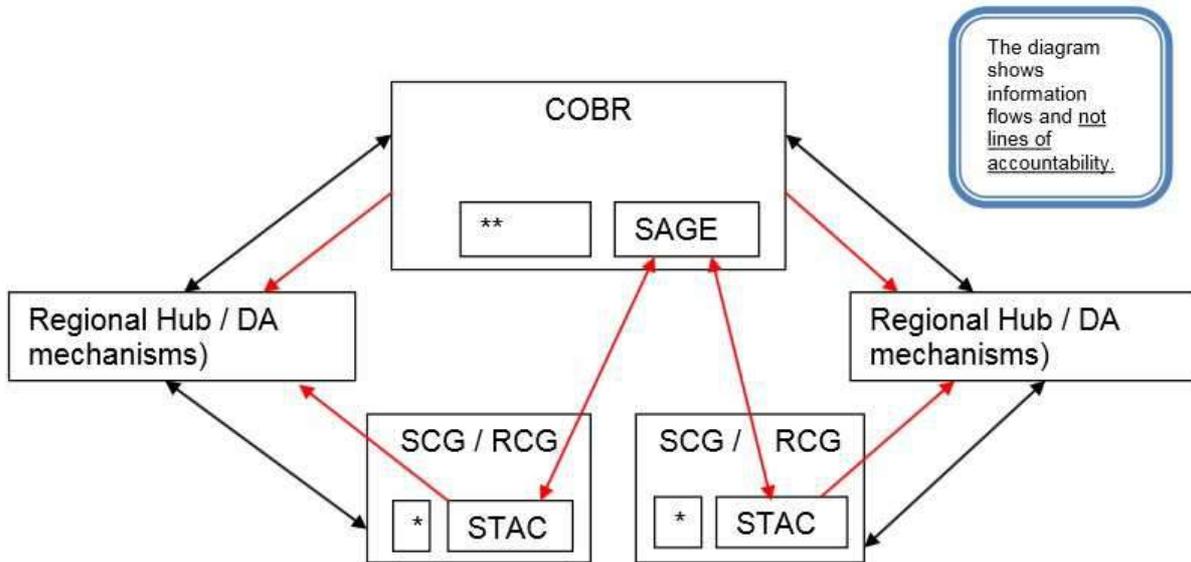
Most recently, SAGE was activated during the 2009 H1N1 influenza pandemic, during the 2010 volcanic ash disruptions and the Fukushima nuclear incident in 2011. STACs have been activated for a number of events, including the 2008 Cumbrian flooding.

Figure 9: SAGE Governance structures



Source: Cabinet Office Enhanced SAGE Guidance, October 2012

Figure 10: Default SAGE, STAC interaction model



Key:

*A STAC is one source of possible advice for SCGs / RCGs

**COBR is made up of multiple elements, SAGE is one of these.

↔ Generic information flows

↔ Specific Scientific and/or technical information flows

Source: Cabinet Office Enhanced SAGE Guidance, October 2012

3.2 Organisational cooperation

Operational cooperation within the EU

The UK can cooperate with other countries bilaterally, although this happens very rarely. The ANVIL study found that “the UK has not invoked a bilateral agreement with regard to crisis management in the period 2000-2012.”

More commonly, the UK participates in intergovernmental organisations and a limited number of multilateral frames of cooperation in crisis management. This includes facilitating mutual aid between countries in the event of an emergency, and sharing good practice and training to better prevent or mitigate the consequences. The UK participates in the EU Civil Protection Mechanism (CPM) which, since its creation in 2001, has functioned as an institutional framework for all ad hoc agreements with other European countries following the occurrence of an emergency. The UK is also:

...a member of the ‘Bonn Agreement’ which, among other issues, engages with pollution as a maritime disaster; within the EU Civil Protection Mechanism, it participates in a working group of 6 member states discussing key aspects of the Mechanism; it also has membership in the ‘Regional Environmental Centre for Central and Eastern Europe’, in the ‘International Organisation of Fire & Rescue Service’, and in the ‘Regional Coordination Council for South Eastern Europe’.⁶⁰

However, it remains a very rare phenomenon for the UK to seek help from other countries to manage emergencies. This can be attributed both to the self-sufficiency of the UK’s crisis management system and the fact that, in the UK, crisis management is tied closely to the sensitive subject of national sovereignty. There is a general reluctance among UK practitioners to engage in operational collaboration with EU countries and institutions on internal emergencies. An interviewee told the ANVIL study: “EU institutions do not really play a role in emergency response internally in the UK’.”

The ANVIL study identified only two instances for the period 2000-2012 when the UK considered and accepted external assistance: the Buncefield fire at the Hertfordshire Oil Storage Terminal in December 2005 and the severe snowfalls of winter 2009, during which the government referred to the EU Monitoring Information Centre, for the first and only time, to request grit-salt through the EU Civil Protection Mechanism.⁶¹ The UK is more willing to offer assistance, having contributed to requests for assistance on 13 occasions as of February 2014.

The ANVIL study found that while “the euroscepticism of British policy-makers extends to civil security issues”, at the level of political initiatives the UK has not lagged behind in the EU context. The UK is active in the CPM and is a member of an informal working group that discusses main

⁶⁰ Evangelos Fanoulis, Emil Kirchner and Han Dorussen, "Country Study: United Kingdom" Analysis of Civil Security Systems in Europe (FP7 ANVIL project, February 2014), p.20. http://anvil-project.net/wp-content/uploads/2014/02/United-Kingdom_v1.1.pdf

⁶¹ Ibid. p.31.

aspects of EU civil protection. The ANVIL study interviewed a member of the CCS who affirmed UK support for the coordination of prevention measures: “The UK supports the general thrust to encourage risk assessment across member states and the sharing of best practice and expertise in this area.”⁶² The British government has also proposed the introduction of a common EU Counter-terrorism strategy, adopted in 2007, and a Civil Contingencies Strategy.

Britain’s level of participation in major EU and NATO exercises has been criticised in the past by the House of Lords European Union Select Committee as “unacceptably low.” In 2009, the Committee found that “the United Kingdom has participated in only 11 of 31 EU or NATO exercises between 2000 and 2008” and often only as an observer. The Committee argued that “using the NATO criterion, ‘participated in the exercise by deploying teams’, it seems that the United Kingdom has participated in none of the annual NATO exercises, and in only one of the EU exercises.”⁶³ However, the UK appears to have become more active in recent years. It hosted the EU exercise Orion in September 2010, an earthquake scenario simulation, and participated in exercises in Greece in May 2010, Estonia in May 2011 and most recently a Denmark-Germany joint hosted exercise in October 2013.⁶⁴

The ANVIL study cites enthusiasm among British civil servants to participate in CPM training programmes and emphasises the fact that training on how to coordinate collaboration under the CPM is offered in Britain:

The UK’s Emergency Planning College offers a unique, intensive seminar called ‘Community Mechanism Introduction’, with instructors from different European countries covering a variety of issues from basic knowledge of EU activities on civil protection to brief tabletop exercises. We were able to follow part of the training in November-December 2012 and can confirm the attendance of students/emergency planners from different European partners and their willingness to learn from each other, create networks and get accustomed to cooperation in case they have to operate together.

The UK is active in the CPM’s Exchange of Experts in Civil Protection programme, having most recently sent CCS officials to Iceland in April 2014 to improve the UK’s understanding of, and preparation for, an effusive volcanic eruption.⁶⁵ Cabinet Office guidance also cites NATO Civil Emergency Planning as an example of the UK working internationally on emergencies.

The UK is also a member of the European Forum for Disaster Risk Reduction and is a signatory to the Hyogo Framework for Action 2005 to 2015, which it signed, along with 100 other countries, at the World Conference on Disaster Reduction in January 2005. The Framework “is the first plan to explain,

⁶² Ibid. p.39.

⁶³ House of Lords European Union Committee Report: Civil Protection and Crisis Management in the European Union, March 2009, p.12. <http://www.publications.parliament.uk/pa/ld200809/ldselect/ldcom/43/43.pdf>

⁶⁴ List of EU civil protection exercises: <http://ec.europa.eu/echo/en/funding-evaluations/financing-civil-protection/civil-protection-exercises>

⁶⁵ EU Exchange of Experts No 249: Volcanic Risk Field Report 7-12 April 2014, Iceland. http://www.exchangeofexperts.eu/download/public/report/AT_249_SE_UK_-_IS.pdf

describe and detail the work that is required from all different sectors and actors to reduce disaster losses” and commits signatories to reduce vulnerabilities to natural hazards. The UK was the first country to have its implementation of the framework peer reviewed in May 2013 and, although scope for improvement was identified, the UK was deemed to have “achieved a high level of preparedness.”⁶⁶

Transboundary crises

Unlike other European countries, the UK’s crisis management system has not been tested by severe transboundary crises (and of course is less likely to be given the UK shares a land border with just one other EU Member State, Ireland). Nonetheless, the ANVIL study advises greater interaction with the civil security mechanisms of other European countries, and asks:

*How well would the British civil security system have reacted if the bombings in 2005 had taken place in the Channel Tunnel instead of the London underground? Our estimation is that in such cases the value-added of EU assistance can be significant and has not been sufficiently assessed by the British practitioners.*⁶⁷

UK Organisational arrangements

The Foreign and Commonwealth Office (FCO) is responsible for managing the UK’s relationship with other countries through its network of embassies and High Commissions, as well as the UK’s overall relationship with international organisations such as the UN, NATO and the EU.

However, the CCS in the Cabinet Office is responsible for liaising with the civil emergency response and mutual aid systems of the EU (the CPM including the Monitoring and Information Centre, and the Community Emergency Communication and Information System) and NATO (the Euro-Atlantic Disaster Response Co-ordination Centre, which coordinates emergency planning).

Government departments can have bilateral relationships with specific international or multilateral institutions that will be used when appropriate. For instance, during a pandemic flu, the Department of Health would be best place to engage with the World Health Organisation as part of the UK response.

When an emergency occurs in the UK, the FCO representative in COBR is responsible for handling any requests of support from the UK government. They are also responsible for advising COBR on the concerns and handling of other governments. The FCO is responsible for ensuring that bilateral and multilateral obligations to identify neighbouring countries and/or partners of the emergency have

⁶⁶ Building resilience to disasters: Assessing the implementation of the Hyogo Framework for Action (2005-2015): Peer review report United Kingdom, May 2013, p.12. http://www.unisdr.org/files/32996_32996hfaukpeerreview20131.pdf

⁶⁷ Evangelos Fanoulis, Emil Kirchner and Han Dorussen, "Country Study: United Kingdom" Analysis of Civil Security Systems in Europe (FP7 ANVIL project, February 2014), p.43. http://anvil-project.net/wp-content/uploads/2014/02/United-Kingdom_v1.1.pdf

been met, although another government department may have responsibility for making the notification.

For emergencies that occur overseas such as bombings or kidnappings, the FCO is the LGD and will chair COBR unless the emergency has significant direct consequence in the UK (for example the fallout from a nuclear accident or a pandemic) in which case the appropriate government department will lead. If an emergency necessitates the return or repatriation of British citizens the FCO will always be the LGD, although it may relinquish lead status once this process has been completed.

4 Procedures

4.1 Standing Operating Procedures (SOPs) and Guidelines

There is no single document setting out Standard Operating Procedures for crisis management in the UK, nor any compendium of the SOPs applicable to different agencies. Key procedures and guidelines have been set out in previous sections.

4.2 Operations planning

In the UK, emergency planning is predominantly carried out at the local level, in keeping with the country's bottom-up approach to crisis management. The police, local authorities, and all other Category 1 responders, have specific legal duties under the CCA to plan for civil emergencies in their geographical area, such as flooding, industrial accidents, severe weather etc. This also includes putting in place business continuity management arrangements to ensure continuity of service in the event of disruption caused by an emergency, and for effective recovery afterwards. This also applies to industrial action, where it is important for the emergency services in particular to maintain business continuity. All of these plans must be tested regularly through training and exercises.

For example, in London, the London Resilience Forum directs the work of the London Resilience Partnership, which is comprised of more than 170 organisations from Category 1 and 2 responders, the Greater London Authority, central government, the military and business representatives. The Partnership works to assess risks in London and prepare for major emergencies. It has plans and protocols in place outlining how different emergencies would be responded to and conducts multi-agency exercises to test these arrangements. Operational plans exist to cover flooding, pandemic influenza, mass casualties, mass fatalities, excess deaths, structural collapse, adverse weather, mass evacuations, mass shelter, and disease outbreaks.

At national level, the government and relevant government departments plan for specific risks.

Pandemic influenza: the government aims to stockpile enough antivirals to treat 50% of the population and has advanced purchase agreements for the supply of pandemic-specific vaccines. The UK Influenza Pandemic Preparedness Strategy 2011 provides UK-wide guidance on responding to an influenza pandemic.

New and infectious diseases: Public Health England, an executive agency of the Department of Health that was established in 2013, has plans in place for dealing with an outbreak of a new or emerging infection, whether arising abroad or in the UK. It would coordinate the investigation and management of any such outbreak and advise the government on public health risks and necessary

preventative and control measures. Existing Department of Health SARS and pandemic influenza contingency plans would form the basis for dealing with any future outbreaks should either of these diseases re-emerge. Government departments also have plans in place to manage the potential influx of British nationals that may occur in the event of this type of emergency.

Flooding: The government has a programme of flood risk management, which aims to reduce the likelihood and consequences of flooding. The Environment Agency works with the Met Office and the Flood Forecasting Centre to anticipate the risk of flooding and to provide early warning to the areas most likely to be impacted.

Major industrial accidents: Comprehensive plans are in place for handling shortages, or complete outages, of oil, gas and electricity (see section 5.2). Under the Security and Emergency Measures (Water and Sewerage Undertakers) Direction 1998, all water companies must have plans in place to provide alternative water supplies. The Maritime and Coastguard Agency plans for major and minor pollution incidents. A National Response Plan is also in place to deal with the effects an overseas nuclear accident would have on the UK population and infrastructure.

Malicious attacks: Long-standing and regularly activated major incident plans and structures are in place across government to respond to malicious attacks in both crowded places and on infrastructure. All transport sector operators are required to have plans in place to cover a range of malicious attack scenarios.

The government also plans, to varying extents, for all of the other risks identified in the National Risk Register. They include: volcanic hazards, severe weather, severe space weather, severe wildfires, animal diseases, major transport accidents, public disorder, and cyber-attacks.

4.3 Logistics support in crises

Private logistics providers

Private logistics providers likely to have an important role in emergency response and recovery are designated by the CCA as Category 2 responders. They have responsibilities under the Act to cooperate and share information with other Category 1 and 2 responders, and Category 1 responders must take into account how category 2 responders can be involved in crisis management whilst conducting emergency planning (see section 3.1). Both category 1 responders and central government can also sign ad hoc agreements with private companies if an emergency occurs (see section 5.1). During emergency response, privatised utility companies will often be recruited by local authorities.

Military logistics support

The armed forces' national structure, organisation, skills, equipment and training can be of benefit to

the civil authorities in managing the response to and recovery from emergencies. Support is governed by Military Aid to the Civil Authority (MACA) arrangements, with detailed rules and procedures governing the employment of armed forces on MACA operations set out by the MoD in *Operations in the UK: The Defence Contribution to Resilience*. Reserves, if available, can be deployed alongside regular personnel in most scenarios.

CCA statutory guidance emphasises that assistance is provided on the basis of availability and as such responding agencies should not formulate plans for specific emergencies on the assumption that the armed forces will be able to intervene. In general, the armed forces will intervene only when the scale of an emergency exceeds the capabilities of local responders or when the nature of the emergency requires obvious military intervention, for example in the event of a bioterrorist attack or an accident involving hazardous material.

Deployment

In most circumstances the provision of armed forces support must be requested by a government department and approved by a Defence Minister. The exception is when there is a requirement to save lives, alleviate distress or protect property in which case a commander can decide to provide urgent assistance without government approval. A local authority can also contact central government and request military involvement under the provision of Military Aid to the Civil Community. This happened during the 2009 floods in Cumbria but in general is a very uncommon occurrence. Part 2 of the CCA could also be used to enable the Defence Council to deploy armed forces under emergency regulations.

Organisational

The MoD's Standing Joint Command (United Kingdom) is the operational lead for the armed forces. It responds to MACA requests from government departments and provides advice through army regional brigades. Each brigade has a Joint Regional Liaison Officer who liaises with local responders and acts as their first point of contact. Military units and personnel remain under the MOD chain of command at all times and are not subordinated to the command of civil authorities.

Role

The armed forces can support civil authorities in two ways: by augmenting the capabilities of responders through regular and reserve forces, and by providing niche capabilities. In the case of the latter, Defence Minister may decide to devote specific armed forces and MoD assets to specific emergency response and recovery operations. These include:

- *a UK-based and UK-focussed Command and Control structure*
- *a UK focused Defence communications capability*
- *an Explosive Ordnance Disposal and Chemical Biological Radiological and Nuclear make-safe capability*
- *an air surveillance, policing and defence system*

- *Fishery Protection vessels*
- *a Special Forces capability*
- *a Search and Rescue capability*

A small number of armed forces personnel are available to brief COBR, and logistics specialists could also be deployed to other levels of command, although they are not held at readiness for such tasks. Logistics support could be provided in multiple areas:

Transport: the armed forces use commercial contractors, but may have a small number of helicopters and portable boats available in the UK which could be used to move limited amounts of stores or small numbers of personnel.

Engineering: armed forces engineering equipment is held centrally and amounts to about that typically available in a medium sized town. Relevant engineering expertise on subjects such as power generation, bridging or temporary flood protection, may be available depending on the situation.

Estate: military bases could be available during operational responses or for non-operational support, such as accommodation or training facilities.

Fuel: the armed forces hold sufficient fuel reserves to support military activities and a small number of fuel tankers in the UK.

Telecommunications: the military has its own resilient communications for use by the armed forces and may have some small scale capacity to augment civil capability with specialist engineers and communications staff if required.

4.4 Crisis communication to general public; Alert system; Public Information and Warnings

In the UK, responsibility for warning and informing the public depends on the nature of the emergency. Raising awareness on counter-terrorism, for example, is largely a task for central government. Other risks are addressed at both local and national level. In the event of a pandemic, local health authorities would inform and advise the public but information would also be available through the News Centre of the Health Protection Agency. If the Environment Agency issues warnings of coastal or inland flooding, local authorities are depended on to help warn and prepare the public.

Informing the public – traditional and social media

When an emergency occurs, local responders have immediate responsibility for alerting the public. Methods of information delivery available to them are extremely varied, but may include:

- *mobilising officers to go round on foot and knock on doors*
- *from car or helicopter, by loudhailer or other amplified means*
- *media announcements*
- *electronic/variable message boards, eg at the roadside or on motorways*
- *direct radio broadcasts to shipping (in maritime incidents)*
- *PA announcements in public buildings, shopping centres, sports venues, transport systems, etc*
- *automated telephone/fax/e-mail/text messages to subscribers*
- *site sirens*

Responders also increasingly make use of social networks including Twitter and Facebook as well as text messaging alert services such as the Floodline Warnings Direct Service, which is managed by the Environment Agency.

Cabinet office guidance advises that “social media should not be used in isolation but integrated into emergency communication strategies” and emphasises its function as “a method of widening their access to communities and engaging with people through their preferred method of communication”.⁶⁸ In March 2012, the government published *Smart Tips for Category 1 Responders: Using Social Media in Emergency Management* to provide guidance.

For emergencies with national dimensions, the news media (radio, TV broadcasting and print) remains the government’s primary means of communication. Through the CCS, television stations can be used to alert the public, with the BBC the UK’s nominated “Emergency Broadcast System”. The Radio Amateurs’ Emergency Network, the UK’s national voluntary communications service, may also be used to alert the public.

The UK national siren system, a relic from World War II, was largely dismantled by the end of the Cold War in the late 1980s and early 1990s. However some coastal areas retain and regularly test their sirens to warn of flooding.⁶⁹

Statutory obligations for Category 1 responders

The CCA includes public awareness and warning and informing as two distinct legal duties for Category 1 responders. The public must be educated on the probability and risks of emergencies (through the Community Risk Register – see section 1.1) and how responders are prepared to deal with them should they occur. If an emergency does occur, or is about to occur, the public must be warned and provided with information and advice as required.

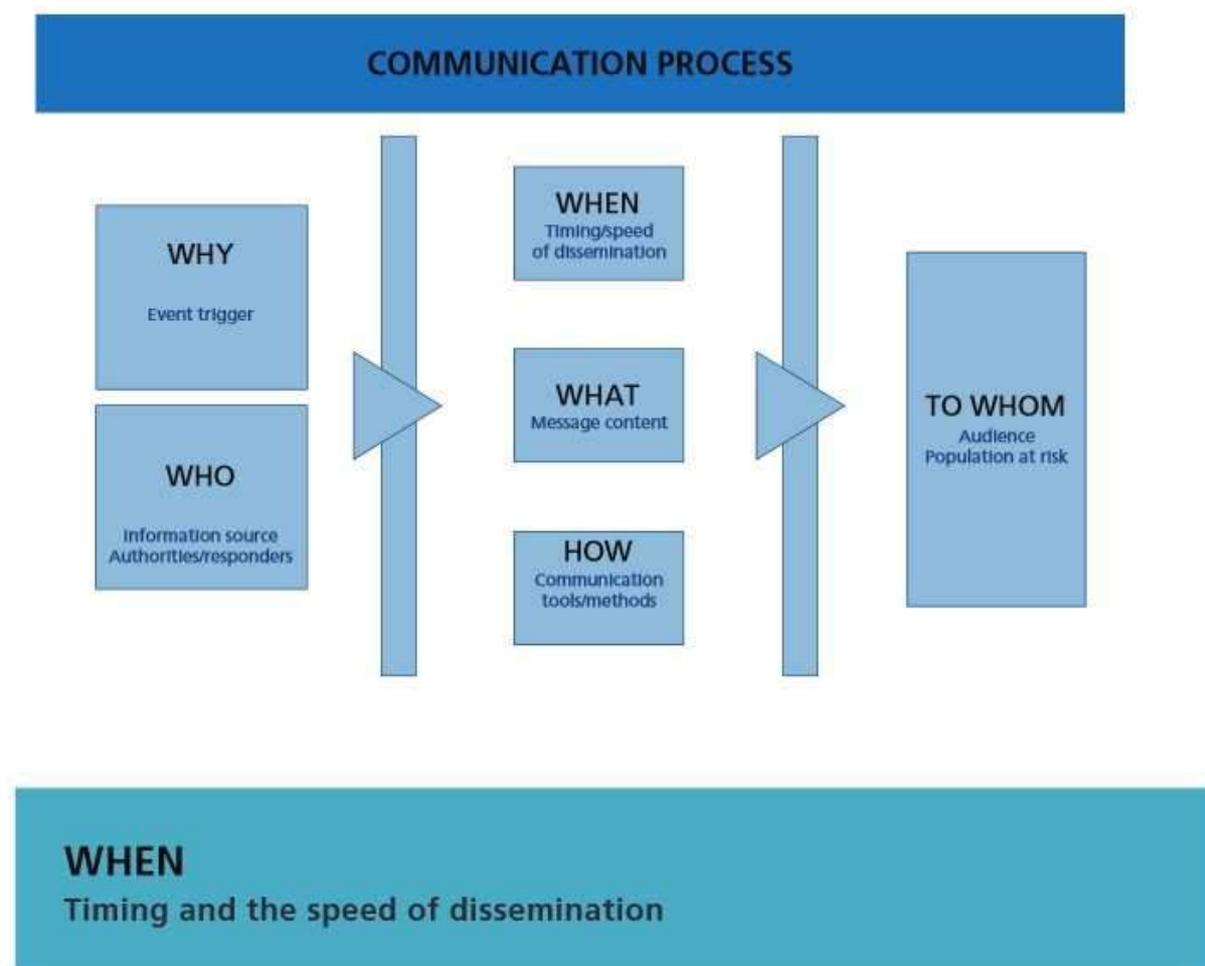
⁶⁸ Cabinet Office guidance: <https://www.gov.uk/government/publications/national-recovery-guidance-generic-issues-social-media>

⁶⁹ Two recent examples: The Times, 7 January 2014 <http://www.thetimes.co.uk/tto/weather/article3967956.ece>; BBC, 5 February 2014 <http://www.bbc.co.uk/news/uk-england-dorset-26045145>

Having warning systems in place is particularly important for organisations such as the emergency services and local authorities whose functions are likely to be seriously obstructed by an emergency. CCA guidance states that strategies for warning, informing and advising the public - either directly or through the media – must be fully integrated into a responder’s CCA emergency plans and tested regularly through exercises and staff training. Responders are responsible for making decisions about precisely when, how, about what and to whom warnings should be issued (see Figure 11).

The Act allows for Category 1 responders to discharge their duties collaboratively. To avoid duplication of effort and potential confusion and alarm caused by inconsistent information, cross-agency coordination of information should be established at an early stage and in most cases responders should identify an organisation to take lead responsibility for warning and informing the public.

Figure 11: Public communications timeline: what responders’ plans need to achieve



Source: Emergency Preparedness, Chapter 7: Communicating with the public

Other existing legislation also imposes a duty to provide information to the public. Under the Control of Major Accidents Hazards Regulations 1999 and the Radiation (Emergency Preparedness and Public Information) Regulations 2001, operators must provide information, through their local authority, to members of the public liable to be affected by a major accident at the operator’s establishment.

News Co-ordination Centre

In the event of an emergency that requires the involvement of central government, the News Co-ordination Centre (NCC) will be established in Whitehall by information staff from the Cabinet Office. It functions alongside LGD and liaises with the Central Office of Information News and Public Relations at the scene of the emergency, if outside London.

Capable of functioning 24 hours a day, the NCC helps to coordinate the information activities of the government departments and agencies involved by compiling and organising expert briefings and overseeing interview bids for ministers. The NCC works closely with national and international media, monitoring output to correct inaccuracies and identify when additional material would provide a better balance of coverage.

The NCC is also responsible for managing the delivery of public information and safety advice at the national level. Where necessary, it can invoke standing protocols with the media to issue Public Safety Information either nationwide or in specific geographical regions.

