

IT 4 Sec Reports

***ROMANIA:
Capabilities, Organisations, Policies, and
Legislation in crisis management
and disaster response***

**Valeri Ratchev
Todor Tagarev
Zlatogor Minchev**

***РУМЪНИЯ:
Способности, организация, политики и
законодателство за управление на
кризи и реагиране при бедствия***

**Валери Рачев
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Institute of Information and Communication Technologies
CSDM