It is also responsible for communicating with local responders to ensure that strategic and high-level political decisions are based on accurate, up-to-date information. The NCC may deploy staff to the scene of an emergency for this purpose. It will also be directly involved in handling the influx of media organisations at the scene of an emergency and coordinating on site media arrangements.

Communicating bilaterally with other countries is the responsibility of the FCO, although the CCS in the Cabinet Office is responsible for liaising with the civil emergency response and mutual aid systems of the EU and NATO. Individual government departments can have bilateral relationships with specific international or multilateral institutions to be used when appropriate (see section 3.2).

Government policy

The government provides general advice to the public on a variety of types of emergencies from a number of sources. This includes: guidance on emergency preparedness, resilience and business continuity from the Cabinet Office; terrorism-related emergency guidance from MI5; advice on health emergencies from the Department of Health; travel advice from the FCO; weather warnings from the Meteorological Office; and flood warnings from the Environment Agency.

The National Steering Committee on Warning and Informing the Public furnishes the Cabinet Office with best practice advice on how to warn the public of possible, imminent and actual threats to life, the environment or property, and how to inform them of the appropriate action they can take. It is made up of professionals, practitioners and academics representing organisations that deal with community resilience at both a national and local level:

- devolved governments and administrations in the UK
- Civil Contingencies Secretariat
- Association of Chief Police Officers

- Chief Fire Officers Association
- health professionals/authorities - NHS
- professional institutions and societies
- Environment Agency
- Met Office
- Maritime Coastguard Agency
- Health and Safety Executive
- BBC
- SKY
- ITV
- academic institutions
- independent advisors as considered appropriate

The government also liaises with senior media editors and representatives of local responders in the UK Media Emergency Forum. The forum identifies and discusses strategic communication issues, the media's engagement in civil protection work at local and national level, and practical arrangements for media involvement during emergencies.

5 Capabilities

5.1 Human resources

Permanent emergency and disaster management personnel

Four emergency services in the UK maintain full-time emergency control centres:

- Police
- Ambulance service
- Fire brigade
- Coast guard

Other emergency services, that do not have permanent control centres but can be reached via any of the four principal services listed above, include:

- Lifeboat service
- Mountain rescue service
- Cave rescue service
- Moorland search and rescue service (particularly in Cornwall and Yorkshire)
- Quicksand search and rescue service (operating in the extensive quicksands of Morecambe Bay)
- Mine rescue service
- Bomb disposal (provided by the military)

Involvement of volunteers, volunteer organisations, and specialised NGO personnel

No official list exists of which voluntary organisations contribute to crisis management in the UK – arrangement vary from region to region – but a *Memorandum of Understanding between Members of the Voluntary Sector Civil Protection Forum Working Party* lists the following organisations as active in this field:

- British Red Cross
- Cruse Bereavement Care
- Radio Amateurs' Emergency Network
- St John Ambulance
- The Salvation Army
- Victim Support Service
- Royal Voluntary Service (an organisation that supports older people)

The ANVIL study found that the most prominent voluntary organisations in the field of crisis management are the British Red Cross and St John Ambulance, with the former taking the lead in

disaster relief and post-trauma support and the latter specialising in training of the public in first aid.⁷⁰

Involvement of private businesses

The UK has no legal framework for outsourcing crisis management responsibilities to the private sector. Instead, central government and Category 1 responders sign ad hoc agreements with private companies when an emergency occurs; indeed most Category 2 responders are private companies. During emergency response, privatised utility companies will often be recruited by local authorities.

The ANVIL study found that no autonomous private agencies deliver crisis management in the UK and failed to discover any public-private agreements focussing exclusively on emergency response. There is, however, some involvement in administrative areas of crisis management: "there is some limited involvement of private companies in telecommunications, ensuring communication between the security services (e.g. Serco in the field of information systems)."⁷¹

Education programmes

Local Resilience Forums have chief responsibility for educating citizens on the probability of an emergency occurring and the risks it poses. They can do so through local campaigns and social networks and will also educate children by visiting schools and addressing youth on emergency preparedness.

At a national level, the government seeks to build resilience across the UK through its National Resilience Capabilities Programme. A community resilience programme has been in place since 2008 to support existing community initiatives, disseminate these successful activities in other areas and raise awareness and understanding of local emergency response capability (see section 1.5). Government departments also have individual responsibilities for raising awareness about specific risks (for example, the Home Office has responsibility for raising awareness about the threat posed by terrorism) and can do so through nationwide information campaigns.

5.2 Materiel (non-financial) resources

Medicine reserve stocks

The government stocks medicine reserves in case of major health related emergencies. The largest, and most controversial, expenditure is over £600 million since 2006 to stockpile 40 million doses of the antiviral drug Tamiflu to be used in the event of an influenza pandemic; there is limited evidence to prove the drug is effective. Medicine to treat nerve agent poisoning, cyanide poisoning, thallium

⁷⁰ Evangelos Fanoulis, Emil Kirchner and Han Dorussen, "Country Study: United Kingdom" Analysis of Civil Security Systems in Europe (FP7 ANVIL project, February 2014), p.26. http://anvil-project.net/wp-content/uploads/2014/02/United-Kingdom_v1.1.pdf

⁷¹ Ibid. p.27.

poisoning, opioid poisoning, anthrax, plague and tularaemia can be obtained by NHS Acute Trusts and Primary Care Trusts from either their local NHS Ambulance Service Trust Emergency Control Room or the Department of Health Major Incident Coordination Centre.

Military assets

If required, and when practical, the armed forces can aid emergency response and recovery operations by providing niche capabilities (see section 4.3). The Defence Minister can devote armed forces and MoD assets to specific emergency response and recovery operations, such as:

- *a UK-based and UK-focussed Command and Control structure*
- *a UK focused Defence communications capability*
- *an Explosive Ordnance Disposal and Chemical Biological Radiological and Nuclear make-safe capability*
- *an air surveillance, policing and defence system*
- *Fishery Protection vessels*
- *a Special Forces capability*
- *a Search and Rescue capability*

State control of energy sources

The Department of Energy and Climate Change's National Emergency Plan for Fuel contains a set of emergency response tools that can be used to regulate or prohibit the production, supply acquisition or use of substances as fuel. This applies to the oil, gas and electricity sectors. The tools can be implemented under Section 3 of The Energy Act 1976, which stipulates that if a domestic incident is likely to result in "an actual or threatened emergency affecting fuel supplies" in the UK, then an Order in Council may be made giving the Secretary of State exceptional powers for "controlling the sources and availability of energy". The National Emergency Plan for Fuel also maintains a capability within the armed forces to make fuel deliveries in the event of a serious disruption to normal deliveries due to industrial action by fuel tanker drivers.

In an electrical supply emergency, the Department of Energy and Climate Change can, as a primary measure, instruct power stations to use alternative fuel sources to generate electricity. This emergency power is supported by the Fuel Security Code. If a prolonged electricity shortage occurs rationing may be necessary, the process for which is outlined in the Electricity Supply Emergency Code.

5.3 Training

Cabinet Office guidance emphasises the importance of training and exercises to ensure that all organisations involved in emergency response are fully prepared for all types of emergencies.

Statutory requirements

CCA regulations oblige Category 1 responders to formulate plans for carrying out exercises and for training staff or other persons. The nature and frequency of these arrangements should be set out in a planning document. Training must be provided for:

- an appropriate number of suitable personnel of the Category 1 responder; and
- other persons whom the responder considers necessary. This could include contractors with a role in the plans and also civil protection partners, both statutory and non-statutory, who have a role in the plans.

Exercises

Cabinet Office guidance states that exercises serve three purposes: validating existing plans; testing well established procedures; and training because they develop responder staff competencies and give them an opportunity to practice their roles. Guidance states that emergency procedures cannot be considered reliable until they have been exercised and proven to be workable.

There are three main types of exercise:

- Discussion based exercises can be used at the policy formulation stage to ‘talk-through’ how to finalise the plan, but more often are used to develop awareness about a completed plan through discussion.
- Table top exercises are based on simulation and typically involve a realistic scenario and a time line against which the efficacy of existing emergency arrangements can be tested. They are run in either a single room or a series of linked rooms which simulate divisions between different responders who need to cooperate. Table top exercises play an important role in validating and exploring weaknesses in procedures.
- Live exercises test the logistics, communications and physical capabilities of emergency procedures and train staff through experiential learning. Responders can develop confidence in their skills and learn what it would be like to use the plan’s procedures in a real event.

At government level, a coordinated cross-governmental exercise programme is in place which covers a comprehensive range of potential emergencies, including accidents, natural disasters and acts of terrorism. It is “designed to test rigorously the concept of operations from the coordinated central response through the range of lead government department responsibilities and the involvement of the devolved administrations, from central government to local responders.”⁷²

The ANVIL study reports that the government coordinates three or four exercises every year, two of which are necessarily in the field of counter-terrorism. However:

Exercises in the UK do not involve all government departments. In other words, inter-departmental exercises are a rare phenomenon because of the difficulties in coordinating all

⁷² Cabinet Office guidance: <https://www.gov.uk/emergency-planning-and-preparedness-exercises-and-training>

*departments together and because of the significant budget expenditures required for a national exercise involving all sectors of the government.*⁷³

Local authorities and emergency services are also responsible for developing and implementing their own exercises to test local level capabilities. Counties may choose to invite another region of the UK to conduct a joint exercise, but this would be based on local initiatives and it is not an obligation flowing from governmental or legal requirements.

The UK also observes or participates with international partners in exercises, either through multilateral fora, such as the G8, NATO and the EU, or on a bilateral basis (see section 3.2).

Training

Cabinet Office guidance states that organisations should provide appropriate training to members of staff, and to contractors and the staff of voluntary organisations, who could be involved in emergency planning or response.

Staff should be trained in two broad areas:

Training for emergency preparedness includes training to conduct risk assessment, business continuity management and emergency planning.

Training for emergency response should be given to anyone involved in emergency response and recovery. Each member of staff will need to be aware of the contents of the emergency plan, their role in implementing the plan and the key skills and knowledge that are required during an emergency response.

The Emergency Planning College

The Emergency Planning College is the government's leading provider of emergency preparedness training. Managed by the Serco group on behalf of the CCS, the college attracts over 6,000 delegates a year from the public and private sectors. The Emergency Planning College runs seminars, workshops and training courses on risk assessment, business continuity management, emergency planning and response and a range of specialist courses on subjects ranging from severe weather to communicating with the public in the digital age. It is the only permanent national forum for representatives of local and central government, the emergency services, the private sector and volunteer groups to network and share good practice. The ANVIL study found that: "the type of training on crisis management provided by the EPC [Emergency Planning College], for instance courses on the EU Civil Protection Mechanism, is unique in the British context; in other words there

⁷³ Evangelos Fanoulis, Emil Kirchner and Han Dorussen, "Country Study: United Kingdom" Analysis of Civil Security Systems in Europe (FP7 ANVIL project, February 2014), p.24. http://anvil-project.net/wp-content/uploads/2014/02/United-Kingdom_v1.1.pdf

is no other public authority, private organisation or civil society group offering such intense programmes on civil protection.”⁷⁴

National Occupation Standards

In 2008, Skills for Justice, a government licensed Sector Skills Council, developed 18 National Occupation Standards (NOS) for civil contingencies covering those areas considered to be essential to the practice of emergency management. NOS specify the knowledge, skills and understanding needed in a particular role and allow for a clear assessment of an individual’s competence against nationally agreed standards of performance. The standards have been adopted by the Emergency Planning Committee, an organisation for professionals dealing with emergency planning, crisis and disaster management, which developed its Core Competencies Framework around the NOS for civil contingencies. The Emergency Planning College runs courses that correlate fully with specific NOS.⁷⁵

Central Government Emergency Response Training

Central Government Emergency Response Training exists for members of government departments, agencies and other response organisations who will work in or with COBR during a national emergency. Held in various Cabinet Office central London locations, its three overarching objectives are to:

- provide delegates with a good knowledge of the processes, procedures and allocation of responsibilities in crisis management
- help delegates consider the skills and techniques required to enable effective and timely pan-government crisis decision making
- illustrate the unique working styles and leadership qualities necessary when working in or with COBR

The programme has four modules:

Module 1: an e-learning module that provides an overview of key doctrine and guidance underpinning the organisation of crisis management.

Module 2: an introduction to UK central emergency response arrangements and the underpinning principles and doctrine. This familiarises delegates with the role of COBR, supporting structures and key procedures and processes.

Module 3: this module covers information management and support to crisis decision-making and explores the concept of shared situational awareness to working practices in COBR, and in departments and agencies working with COBR.

Module 4: an exploration of the strategic issues for senior civil servants arising from their input into national crisis management arrangements.

⁷⁴ Ibid.

⁷⁵ See: <http://www.epcollege.com/epc/training/courses/courselist/introduction-to-civil-protection>

All delegates take modules 1 and 2, and then either module 3 or 4 depending on their grade and role.

Cabinet Office guidance states that: “Separate arrangements also exist to acquaint ministers and senior officials in some of the unique aspects of crisis management leadership and process management”.

5.4 Procurement

Public sector procurement in the UK is governed the Public Contracts Regulations 2006 (SI 2006 No.5), which implement the EU procurement Directives and apply to the majority of procurements. Public utilities i.e. certain operators in the water, energy, transport sectors) are subject to the Utilities Contracts Regulations 2006 (SI 2006 No.6).

In addition, the Public Services (Social Value) Act 2012 requires relevant authorities that are engaging in a procurement exercise to consider how the proposed procurement might improve the economic, social and environmental well-being of the relevant area, and how these improvements might be secured.

There are no dedicated rules on procurement for crisis management but special rules apply to procurement in the fields of defence and security. These are set out in Chapter 8 of the Defence and Security Public Contracts Regulations 2011.

Following the adoption of new EU public procurement Directives in 2014, the Cabinet Office has just completed (but not published the results of) a public consultation entitled “Transposing the 2014 EU Procurement Directives”.

Guidance to public bodies is set out in “An Introduction to Public Procurement” (2008). This document sets out the key concepts and principles of good procurement and is intended for senior officials. Although it focuses primarily on activities in central departments and closely associated bodies, it is also relevant where central government provides commercial governance, advice or support to what is described here as the ‘wider network’ (i.e. all devolved public sector bodies, including those in health, education, local government and the emergency services).

The Guidance is also relevant to the process of “Commissioning”. Commissioning is where the public sector decides the services or service outcomes (e.g. in adult social care or children's services) or the products that it needs, acquires them and makes sure that they meet requirements. The processes involved in commissioning and procurement are broadly the same.

Procurement in the field of defence and security typically uses restricted and negotiated procedures.

5.5 Niche capabilities

Training

The government's Emergency Planning College has leading courses on EU Civil Protection Mechanism: see sections 3.2 and 5.3, above.

Volcanic activity

According to the UK's National Risk Register:

The International Civil Aviation Organization has an established International Airways Volcano Watch consisting of nine Volcanic Ash Advisory Centres (VAACs) located around the world, each of which has the responsibility for coordinating and disseminating information on volcanic ash that might endanger aircraft. The London VAAC, run by the Met Office, has responsibility for monitoring 20 3. Risk descriptions Iceland, the UK and the north-east area of the North Atlantic.

Under the auspices of the World Meteorological Organization, the Met Office is also one of eight global Regionally Specialised Meteorological Centres for modelling the dispersal of particles (including ash) in the atmosphere. Such models allow evidence-based judgements to be made to determine whether it is safe to fly and whether passenger safety can be protected.

Counter-terrorism

The UK is widely recognised as a leading authority on counter-terrorism in the European Union. It has played a significant role in the development of the EU's counter-terrorism strategy and is home to the European Police College.

Resources

Legislative acts

Civil Contingencies Act 2004

http://www.legislation.gov.uk/ukpga/2004/36/pdfs/ukpga_20040036_en.pdf

Control of Major Accident Hazards Regulations 1999 (as amended 2005 and 2008)

The Pipelines Safety Regulations 1996

Radiation Emergency Preparedness and Public Information Regulations

The Energy Act 1976

Nuclear Installations Act 1965

The Ionising Radiations Regulations

The Energy Act (Carbon Capture and Storage) 2008

Safety of Sports Grounds Act 1975

Fire Safety and Safety of Places of Sport Act 1987

The Health and Safety at Work Act 1974

The Flood and Water Management Act 2010

Official documents (white papers, strategies, etc.)

Emergency Preparedness: Guidance on part 1 of the Civil Contingencies Act 2004, its associated regulations and non-statutory arrangements.

<https://www.gov.uk/government/publications/emergency-preparedness>

Emergency Response and Recovery: Non statutory guidance accompanying the Civil Contingencies Act 2004, revised October 2013

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/253488/Emergency_Response_and_Recovery_5th_edition_October_2013.pdf

Responding to Emergencies: The central government's concept of operations, April 2013.

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/192425/CONOPs_incl_revised_chapter_24_Apr-13.pdf

National Risk Register of Civil Emergencies 2013 edition

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/211867/NationalRiskRegister2013_amended.pdf

Enhanced SAGE Guidance: A strategic framework for the Scientific Advisory Group for Emergencies, October 2012.

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/80087/sage-guidance.pdf

The Role of the Lead Government Department in Planning for and Managing Crises, January 2011.

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/61356/lead-government-department-framework.pdf

The Lead Government Department and its role - Guidance and Best Practice, March 2004.

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/61355/lead-government-departments-role.pdf

Departments Responsibilities for Planning, Response, and Recovery from Emergencies, March 2009.

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/61354/lead-government-department-march-2010.pdf

Flood Support Schemes - Funding available from central government, March 2014.

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/312180/Summary_of_Support_Guide.pdf

Lessons Identified from UK Exercises and Operations – a Policy Framework, January 2011.

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/61349/lessons-learned-exercises-framework.pdf

The Government's Response to Sir Michael Pitt's Review of the summer 2007 Floods - Final Progress Report, 27 January 2012.

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69489/2012-01-31-pb13705-pitt-review-progress.pdf

Strategic National Framework on Community Resilience, March 2011.

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/60922/Strategic-National-Framework-on-Community-Resilience_0.pdf

Keeping the Country Running: Natural Hazards and Infrastructure - A Guide to improving the resilience of critical infrastructure and essential services, October 2011.

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/61342/natural-hazards-infrastructure.pdf

Business Continuity Management Toolkit.

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/137994/Business_Continuity_Management_Toolkit.pdf

Data Protection and Sharing – Guidance for Emergency Planners and Responders: Non-statutory guidance to complement Emergency Preparedness and Emergency Response & Recovery, February 2007.

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/60970/dataprotection.pdf

National Policing Improvement Agency guidance - Engage: Digital and Social Media Engagement for the Police Service, May 2011, p.19.

http://www.acpo.police.uk/documents/LPpartnerships/2010/20110518%20LPBA%20dm_engage_v61.pdf

Operations in the UK: The Defence Contribution to Resilience, September 2007

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/61965/defencecontribution1.pdf

Using Social Media in Emergencies – Smart Tips for Category 1 Responders Using Social Media in Emergency Management, March 2012.

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/85946/Using-social-media-in-emergencies-smart-tips.pdf

Online resources (e.g. websites of key CM organizations)

Emergency response and recovery: <https://www.gov.uk/emergency-response-and-recovery>

UK Police Service: <http://www.police.uk/>

Fire & Rescue Service: <https://www.gov.uk/government/policies/supporting-fire-and-rescue-authorities-to-reduce-the-number-and-impact-of-fires>

Chief Fire Officers Association: <http://www.cfoa.org.uk/>

National Health Service: <http://www.nhs.uk/Pages/homepage.aspx>

Ministry of Justice: <http://www.justice.gov.uk/>

Local Government: <https://www.gov.uk/government/topics/local-government>

Local Government Association: <http://www.local.gov.uk/?pageId=1>

Environment Agency: <https://www.gov.uk/government/organisations/environment-agency>

The Health & Safety Executive: <http://www.hse.gov.uk/>

Highways Agency: <https://www.gov.uk/government/organisations/highways-agency>

Maritime & Coastguard Agency: <https://www.gov.uk/government/organisations/maritime-and-coastguard-agency>

Ministry of Defence: <https://www.gov.uk/government/organisations/ministry-of-defence>

Publications

Evangelos Fanoulis, Emil Kirchner and Han Dorussen, "Country Study: United Kingdom" Analysis of Civil Security Systems in Europe (FP7 ANVIL project, February 2014).

http://anvil-project.net/wp-content/uploads/2014/02/United-Kingdom_v1.1.pdf

Building resilience to disasters: Assessing the implementation of the Hyogo Framework for Action (2005-2015): Peer review report United Kingdom, May 2013.

http://www.unisdr.org/files/32996_32996hfaukpeerreview20131.pdf

House of Commons Science and Technology Select Committee Report: Scientific advice and evidence in emergencies, March 2011.

<http://www.publications.parliament.uk/pa/cm201011/cmselect/cmsctech/498/498.pdf>

Andrew CK Lee, Wendy Phillips, Kirsty Challen and Steve Goodacre. "Emergency management in health: key issues and challenges in the UK". BMC Public Health 2012, 12:884.

<http://www.biomedcentral.com/content/pdf/1471-2458-12-884.pdf>

Andrew CK Lee, Kirsty Challen, Paolo Gardois, Kevin Mackway-Jones, Simon Carley, Wendy Phillips, Andrew Booth, Darren Walter, Steve Goodacre. "Emergency Planning in Health: Scoping study of the international literature, local information resources and key stakeholders", National Institute for Health Research study, November 2012.

http://www.nets.nihr.ac.uk/_data/assets/pdf_file/0017/85112/FR-09-1005-03.pdf

House of Lords European Union Committee Report: Civil Protection and Crisis Management in the European Union, March 2009.

<http://www.publications.parliament.uk/pa/ld200809/ldselect/lducom/43/43.pdf>



Driving Innovation in Crisis Management for **European Resilience**

UNITED NATIONS (UN) Capabilities, Organisations, Policies, and Legislation (COPL) in crisis management and disaster response

Responsible Partner: ECORYS (Laura Birkman, Linette de Swart)



Scope and limitations

This study serves as supporting information for further work within DRIVER.

Only limited time and budget has been available for this first general survey, which needs to be considered in terms of scope and completeness of the respective studies.

The author/s of this study is/are responsible for its content and quality.

Overview

On 19 December 1991, the General Assembly adopted the UN General Assembly resolution 46/182 on “Strengthening of the coordination of humanitarian emergency assistance of the United Nations”, outlining an enhanced framework for international humanitarian assistance. When providing emergency assistance, the international community is guided by this resolution. Among the guiding principles for humanitarian assistance, it states that humanitarian assistance must be provided in accordance with the principles of humanity, neutrality and impartiality and with the consent of the affected country; each state has the responsibility first and foremost to take care of the victims of natural disasters and other emergencies occurring on its territory; affected states in need of assistance should facilitate the work of these organisations in implementing assistance.

In the field of disaster and crisis management, the UN General Assembly itself does not have any operational role in conducting disaster management activities, but rather is responsible for launching many of the programmes, which are then carried out by the various UN offices and UN Member States governments. Through its many offices, agencies, programmes and funds the UN supports nations to reduce hazard vulnerability while building local institutional capacity. It is among the first organisations to arrive when disaster strikes and, in the aftermath, it remains on the ground to assist recovery. Each of these UN bodies has been given a mandate to provide or coordinate international crisis management assistance within their respective field. Therefore this report focuses on the three most prominent bodies that have mandates pertaining to crisis management and disaster risk reduction, namely the UNISDR, UNDP and OCHA.

UNISDR serves as the focal point for all international disaster risk reduction efforts, supported by UNDP, which has lead operational responsibility for natural disaster mitigation, prevention and preparedness. OCHA, together with the Inter-Agency Standing Committee (IASC) is the arm of the UN responsible for bringing together national and international humanitarian actors in the event of an emergency or crisis to ensure a coherent response, while UNDP serves as the leader of Early Recovery Cluster, coordinating and implementing all early recovery activities in the aftermath of a disaster. Financing for preparedness and response is provided through various combinations of the UN Regular Budget as well as from Member States’ voluntary contributions.

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List of Abbreviations

ABBR	Spell the abbreviation here
AST	Americas Support Team
BCPR	Bureau for Crisis Prevention and Recovery
CADRI	Capacity for Disaster Reduction Initiative
CMCS	Civil-Military Coordination Section
CPR-TTF	Crisis Prevention and Recovery Thematic Trust Fund
EEU	Environmental Emergencies Unit
EPS	Emergency Preparedness Section
ERCC	Emergency Relief Coordination Centre
ESB	Emergency Services Branch
FCSS	Field Coordination Support Section
FIS	Field Information Services Unit
HC	Humanitarian Coordinator
HCT	Humanitarian Country Team
HIC	Humanitarian Information Centres
IHP/APHP	International and Asia-Pacific Humanitarian Partnerships
INSARAG	International Search and Rescue Advisory Group
IRIN	Integrated Regional Information Networks
ISDR	International Strategy for Disaster Reduction
ITS	Information Technology Section
LSU	Logistics Support Unit
MCDA	Military and Civil Defence Assets
PDSB	Policy Development and Studies Branch
RC	Resident Coordinator
SCS	Surge Capacity Section
STAG	Scientific and Technical Advisory Group
UN-CMCoord	United Nations Humanitarian Civil-Military Coordination
UN OCHA	United Nations Office for the Coordination of Humanitarian Affairs
UNDAC	UN Disaster Assessment and Coordination system
UNDP	UN Development Programme

1 Policy

(Working definition: The Crisis Management and related¹ Policy is designed to effectively coordinate the use of national and community, public and private resources, as well as those provided through international co-operation, to protect life and property before, during and immediately following a major crisis triggered by natural disasters or man-made catastrophes. It is placed into operation whenever an emergency affecting the country, regions or locals cannot be controlled through routine, daily and normal channels and procedures.)

1.1 Risk Assessment

The UN define risk as “the probability of harmful consequences — casualties, damaged property, lost livelihoods, disrupted economic activity, and damage to the environment —resulting from interactions between natural or human-induced hazards and vulnerable conditions,” and risk assessment as “a process to determine the nature and extent of such risk, by analyzing hazards and evaluating existing conditions of vulnerability that together could potentially harm exposed people, property, services, livelihoods and the environment on which they depend “ (UNDP 2010). Among the main UN bodies with a specific mandate pertaining to risk assessment are United Nations Development Programme (UNDP) and the UN Office for Disaster Risk Reduction (UNISDR).

Risk assessment is an important part of UNDP disaster risk reduction (DRR) projects and programmes. The main UNDP support services in the field of risk assessment are:

- **Capacity development.** UNDP provides guidance and technical assistance to governments for the establishment of disaster risk assessment and related institutional arrangements; assesses hazard monitoring and mapping capacities to support gap identification; supports local government to undertake risk assessments for determining areas of resettlement and recovery after a disaster.
- **Methodology and tool development².** UNDP has developed specific methodologies and tools to conduct multi-hazard risk assessment; guidance on impact assessment of climate change; support to its partners to assess existing capacities, identifying gaps, and assisting to help install mechanisms to address gaps.
- **National disaster observatory (NDO) development.** UNDP provides support for the development of NDOs. These are local institutions that systematically collect, compile and interpret historic disaster information and data.

¹ E.g. in Germany the responsibility for crises of different types is defined by the “Grundgesetz” (German Constitution).

² UNDP distinguishes between two levels of risk assessment: national and local. A national assessment is a strategic one that supports the design of national DRR strategies, policy and regulations, DRM programming and budget allocation. A local assessment is operational in nature, intended for DRR action planning, contingency planning, pre-disaster recovery planning, and proper urban planning.

- **Utilization of risk analysis for DRR planning.** UNDP supports governments to incorporate and apply risk assessments to disaster risk reduction strategies on all levels. UNDP also helps to standardise risk assessments as the basis for the design, funding and implementation of DRR/risk management projects. (Source: UNDP 2010).

Figure 1 displays the UNDP's 7-step plan for comprehensive risk assessment.



Figure 1: UNDP steps for comprehensive risk assessment (Source: UNDP, 2010).

1.2 Policy and Governance

The General Assembly, established in 1945 under the Charter of the United Nations, occupies a central position as the chief deliberative, policymaking and representative organ of the United Nations. It comprises all 192 Members of the UN and provides a forum for multilateral discussion of all international issues covered by the Charter. It also plays a significant role in the process of standard-setting and the codification of international law (See chapter 2). The Assembly meets in regular session intensively from September to December each year, and thereafter as required.

The Main Committees of the General Assembly deliberate the items, seeking to harmonize the various approaches of States. They then present their recommendations, generally in the form of draft resolutions and decisions, to a plenary meeting of the Assembly for its consideration. The six Main Committees are:

- First Committee (Disarmament and International Security Committee)
- Second Committee (Economic and Financial Committee)
- Third Committee (Social, Humanitarian and Cultural Committee)
- Fourth Committee (Special Political and Decolonization Committee)
- Fifth Committee (Administrative and Budgetary Committee)
- Sixth Committee (Legal Committee) (UNISDR 2013a)

In the field of disaster and crisis management, the UN General Assembly itself does not have any operational role in conducting disaster management activities, but rather is responsible for launching many of the programmes, which are then carried out by the various UN offices and UN Member States governments.³

The UN system is comprised of many offices and agencies, programmes and funds working throughout the world. Each organization has its own governing body, budget and secretariat. Through its many offices, agencies and programs, the UN supports nations to reduce hazard vulnerability while building local institutional capacity, is among the first organisations to arrive when disaster strikes and, in the aftermath, it remains on the ground to assist recovery. Each has been given a mandate to provide or coordinate international crisis management assistance within their respective field. Therefore this report focuses on the three most prominent bodies that have mandates pertaining to crisis management and disaster risk reduction, namely the UNISDR, UNDP and OCHA.

1.2.1 Strategy scope and focus

On 19 December 1991, the General Assembly adopted the UN General Assembly resolution 46/182 on “Strengthening of the coordination of humanitarian emergency assistance of the United Nations,” outlining an enhanced framework for international humanitarian assistance. The resolution set out

³ For example, the UNDP Capacity for Disaster Reduction Initiative (CADRI), the International Strategy for Disaster Reduction (ISDR).

12 guiding principles for humanitarian relief, including from prevention and preparedness to rehabilitation and development (Hyogo Framework for Action 2005, p. 21). The international community is guided by this resolution, 46/182, when it provides emergency assistance. The resolution also outlines the responsibilities and authorities of the States as follows:

- Humanitarian assistance should be provided with the consent of the affected country and in accordance with the principles of humanity, neutrality and impartiality;
- Each State has the responsibility first and foremost to take care of the victims of natural disasters and other emergencies occurring on its territory.
- States whose populations are in need of humanitarian assistance are called upon to facilitate the work of these organizations in implementing humanitarian assistance. (A/46/182).

Resolution 46/182 strengthened the then existing position of the “Disaster Relief Coordinator” (DRC), renamed as “Emergency Relief Coordinator” (ERC). While the DRC position had a limited mandate that did not include complex emergencies, resolution 46/182 provided the ERC with nine clear areas of responsibility. Among these are: coordinating humanitarian assistance, facilitating access to emergency areas, organising needs-assessment missions, preparing joint appeals and mobilizing resources.

Each year, a number of humanitarian resolutions are negotiated by the Member States in the General Assembly, the Economic and Social Council and the Security Council. The new resolutions build on the GA resolution 46/182, further expanding the norms and guidance in support of humanitarian action.

The following sub-sections first present the three main UN bodies - the UNISDR, UNDP and OCHA - and the strategic approach and scope of their activities, respectively. This is followed by an overview of the UN policy framework for the phases and necessary activities for Prevention, Preparedness, Response and Recovery as outlined in GA resolution 46/182.

1.2.1.1 UN Office for Disaster Risk Reduction (UNISDR)

UN Office for Disaster Risk Reduction (UNISDR) is the inter-agency secretariat that was established in December 1999 with the General Assembly Resolution 54/219 to ensure the implementation of the International Strategy for Disaster Reduction (ISDR), which was adopted with the same resolution (A/RES/54/219).⁴ UNISDR is the office for DRR⁵, while the ISDR is a strategic conceptual framework (discussed further below). In December 2001, General Assembly resolution A/RES/56/195 specified that the mandate of UNISDR is “to serve as the focal point in the United Nations system for the coordination of disaster reduction and to ensure synergies among the disaster-reduction activities of

⁴ UNISDR is the successor arrangement to the International Decade for Natural Disaster Reduction (IDNDR) <http://www.unisdr.org/who-we-are/international-strategy-for-disaster-reduction>.

⁵ UNISDR defines DRR as “the concept and practice of reducing disaster risks through systematic efforts to analyse and manage the causal factors of disasters, including through reduced exposure to hazards, lessened vulnerability of people and property, wise management of land and the environment, and improved preparedness for adverse events.” See UNISDR terminology on disaster risk reduction: <http://www.unisdr.org/we/inform/terminology>

the United Nations system and regional organizations and activities in socio-economic and humanitarian fields.” The UNISDR is also the focal point for the implementation of the international blueprint for disaster risk reduction – the *Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters*⁶ and for the organization of the Global Platform for Disaster Risk Reduction (UN General Assembly Resolution 61/198). As such, UNISDR is responsible for facilitating the preparation of periodic risk reviews and assessments (Global Assessment Report for Disaster Risk Reduction) and for monitoring the HFA implementation (HFA monitor tool). This is discussed in section 1.4.5. See Box 1 below for relevant literature pertaining to ISDR, and section 3.1.1 for organizational structure of the office.

UNISDR **coordinates** international efforts on DRR. Its vision, based on the strategic goals of the HFA, is to integrate DRR into sustainable development policies and planning; develop and strengthen institutions, mechanisms and capacities to build resilience to hazards; and incorporate risk reduction approaches into emergency preparedness, response, and recovery programmes. UNISDR is charged with the preparation and follow-up of the biennial Global Platform for Disaster Risk Reduction⁷ that was first established in 2006 by GA resolution 61/198. The Platform is the main global forum for disaster risk reduction, providing strategic and coherent guidance for the implementation of the Hyogo Framework. UNISDR **advocates** for greater investment in DRR and for the integration of DRR into policies and programmes for climate change adaptation. UNISDR **campaigns** to increase awareness of DRR benefits and to empower individuals reduce their own vulnerability. On-going campaigns focus on safer schools and hospitals, as well as resilient cities. Finally, UNISDR **informs** and connects people by providing tools such as the risk reduction website, PreventionWeb, publications on good practices, country profiles and the Global Assessment Report on DRR. The latter is an authoritative analysis of global disaster risks and trends.

In addition to these responsibilities, the GA and the Secretary-General have requested UNISDR to undertake a number of specific actions or deliver specific products, which are listed below for easy reference:

- Provide updates on progress and opportunities for expanding on progress towards mainstreaming DRR more effectively across the whole UN system (GA Res 66/199).
- Provide support to countries and/or HFA focal points in the development of national platforms and support their policy and advocacy activities; develop improved methods for predictive multi-risk assessments; integrate early warning systems into national DRR strategies and plans (GA Res 56/195, 59/231, 60/195, 63/216).
- Disseminate information necessary for the effective management and coordination of international cooperation efforts in the fields of disaster prevention (GA Res 54/219, 56/195)
- Lead the implementation of Subprogramme 3 (Natural Disaster Reduction) of Programme 22 (Humanitarian Assistance) of the UN Strategic Framework and UN Programme Budget.
- Prepare annual SG report on the ISDR

⁶ The “Hyogo Declaration” and the *Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters* were adopted in January 2005 by the World Conference on Disaster Reduction, held in Kobe, Hyogo, Japan. See <http://www.unisdr.org/we/coordinate/hfa>.

⁷ See <http://www.preventionweb.net/english/hyogo/GP/>.

- Lead the development of a UN system-wide plan for DRR, under the auspices of the CEB/HLCPC (HLCPC decision of March 2012).⁸

Figure 2 outlines the UNISDR Strategic Framework as presented in its *Work Programme 2012-2015*.

⁸ See UNISDR, "Factsheet on the secretariat of the ISDR (UNISDR)," 7 June 2012 http://www.unisdr.org/2012/docs/whoweare/UNISDR_Factsheet.pdf.

UNISDR Strategic Framework

Towards 2025

Our **VISION** is a world where the social, political and economic imperatives for reducing disaster risk are acted on.

Our **MISSION** is to connect governments and partners; to produce evidence for disaster risk reduction; to mobilize decision and opinion makers; and to support strengthening of the resilience of nations and communities to disasters and the impacts of climate change.



2012-2015 Strategic Objectives and Outcomes: "Connect and Convince"

SO1: Lead and Coordinate

Strengthened support to the implementation and coordination of the ISDR and the Hyogo Framework of Action (HFA) and improved coherence with climate change adaptation and the Millennium Development Goals (MDGs)

Outcome:

- 1.1. Collective and coherent actions agreed and undertaken to reduce risks at global, regional and national levels

SO2: Credible Evidence

Producing and disseminating credible evidence to strengthen decision making at local, national and regional levels in support of disaster risk reduction (DRR), climate change adaptation and achievement of the MDGs

Outcomes:

- 2.1. National priority setting and planning for DRR informed by accessible and organized information produced through the government-led monitoring and peer review of the HFA
- 2.2. DRR and climate change adaptation reflected in national planning instruments and documents based on improved risk information, including hazards, vulnerabilities and risks

SO3: Advocacy and Outreach

Increased public and private sector investments in DRR and climate change adaptation through advocacy and outreach

Outcome:

- 3.1. Increased public demand for and political commitment to local action and budget allocations to DRR and climate change adaptation



SO4: Deliver and Communicate Results

More effective, results-oriented UNISDR to carry out its mandate

Outcomes:

- 4.1. Communications and knowledge management tools effectively support UNISDR objectives
- 4.2. Enlarged, sustainable and predictable resource base
- 4.3. Results-focused implementation of UNISDR's strategic priorities

Summary of Outputs 2012-2015

SO1: Lead and Coordinate

1. Participatory consultations on a post-HFA framework and Global Platform in 2013
2. World Conference on Disaster Reduction in 2015
3. Guidance to six Regional Platforms and follow-up plans of action
4. Review of roles of National Platforms to improve quality
5. Coherent action by the UN system to reduce disaster risk in countries

SO2: Credible Evidence

6. Updated HFA Monitor tool
7. Report on ten years of HFA implementation
8. Scaling-up national disaster loss databases and loss accounting
9. Facilitate tracking of DRR investment
10. Global Assessment Reports in 2013 and 2015

SO3: Advocacy and Outreach

11. Making Cities Resilient Campaign (Target: 2,500 local governments)
12. Implementation of Global Platform targets for safe schools and health facilities (Target: 400,000 pledges)
13. Thirty global, regional and local ISDR Champions and other key opinion makers supported for leadership and visibility in scaling up DRR

SO4: Deliver and Communicate Results

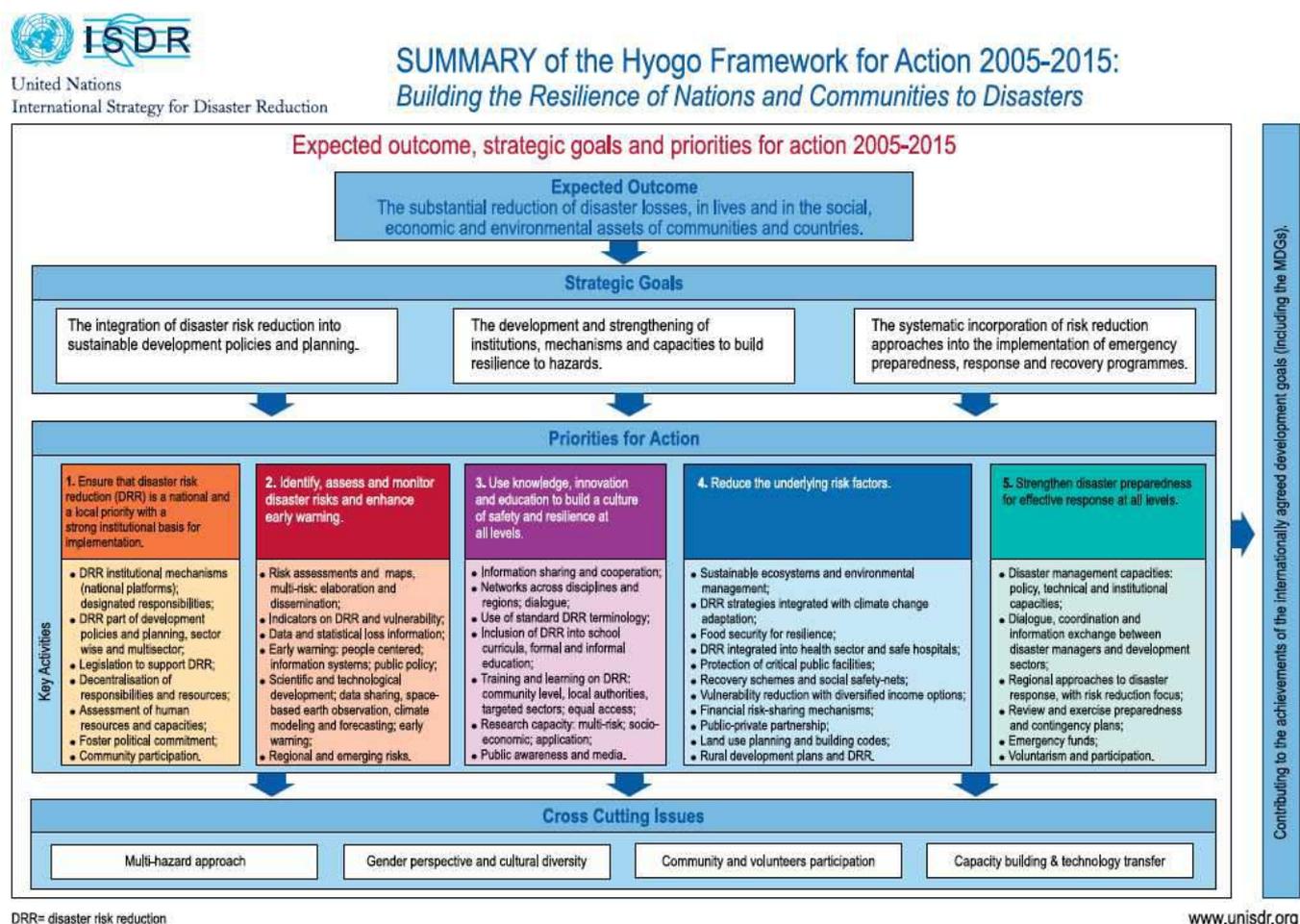
14. External communications strategy raises profile for DRR practice
15. Knowledge management tools enhanced, including PreventionWeb
16. Systematic engagement with donors
17. Results Based Management System

Figure 2: UNISDR Strategic Framework (Source: UNISDR 2011).

The International Strategy for Disaster Reduction (ISDR) and the Hyogo Framework for Action (HFA) 2005-2015: Building Resilience of Nations and Communities to Disasters

The ISDR, launched in 2000⁹ by the Economic and Social Council and the General Assembly, is a strategic and conceptual framework, implemented by a system of partnerships¹⁰, with the objective to foster and support a global DRR movement. It was established as an inter-agency framework and mechanism (inter-agency task force on disaster reduction and an inter-agency secretariat) to serve as a focal point within the United Nations system for promoting public awareness and commitment, expanding networks and partnerships, and improving knowledge about disaster causes and options for risk reduction. It builds on the Yokohama Strategy and Plan of Action and as follow-up to the International Decade for Natural Disaster Reduction. (Hyogo Framework for Action, 2005).

It is underpinned by the HFA, which is the overall framework for implementing DRR endorsed by the World Conference on DRR in 2005 and by General Assembly Resolution 60/195. The HFA is summarized in Figure 3 below.



⁹ General Assembly resolutions 59/231, 58/214, 57/256, 56/195, 54/219

¹⁰ Partners include Governments, inter-governmental and non-governmental organisations, international financial institutions, scientific and technical bodies and specialized networks as well as civil society and the private sector. For more on the ISDR, see <http://www.unisdr.org/who-we-are/international-strategy-for-disaster-reduction>.

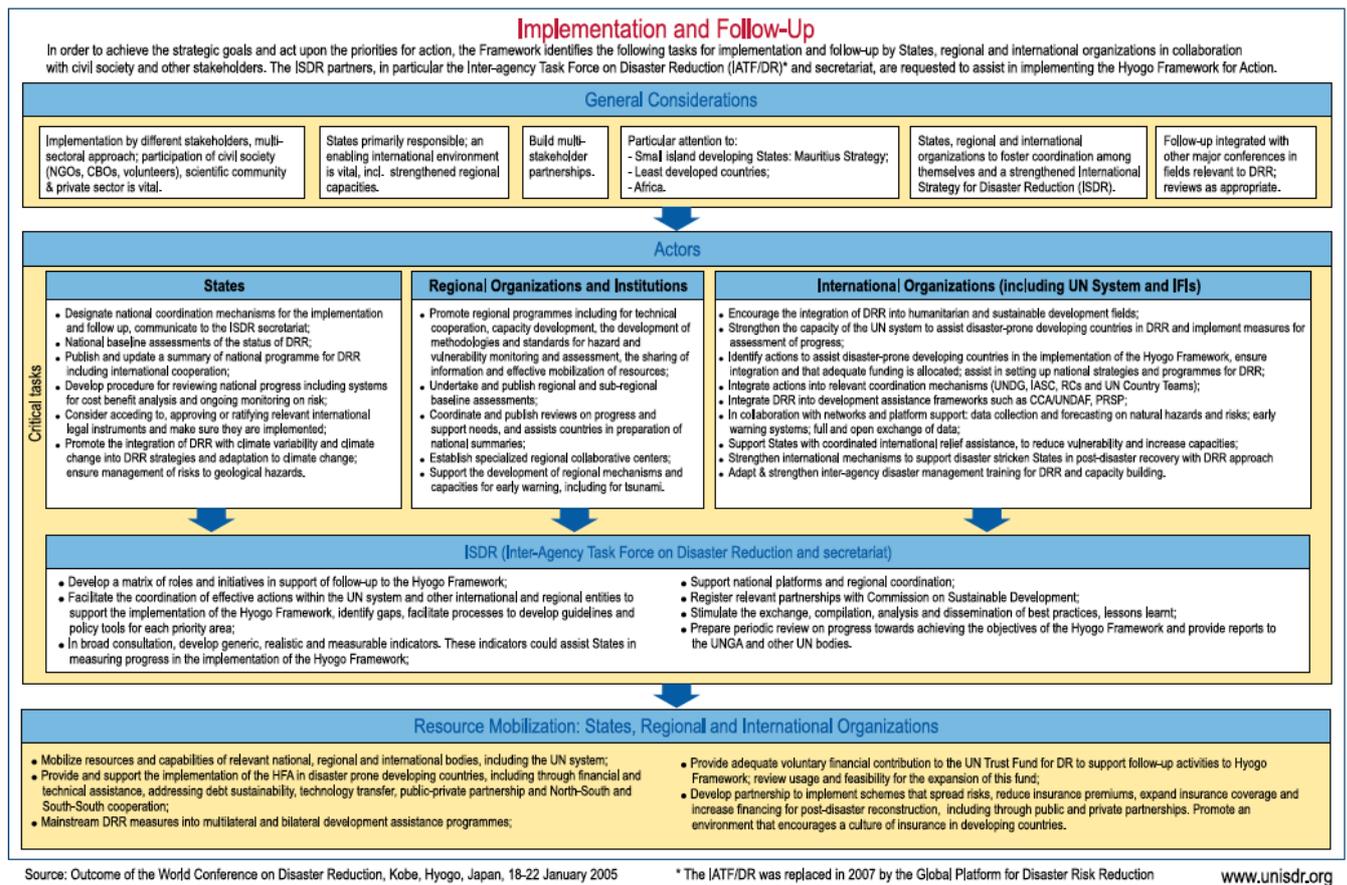


Figure 3: Summary of the Hyogo Framework for Action 2005-2015 (Source: UNISDR 2013a).

Box 1. Institutional statements, policy documents (and operational guidance) related to UNISDR

- All UN General Assembly Resolutions pertaining to UNISDR can be found at: <http://www.unisdr.org/we/inform/resolutions-reports>.
- Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters (HFA): <http://www.unisdr.org/we/coordinate/hfa>
- Post-2015 Framework for Disaster Risk Reduction: <http://www.unisdr.org/we/coordinate/hfa-post2015>
- UN System Task Team on the Post-2015 UN Development Agenda, “Realizing the Future We Want For All – Report to the Secretary- General,” New York: UN, June 2012. <http://preventionweb.net/go/27457>.
- UN Special Representative of the Secretary-General for Disaster Risk Reduction. “Proposed elements for consideration in the development of the post-2015 framework for disaster risk reduction.” UNISDR, 17 December 2013. <http://www.unisdr.org/we/inform/publications/35888>
- UNISDR. “Suggested elements for the post-2015 framework for disaster risk reduction.” A/CONF.224/PC(I)/5, June 2014. <http://www.unisdr.org/we/inform/publications/37865> , and all PrepCom documents: <http://www.wcdr.org/preparatory/prepcom1>
- Additional information regarding the mandate of the International Strategy for Disaster Reduction can be found at <http://www.unisdr.org/who-we-are/international-strategy-for-disaster-reduction>

Box 2. Key publications/guidance since 2011 related to DRR (or adaptation to climate change-related risks):

- von Oelreich, E. “In-depth study on the role of the United Nations contribution to the implementation of the HFA. External study commissioned for the Mid-Term Review 2010-2011.” Geneva: UNISDR, 2012.

<http://www.unisdr.org/we/inform/publications/27854>

- UNISDR. “Annual report 2013. Final Report on the 2012-2013 Biennium Work Programme.” Geneva: UNISDR, 2014. <http://www.unisdr.org/we/inform/publications/37302>
- UNISDR, WMO. “UN system task team on the post-2015 UN development agenda: disaster risk resilience.” May 2012. <http://www.unisdr.org/we/inform/publications/27462>
- Global Assessment Report on Disaster Risk Reduction 2013 and all supporting documents: <http://www.preventionweb.net/english/hyogo/gar/2013/en/home/index.html>
- Haris, Sanahuja. “Findings of the review of National Platforms for DRR 2012-2013.” Geneva: UNISDR, September 2013. <http://www.unisdr.org/we/inform/publications/35266>
- UNISDR. “UNISDR Europe Annual Report 2013 – Building Resilience to Disasters in Europe.” Geneva: UNISDR, 2014. http://www.unisdr.org/files/37556_finalannualreporteurope2014web.pdf
- EFDRR Working Group on Climate Change Adaptation and Disaster Risk Reduction. “How does Europe link DRR and CAA?” EFDRR Working Paper, 2013. <http://www.unisdr.org/we/inform/publications/35277>.
- UNISDR, GFDRR, WB. “A catalyst for change: how the Hyogo Framework for Action has promoted disaster risk reduction in South East Europe.” 2014. <http://www.unisdr.org/we/inform/publications/39269>
- UNISDR, EC, OECD. “Finland peer review report 2013 – Building resilience to disasters: implementation of the HFA (2005-2015).” 2014. <http://www.unisdr.org/we/inform/publications/38523>
- Gencer, Ebru A. “A Compendium of disaster risk reduction practices in cities of the Western Balkans and Turkey: a review of selected cities participating in UNISDR’s ‘Making Cities Resilient: My City is Getting Ready!’ campaign.” UNISDR, EC, WMO, 2014. <http://www.unisdr.org/we/inform/publications/39825>

1.2.1.2 United Nations Development Program (UNDP)

The UNDP is the UN’s global development network, helping to build nations that are able to withstand crisis and deliver their own solutions to global and national development challenges. UNDP is active in 177 countries and territories around the world. Regarding disaster and crisis management, in 1998 the UN General Assembly transferred to UNDP “the responsibilities of the Emergency Relief Coordinator for operational activities for natural disaster mitigation, prevention and preparedness (A/RES/52/12B, para 16).” With this decision, UNDP assumed operational responsibility for natural disaster mitigation, prevention and preparedness. In 2001, the Bureau for Crisis Prevention and Recovery (BCPR) was created following the recognition by UNDP’s Executive Board that, “crisis prevention and disaster mitigation should be integral parts of sustainable human development strategies (DP/2002/2).” The BCPR provides the UNDP with technical and financial support to carry out its disaster reduction and recovery work in disaster-prone countries, which includes,

development of comprehensive disaster risk reduction (DRR) programmes, strengthening of institutional and legislative systems, implementation of community-level disaster preparedness activities, including contingency planning and early warning, and establishment of coordination mechanisms to ensure the integration of risk reduction into human development as well as the development of national capacities for recovery planning.¹¹

¹¹ PreventionWeb, “Bureau for Crisis Prevention and Recovery – UNDP (BCPR-UNDP),” accessed 18 November 2014. <http://www.preventionweb.net/english/professional/contacts/profile.php?id=2724>.

The UNDP Strategic Plan 2014-2017 includes key areas of work specifically related to disaster risk reduction and resilience-building, as discussed in section 1.5 below. These actions fall under the Area of Work 3 entitled “Resilience-building”¹². The Strategic Plan states that all areas of work proposed in the Plan “will help build resilience whether, for instance, through greater employment and livelihoods, more equitable access to resources, better protection against economic and environmental shocks, peaceful settlement of disputes or progress towards democratic governance. Under “resilience-building”, UNDP’s work will focus on two additional issues: “rapid and effective recovery from conflict-induced crises in those cases where prevention has fallen short; and a much stronger ability to prepare for and deal with the consequences of natural disasters, especially as they are exacerbated by climate change.” (UNDP, 2013: 34).

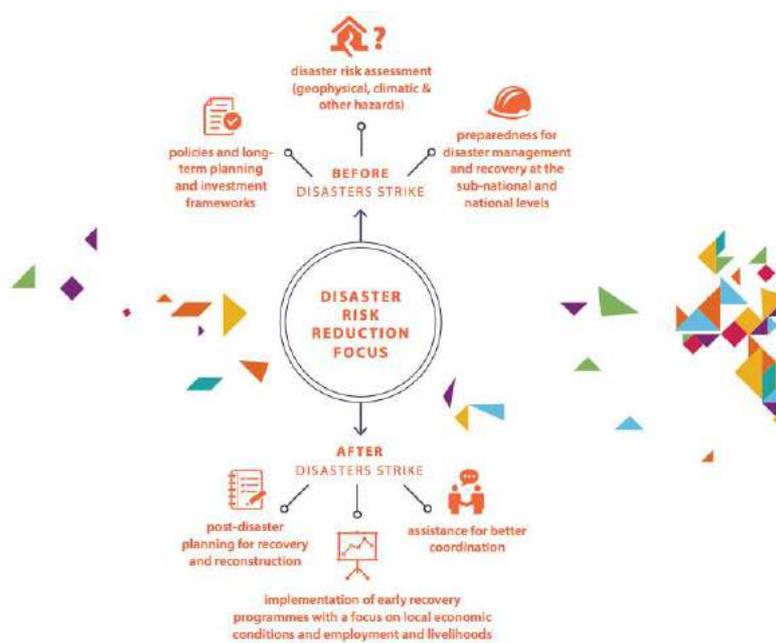


Figure 4: DRR Focus of UNDP (Source: UNDP Strategic Plan 2014-2017).

Under the heading “Disaster risk reduction (DRR), preparedness, response and recovery,” the Plan focuses on data, policies and capacities for comprehensive country level (and subregional and regional) action on natural disasters with the aim to minimize adverse development impacts and accelerate rebuilding. The Plan states,

A major focus will be on what happens before disasters strike. This will include support across a range of issues: disaster risk assessment looking, for example, at geophysical, weather/climatic and other hazards, including those that are low intensity but high frequency, as well as

¹² As defined in the Plan, “‘Resilience’ is an inherent as well acquired condition achieved by managing risks over time at individual, household, community and societal levels in ways that minimize costs, build capacity to manage and sustain development momentum, and maximize transformative potential. ‘Risks’ are factors of a magnitude and intensity able to both disrupt development progress and inflict significant direct and indirect costs.” See UNDP, “Changing with the World - UNDP Strategic Plan: 2014-2017,” New York: UNDP, 2013, 34. Accessed 30 October 2014. http://www.undp.org/content/dam/undp/library/corporate/UNDP_strategic-plan_14-17_v9_web.pdf.

differentiated vulnerabilities by social and economic groups such as women, female-headed households and populations located in the poorest regions; policies and long-term planning and investment frameworks that are disaster risk-sensitive, integrate disaster risk reduction with adaptation to climate change and address differentiated social and economic impacts; and preparedness for disaster management and recovery at the sub-national and national levels, including innovation to manage risks through insurance and resilient infrastructure.

The other major focus will be on what happens after disasters strike. This will address post-disaster planning for recovery and preparation of recovery and reconstruction plans and programmes that are inclusive of and accountable to displaced populations, women and other excluded groups. This will be reinforced through assistance for better coordination and implementation of early recovery programmes with a focus on local economic conditions....¹³

UNDP is involved in supporting countries with high levels of disaster risk to develop their DRM capacity at national and local levels. A large part of this has been dedicated to strengthening governance arrangements for DRR, including legislative frameworks and institutional systems and providing guidance for managing natural hazard risks.

On the global level, UNDP provides a range of services to high-risk countries with the objective to support the development of their disaster risk management capacity at the local and national levels. A large part of this has been dedicated to strengthening governance arrangements for DRR, including legislative frameworks and institutional systems and providing guidance for managing natural hazard risks. Additional services provided include policy guidance, advocacy, technical assistance, global knowledge sharing and partnership building with their global counterparts. The key thematic areas of its services include the following:

- Global Risk Identification Programme
- Capacity for Disaster Reduction Initiative
- Climate Risk Management
- Urban Risk Management
- Governance and Mainstreaming of Disaster Risk Reduction into Development Planning
- Gender Sensitive Disaster Reduction and Recovery
- International Recovery Platform (See Preventionweb, “BCPR-UNDP”).

UNDP plays a key leadership role in the implementation of the International Strategy for Disaster Reduction (ISDR) (discussed in section 1.2.1.1) through UNISDR mechanisms such as the International Recovery Platform, Global Risk Identification Programme, Capacity for Disaster Reduction Initiative and Partnership for Environment and Disaster Risk Reduction.¹⁴ UNDP also provides critical support to UN-OCHA through its leadership position of the Early Recovery Cluster. Here it contributes to ensuring that humanitarian, early recovery and development actions reinforce each other and build towards long-term resilience.

¹³ UNDP, “Strategic Plan: 2014-2017,” 2013, 36-37.

¹⁴ For more on its activities in the HFA, see PreventionWeb, “BCPR – UNDP”.

1.2.1.3 Office for Coordination of Humanitarian Affairs (OCHA)

The Office for Coordination of Humanitarian Affairs (OCHA), in collaboration with the Inter-Agency Standing Committee (IASC), is the arm of the UN responsible for bringing together national and international humanitarian actors in the event of an emergency or crisis, to ensure a coherent response. OCHA ensures that a framework is in place through which all actors involved may contribute to the overall response effort. OCHA's primary role is to support the UN Resident or Humanitarian Coordinator, generally the most senior UN official in the country, and ensuring that coordination takes place. At the most basic level, this means ensuring that a consensus view is reached between the main responders as to what is the main problem, what are the priorities, what is going to be done about it and how it is going to be done. OCHA is part of the UN Secretariat.

As stated in the ACRIMAS report (2011),

The UN, under OCHA, has two main coordinative functions. First, OCHA coordinates the humanitarian actors within the so-called “cluster system”. There are around 10 clusters which are led by appointed cluster leads (UN bodies) [...] Second, OCHA coordinates humanitarian actors within the On-side Operations Coordination Centre (OSOCC). The purpose of the OSOCC is to assist the local authorities to manage the disaster by for example coordinating international SAR teams. Moreover, the OSOCC enables the exchange of information and coordination between involved actors, which include governmental, non-governmental organisations, but also regional organisations like MIC.¹⁵

Both the “cluster system” and the OSOCC are discussed further in section 3.1.3.

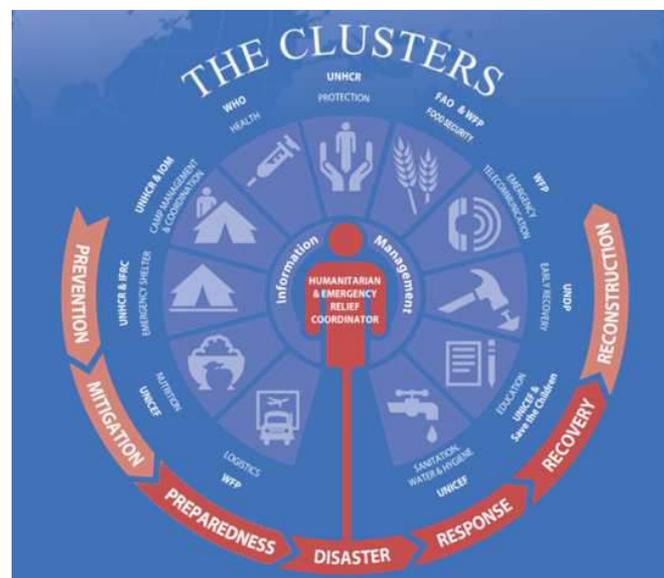


Figure 5: The Cluster System (Source: UN-OCHA).

In addition to its coordinative role, OCHA's core functions are: policy, advocacy, information management and humanitarian financing. These functions can be viewed in the following areas of its work:

¹⁵ Hans-Martin Pastuszka, “Report on Current CM Framework,” Aftermath CM System-of-systems Demonstration (FP7 ACRIMAS project, January 2011), 30-31. Accessed 18 November 2008 [website?]

- Reaching consensus among the operational actors on policy dilemmas;
- Coordinating, consolidating, analysing and communicating needs assessment¹⁶, e.g. situation reports and maps; and
- Ensuring that resource mobilization is handled in a common way, such as through a Flash Appeal or the Central Emergency Response Fund (CERF)

Finally, OCHA serves as the secretariat for a number of rapid-response tools such as the United Nations Disaster Assessment and Coordination (UNDAC) system and the International Search and Rescue Advisory Group (INSARAG) (see section 3.1); promotes the efficient interaction between civilian and military actors in humanitarian operations; and maps global emergency relief stockpiles.

Although OCHA's primary focus is on coordinating emergency response, the agency is also engaged in risk-reduction (See also section 1.2.4). It advocates for those in need, promotes preparedness and prevention and facilitates sustainable solutions. UN-OCHA defines preparedness as,

Emergency preparedness is the knowledge and capacity developed by governments, recovery organizations, communities and individuals to anticipate, respond to and recover from the impact of potential, imminent or current hazard events, or emergency situations that call for a humanitarian response.

Emergency preparedness requires long-term, comprehensive engagement in the framework of disaster risk reduction (DRR). DRR activities include strengthening early warning and preparedness, and mobilizing and coordinating international disaster assistance. Priority Five of the Hyogo Framework for Action highlights the essential role of disaster preparedness in saving lives and livelihoods, particularly when integrated into an overall DRR approach.¹⁷

OCHA's key objectives in the field of DRR are to convene humanitarian and development partners to work together to strengthen resilience while building local and national capacity and to advocate resilience-based approaches that ensure resilience concepts are integrated into the humanitarian programme cycle. OCHA:

- Supports governments in building their capacity with early warning information, contingency planning, national capacity-building and training, and mobilizing support from regional networks;
- Provides governments with access to tools and services for immediate relief, including rapid-response teams, needs assessment, funds, reports and civil-military coordination;
- Identifies and analyses trends and develops common policy together with the wider humanitarian community, based on humanitarian principles;

¹⁶ In 2009, the IASC Working Group formed a IASC Needs Assessment Task Force to develop a package of tools and products aimed at harmonizing cross-sector needs assessment initiatives. For more on this package, see <http://www.unocha.org/what-we-do/coordination-tools/needs-assessment> and <http://www.humanitarianinfo.org/iasc/pagelader.aspx?page=content-working-default&mainbodyid=1&publish=0>.

¹⁷ "Preparedness," UN-OCHA, accessed 18 November 2014, <http://www.unocha.org/what-we-do/coordination/preparedness/overview>.

- Advocates when necessary and negotiates on issues such as access, protection of civilians and aid workers, and humanitarian principles;
- Gathers and shares reliable data regarding the locations of crisis-affected people, their most urgent needs and who is best placed to assist them;
- Helps manage humanitarian donations from more than 130 countries through its financial tracking services. (UNISDR, 2013a).

OCHA sees emergency preparedness and DRR as critical to building community and household resilience. (UNISDR, 2013a).

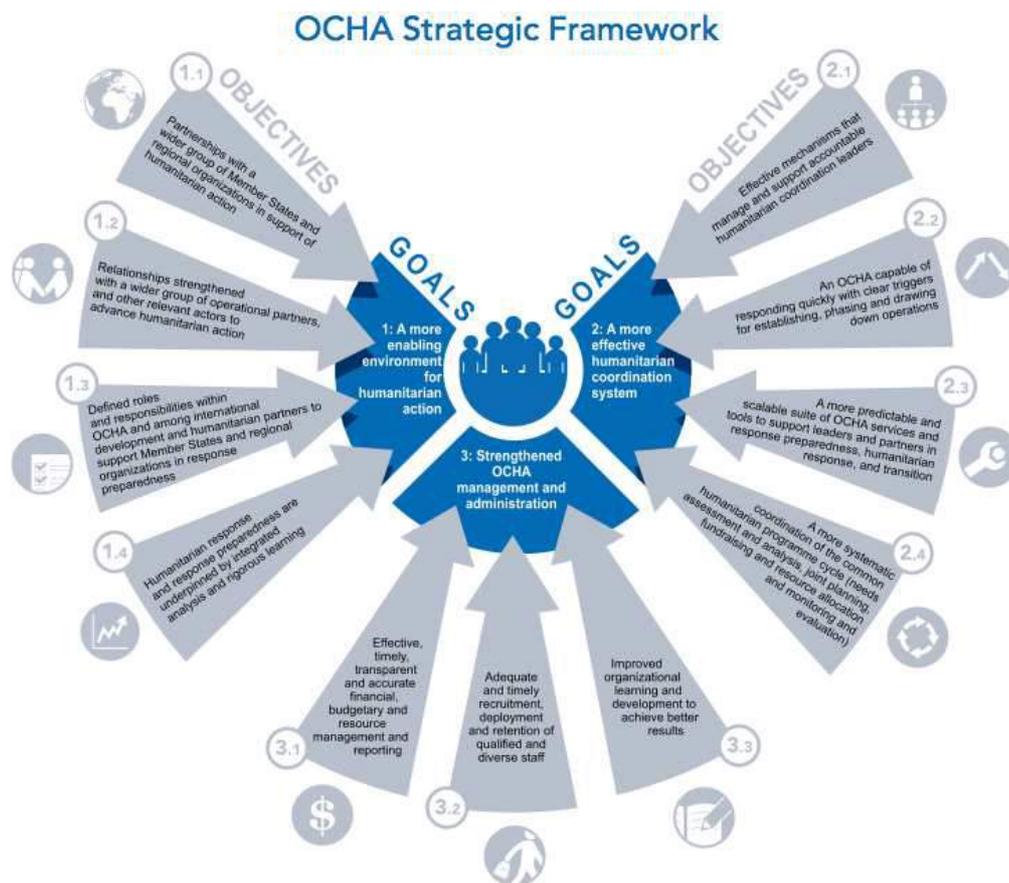


Figure 6: OCHA Strategic Framework (OCHA Plan and Budget: 2012-2013).

The main strategic objectives of OCHA as show in the figure above support a more enabling environment for humanitarian action, a more effective humanitarian coordination system and strengthened OCHA management and administration. For more on action points in support of these objectives, see the “OCHA in 2012 & 2013 - Plan and Budget”.

Box 3. Institutional statements, policy documents (and operational guidance)

- OCHA Strategic Plan 2014-2017: <https://docs.unocha.org/sites/dms/Documents/OCHA%20SF%202014-2017%20Strategic%20Plan.pdf>.
- OCHA in 2014 & 2015: Plan and Budget (<http://www.unocha.org/ochain/2014-15/>)
- OCHA on Messages (www.unocha.org/about-us/publications/OOM)

- Policy Briefs (www.unocha.org/about-us/publications/policy-briefs)
- OCHA and Slow onset emergencies
https://docs.unocha.org/sites/dms/Documents/OCHA_OPB_SlowOnsetEmergencies190411.pdf

Box 4. Key publications/guidance since 2011 related to DRR (or adaptation to climate change-related risks):

- Overview of the 2013 Consolidated Appeals and comparable humanitarian action plans (docs.unocha.org/sites/dms/CAP/CAP_2013_Overview_of_2013_CA.pdf)
- Checklist for RCs and HCs on Emergency Preparedness and Response (www.humanitarianinfo.org/iasc/downloadaddoc.aspx?docID=5569)
- Inter-Agency Real Time Evaluation of the Humanitarian Response to the Earthquake in Haiti March 2012 (http://www.unicef.org/evaluation/files/IA_RTE_Haiti_phase_2_final_report%281%29.pdf)

1.2.1.4 Inter-Agency Standing Committee (IASC)

The Inter-Agency Standing Committee (IASC) is also worth mentioning here as it serves as an inter-agency forum for coordination, policy development and decision-making involving the key UN and non-UN humanitarian partners. It was established in June 1992 in response to UN GA Resolution 46/182 on the strengthening of humanitarian assistance. The role of the IASC as the primary mechanism for inter-agency coordination of humanitarian assistance was affirmed by General Assembly Resolution 48/57.

The following are the primary objectives of the IASC:

- Develop and agree on system-wide humanitarian policies and on a common ethical framework for humanitarian activities
- Allocate responsibilities among agencies involved in humanitarian programmes
- Identify where gaps exist in mandates or where operational capacity is lacking;
- Resolve disputes or disagreements among humanitarian agencies on system-wide humanitarian issues. (UNISDR 2013a)

The IASC formulates humanitarian policy that ensures a coordinated and effective response to all kinds of disaster and emergency situations. IASC is the main decisional body for humanitarian issues and is responsible for planning the types of missions to be taken, as well for proposing policy, guidelines and priorities to be made.¹⁸ Membership and structure of the IASC is discussed in section 3.1.4.

1.2.2 Monitoring and analytical support to policy making; R&D

UNISDR established the Scientific and Technical Advisory Group (STAG) to undertake scientific and technical research with the purpose to provide technical advice and support in the formulation and implementation of activities carried out by the DRR community. STAG's work encompasses all aspects of the scientific and technical dimensions of risk reduction, with an emphasis on developing countries' needs. The STAG's 2013 report "Using science for disaster risk reduction" includes case

¹⁸ See also humanitarianinfo.org/iasc/.

studies which provide specific examples of scientific learning employed and applied to enhance DRR policy making.¹⁹

1.2.3 Policy for Prevention

UN General Assembly Resolution 46/182 (1991) sets out the following policy for prevention:

The international community should adequately assist developing countries in strengthening their capacity in disaster prevention and mitigation, both at the national and regional levels, for example, in establishing and enhancing integrated programmes in this regard.

In order to reduce the impact of disasters there should be increased awareness of the need for establishing disaster mitigation strategies, particularly in disaster-prone countries. There should be greater exchange and dissemination of existing and new technical information related to the assessment, prediction and mitigation of disasters. As called for in the International Decade for Natural Disaster Reduction, efforts should be intensified to develop measures for prevention and mitigation of natural disasters and similar emergencies through programmes of technical assistance and modalities for favourable access to, and transfer of, relevant technology.

Organizations of the United Nations system involved in the funding and the provision of assistance relevant to the prevention of emergencies should be provided with sufficient and readily available resources.²⁰

The UN policy for prevention and mitigation is promoted through development projects implemented with the assistance of governments, organisations and citizens and with the objective of ensuring that appropriate disaster risk-reduction (and response) measures are included in development activities. The UNISDR serves as the focal point within the UN System for coordinating and supporting implementation of disaster risk reduction policy and activities (See section 1.2.1.1). The UN adopted the ISDR to promote disaster reduction and risk mitigation as a central part of its mission. The initiative promotes global resilience to the effects of hazards and seeks to reduce losses resulting from disasters by:

- Increasing public awareness
- Obtaining commitment from public authorities
- Stimulating interdisciplinary and intersectoral partnership and expanding risk-reduction networking at all levels
- Enhancing scientific research on the causes and effects of natural disasters and natural hazards, respectively

The strategies are carried out by the relevant UN Country Office and local government in question, and implemented at all levels of society. For more on the ISDR see section 1.2.1.1.

¹⁹ The report STAG report can be found here: <http://www.unisdr.org/we/inform/publications/32609>. For more, see <http://www.unisdr.org/partners/academia-research>.

²⁰ General Assembly resolution A/RES/46/182: "Strengthening of the coordination of humanitarian emergency assistance of the United Nations," Annex, part II: 13-14, 16, 19 December 1991.

In addition to UNISDR, the General Assembly resolution 52/12 (1997) on “Renewing the UN: a programme for reform,” transferred to UNDP the responsibilities of the Emergency Relief Coordinator (see 1.2.1) regarding operational activities for natural disaster mitigation, prevention and preparedness.

1.2.4 Policy for Preparedness

UN policy for preparedness, as outlined in General Assembly resolution 46/182, envisions a direct linkage between preparedness and economic growth and sustainable development. This is particularly the case in the context of disaster-prone developing countries where “emergencies reflect the underlying crisis in development facing developing countries.” (Annex, Part 1, para. 10). The resolution states:

International relief assistance should supplement national efforts to improve the capacities of developing countries to mitigate the effects of natural disasters expeditiously and effectively and to cope efficiently with all emergencies. The United Nations should enhance its efforts to assist developing countries to strengthen their capacity to respond to disasters, at the national and regional levels, as appropriate.²¹

As with its Policy for Prevention, the UN policy for preparedness is promoted through development projects that aim to boost local and regional preparedness capacity, e.g., through the development of early warning systems and monitoring and forecasting routines. Specifically,

On the basis of existing mandates and drawing upon monitoring arrangements available within the system, the United Nations should intensify efforts, building upon the existing capacities of relevant organizations and entities of the United Nations, for the systematic pooling, analysis and dissemination of early-warning information on natural disasters and other emergencies. In this context, the United Nations should consider making use as appropriate of the early-warning capacities of Governments and intergovernmental and non-governmental organizations.

Early-warning information should be made available in an unrestricted and timely manner to all interested Governments and concerned authorities [...]²²

UNISDR and UNDP are the two central entities responsible for UN policy on preparedness. UNISDR has the mandate to coordinate international efforts on DRR. Concerning preparedness, the strategic goal as defined by the HFA (2005) is the “systematic incorporation of risk reduction approaches into the design and implementation of emergency preparedness...” (HFA 2005: 4). UNDP has the mandate to undertake operational activities for disaster mitigation, prevention and preparedness. It carries out its work, together with partner agencies such as OCHA, to support nationally and locally driven initiatives under the auspices of the Hyogo Framework for Action, which aims to substantially reduce disaster losses by 2015. UNDP policy for preparedness has 4 central components:

²¹ A/RES/46/182, Annex, part III, para. 18-20, 1991.

²² A/RES/46/182, Annex, part III, para. 18-20, 1991.

- **Preparing Governments.** UNDP works with governments to build capacity and ensure that laws, policies and institutions capable of assessing disaster risk and developing early warning systems are developed.
- **Preparing Communities.** UNDP helps to raise awareness and develop the skills necessary for effectively responding to threats.
- **Preparing the UN.** Inter-Agency Contingency Plans, which allow for coordination and financial resource planning, are developed in order to prepare the UN system for disasters. The plans are directed by OCHA and bring together experts who prepare hypothetical disaster profiles and conduct training exercises. UNDP maintains a database of skilled experts available for deployment to disaster zones on short notice in order to ensure rapid response to a catastrophe (Issue Brief, Disaster Preparedness, 2013).
- **Partnerships for Preparedness.** UNDP, the World Bank, the EC and the local Government partner to undertake comprehensive post disaster needs assessments in the immediate aftermath of a disaster. These assessments enable a better understanding of the extent of damage and loss and are the first step in designing a response to inform subsequent activities. (UNDP, 2013b).

In addition to UNDP and UNISDR, OCHA is involved in pre-crisis preparedness. As the coordinator of international response operations, OCHA's preparedness activities primarily aim to create favourable conditions for a successful emergency response in the event of a crisis. OCHA's emergency preparedness responsibilities aim to strengthen the following areas: (1) OCHA's internal response capabilities; (2) the capability of the in-country members [of the humanitarian coordination system] to make a coordinated emergency response, and; (3) the capacity of local, regional and national authorities/organisations to request and/or mobilise international humanitarian assistance and to effectively work with the in-country humanitarian coordination system.

OCHA also provides support to the emergency preparedness of the wider international community by managing international response tools such as United Nations Disaster Assessment and Coordination (UNDAC) system, the International Search and Rescue Advisory Group (INSARAG) and civil-military coordination, cluster approach, needs assessment, HC/RC coordination support, information management and humanitarian financing systems (CERF, CAP, Flash Appeals). Concerning preparedness of the UN system for when a disaster strikes, it is the HC/RC in the affected country who is responsible for facilitating preparedness. (UNISDR 2013a). OCHA's Emergency Services Branch (ESB) and Programme Support Branch also provide support to its Regional and Country Offices in the form of coordinating, providing technical advice and ensuring consistent emergency preparedness work across geographical regions. (UN-OCHA).

Based on consultations with IASC members following the 61st meeting of the IASC Working Group in 2005, OCHA and UNISDR developed a Disaster Preparedness for Effective Response - Guidance and Indicator Package for Implementing Priority Five of the Hyogo Framework. This was published in 2008. The tool aims to provide strengthened guidance to governments, local authorities and relevant stakeholders to implement Priority Five of the Hyogo Framework for Action (HFA). It assists with the development and measure of preparedness for response capability at the international, regional, national and local level. (UNISDR 2013a).

1.2.5 Policy for Response

UN General Assembly resolution 46/182 outlines several contingency funding arrangements (see section 1.3.2) and additional measures for rapid response in relation to UN policy for response. Concerning the additional measures, the following are outlined:

The United Nations should, building upon the existing capacities of relevant organizations, establish a central register of all specialized personnel and teams of technical specialists, as well as relief supplies, equipment and services available within the United Nations system and from Governments and intergovernmental and non-governmental organizations that can be called upon at short notice by the United Nations

The United Nations should continue to make appropriate arrangements with interested Governments and intergovernmental and non-governmental organizations to enable it to have more expeditious access, when necessary, to their emergency relief capacities, including food reserves, emergency stockpiles and personnel, as well as logistic support. In the context of the annual report to the General Assembly mentioned in paragraph 35 (i) below, the Secretary-General is requested to report on progress in this regard.

Special emergency rules and procedures should be developed by the United Nations to enable all organizations to disburse quickly emergency funds, and to procure emergency supplies and equipment, as well as to recruit emergency staff.²³

The lead body responsible for coordinating response operations in the event of a crisis is UN-OCHA. As stated in the ACRIMAS report (2011),

When crises and catastrophes strike outside the EU, the UN (namely the UN Office for the Coordination of Humanitarian Affairs, OCHA), has got the overall responsibility to coordinate all humanitarian assistance to a stricken country. This is a provision that is highly acknowledged within the EU, among the Commission and most of the Member States.²⁴

OCHA performs a critical role in operational coordination in crises situations. This can include “assessing situations and needs; agreeing on common priorities; developing common strategies to address issues such as negotiating access, mobilizing funding and other resources; clarifying consistent public messaging; and monitoring progress.” (UN-OCHA). The OCHA Emergency Relief Coordinator (ERC) heads the UN response to emergency situations when disaster strikes. The ERC works with a committee of a number of UN agencies and associated bodies depending on the problems specific to the event. These may include UNICEF, UNDP, UNHCR, WFP and so on.

OCHA serves as the secretariat for a number of rapid-response tools such as the United Nations Disaster Assessment and Coordination (UNDAC) system and the International Search and Rescue Advisory Group (INSARAG) (see section 3.1); promotes the efficient interaction between civilian and military actors in humanitarian operations; and maps global emergency relief stockpiles (See 5.2).

²³ A/RES/46/182, Annex, part IV para. 27-29, 1991.

²⁴ Hans-Martin Pastuszka, FP7 ACRIMAS project, 2011, 30-31. Accessed 18 November 2008 [\[website?\]](#)

1.2.6 Policy for Relief and Recovery

UN General Assembly resolution 46/182 outlines the following with regards to UN policy for relief and recovery:

Emergency assistance must be provided in ways that will be supportive of recovery and long-term development. Development assistance organizations of the United Nations system should be involved at an early stage and should collaborate closely with those responsible for emergency relief and recovery, within their existing mandates.

*International cooperation and support for rehabilitation and reconstruction should continue with sustained intensity after the initial relief stage. The rehabilitation phase should be used as an opportunity to restructure and improve facilities and services destroyed by emergencies in order to enable them to withstand the impact of future emergencies.*²⁵

UNDP is the lead agency on early recovery and has inherited responsibilities from the Inter-Agency Standing Committee (IASC), the body responsible for inter-agency cooperation in the humanitarian system. UNDP hosts the Cluster Working Group on Early Recovery (CWGER). The Recovery Unit of UNDP (under BCPR) operates when the response or relief phases of the disaster has ended, but recovery has yet to fully commence. The Early Recovery approach as set out in a UNDP policy paper (2012) comprises “a set of specific programmatic actions to help people move from humanitarian relief towards self-sustaining development.”²⁶ The roles of the CWGER include the promotion and clarification of early recovery as a concept, and to ensure that it is adopted in within the context of humanitarian responses in the event of a disaster/emergency or crisis. As outlined in the policy paper (2012), the CWGER’s action focuses on four main strands of action:

*Providing direct strategic and coordination support to Humanitarian Coordinators (HCs), Resident Coordinators (RCs), Deputy Special Representatives of the Secretary-General, Humanitarian Country Teams (HCTs) and Cluster Lead Agencies at the country level; (ii) Defining and coordinating early recovery work that is not covered by other clusters (e.g. governance, non-agricultural livelihoods); (iii) Providing initiative and guidance on the integration of early recovery in the work of other clusters, and inter-cluster coordination of early recovery; and (iv) Influencing the global policy agenda on humanitarian financing, civilian capacities, and strategic planning to strengthen the potential for, and impact of early recovery within international crisis response and recovery efforts.*²⁷

At the country level,

²⁵ A/RES/46/182, Annex, part VII para. 40-41, 1991.

²⁶ “Early” refers to the fact that the need to look beyond relief is immediate; ‘Recovery’ refers to the aim to ensure a more resilient people than before the crisis and because of the actions to prepare the ground for longer-term recovery and development. For more, see UNDP, “UNDP and Early Recovery,” Geneva: UNDP-BCPR, November 2012. Accessed 8 Nov. 2014.

<http://www.undp.org/content/undp/en/home/librarypage/crisis-prevention-and-recovery/undp-in-early-recovery/>.

²⁷ UNDP, “Early Recovery,” 2012, 1.

UNDP helps HC/RCS and the HCT to integrate early recovery approaches into the humanitarian response through the deployment of Early Recovery Advisors (ERAs). ERAs work across the humanitarian community, and help develop common strategies to strengthen the links between relief, recovery and development – including in needs assessments, appeals and the work of all clusters. UNDP’s Bureau for Crisis Prevention and Recovery (BCPR) maintains an inter-agency roster for quick ERA deployment on behalf of the CWGER.²⁸

In addition to its role in promoting this approach through the CWGER, UNDP also acts as an implementing agency. In the wake of a natural disaster (e.g., earthquake, flood, etc), UNDP works with its partners to ensure public services re-commence functioning as early as possible after the event; train those affected with relevant skills, such as construction techniques, and; train local public servants to ensure that reconstructed infrastructure meets a minimum code of disaster resistance, underlying causes are addressed and better crisis observation and early warning systems are erected. This work typically includes: emergency employment to restart the local economy, rehabilitation of community infrastructure; debris management and local governance support.

In addition, INSARAG is involved in the relief phase through efforts to strengthen cooperation between interested organizations during the emergency relief phase.

Box 5. Available guidance on Early Recovery.

- UNDP policy on early recovery (2008) <http://relief2recovery.files.wordpress.com/2012/01/undp-on-early-recovery.pdf> ;
- IASC Guidance Note on Early Recovery, prepared by the Cluster Group on Early Recovery, in cooperation with the UNDG-ECHA Working Group on Transition, 2008. Available: <http://www.undp.org/content/undp/en/home/librarypage/crisis-prevention-and-recovery/guidance-note-on-early-recovery-cwger-april-2008/>.
- EU-UNDP Post Disaster Needs Assessment guide, forthcoming. See: http://www.undp.org/content/brussels/en/home/partnerships_initiatives/results/EU-UNDP-PDNA.html.

1.3 Financing

1.3.1 Investing in preparedness

As the organization responsible for leading the coordination of response operations, OCHA plays an important role in financing the costs of response. OCHA is funded from the UN Regular Budget as well as from Member States’ voluntary contributions for its ability to deliver on its UN General Assembly mandate. With timely financial support, OCHA targets those who most need protection and relief.

The UN General Assembly approves the Regular Budget every two years. The Regular Budget is funded from assessed contributions paid by each Member State on the basis of a formula that takes into account each Member States’ relative GDP. However, because regular budget allocations have

²⁸ Ibid.

remained rather static in recent years, it has had to increasingly rely on extra-budgetary resources. OCHA’s plans and budget for 2014 and 2015 are based on its 2014-2017 Strategic Plan, with delivery against the plan budgeted at \$331.8 million in 2014 and \$321.7 million in 2015 (up from \$285.4 million in 2012), including an appropriation of 0.4 per cent from the global UN regular budget to cover \$14.5 million in programme requirements. Programme support costs levied on CERF allocations cover OCHA’s management of the CERF Secretariat (\$6 million in 2014). Costs arising from OCHA’s management of the Common Humanitarian Funds are to be covered by UNDP’s direct costs (\$6.4 million in 2014). To cover its extra-budgetary programme budget, OCHA asks Member States to make voluntary contributions amounting to \$270.1 million in 2014 and an estimated \$262.3 in 2015 (up from \$234.4 million in 2012). Seventy – three per cent of OCHA’s budget covers staff costs of its 2.154 national and international staff located around the world. The three pooled funding programmes are described in more detail below.

2014 Budget by source of funding

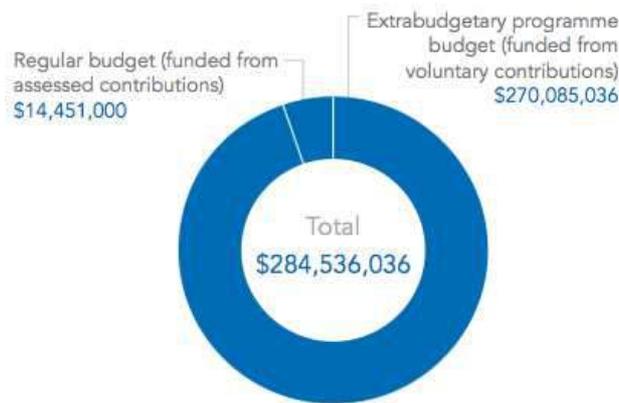
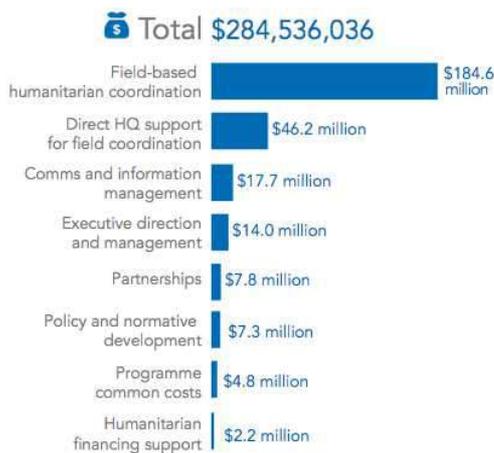


Figure 7: UN-OCHA Budget by source of funding (Source: OCHA in 2014 & 2015: Plan and Budget).

2014 Programme budget by activity



2014 Administrative budget by activity



2014 Budget Summary: Headquarters' Regular & Extrabudgetary Programme Budget

2014 Budget Summary (Headquarters)	Regular Budget		Extrabudgetary Programme Budget (Funded from voluntary contributions)		Total Programme Budget	
	Budget	Posts	Budget	Posts	Budget	Posts
Executive Management	2,011,600	7	6,895,195	29	8,906,795	36
Corporate Programmes Division	4,433,000	23	31,077,418	113	35,510,418	136
Office of the Director, New York	-	2	6,288,225	22	6,288,225	24
Administrative Services Branch	2,142,900	7	2,687,557	-	4,830,457	7
Policy Development and Studies Branch	774,100	4	6,542,727	26	7,316,827	30
Communications Services Branch	517,400	3	6,239,029	31	6,756,429	34
Information Services Branch	998,600	7	9,319,880	34	10,318,480	41
Coordination and Response Division	3,809,200	20	16,846,998	74	20,656,198	94
Geneva Office	4,197,200	21	30,705,807	117	34,903,007	138
Office of the Director, Geneva	453,300	2	2,585,760	11	3,039,060	13
Emergency Services Branch	1,903,500	10	13,165,698	46	15,069,198	56
Partnerships & Resource Mobilization Branch	1,840,400	9	5,935,261	23	7,775,661	32
Programme Support Branch	-	-	9,019,088	37	9,019,088	37
Total Headquarters Requirements	14,451,000	71	85,525,418	333	99,976,418	404

Figure 8: UN-OCHA 2014 Budget Summary.

Financing for disaster preparedness and response is provided through a number of instruments. These include several pooled funds managed by OCHA as described above and the UN Trust Fund for Disaster Risk Reduction.

1.3.1.1 Financing for disaster response

In the event of a disaster or crisis, the UN can immediately provide assistance through the use of pooled funds managed by OCHA. There are three types of pooled funds: the Central Emergency Response Fund (CERF), Common Humanitarian Funds (CHFs) and Emergency Response Funds (ERFs). The major distinction between these funds is that the CERF covers all countries, whereas the CHFs and ERFs are country-based pooled funds, responding only to specific humanitarian situations in 18 countries. CHFs are currently present in five countries with on-going, substantial humanitarian operations.²⁹ ERFs are currently active in thirteen countries/territories and are generally established to respond to unforeseen needs or gaps in humanitarian emergencies not included in the Consolidated Appeals process (see below). The funds are small relative to the CHFs and CERF, and primarily fund NGOs in support of local capacity building.³⁰

The CERF was established under the authority of the Secretary General in 1991 with Resolution 46/182 in order to provide UN agencies with the necessary cash to cover immediate expenditures in the aftermath of a disaster or crisis while waiting for the disbursement of donors' contributions. It is funded through voluntary contributions from across 124 UN Member States and the private sector, and administered by the ERC. In the immediate aftermath of a disaster, it is the Resident or

²⁹ Countries with CHF are Afghanistan, the Democratic Republic of Congo (DRC), Somalia, South Sudan, Sudan and the Central African Republic (CAR). See <http://www.unocha.org/what-we-do/humanitarian-financing/common-humanitarian-funds-chfs>.

³⁰ Countries with ERFs are Afghanistan, Colombia, DRC, Ethiopia, Haiti, Indonesia, Kenya, Myanmar, Pakistan, State of Palestine, Syria, Yemen and Zimbabwe. See <http://www.unocha.org/what-we-do/humanitarian-financing/emergency-response-funds-erf>.

Humanitarian Coordinator (RC/HC) that can make an application for CERF funds in order to cover priority projects from UN agencies.³¹ In those countries where an ERF or CHF has been established, the HC may immediately release available funds based on agreed priorities at country level. The latter funds may also allocate funding to international and national NGOs; NGOs do not have access to CERF funds directly.

Decisions regarding prioritization of life-saving activities are managed by actors on the ground. Priorities are organized in an appeal document and presented to Member States and other partners for funding. There are two types of appeals: Consolidated Appeals and Flash Appeals. The former refers to those which are prepared on an annual basis in countries where humanitarian needs are ongoing, whereas the latter are developed immediately following a sudden-onset emergency (e.g., earthquake or avalanche). All three pools' funding are recorded against these appeals. OCHA is responsible for coordinating the appeals and managing the Financial Tracking Service (FTS) database in which all funding information is recorded (UN-OCHA).

1.3.1.2 Financing for disaster preparedness

Regarding disaster preparedness , UNISDR provides funding through the Trust Fund for Disaster Reduction that was set up in 2000. UNISDR relies entirely on voluntary contributions. The only support provided through the UN regular budget is one D1 staff as per 2012. This post is based in Geneva with the mandate to coordinate the UNISDR's regional programme activities. Also included in the UN regular budget, under Section 26, is a grant of \$2,263,900 for DRR activities under Subprogramme 3 (Natural Disaster Reduction) of Programme 22 (Humanitarian Assistance) of the UN Strategic Framework. However this grant is allocated to UNDP; UNISDR is not a recipient of the funds. UNISDR is responsible for the coordination and implementation of, as well as reporting on Subprogramme 3. (Source: UNISDR Factsheet, 2012).

The figure below shows the provision of funding by donors to the UN Trust Fund for Disaster Risk Reduction.

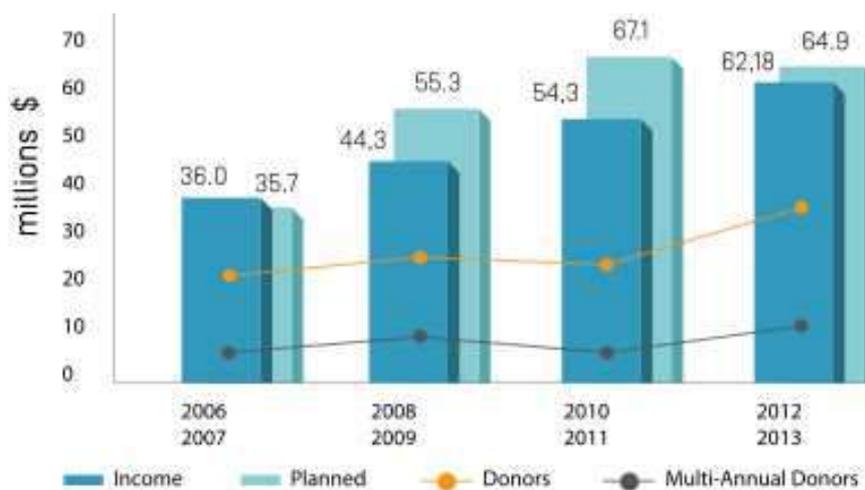


Figure 9: UNISDR funding by donors (UNISDR 2014b).

³¹ See <http://www.unocha.org/cerf/>.

According to the UNISDR Annual Report 2013, UNISDR received funding from a total of 34 partners in the 2012-2013 period, including from 7 private sector partners³². During this period, the EU remained the largest donor, providing support to the Office via a number of instruments, such as DG ECHO, DIPECHO, EU/FPI, EuropeAid/DEVCO, DG Enlargement and DG Research.

The UNISDR is almost entirely funded from extra-budgetary support, with the majority of its resources being earmarked by donors. The UNISDR Strategic Framework report (2011) states that annual implementation rate exceeds 90%, however cash flow remains a major impediment to its ability to deliver effectively. Gradual progress has been made towards developing greater flexibility with respect to its income in the form of an increased amount of support in an unearmarked form. However 70% of UNISDR total contributions in 2013 were earmarked.

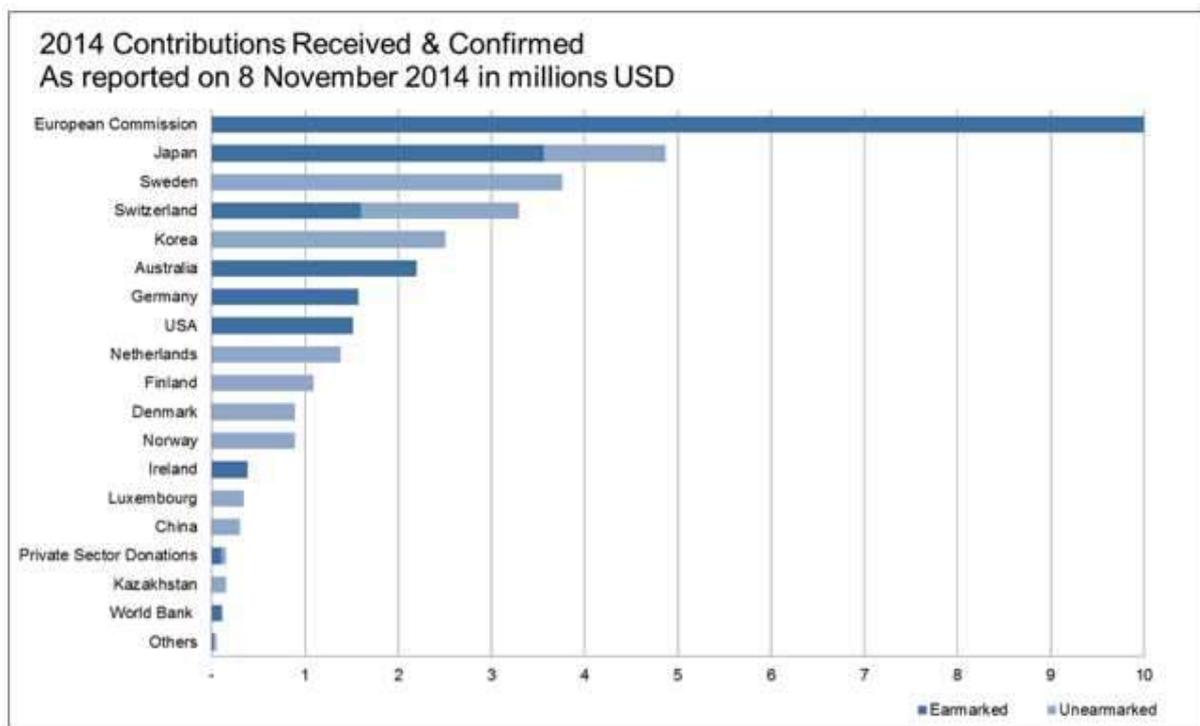


Figure 10: 2014 Contributions Received and Pledged (UNISDR).

The figure above presents contributions received and pledged³³ for 2014 as per 8 November. It shows that the European Commission is by far the largest donor to the UNISDR, having pledged/donated approximately 10 million USD in 2014. All EC contributions have been earmarked, along with a substantial portion of the remaining funding. The Office additionally receives a range of in-kind contributions from donors and private sector partners, which have been valued at approximately \$2.6 million during the 2012-2013 period.

³² These include AECOM, DCAF, DuPont, ESRI, Kokusai Kogyo Holdings Co Ltd, UPS Foundation, Willis Ltd. All but DCAF provided earmarked funding.

³³ A pledge is a non-binding announcement of an intended contribution or allocation by a donor. Data for total pledged contributions not yet realized are unavailable at the time of writing.

Figure 11 below show total expenditure for the 2012-2013 period, broken down by strategic objective and Figure 12 illustrates the expenditures by Strategic Objective as a percentage of the overall expenditure for the period.³⁴

	S01	S02	S03	S04	Total
Global					
Programmes delivered through staff	5,324,256	5,070,453	4,289,182	3,717,708	18,401,598
Programmes delivered through other inputs	2,793,320	4,402,488	2,084,721	1,042,625	10,323,154
Programme Support Cost (PSC)	974,854	584,011	555,486	552,391	2,666,742
Sub-Total	9,092,430	10,056,953	6,929,389	5,312,723	31,391,495
Regional					
Programmes delivered through staff	4,971,457	2,489,459	2,603,289	2,880,801	12,945,006
Programmes delivered through other inputs	7,590,444	3,323,669	5,066,570	2,223,767	18,204,449
Programme Support Cost (PSC)	1,089,903	522,191	784,488	784,488	2,891,405
Sub-Total	13,651,803	6,335,319	8,454,347	5,599,391	34,040,860
GRAND TOTAL	22,744,233	16,392,271	15,383,736	10,912,114	65,432,354

Figure 11: UNISDR Expenditure details 2012-2013 (UNISDR 2014b).



Figure 12: UNISDR Expenditures by strategic objective (UNISDR 2014b).

As shown in the above figures, expenditures for the 2012-2013 period amounted to \$65.4 million for all four Strategic Objectives., a slightly higher figure than the anticipate \$64.9 million designated by the 2012-2013 work programme. At 31 December 2013, the reserves and fund balances position was \$19.5 million across all UNISDR-managed Trust Funds. Regarding the second figure, expenditures across Strategic Objectives 1-3 amounted to roughly 83% of total expenditures. Expenditures against Strategic Objective 4 concerned the communication objectives to make DRR more visible, building up the knowledge base available in PreventionWeb and the management of the organisation.

³⁴ S01 refers to “Lead and Coordinate”, S02 to “Credible Evidence”, S03 to “Advocacy and Outreach” and S04 to “Deliver and Communicate Results.” See UNISDR Annual Report 2013 for more details.

1.3.2 Investing in consequence management

As the leader for recovery operations and activities in the UN, the UNDP plays an important role in the management of financing for consequence management, such as relief and recovery. The UNDP Crisis Prevention and Recovery Thematic Trust Fund (CPR TTF) was established in 2000 as a flexible funding mechanism allowing UNDP to address both crisis prevention and recovery needs. It is designed for quick action following a natural disaster as well as for reducing disaster risk. Since 2000, the fund has mobilized more than USD\$ 1 billion from across 100 countries. It is managed by the UNDP's Bureau for Crisis Prevention and Recovery (BCPR), responsible for both its fiduciary oversight and programmatic results. The CPR TTF accepts unearmarked contributions as well as earmarked contributions that either benefit individual programme countries or target one of its priority outcome areas (conflict, disaster, early recovery and gender equality)

UNDP interventions carried out on the bankroll of this fund support a range of crisis prevention and recovery interventions, including conflict prevention, disaster risk reduction and a variety of post-crisis/post-conflict recovery and transition objectives.³⁵

1.4 Policy review, Evaluation & Organisational Learning

1.4.1 Post-Disaster Assessment

The IASC Guidance note on Early Recovery outlines the importance of post-disaster assessment for both lessons learning exercises as well as for policy-making. It states,

All clusters should conduct retrospective reviews when coordination mechanisms wind down and handover begins. Lesson learning exercises and After-Action Reviews are tools that can provide useful guidance and results with little effort. They are useful tools for quickly changing environments and emergencies and can be built into either the programmatic or the early recovery coordination cycle and be conducted at all levels (community, district, national, network etc.). Documenting and discussing 'what went well' and 'what did not go well' will inform decision-makers and future early recovery operations. Outcome evaluations are usually carried out mid-term or after a programme ends. Given the relatively short time-frame of early recovery programmes, rapid approaches to outcome evaluation are recommended, such as ex-post comparisons of target groups, after action reviews, lesson learned exercises, or real-time evaluations (RTEs). A real-time evaluation feeds back its findings for immediate use while the programme or portfolio of programmes is still being implemented. It should be carried out in the early stages of a response, and ideally, though not necessarily, be repeated during the project cycle. The approach emphasizes participation by agency staff, and the reporting method makes accessibility of results across agencies a priority, particularly rapid discussion of

³⁵ UNDP website, "Crisis Prevention and Recovery Thematic Trust Fund" Accessed 18 November. More information, including Annual Reports of the Trust Fund are available here: http://www.undp.org/content/undp/en/home/ourwork/crisispreventionandrecovery/crisis_preventionandrecoverythematictrustfund/.

results with the implementing staff. Hence findings and recommendations are delivered briefly in verbal and written form, typically before leaving the field, and final reports are kept short.³⁶

As the lead agency responsible for response operations, post-disaster assessment is central to OCHA's ability to deliver an effective and effectual response. The OCHA Policy Brief on "Slow-onset emergencies" (2011) indicates that:

The evaluation of the impact of early response mechanisms, should support monitoring and evaluation of early response initiatives so there is some clear proof that they work. By adopting an evidence-based approach, the case for early response rather than late response will gain credibility...In order to secure stable and sufficient funding for early response (or any other disaster risk reduction activity) rigorous impact assessment must be carried out. Links with research and academic institutions in the design of appropriate early response activities can help ensure monitoring and evaluation is included.³⁷

OCHA conducts evaluations to promote transparency, accountability and learning through systematic and objective judgments about the relevance, efficiency, effectiveness and impact of humanitarian interventions. Internal evaluations are typically undertaken at the request of the ERC and assess OCHA's internal performance. OCHA may also undertake reviews that analyse specific tasks or themes covered by workplan activities. Reviews are undertaken by external consultants and generally use similar methods as evaluations.

1.4.2 Departmental Lessons Learned systems

Organisational learning is an important part of OCHA's strategy. Lessons-Learned Reviews take the form of participatory exercises led by a facilitator with the aim to help the organization and partners learn from experience, and to incorporate these lessons into future activities, programming and institutional memory. Such exercises are carried out once an emergency situation has stabilized and involve the parties involved in the emergency operation, including agencies, donors, NGOs, Governments, representatives of the affected population.

In 2012, OCHA launched the OCHA Organizational Learning Strategy (OLS), laying out "a multi-year plan to draw from lessons from evaluations, audits and performance reporting, and to develop the capacities of OCHA staff to perform their jobs better." The OLS also establishes enhanced learning architecture that takes advantage of learning opportunities from within and outside the organization.

1.4.3 Centralised (national) Lessons Learned system

Not applicable to the UN.

1.4.4 International exchange for Lessons Learned

International activities pertaining to the sharing of experiences and lessons learned are central to the HFA framework,

³⁶ IASC Guidance Note on Early Recovery, 2008, 35.

³⁷ OCHA Policy Brief (No. 6) "OCHA and slow-onset emergencies", 2011.

Stimulate the exchange, compilation, analysis, summary and dissemination of best practices, lessons learned, available technologies and programmes, to support disaster risk reduction in its capacity as an international information clearinghouse; maintain a global information platform on disaster risk reduction and a web-based register “portfolio” of disaster risk reduction programmes and initiatives implemented by States and through regional and international partnerships,³⁸

Provide for and support, through bilateral and multilateral channels, the implementation of this Framework for Action in disaster-prone developing countries, including through financial and technical assistance, addressing debt sustainability, technology transfer on mutually agreed terms, and public–private partnerships, and encourage North–South and South–South cooperation.³⁹

Within the framework of the UNDP-EU partnership, in 2008 the EU, the World Bank and the UNDP signed a joint declaration committing to collaborate and develop a common approach to post-crisis needs assessments and recovery planning. The joint declaration encompasses assessments needed after a disaster (PDNA) (as well as after a conflict – PCNA).⁴⁰

1.4.5 Regular policy reviews

Regular policy reviews are mandated by the UN for all of the agencies involved in crisis management, and have been built into the respective frameworks accordingly. The Secretary General undertakes a review of the Implementation of the ISDR on an annual basis. The reports are published on the UNISDR website and can be found [here](#). Every two years multi-stakeholder reviews of HFA progress are presented at the UNISDR-coordinated Global Platform for Disaster Risk Reduction (GPDRR). The Platform was first established in 2006 to serve as the main international forum for strategic advice, coordination and partnership for addressing global exposure and vulnerability to hazards.⁴¹ UNISDR has also convened regional platforms to serve the same purpose. The 10-year review of the implementation of the Hyogo Framework for Action was completed in 2014. This review draws on, inter alia, findings from the mid-term review process of the HFA⁴²; the outcomes and priorities for DRR of the regional platforms and ministerial meetings⁴³; the summaries and statements by the Chair

³⁸ To serve as a tool for sharing experience and methodologies on disaster reduction efforts. States and relevant organizations are invited to actively contribute to the knowledge-building process by registering their own effort on a voluntary basis in consideration of the global progress of the Conference outcomes.

³⁹ HFA, 2005, 18.

⁴⁰ UNDP-EU partnership in reducing the risks from disasters: http://www.undp.org/content/brussels/en/home/ourwork/crisispreventionandrecovery/in_depth/disaster-risk-reduction/. For more see http://www.undp.org/content/brussels/en/home/partnerships_initiatives/results/EU-UNDP-PDNA.html.

⁴¹ Available <http://www.preventionweb.net/english/hyogo/progress/reports/>.

⁴² Available www.preventionweb.net/files/18197_midterm.pdf.

⁴³ Available www.unisdr.org/files/34665_regionalcompendiumreportassembled.pdf.

from the first, second, third and fourth sessions of the Global Platform for DRR⁴⁴; the global assessment reports on DRR⁴⁵, and; the thematic review of the HFA⁴⁶.

The ISDR mandates that as part of its implementation, parties to the strategy must conduct a national audit or assessment process of existing functions necessary for a comprehensive and integrated national strategy of hazard, risk and disaster prevention over 5-10 and 20 year time periods.

UNDP regularly reviews its Strategic Plan which feed into adjustments in design, delivery and future investments as well as to adjustments in the implementation of the Plan itself. A Mid-Term Review of the Strategic Plan is planned for 2015-2016 and an independent evaluation of the Plan will be conducted by the Evaluation Office towards the end of the planning cycle. The latter will provide inputs into preparations for the Successor Plan. The UNDP Strategic Plan 2014-2017 (2013) indicates that continuous review and adjustment of strategy will be cornerstones to its approach and regular business plan monitoring.

OCHA undertakes reviews and evaluations as described in section 1.4.1.

1.5 Resilience

UNISDR, UNDP and OCHA all have as part of their strategic focus the building of resilience to disasters. General Assembly resolution 64/200 on International Strategy for Disaster Reduction (2010) acknowledged that “certain measures for DRR in the context of the HFA can also support adaptation to climate change, and emphasizing the importance of strengthening the resilience of nations and communities to natural disasters.” (A/RES/64/200).

The resolution invited increased efforts to support, implement and follow up the Hyogo Framework for Action, and stressed the importance in this regard of the continued cooperation and coordination of stakeholders towards addressing effectively the impact of natural disasters issues related to International Strategy for Disaster Reduction.

A major project in the field of resilience is the “Building Resilience to Disasters in the Western Balkans and Turkey” project, implemented jointly by UNISDR and WMO. Launched in May 2012, the project is supported by the European Commission DG Enlargement through the Instrument for Pre-Accession (IPA). The beneficiary countries are Albania, Bosnia and Herzegovina, Croatia, the former Yugoslav Republic of Macedonia, Montenegro, Serbia, Kosovo and Turkey.

⁴⁴ Available www.preventionweb.net/english/hyogo/GP/?pid:24&pil:1.

⁴⁵ Available www.preventionweb.net/english/hyogo/gar.

⁴⁶ Available www.preventionweb.net/english/professional/networks/private/hfa-thematic-review.

The project aims to reduce vulnerability of IPA beneficiary countries to disasters caused by the impact of natural hazards and increase their resilience to climate change. Specifically the project seeks to:

- enhance the regional cooperation and capacity in addressing disaster risk reduction in the context of existing risks posed by typical natural hazards related to meteorological and hydrological hazards, as well as, new risks posed by a changing climate, with focus on building/enhancing regional networking and coordination in the area of disaster risk reduction,
- strengthen the cross-border cooperation in the area of disaster risk management, and
- enhance the regional capacity to supply/share/exchange data/information in the area of disaster risk reduction.

The Project is structured in 8 tasks with 4 being led by UNISDR. UNISDR's tasks focus on DRR capacity building, DRR knowledge management, Disaster Risk Transfer capacities (insurance for disasters) and community based DRR. WMO leads remaining 4 tasks, focusing on risk assessments, meteorological forecast capacities, climate risk management and early warning systems.⁴⁷

1.6 Information sharing and data protection

The UN agencies are committed to the sharing of data and information and principles of transparency. Regarding volunteers, the UN General Assembly resolution 46/182 states:

*The United Nations should, building upon the existing capacities of relevant organizations, establish a central register of all specialized personnel and teams of technical specialists, as well as relief supplies, equipment and services available within the United Nations system and from Governments and intergovernmental and non-governmental organizations that can be called upon at short notice by the United Nations.*⁴⁸

UNDP, for example, maintains a database of skilled experts who can deploy at disaster zones on short notice.

The UN considers social media tools as providing a wealth of new opportunities for communications, engagement and information sharing. New support systems are being set up, such as with OCHA Field Information Service (FIS) and partners to use these tools for information collection where appropriate.

The UN teams up with volunteer communities to exploit online technologies and crowdsourcing methods in order to turn new sources of raw data into useful intelligence that can help aid response

⁴⁷ See <http://www.preventionweb.net/ipadrr/>; Ebru A. Gencer (2014). "A compendium of disaster risk reduction practices in cities of the Western Balkans and Turkey: A Review of Selected Cities Participating in UNISDR's 'Making Cities Resilient: My city is Getting Ready!' Campaign." UNISDR/WMO. Available: http://www.preventionweb.net/files/39825_compendiumuploadpw.pdf.

⁴⁸ A/RES/46/182, Annex, part IV, para. 27, 1991.

on the ground. It has teamed up with MapAction, Crisis Mappers and GISCorps to develop the Digital Humanitarian Network (DHNetwork). It is a network-of-networks that forms a consortium of Volunteer & Technical Communities (V&TCs), which then provide an interface between formal, professional humanitarian networks and informal volunteer & technical networks. See: <http://digitalhumanitarians.com/>.

In addition, OCHA utilises several different electronic platforms as dissemination and information gathering tools in the event of a crisis or disaster/emergency. These are:

- **Virtual OSOCC** provides a platform for incoming and outgoing information exchange between responding governments and organisations that is operationally relevant to the UNDAC team throughout a relief operation. Users may provide comments on existing information in real-time and discuss relevant issues of concern with response team members.
- **HumanitarianResponse.info** is the platform for exchange of information with the wider community. Specific pages are set up for a given emergency situation. Tools are provided for meeting scheduling, contact directories and publishing information graphic related to the response.
- **ReliefWeb** is OCHA's humanitarian information Internet web page. It posts information from all humanitarian partners in addition to OCHA's own information
- **The Integrated Regional Information Network (IRIN)** serves as a humanitarian news agency through free-of-charge email subscription. IRIN reports are also posted on ReliefWeb. It is based in three locations in Africa: Nairobi, Johannesburg and Abidjan.

For more information, see the websites of the above mentioned platforms and organisations.

2 Legislation

2.1 Crisis (emergency, disaster) management concept

Signed in San Francisco on 26 June 1945 at the conclusion of the United Nations Conference on International Organization, the Charter of the United Nations came into force on 24 October 1945. Article 1 of the Charter sets out the four main purposes of the UN. These are:

- To maintain international peace and security.
- To develop friendly relations among nations.
- To cooperate in solving international problems and in promoting respect for human rights.
- To be a centre for harmonizing the actions of nations.

Concerning crisis (emergency, disaster) management, article 1.3 specifically states the objective to “achieve international co-operation in solving international problems of an economic, social, cultural, or humanitarian character [...]” (T-1945, Art. 1.3). In service to these common ends, the UN is to be “a centre for harmonizing the actions of nations”.

Under the Charter, each Government retains absolute authority within the borders of its own territory. Therefore the responsibility and authority to assist and meet the needs of a society in the event of a crisis (emergency, disaster) lies with the Government. As such, all international assistance is provided in support of national authorities and based upon request, irrespective of the desire of international organizations to respond immediately.

2.2 General crisis (emergency, disaster) management law

In line with the Charter, no international organization has the authority to tell another organization what to do. The UN is not a world government and it does not make laws; rather it is an organisation of States that operates through consensus. It provides the means to formulate policies on matters with a global reach. As such, several United Nations agencies or bodies have been given a mandate to provide or coordinate assistance within their field of crisis management operation, but lack authority to command, direct or order. This privilege remains with State authorities only. (OCHA, 2013).

As stated in the ACRIMAS report (2011),

There are no legal provisions for disaster response in an international context beyond customary law. There are, however, non-binding guidelines and agreement that have been developed, for examples within the framework of the Inter-Agency Standing Committee (IASC), which are highly accepted among most of the humanitarian organisations. Humanity, neutrality, impartiality and independence are the leading principles for humanitarian assistance. Moreover, the so-called “humanitarian imperative” prevails, which means that

*humanitarian needs that occur in a country first shall be managed by the affected country. However, if the state or other institutions in the country are not able to manage the humanitarian situation, other countries and organisations have got a responsibility to provide support in accordance with international law.*⁴⁹

For more on the UN legal framework in relation to humanitarian assistance, see

- UN, “International Legal Frameworks for Humanitarian Advocacy – Compendium.” Geneva: United Nations, 2011.
- UN-OCHA / Policy Development and Studies Branch, “Reference Guide on normative developments on the coordination of humanitarian assistance in the General Assembly, the Economic and Social Council, and the Security Council since the adoption of General Assembly resolution 46/182.” 2nd Edition. New York: United Nations, 2011.

2.3 Emergency rule

Not applicable.

2.4 Specific, department/agency-level legal arrangements and regulations on emergency and disaster management

Not applicable.

2.5 Specific to the regional and local authorities legal arrangements and regulations on emergency and disaster management

Not applicable.

2.6 Legal regulations on the involvement of volunteers and specialised NGOs

United Nations General Assembly resolution 56/38 of 10 January 2002 elaborates on ways for governments and civil society to support volunteerism and recommended that governments support volunteerism by creating a favourable environment, which included “enabling fiscal, legislative and other frameworks”, and specifically within this category, to “introduce enabling legislation”.

Non-binding guidelines have been developed as part of the Code of Conduct for the International Red Cross and Red Crescent Movement and NGOs in Disaster Relief (V-1994).

⁴⁹ Hans-Martin Pastuszka, FP7 ACRIMAS project, 2011, 30-31. Accessed 18 November 2008 [\[website?\]](#)

2.7 Legal regulations for international engagements of first responders and crisis managers

Rules for international engagements of first responders are outlined in General Assembly Resolution 46/182 as discussed in chapter 1.

3 Organisation

The United Nations System is comprised of the six principal organs of the United Nations, 15 agencies and a range of other programmes, bodies and Related Organizations. The 6 principal organs are:

1. the General Assembly,
2. the Security Council,
3. the Economic and Social Council,
4. the Trusteeship Council,
5. the International Court of Justice and
6. the Secretariat

The full system organisation chart is presented in Figure 13 below.

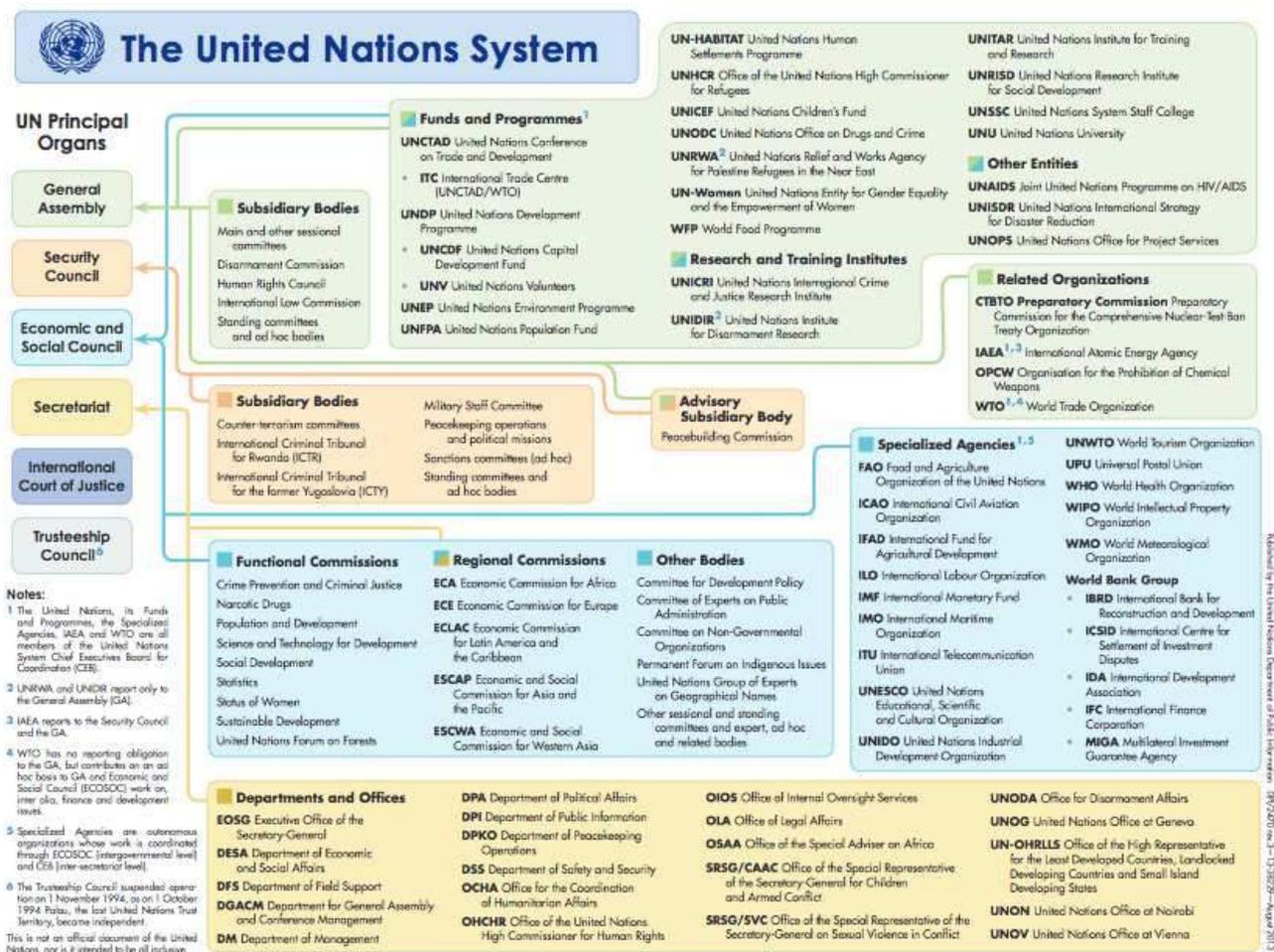


Figure 13: UN System Organisation Chart (Source: UN).

For a full directory of the System and organisation charts, see www.un.org and www.unsceb.org (the website of the UN System Chief Executives Board for Coordination).

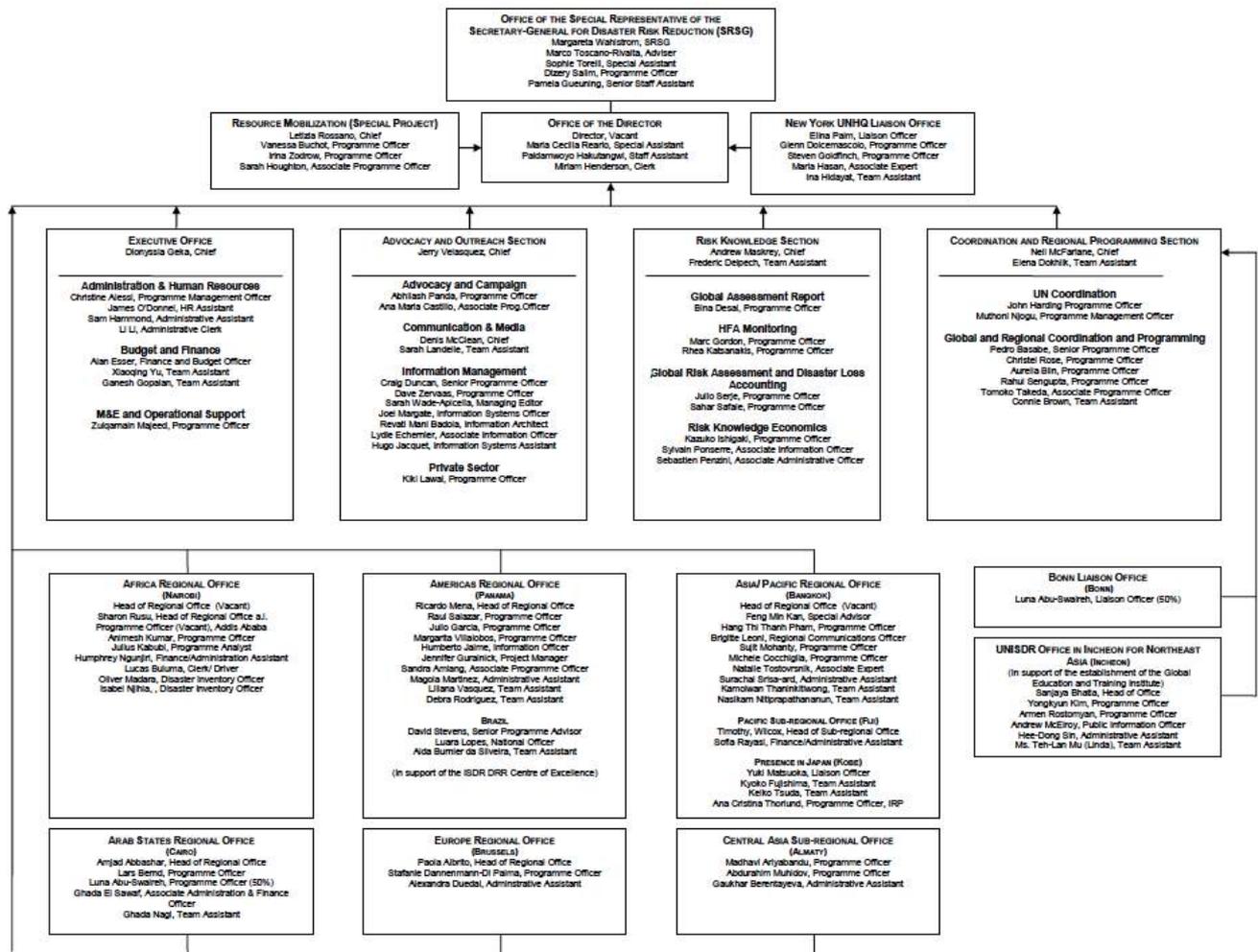
3.1 Organisational chart

The majority of UN Programmes and specialised agencies maintain separate leadership and budget processes from those of the UN Secretariat, working with and through established UN coordination mechanisms and reporting to the Members through their respective governing boards. The UN agencies provide sector-specific support and expertise to Members, which have pre-existing development-focused relationships with most UN agencies, before, during and after a disaster. (UN-OCHA 2013, “UNDAC Handbook,” 2013).

3.1.1 UNISDR

The UNISDR is part of the UN Secretariat and is headed by the Special Representative of the Secretary-General (SRSR) for the Implementation of the Hyogo Framework for Action and Assistant Secretary-General for Disaster Risk Reduction. The functions of the SRSR include:

*leading and overseeing UNISDR in the executions of its functions as entrusted to it by relevant resolutions of the General Assembly, ECOSOC and the Hyogo Framework for Action, as well as the policy directions by the Secretary-General; and overseeing the management of the Trust Fund for the International Strategy for Disaster Reduction.*⁵⁰



⁵⁰ UNISDR, “Factsheet on UNISDR,” 2012.

established to provide technical and financial support to UNDP in carrying out its DRR work. BCPR was created to enhance UNDP's efforts for sustainable development, working with partners to reduce the incidence and impact of disasters while establishing solid foundations for recovery. It serves as the practice leader for crisis prevention and recovery within UNDP. On the ground, BCPR works closely with country offices and their national counterparts, providing technical assistance, best practices and financial resources in support of their prevention and recovery activities.⁵¹

3.1.3 UN-OCHA

UN-OCHA is part of the UN Secretariat. The head of the OCHA, the Under-Secretary General (USG)/Emergency Relief Coordinator (ERC), reports directly to the Secretary-General of the UN and is responsible for the oversight of all emergencies requiring UN humanitarian assistance. The USG/ERC acts the central focal point for governmental, intergovernmental and non-governmental relief activities and also chairs the Inter-Agency Standing Committee (see 3.1.4) as the Emergency Relief Coordinator. OCHA's primary role is to support the UN Resident or Humanitarian Coordinator, generally the most senior UN official in the country, and ensuring that coordination takes place.

As discussed in Chapter 1 of this report, one of the primary coordinative functions of OCHA is to coordinate the humanitarian actors within the "cluster system". Clusters are groups of UN and non-UN humanitarian organisations in each of the main sectors of humanitarian action (e.g., water, logistics, emergency shelter) and have clear responsibilities for coordinating in the event of a disaster. There are around 10 clusters which are led by appointed cluster leads (UN bodies). The IASC is responsible for designating the clusters in a given scenario. See Table 1 below.

Table 1. UN-OCHA Clusters and Cluster Leads

Cluster	Lead Agency
Coordination of camps	UNHCR / IOM
Water and sanitation	UNICEF
Health	WHO
Emergency shelter	UNHCR / IFRC
Food and nutrition	UNICEF
IT/Telecommunications	OCHA / UNICEF / WFP
Logistics	WFP
Early recovery	UNDP
Education	UNICEF and Save the Children Alliance
Agriculture	FAO

⁵¹ See <http://www.preventionweb.net/english/professional/contacts/profile.php?id=2724>.

The Resident Coordinator and/or Humanitarian Coordinator (RC/HC) and the Humanitarian Country Team (HCT) manage a humanitarian response operation through the clusters. The Cluster Lead Agency is the focal point for a given cluster. In global terms, the Cluster Lead is responsible for strengthening system-wide preparedness and coordinating technical capacity to respond to humanitarian agencies in their respective sector. At the country level, Cluster Leads are the main contact for a government and the RC/HC and serve to ensure that humanitarian activities are coordinated. OCHA provides direct support to the HC and HCT, facilitates inter-cluster coordination and advises the HC and HCT on the activation of the cluster approach and the coordination structures to employ.⁵²

As outlined by the MSB Handbook (2009) the “Emergency Services Branch (ESB), as part of the United Nations Office for the Coordination of Humanitarian Affairs (UN OCHA), is responsible for developing, mobilizing and coordinating the deployment of OCHA’s international rapid response tools and services to provide assistance to countries affected by humanitarian emergencies (natural disasters and complex emergencies). ESB channels its capabilities and services through its various Sections:

“Emergency Relief Coordination Centre (ERCC) – The ERCC is OCHA’s coordination centre, designed to support the organization’s coordination role in disasters and humanitarian emergencies. This includes internal coordination among OCHA’s Geneva, New York and regional / field offices as well as the coordination of other humanitarian actors and disaster responders worldwide.

“Field Coordination Support Section (FCSS) – FCSS manages the UN Disaster Assessment and Coordination (UNDAC) system, the International Search and Rescue Advisory Group (INSARAG), the Americas Support Team (AST) and the International and Asia-Pacific Humanitarian Partnerships (IHP/APHP). UNDAC is a network of deployable disaster management professionals nominated and funded by governments and organizations. INSARAG is a network of urban search and rescue (USAR) providers that defines global standards for earthquake response. Both are discussed in detailed below. AST/IHP/APHP are networks of providers of Support Modules (equipment and staff) that can be deployed at short notice and at no cost to support UNDAC missions and other humanitarian actors in the field. As such, FCSS manages partnerships with NGOs, Private Sector and governmental/intergovernmental networks that support OCHA’s role in establishing on-site coordination in sudden onset disasters.” (MSB 2009).

⁵² For more on the cluster approach, including key policy and guidance documents see:

<http://www.humanitarianresponse.info/home>; the IASC Guidance Note on Using the Cluster Approach to Strengthen Humanitarian Response (Nov 2006), includes Generic Terms of Reference for Sector/Cluster Leads at the Country Level; IASC Operational Guidance: Generic Terms of Reference for Cluster Coordinators at the Country Level (Sept 2010); IASC Guidance for Humanitarian Country Teams (Nov 2009); Handbook for RCs and HCs on Emergency Preparedness and Response (IASC 2010); Cluster Approach Evaluations (2007) and (2010).

“Civil-Military Coordination Section (CMCS) – On behalf of the humanitarian community, CMCS facilitates and coordinates the access to and use of foreign Military and Civil Defence Assets (MCDA) in countries affected by humanitarian emergencies. CMCS is the focal point for governments, international organizations and military and civil defence establishments for the employment of these assets in humanitarian situations. It is also the focal point for United Nations Humanitarian Civil-Military Coordination (UN-CMCoord) in the United Nations system. UN-CMCoord is defined as the essential dialogue and interaction between civilian and military actors in humanitarian emergencies that is necessary to protect and promote humanitarian principles; avoid competition; minimize inconsistency; and, when appropriate, pursue common goals.

“Environmental Emergencies Unit (EEU) – EEU is the United Nations mechanism to mobilize and coordinate the international response to environmental emergencies caused by natural disasters, industrial accidents and complex emergencies. It is a partnership mechanism between OCHA and the United Nations Environment Programme.

“Logistics Support Unit (LSU) – LSU is OCHA’s focal point for non-military logistics and participates in inter-agency humanitarian logistics coordination mechanisms.

“Surge Capacity Section (SCS) – SCS maintains external partnerships for the provision of critical human resource needs following emergencies and disasters through the rapid and effective mobilization of additional expertise.

“Emergency Preparedness Section (EPS) – EPS supports at-risk countries to reduce disaster risks by preparing for an effective response to humanitarian emergencies in line with the Hyogo Framework of Action, Priority 5 – Disaster Preparedness for Effective Response. In particular, the section partners with International Strategy for Disaster Reduction (ISDR) and UNDP (UN Development Programme) / BCPR (Bureau for Crisis Prevention and Recovery) in the Capacity for Disaster Reduction Initiative (CADRI) for the development of sustainable disaster risk reduction capacities in the UN system as well as for Governments.

*“Field Information Services Unit (FIS)** – FIS develops information management tools for OCHA’s field offices. It also deploys Humanitarian Information Centres (HICs) or smaller information management teams to emergencies.

*“Information Technology Section (ITS)** – ITS provides information and communications technology (ICT) infrastructure, services and support to OCHA and coordinates inter-agency ICT activities.

*“Integrated Regional Information Networks (IRIN)** – IRIN is a leading global provider of multimedia humanitarian news and analysis.

“ReliefWeb - ReliefWeb is the world’s leading on-line gateway to information on humanitarian emergencies and disasters.”*⁵³

As mentioned above in reference to the FCSS, OCHA has developed a number of rapid response tools. When a natural disaster strikes, OCHA can deploy self-contained and fully equipped response coordination specialists within 24-48 hours through the **United Nations Disaster Assessment and Coordination (UNDAC) system**. UNDAC was created in 1993 and is a part of the international emergency response system for sudden on-set emergencies. It is designed to assist the UN and governments of disaster-affected countries during the first phase of an emergency and may also coordinate the incoming international relief. UNDAC comprises a standby team of volunteer emergency managers with varied skills. Today, the team consists of more than 250 national emergency managers from more than 70 developed and developing member and participating, together with OCHA staff and 16 international and regional organisations, including other UN agencies.⁵⁴ In the event of an earthquake, UNDAC teams set up and manage the OSOCC in order to assist with the coordination of international Urban Search and Rescue (USAR) teams. This practice is endorsed by the UN GA Resolution 57/150 of 2002 on “Strengthening the effectiveness and coordination of international urban search and rescue assistance”.

UNDAC is managed by the **Field Coordination Support Section (FCSS)** in the Emergency Services Branch of OCHA Geneva. The system comprises five regional teams: Africa, Asia, Europe, Middle East, Pacific and the Americas (including the Caribbean). The member countries that comprise the UNDAC system gather annually at a meeting of the UNDAC Advisory Board. The latter is made up of the member countries that financially support their participation in the system through funds deposited with OCHA through “mission accounts”. The funds cover the costs for deployment of their national UNDAC members on missions.⁵⁵

The UNDAC member countries are:

- **Africa – Europe – Middle East:** Austria, Belgium, Denmark, Estonia, Finland, France, Germany, Hungary, Iceland, Ireland, Israel, Italy, Luxembourg, Netherlands, Norway, Poland, Portugal, Russian Federation, Saudi Arabia, South Africa, Spain, Sweden, Switzerland, United Arab Emirates, United Kingdom.
- **Asia & Pacific:** Australia, China, India, Japan, Korea, New Zealand, Singapore.
- **Americas:** Argentina, Brazil, Canada, Chile, Colombia, Costa Rica, México, USA.

⁵³ Swedish Civil Contingencies Agency, “International CEP Handbook. Civil Emergency Planning in the NATO/EAPC Countries.” Swedish Civil Contingencies Agency (MSB), 2009. Accessed 18 September 2014. <https://www.msb.se/RibData/Filer/pdf/24677.pdf>.

⁵⁴ E.g., ECHO & Civil Protection Mechanism, CEPREDENAC, ASEAN, ECOWAS, IFRC, ISDR, OCHA, UNDP, UN-DSS, UNEP, UNICEF, UNOSAT, WFP, World Bank, WHO & PAHO.

⁵⁵ Since 2011, the UNDAC Advisory Board includes additional “observer” countries from those which, although not self-financing members, have demonstrated interest and commitment to the system in other ways, e.g. through hosting UNDAC-related events or other forms of support.

A number of countries provide experts to be a part of the UNDAC team but do not cover their costs of deployment; rather, deployment costs are covered by voluntary contributions of donor countries. These are referred to as UNDAC participating countries.

The UNDAC participating countries are:

- **Africa – Europe – Middle East:** Armenia, Belarus, Benin, Burkina Faso, Cameroon, Cote d’Ivoire, Gambia, Ghana, Indonesia, Jordan, Kenya, Liberia, Mali, Niger, Nigeria, Togo, Tunisia, Ukraine.
- **Asia & Pacific:** Cook Islands, Fiji, Malaysia, Mongolia, Nepal, Philippines, Solomon Islands, Thailand.
- **Americas:** Bolivia, Costa Rica, Cuba, Dominican Republic, Ecuador, Guatemala, Haiti, Honduras, Nicaragua, Panama, Paraguay, Peru, Saint, Trinidad & Tobago, Uruguay, Venezuela.

The key players during the search-and-rescue (SAR) phase are the international urban SAR teams that comprise the **International Search and Rescue Advisory Group (INSARAG)**. INSARAG, established in 1991, is a network of disaster-prone and disaster-responding countries and organisations which are committed to urban search and rescue (USAR) and operational field coordination. The FCSS - which is located within OCHA Geneva's Emergency Services Branch (ESB) – serves as the INSARAG secretariat.

United Nations General Assembly resolution 57/150 of 16 December 2002 on “Strengthening the Effectiveness and Coordination of International Urban Search and Rescue Assistance” together with the Hyogo Declaration adopted at the first INSARAG Global Meeting in 2010 in Kobe, Japan guide INSARAG activities. As part of its mandate, INSARAG is tasked with developing internationally accepted procedures and systems for sustainable cooperation between USAR teams operating internationally, as well as procedures, guidelines and best practices. Its activities aimed at improving SAR preparedness prioritize developing countries.⁵⁶

In terms of its organizational structure, INSARAG is composed of a Steering Group, three Regional Groups (Africa-Europe-Middle East, Americas, Asia- Pacific) and a Secretariat (Field Coordination Support Section in ESB). INSARAG annual USAR team leaders meetings are held annually and ad-hoc working groups may be convened to deal with particular issues. INSARAG policy is determined at the annual meetings of the Steering Group, in which INSARAG strategy is defined, achievements reviewed and areas for improvement identified. The Steering Group is comprised of representatives from INSARAG’s Regional Groups, the chairpersons of INSARAG ad-hoc working groups, the IFRC and representatives from the INSARAG Secretariat in OCHA-Geneva. The three Regional Groups are organized in order to facilitate worldwide participation. The Regional Groups meet annually to exchange experiences drawn from previous response operations; to discuss concepts for improved cooperation and coordination between international response teams in the region, and; to present recommendations concerning worldwide issues to the INSARAG Steering Group. When problems arise, INSARAG ad-hoc working groups convene to develop solutions. All INSARAG members may

⁵⁶ For more on INSARAG, see its website <http://www.insarag.org/>.

participate in these working groups. The results of the working groups are reviewed by the INSARAG Regional Groups and endorsed in the Steering Group prior to implementation. (UN-OCHA).

3.1.4 The Inter-Agency Standing Committee

Established in June 1992 in response to UN GA Resolution 46/182 on the strengthening of humanitarian assistance, the IASC, together with Executive Committee for Humanitarian Affairs (ECHA), forms the primary mechanism for inter-agency coordination of humanitarian assistance. It is the main decisional body for humanitarian issues and is responsible for planning the types of missions to be taken, as well for proposing policy, guidelines and priorities to be made. The Executive Committee on Humanitarian Affairs is one of the four Committees created by the Secretary-General through the UN reform. Chaired by the ERC, ECHA aims to enhance coordination among UN agencies together with IASC. The committee meets on a monthly basis in New York; the participation of adds a political dimension to the humanitarian consultations. (UNISDR 2013a)

Members of the IASC include: FAO, OCHA, UNDP, UNFPA, UN-HABITAT, UNHCR, UNICEF, WFP, WHO. Standing Invitees of the IASC include: ICRC, ICVA, IFRC, InterAction, IOM, OHCHR, RSG on Human Rights of IDPs, SCHR and the World Bank.

In terms of its organizational structure, coordination in the IASC takes place at several different levels. This is shown in Figure 16 below.



Figure 16: IASC Subsidiary Bodies (Source: OCHA 2012).

The organisations that comprise the IASC are headed by the IASC Principals, while the emergency directors or other directors of the IASC organisations are brought together within the IASC Working Group. The IASC Principals and the IASC Working Group may be assisted by IASC Subsidiary Bodies, which may be sub-working groups, task forces or reference groups, for work on specific policy questions and related tasks. Guidance, tools and handbooks produced by these groups are referred to as “IASC products”.

3.2 Organisational cooperation

3.2.1 Operational cooperation

As stated in the ACRIMAS report,

When crises and catastrophes strike outside the EU, the UN (namely the UN Office for the Coordination of Humanitarian Affairs, OCHA), has got the overall responsibility to coordinate all humanitarian assistance to a stricken country. This is a provision that is highly acknowledged within the EU, among the Commission and most of the Member States. When the EU Civil Protection Mechanism was established in 2001, Member States humanitarian assistance to an affected country could from that day on not only be given for example bilaterally or through the UN, but also through the EU. Thus there was a need to broaden cooperation between the EU and UN as regards humanitarian assistance from the already existing cooperation in relation to financial aid to cooperation in humanitarian assistance missions as well...⁵⁷

OCHA undertakes its operational coordination duties in the form of assessing situations and needs; agreeing common priorities; developing common strategies to address issues such as negotiating access, mobilizing funding and other resources; clarifying consistent public messaging; and monitoring progress. Specifically, it is the Emergency Services Branch of the UN-OCHA that “is responsible for developing, mobilizing and coordinating the deployment of OCHA’s international rapid response tools and services to provide assistance to countries affected by humanitarian emergencies (natural disasters and complex emergencies).” (MSB Handbook, 2009, 291). The sections of ESB involved in operational cooperation are:

- Emergency Relief Coordination Centre (ERCC)
- Field Coordination Support Section (FCSS)
- Civil-Military Coordination Section (CMCS)
- Environmental Emergencies Unit (EMU)
- Logistics Support Unit (LSCU)
- Surge Capacity Section (SCS)

The decision regarding how many and which clusters are required in-country and which organisation is best placed to lead each of them depends on the specific needs identified in a given response plan.

3.2.2 Organisational cooperation

Many UN agencies and programmes have mandates pertaining to organisational cooperation for capacity development. The Emergency Preparedness Section (EPS) of the ESB is involved in cooperation and coordination in CM capability development through its support provided to at-risk countries “to reduce disaster risks by preparing for an effective response in the event of a humanitarian emergency that is in line with the Hyogo Framework of Action Priority 5, ‘Disaster Preparedness for Effective Response.’” (MSB, 2009: p. 292). To these ends, the EPS section partners

⁵⁷ Hans-Martin Pastuszka, “Report on Current CM Framework,” Aftermath CM System-of-systems Demonstration (FP7 ACRIMAS project, January 2011), 30-31. Accessed 18 November 2008 [\[website?\]](#)

with ISDR and UNDP/BCPR, for example in the CADRI initiative to develop sustainable DRR capacities both within the UN system and for Governments.

As for the ISDR, implementation is carried out by a system of partnerships, underpinned by the HFA. These partnerships comprise a broad range of actors, all of which have essential roles in supporting nations and communities to reduce risk. ISDR partners include Governments, inter-governmental and non-governmental organizations, international financial institutions, scientific and technical bodies and specialized networks as well as civil society and the private sector.

As outlined in the UNISDR report on DRR organisations (2013a), additional ISDR mechanisms include:

- *The biennial Global Platform for Disaster Risk Reduction as the main global forum continued and concerted emphasis on disaster reduction. Open to all States and ISDR stakeholders, it serves primarily as a vehicle to assess progress made in the implementation of the HFA, enhance awareness of disaster risk reduction, share experiences and learn from good practice, and also identify remaining gaps and necessary actions to accelerate national and local implementation.*
- *Regional platforms for disaster risk reduction, including ministerial meetings, led by regional inter-governmental organizations.*
- *Thematic platforms led by United Nations specialized agencies or technical institutions, provide knowledge products, and help to report on developments (for instance early warning, recovery, education, and risk identification, among others).*
- *Multi-stakeholder national platforms for disaster risk reduction are established by Member States to facilitate coordination across sectors.*
- *Several stakeholder groups and networks associated with ISDR – includes among others, a Scientific Technical Committee, Global NGO Network for DRR, Gender-and-Disasters and Media groupings and an emerging Parliamentarian Network.*
- *A United Nations Inter-Agency Group acts as a venue for improving coherence among the participating organizations, thus better supporting countries in their implementation of the HFA.*
- *The United Nations Special Representative of the Secretary-General for Disaster Risk Reduction function was created in 2008 by the UN General Assembly. The functions of this post includes leading and overseeing UNISDR in the executions of its functions entrusted by the General Assembly (GA), Economic and Social Council (ECOSOC) and the Hyogo Framework for Action (HFA), as well as policy directions by the Secretary-General, facilitating the development of a post-2015 framework for disaster risk reduction, overseeing the management of the Trust Fund for the International Strategy for Disaster Reduction, and carrying out high-level advocacy and resource mobilization activities for risk reduction and implementation of the HFA.*
- *The Special Representative also ensures the strategic and operational coherence between disaster-reduction and humanitarian disaster preparedness and response activities, as well as socio-economic activities of the UN system and regional organizations.⁵⁸*

⁵⁸ UNISDR 2013a.

Regarding coordination with the EU mechanisms, the UN has a significant relationship with the EU. The EU is a major donor to UN agencies and programmes. Financial relations are governed through a financial and administrative framework agreement signed in 2003. Regarding response operational coordination, the European Commission's Humanitarian Aid and Civil Protection Organization (ECHO) is a regular preparedness and response partner of the UNDAC system. UNDAC members may work with, or train with, the EU's Emergency Response Coordination Centre (ERCC), which is a part of the EU CPM, as well as with European Union Civil Protection Teams (EUCPTs) that have been deployed. The ERCC, operated by ECHO, is operational at all times and serves as the European focal point for information management, offering assistance and coordination of deployed assets (which include thirteen rapid response modules). The EUCPTs are comprised of experts that are highly skilled in areas such as coordination and assessment. The operational relationship between UNDAC and EUCPT can range from "general liaison" to "integration" depending on the location and scale of an emergency. (OCHA, "UNDAC Handbook," 2013)

4 Procedures

4.1 Standing Operating Procedures (SOPs) and Guidelines

The IASC Reference Group on Contingency Planning and Preparedness prepared the “Inter-Agency Contingency Planning Guidelines for Humanitarian Assistance” in 2001, which was later updated by the IASC Sub-Working Group on Preparedness and Contingency Planning in 2007. The Guidelines were developed with the intention to provide a common inter-agency methodology for contingency planning and to ensure effective response at the onset of a crisis.

Relevant documents for this section:

- The document ‘INTER-AGENCY CONTINGENCY PLANNING GUIDELINES FOR HUMANITARIAN ASSISTANCE’, by the IASC Working Group of November 2007. The guidelines have been revised through a collaborative effort and consultative process under the guidance of the IASC Sub-Working Group on Preparedness and Contingency Planning, composed of members from CARE, ICRC2, IFRC, OCHA, UNDP, UNHCR, WHO and co-chaired by WFP and UNICEF. The next table shows the IA planning’s position.

Table 2: Levels of Contingency Planning and the Role of Inter-Agency Planning

Type of Planning	Inter-agency planning: Common Planning Framework	Sector/cluster planning	Organization-specific planning
Function	Provides a common strategic planning framework to ensure complementarity of humanitarian action between agencies/ organizations.	Defines how agencies will work to together to achieve sector-specific objectives.	Defines the specific organizational arrangements required to deliver the services that the organization is committed to provide.
Indicative Elements	<ul style="list-style-type: none"> • Common analysis, risk & vulnerability assessment • Scenarios & planning assumptions • Agreed planning figures • Overall management & coordination arrangements • Overall objectives & strategies • Overarching principles • Gap analysis • Information management arrangements • Appeal and funding arrangements • Linkages with government • Preparedness & maintenance actions 	<ul style="list-style-type: none"> • Participation & coordination • Sectoral objectives & response strategies • Needs assessment & analysis • Capacity & response commitments • Gap analysis • Information management arrangements • Standards for response • Monitoring and reporting • Personnel requirements • Material & financial requirements • Preparedness & maintenance actions • Standard Operating Procedures 	Describes how the organization’s response will be delivered using their emergency response systems & capacities.

- The 2008 IASC Guidance note on Early Recovery is designed primarily for UN colleagues and partners working at country level on early recovery in natural disasters and complex emergencies. There are many similarities in the way humanitarian and early recovery actors respond to these types of crises, but there are also distinct and pertinent differences. The guidance is not intended to be prescriptive, as it is based on interagency consensus, best practice and evidence. The note intends to help to 1. Help practitioners understand the particular complexities of early recovery environments, and appreciate the diverse range of actors involved in planning and implementing early recovery activities. 2. Establish some basic guiding principles and minimum standards of intervention for early recovery. 3. Provide tools and resources for practitioners working on early recovery across a range of functions. 4. Set the stage for an effective handover to longer-term recovery processes. The Annexes provide an overview of standard operating procedures for designating sector/cluster leads in major new emergencies as well as in ongoing emergencies and IASC Operational Guidance on designating sector/cluster leads in major new emergencies

Table 3: SOP's from the guidance note

STANDARD OPERATING PROCEDURES FOR DESIGNATING SECTOR/CLUSTER LEADS IN MAJOR NEW EMERGENCIES

At the onset of the emergency (if possible, within the first 24 hours):

Step 1. The HC (or RC, in countries where an HC has not been appointed) consults national authorities/counterparts and relevant IASC partners at the country level (NGOs, international organizations, the International Red Cross and Red Crescent Movement and UN agencies) to determine priority sectors or areas of activity for the emergency; which agencies are best placed to assume the role of sector/cluster lead for each one; what thematic groups are needed to address cross-cutting issues; and what support is needed from OCHA and other actors in terms of common tools and services.

Step 2. Based on these consultations, the HC (or RC) draws up a proposed list of sectors with designated sector/cluster leads for each. The HC (or RC) may also propose the establishment of thematic groups for particular priority cross-cutting issues. The HC (or RC) forwards this list to the Emergency Relief Coordinator (ERC), addressed to holmes@un.org, requesting endorsement within 24 hours from the full IASC at the global level.

Step 3. The ERC shares this proposal with the IASC, requesting endorsement or alternative proposals.

Within 24 hours of receiving the proposal from the HC (or RC)

Step 4. The ERC ensures agreement is reached within the IASC at the global level. Where agencies at the global level propose arrangements that differ from those initially proposed by the HC (or RC), the ERC consults the HC (or RC) and IASC further in order to reach agreement.

Step 5. The ERC communicates the decision reached to the HC (or RC) and all relevant partners at global level.

Step 6. The HC (or RC) informs the host government and all relevant country-level partners of agreed arrangements within the international humanitarian response. Common Humanitarian Action Plans and appeal documents should clearly state the agreed priority sectors and the designated leads for each.

The next table details the SOP's after the first 24h.

Table 4: Standard operating procedures for activation and deployment of Early Recovery Support for Disasters

Trigger for SOP- Imminent crisis event in a country (a new crisis or dramatic deterioration of an existing situation)

STEP	ACTION	TIMELINE
PRE-CRISIS OR SUDDEN IMPACT CRISIS EVENT		
1	Contact RC/HC and request SITREP from country	Pre-Crisis OR Within 24 Hrs
2	Issue Stand By "Alert" Message"	Pre-Crisis OR Within 24 Hrs
3	Activate individual stand-by emergency procedures.	Pre-Crisis OR Within 24 Hrs
INITIAL ASSESSMENT		
4	IA Country Team meets to decide scale of emergency	Pre-Crisis OR Within 24 Hrs
4a	LEVEL 1 RESPONSE Monitor situation closely and remind RC of available support services	Pre-Crisis OR Within 48 Hrs
RAPID RESPONSE		
4b	LEVEL 2 RESPONSE Brief and deploy "ER Specialist" to country (with or without UNDAC Team)	Pre-Crisis / Within 48 Hrs
POST CRISIS		
4c	ERC' consults with IA HQ Agencies on cluster activation request	Within 5 days
5	Cluster approach is adopted for country X	Within 5 Days
6	LEVEL 3 RESPONSE 1st emergency meeting	Within 5 Days
SURGE IMPLEMENTATION		
7	Brief and deploy "ER Advisor" to country	Within 7 Days
8	Link with existing coordination and information networks including other Global Clusters.	Within 7 Days
9	2nd CWGER emergency meeting and decide on Joint or IA assessment mission	Within 1-2 Weeks.
10	Fund and Deploy Joint ER Needs Assessment "IA SURGE team." <ul style="list-style-type: none"> ▪ Conduct Joint Needs Assessment ▪ Develop IA Strategic Framework 	Within 2-3 Weeks for up to four (4) weeks.
11	Evaluate Needs Assessment and IA Strategic Framework	Within 4-5 Weeks.
12	Mobilize funds for implementation of IA Strategic Framework	Within 6-8 Weeks.
13	IA Strategic Framework implementation.	Within 10-12 weeks for up to 18 months.
14	Coordinate implementation of IA ER Strategic Framework	Up to 18 months
SURGE DEACTIVATION		
15	"ER-Coord/Advisor" converts to "Recovery Coordinator/Advisor" OR exits country.	Within 2-18 months
16	Hand over programmes and exit country	Within 2-18 months
17	3rd CWGER (after action) meeting and lessons-learned exercise.	Within 1-2 years
18	Publication/dissemination of lessons learned.	Within 1-2 years

Source: IASC Guidance Note, 2008 (Annex 4)

- UNDP approach to SOP's: 'Fast track authority'. In the early stages of a crisis and in accordance with UNDP's Standard Operating Procedures for Immediate Crisis Response, the Associate Administrator can approve Fast Track Authority to the UNDP Resident Representative/Country Director/DRR.

Regarding SOP between EU and OCHA:

- From the Acrimas report it was noted that the EU and OCHA agreed on SOP's in 2007. These have not been updated since then, thus not reflecting the merge of EU CP to DG ECHO and the new provision of the Lisbon Treaty. (p. 31) **Has this been updated?**
See here for the agreement in 2005: [http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:22005A0225\(01\)&from=EN](http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:22005A0225(01)&from=EN)

4.2 Operations planning

UNDAC teams can deploy at short notice (12-48 hours) anywhere in the world. The management of the system and its membership was discussed already in the organisation chapter.

This section details the operations planning. They are provided free of charge to the disaster-affected country, and deployed upon the request of the United Nations Resident or Humanitarian Coordinator and/or the affected Government.

- Assessment, coordination and information management are UNDAC's core mandates in an emergency response mission. Specifically in response to earthquakes, UNDAC teams set up and manage the On-Site Operations Coordination Centre (OSOCC) to help coordinate international Urban Search and Rescue (USAR) teams responding to the disaster - essential if USAR assistance is to function effectively. This concept was strongly endorsed in United Nations General Assembly resolution 57/150 of 16 December 2002, on "Strengthening the effectiveness and coordination of international urban search and rescue assistance".

The UNDAC system comprises four operational components:

- Staff: Experienced emergency managers made available for UNDAC missions by their respective governments or organizations. UNDAC members are specially trained and equipped for their task.
- Methodology: Pre-defined methods for establishing coordination structures, and for organizing and facilitating assessments and information management during the first phase of a sudden-onset disaster or emergency.
- Procedures: Proven systems to mobilize and deploy an UNDAC team to arrive at the disaster or emergency site within 12-48 hours of the request.
- Equipment: Personal and mission equipment for UNDAC teams to be self-sufficient in the field when deployed for disasters/emergencies.

Additional information can be retrieved in several documents:

The 2013 UNDAC Field Handbook (6th Edition) on disaster assessment and coordination. Can be retrieved online via:

https://docs.unocha.org/sites/dms/Documents/UNDAC%20Handbook%202013_english_final.pdf

The UNDAC policy paper. Can be retrieved online via:

https://docs.unocha.org/sites/dms/Documents/UNDAC%20Concept%20Paper_LAST%20VERSION_Oct2014.pdf

The UNDAC teams terms of reference.

https://docs.unocha.org/sites/dms/Documents/UNDAC%20ToRs_LAST%20VERSION_Oct2014.pdf

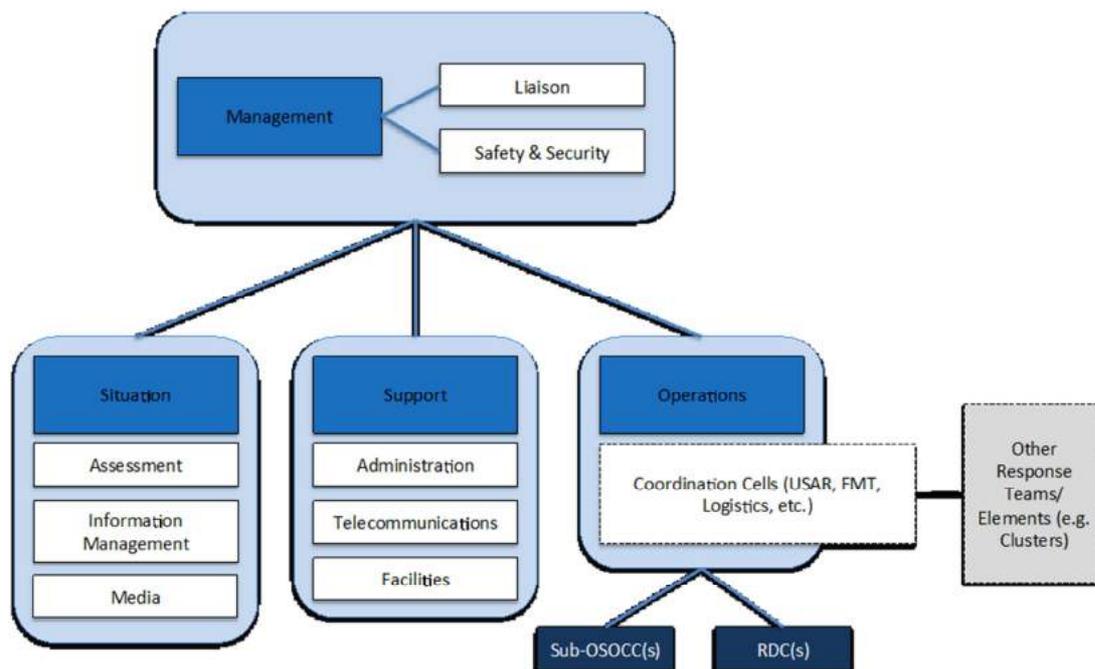
The OCHA can set up On-Site Operations Coordination Centres (OSOCC). This concept was originally developed jointly by OCHA and the International Search and Rescue Advisory Group network. It was designed to assist affected countries in coordinating international search-and-rescue efforts following an earthquake. However, OSOCC's emergency management principles make it a valuable tool in any sudden-onset disaster involving international relief resources. The concept has been used during numerous disasters including floods, hurricanes, tsunamis and complex emergencies.

An OSOCC is set up to help local authorities in a disaster-affected country to coordinate international relief. Following a disaster, the OSOCC is established as soon as possible by the first arriving international urban search-and-rescue team or United Nations Disaster Assessment and Coordination team deployed by OCHA. An OSOCC has three primary objectives:

- To be a link between international responders and the Government of the affected country.
- To provide a system for coordinating and facilitating the activities of international relief efforts at a disaster site, notably following an earthquake, where the coordination of many international USAR teams is critical to ensure optimal rescue efforts.
- To provide a platform for cooperation, coordination and information management among international humanitarian agencies.

The OSOCC's size and functions vary according to the scale of the disaster. However, the basic structure (shown in the graphic below) should be modified to suit the requirements of each situation.

Table 5: OSOCC's structure



Currently the OSOCC guidelines are being revised and they will be ready for endorsement by the Advisory Board in February 2015.

More detailed information can be retrieved via OCHA's 2009 guidelines document on OSOCC's. Can be retrieved online via: <https://docs.unocha.org/sites/dms/Documents/OSOCC%20Guidelines.pdf>.

Moreover, NISDR and UNDP, two central entities responsible for UN policy on preparedness, as such are involved as well in operational planning. UNISDR has the mandate to coordinate international efforts, UNDP has the mandate to undertake operational activities for disaster mitigation, prevention and preparedness. It carries out its work, together with partner agencies such as OCHA, to support nationally and locally driven initiatives.

4.3 Logistics support in crises

"International involvement in logistics operations varies greatly from situation to situation and involves a variety of organisations. Organizations commonly involved in logistics operations include:

- World Food Programme (WFP)
- United Nations Development Programme (UNDP)
- Office for Coordination of Humanitarian Affairs (OCHA)
- United Nations High Commissioner for Refugees (UNHCR)
- United Nations Children's Fund (UNICEF)
- World Health Organization (WHO)
- International Committee of the Red Cross (ICRC)
- International Federation of Red Cross and Red Crescent Societies (IFRC)

- non-governmental organizations (NGOs)
- armed forces
- private sector entities
- national authorities

The following sections outline high-level roles and responsibilities related to United Nations and national Government authorities.⁵⁹

The **logistics support in OCHA** encompasses:

1. Maintaining an equipment reserve for OCHA;
2. facilitating the relationship and cooperation between OCHA's corporate partner, Deutsche Post-DHL, and the Logistics Cluster in relation to providing airport-handling teams during humanitarian relief operations;
3. Also, ensuring in cooperation with a number of donor governments, the adequate and timely provision of non-food items to relief operation;
4. Maintaining close relationships with the World Customs Organisation and IFRC to initiate discussions with Member States, and promote the implementation of customs-facilitation measures for importing emergency relief items. The Logistics Cluster and OCHA offices are key players;
5. Ensuring in partnership with the Logistics Cluster, the overall management of the global mapping of emergency stockpiles.⁶⁰

As part of managing and improving the performance of the **UNDAC system**, which was earlier discussed in chapter 3 (3.1.3), OCHA maintains a number of operational partnerships with partner organizations, Governmental agencies, NGOs and the private sector, which all provide specialized support services both to the UNDAC team as well as to the wider humanitarian community. These services include logistical support modules such as ICT support, base camps, office and vehicle support, which the International Humanitarian Partnership (IHP), the Asia-Pacific Humanitarian Partnership (APHP) and the Americas Support Team (AST) can provide in order to enable an UNDAC team, OCHA staff and humanitarian organizations to work self-sufficiently in a disaster area.

The **Logistics Support Unit (LSU)** of the Emergency Services Branch of OCHA is the focal point for non-military logistics and participates in inter-agency humanitarian logistics coordination mechanisms. The LSU has been responsible for OCHA's emergency stockpile since the establishment of the OCHA Pisa Warehouse in 1985. In 2000, the stocks were relocated to the newly-created United Nations Humanitarian Response Depot (UNHRD) in Brindisi, Italy, and the warehouse management function was divested to WFP. However, LSU continues to help ensure the delivery of basic relief goods (including inter alia shelter and water distribution equipment) to disaster-affected countries, and coordinates the replenishment of the stocks with donor governments. LSU is involved in logistics coordination through participation in the UNJLC, as well as in discussions on other logistics matters, such as common air services (UNHAS), the tracking of relief goods, the establishment of guidelines

⁵⁹ UNDAC Handbook, section G p. 3

⁶⁰ <http://www.unocha.org/what-we-do/coordination-tools/logistics-support/overview>

for shelter provision in emergencies, and the study for the establishment of an Emergency Logistics Response Facility in South-East Asia. During the particularly complex relief operations following the Indian Ocean Tsunami and the 2005 South Asia Earthquake and Indonesia (Nias) earthquake, LSU issued regular reports covering logistics aspects, highlighting main bottlenecks and priorities.⁶¹

“Regarding planned/anticipated use of **military logistics support**, the Civil-Military Coordination Section (CMCS) of the ESB of the UN-OCHA, facilitates and coordinates on behalf of the humanitarian community, the access to and use of foreign Military and Civil Defence Assets (MCDA) in countries affected by humanitarian emergencies. CMCS is the focal point for governments, international organizations and military and civil defence establishments for the employment of these assets in humanitarian situations. It is also the focal point for United Nations Humanitarian Civil-Military Coordination (UN-CMCoord) in the United Nations system. UN-CMCoord is defined as the essential dialogue and interaction between civilian and military actors in humanitarian emergencies that is necessary to protect and promote humanitarian principles; avoid competition; minimize inconsistency; and, when appropriate, pursue common goals.”⁶²

The **UN Joint Logistics Center (UNJLC)** – was an interagency facility reporting to the Humanitarian Coordinator within a CHE, and overall to the IASC, with the mandate to coordinate and optimize the logistics capabilities of the humanitarian organisations in large-scale emergencies. The requirement to establish such a Centre was born out of the humanitarian response to the 1996 Eastern Zaire crisis, which demanded intensified coordination and pooling of logistics assets among the United Nations High Commissioner for Refugees (UNHCR), the World Food Programme (WFP) and the United Nations Children's Fund (UNICEF).⁶³

As of January 2010, UNJLC had been integrated into the Global Logistics Cluster Support Cell (GLCSC), situated within the WFP Logistics Division (OML). UNJLC Sudan was the last UNJLC project. <http://unterm.un.org/dgaacs/unterm.nsf/8fa942046ff7601c85256983007ca4d8/09562a3c5284e22a85256fa9005794cb?OpenDocument>

A brief overview of all emergency management installations and operations of OCHA is given in the guidance document “**An Overview of OCHA’s Emergency Services**” (UN, 2004) (Can be retrieved via: <http://www.humanitarianlibrary.org/sites/default/files/2014/02/OCHA.pdf>) The document highlight for example the Early Warning and Contingency Planning Unit (EWCP), their modalities and tools. Also among other the United Nations Disaster Assessment and Coordination Team (UNDAC), the International Urban Search and Rescue Teams, Virtual On-Site Operations Coordination Centre (Virtual OSOCC) and others are briefly explained.

Technical partnerships of the UNDAC system include NGOs such as MapAction and Telecoms sans Frontières (TSF), which can deploy with an UNDAC team and offer services such as emergency

⁶¹ http://www.unocha.org/ochain/2006/chap2_2.htm

⁶² MSB Handbook, p. 291.

⁶³ http://one.wfp.org/operations/current_operations/project_docs/103422.pdf

mapping and emergency telecommunications in disaster areas worldwide. UNOSAT is another operational partner, which provides satellite imagery and geographic information easily accessible to the humanitarian community. From the private sector, FCSS is closely collaborating with the DHL Disaster Response Teams who provide airport handling and logistics services to the affected country and international responders.

4.4 Crisis communication to general public; Alert system; Public Information and Warnings

Alert systems

In 2005, after the Indian Ocean tsunami, the **UN** launched a **plan for a global early warning system** to reduce the deadly toll of natural hazards, combining speedy transmission of data with training of populations at risk in a strategy that experts say could have saved scores of thousands of lives. No significant progress has been made in this area.⁶⁴

UNISDR is actively promoting **(Global) Early warning systems** via the **PPWE** (Platform for the Promotion of Early Warning). This organisation, which started operations in 2004, will help the development of early warning and preparedness systems by advocating for better early warning systems, especially in development assistance policy and programs, collecting and disseminating information on best practices, and stimulating cooperation among early warning actors and the development of new ways to improve early warning systems. More information can be retrieved via: <http://www.unisdr.org/2006/ppew/>

Through its country offices, UNDP supports disaster prone countries in the development of comprehensive DRR programmes.

Communication

When an emergency occurs, **OCHA's information management officers** immediately start working with key partners to produce standard information products to support coordination of all the humanitarian organizations and the response operation. These include the Who What Where (3W) database, contact lists and meeting schedules. Tools such as the information needs assessment and maps are made available to support better relief planning and action. The following sections within the ESB of UN OCHA are involved in crisis communication, etc.

- *“Field Information Services Unit (FIS)** – FIS develops information management tools for OCHA's field offices. It also deploys Humanitarian Information Centres (HICs) or smaller information management teams to emergencies.
- *Information Technology Section (ITS)** – ITS provides information and communications technology (ICT) infrastructure, services and support to OCHA and coordinates inter-agency ICT activities.
- *Integrated Regional Information Networks (IRIN)** – IRIN is a leading global provider of multimedia humanitarian news and analysis.

⁶⁴ <http://www.un.org/apps/news/story.asp?NewsID=13077&Cr=natural&Cr1=disaster#.VG37ADZgXcs>

- *ReliefWeb** - ReliefWeb is the world's leading on-line gateway to information on humanitarian emergencies and disasters." (MSB Handbook, p. 292).

The IASC Humanitarian Early Warning Service (**HEWSweb**) is an inter- agency partnership project aimed at establishing a common platform for humanitarian early warnings and forecasts for natural hazards. The service has been developed by WFP who is responsible for coordinating and managing the overall information content, design, and organization of HEWSweb on behalf of the Inter-Agency Standing Committee and its members."⁶⁵

Detailed guidance on the **cluster approach** is provided in the **IASC** Guidance Note on Using the Cluster Approach to Strengthen Humanitarian Response, 24 November 2006. The IASC Generic Terms of Reference for Cluster/Sector Leads at the Country Level includes a requirement that Cluster/Sector leads at country level ensure "effective information sharing (with OCHA support)". The following Operational Guidance is intended for use at the country level to help Cluster/Sector leads, OCHA and humanitarian partners ensure that relevant information related to a humanitarian emergency is provided to the right person at the right time in a usable form to facilitate situational understanding and decision-making. Information on the communication aspects can be retrieved via the note "OPERATIONAL GUIDANCE ON RESPONSIBILITIES OF CLUSTER/SECTOR LEADS & OCHA IN INFORMATION MANAGEMENT", found on-line via:

<http://www.humanitarianinfo.org/iasc/downloaddoc.aspx?docID=4911&type=pdf>

⁶⁵ UNISDR 2013a.

5 Capabilities

5.1 Human resources

UN-OCHA's staff, 2,145 in total, is working through its regional and country offices and deploys staff at short notice to emergencies. It also supports several surge-capacity mechanisms and networks that enable the broader humanitarian community to respond rapidly to disasters and conflicts.⁶⁶

The UN-OCHA is a people-centred organisation. 3/4 of OCHA's budget covers the costs of 2,154 national and international staff spread throughout the world.



Figure 17: UN-OCHA staff members by location, 2014 (Source: OCHA in 2014 & 2015).⁶⁷

OCHA can quickly deploy **specialised humanitarian personnel** to **support** efforts on the ground, particularly in situations where local capacity is overwhelmed, in response to a new or escalating humanitarian crisis. OCHA sets up an office in the affected country, or reinforces an existing office. OCHA has a standby team of volunteering emergency managers with varied skills. These individuals are from over 60 developed and developing countries, international agencies and NGOs. Deployed OCHA personnel can include specialists in humanitarian affairs, information management, civil-military coordination and public information. The teams can deploy within 24-48 hours of a disaster anywhere in the world. And OCHA has several "surge" staffing (Surge capacity is used when there are

⁶⁶ <http://www.unocha.org/what-we-do/coordination/overview>

⁶⁷ <http://www.unocha.org/ochain/2014-15/financial-plan>

unforeseen emergencies and disasters, when a crisis deteriorates, or when a force majeure affects an office) prior to the recruitment of regular longer-term staffing. In 2013, the Surge Capacity and Logistics Section (SCLS) in the Emergency Services Branch oversaw a total of 156 deployments to 25 countries; 35 from the Associates Surge Pool (ASP), 49 from the Emergency Response Roster (ERR), 50 from the Stand-By Partnership Programme (SBPP) and 10 from the Senior Surge roster. The latter became operational in July 2013, nine of whom were deployed to the Philippines (Typhoon Haiyan) and one to South Sudan (Conflict). The three Roaming Surge Officers have deployed to Syria and its surrounding region 12 times this year.⁶⁸

These options include:

- Rapid and temporary redeployment of internal staff from the field and headquarters, 35 of whom are on standby for such missions at any given time.
- Deployment of experts seconded from rosters managed by OCHA's 11 standby partner organizations, and who may be seconded to OCHA.
- Rapid temporary recruitment and deployment of experts from the Associates Surge Pool.⁶⁹

As per June 2012 **UNISDR workforce** comprises 100 individuals. See also: UNISDR factsheet.⁷⁰

UNDP personnel and resources: UNDP employs more than 200 full time DRR practitioners, covering all regions, with special attention to the 60 highest risk countries (UNISDR 2013a).

The International Search and Rescue Advisory Group (INSARAG) is a network of disaster-prone and disaster-responding countries and organizations dedicated to urban search and rescue (USAR) and operational field coordination. How many staff members INSARAG counts is not retrieved, but the group of organizations brings together numerous experts and professionals.⁷¹

5.2 Materiel (non-financial) resources

Military aid is foreseen in the Guidelines for the Domestic Facilitation and Regulation of International Disaster Relief and Initial Recovery Assistance,” (V-2007, para. 11): “Military assets should be deployed for disaster relief or initial recovery assistance only at the request or with the express consent of the affected State, after having considered comparable civilian alternatives. Prior to any such deployment, terms and conditions (including such issues as the duration of deployment, whether they must be unarmed or may be armed the use of their national uniforms, and

⁶⁸<http://www.unocha.org/what-we-do/coordination-tools/surge-capacity/overview>

⁶⁹<http://www.unocha.org/what-we-do/coordination/response/overview>

⁷⁰http://www.unisdr.org/2012/docs/whoweare/UNISDR_Factsheet.pdf

⁷¹<http://www.unocha.org/what-we-do/coordination-tools/insarag/overview>

mechanisms for cooperation with civilian actors) are to be agreed by the affected and assisting States.”⁷²

UN-OCHA relief goods stockpile accounts for large supplies for crises. When international assistance is sought in a disaster or emergency, the Humanitarian Coordinator, the United Nations Resident Coordinator/UNDP Resident Representative, the OCHA regional/field office or the relevant clusters are the channels for a request to OCHA for goods to be dispatched. In August 2000, OCHA stocks were moved to the United Nations Humanitarian Response Depot (UNHRD) in Brindisi, southern Italy. Since then, OCHA has dispatched 117 shipments to 48 countries affected by natural disaster or conflict. Of these shipments, 65 were in response to natural disasters, while the remaining 52 were in support of conflict-affected populations. A total of 2,356 tons of relief items have been moved, worth over US\$17.5 million.⁷³

Civil-military coordination

When an emergency or natural disaster creates humanitarian needs, many countries will deploy their militaries or paramilitary organizations to respond. Bilateral support to disaster-affected States can also be provided through international deployment of foreign military actors and assets. When local and international humanitarian organizations are also involved in that response, it is essential that they can operate in the same space without detriment to the civilian character of humanitarian assistance. Military forces providing indirect assistance to support humanitarian operations. Credit: UNICEF/Marco Dormino. It is for this reason that United Nations Humanitarian Civil-Military Coordination (UN-CMCoord) facilitates dialogue and interaction between civilian and military actors, essential to protect and promote humanitarian principles, avoid competition, minimize inconsistency and, when appropriate, pursue common goals.

More information can be retrieved via:

<http://www.unocha.org/what-we-do/coordination-tools/UN-CMCoord/overview>

https://docs.unocha.org/sites/dms/Documents/120524_oom_civil_military_coordination_eng.pdf

5.3 Training

Training is organised by all organisations separately. Major training initiatives are discussed below.

UNISDR sees training as an activity part of the preparedness approach. Disaster risk reduction and education is organised as an interactive process of mutual learning between people and institutions. Therefore the organisation organises education of people living in high risk zones. <http://www.unisdr.org/we/advocate/education> Moreover, the organisation trains professionals. Therefore UNISDR's Office for Northeast Asia and the there located 'Global Education Training Institute' (GETI) was established in 2011. GETI has a global mandate The centre tries to develop a

⁷²<https://docs.unocha.org/sites/dms/Documents/International%20legal%20framework%20in%20humanitarian%20advocacy.pdf>.

⁷³<http://www.unocha.org/what-we-do/coordination-tools/logistics-support/relief-goods>

new cadre of professionals in disaster risk reduction and climate change adaptation for disaster resilient societies.⁷⁴

UNDP has specific goals for training staff. All RR/RCs and UNDP Country Directors/DRRs will be trained on early recovery and surge policies, practices and implementation tools. This also includes policy of rotation in recovery and crisis projects. Cross-training is organised with OCHA.⁷⁵

UN-OCHA organises training via the OSOCC (see chapter 4 for more information).

- The Field Coordination Support Section of ESB in OCHA Geneva is managing the delivery of OSOCC courses. OSOCC training courses are designed to train the participants in the OSOCC methodology, i.e. to establish a platform for coordination in a large-scale emergency with a multi-organization response. Furthermore, participants will receive training in the establishment of a Reception/Departure Centre (RDC) and Sub-OSOCC.
- The target audience for the course is urban search and rescue (USAR) liaison officers and team leaders, national emergency managers, cluster coordinators, coordinators from NGOs and from regional and international emergency management organizations, UNDAC members and technical support staff.
- The Field Coordination Support Section of ESB in OCHA Geneva is managing the delivery of OSOCC courses.⁷⁶

5.4 Procurement

5.4.1 Procurement regulation

The UN has provided a manual for procurement, which is a compendium of regulations approved by the General Assembly and related rules published by the UN.

Scope

The procurement includes all actions for the acquisition, by purchase or lease, of property.

Procedures

The UN uses a centralized electronic register of vendors for sourcing the supply of UN needs for goods, services and works. Vendors can apply for this. The UN evaluates vendor's applications to determine whether the application complies with the UN requirements (article 7.2). These criteria are codified in article 7.6 and relate to basic information on the vendor, legal status and owners and directors etc. Article 7.5 provides the pre-requisites for vendors. For example, vendors need to declare they are not declared bankrupt or are under formal investigation.

⁷⁴ <http://www.unisdr.org/incheon/about>

⁷⁵ <http://relief2recovery.files.wordpress.com/2012/01/undp-on-early-recovery.pdf> see section 4.3

⁷⁶ <http://www.unocha.org/what-we-do/coordination-tools/osocc-rdc/overview>

The following general principles need to be taken into account throughout the procurement process (rule 5.12):

- Best value for money;
- Fairness, integrity and transparency;
- Effective international competition
- The interest of the United Nations.

A key element of best value for money is identifying vendors to fulfil the needs of the contracting authority. The aim is to have multiple vendors which meet the requirements, so that competitive prices can be obtained. In order to achieve this, the contracting authority can use the UN Global Market Place, Request for Expressions of Interests, Requests for Information etc. The contracting authority shall invite all vendors registered for the works being procured that are interested. In some cases the number of vendors can be limited for example when the list of vendors is long and impractical to use, or when security issues justify a limitation (article 9.5). In order to ensure an appropriate level of competition, a minimum number of vendors should be invited. This depends on the value of the contract (article 9.6).

The UN has three kinds of procedures:

- The informal method of solicitation;
- The formal invitation to bid;
- The formal request for proposals.

In the informal method of solicitation, a Request of Quotation (RFQ) shall be used for the procurement of goods, services and works with standard and clear specifications and a value between US\$ 4,000 and US\$ 40,0000. Contracts with a value less than US\$ 4,000 can be procured directly.

The formal invitation to bid (ITB) shall be used for the procurement of goods with standard and clear specifications and a total value exceeding US\$ 40,0000. The contract will be awarded to the qualified bidder whose bid substantially conforms to the requirements and is evaluated to have the lowest costs. When a formal request for proposals has been used, the contract shall be awarded to the qualified proposer whose proposal is most responsive to the requirements (rule 105.15).

The request for proposals shall be used for procurement that cannot be quantitatively or qualitatively expressed in sufficient detail for the ITB. The procurement officer shall post an REOI notice on the UN Global Marketplace. This is optional when the value of the contract is below US \$ 200.000.

In several cases, the formal method may not be in the best interest of the UN. The UN can determine this, for example when there is no competitive marketplace for the procurement; when the formal procedure has not given satisfactory results or when the UN otherwise determines that a formal solicitation will not give satisfactory results. These and other exceptions are listed in rule 105.16. In these cases, the UN may solicit a single vendor for a particular procurement.

Award criteria

The procurement contracts shall be awarded on the basis of effective competition. The competitive process shall include (rule 105.14):

- Acquisition planning for developing an overall procurement strategy and methodologies;
- Market research for identifying potential suppliers;
- Consideration of prudent commercial practices;
- Methods of solicitation;
- Public bid openings.

The technical evaluation team shall conduct the technical evaluation, based on the evaluation criteria and their relative weight. The evaluation criteria are factors or specific areas of consideration that are part of the requirement specifications, TOR or SOW. The criteria should be discrete, measurable, exhaustive and verifiable components of the goods, services or works required and provide a basis for assessing each Vendor's ability to provide the required goods, services or works. It captures all underlying factors of the definition of best value for money. The specific criteria will depend on the nature of the public contract.

5.5 Niche capabilities

The niche capabilities of the UN bodies active in crisis management are as follows:

- country office presence and trust of partners;
- capacity development and thematic focus;
- UN System Coordination through the RC system;
- capacity to build global partnerships for comprehensive DRR programmes and existing networks;
- know-how and expertise to manage post-disaster recovery assessments and coordination of the Global Early Recovery Cluster (i.e. UNDP)

Resources

Legislative acts

N/A

Other normative acts

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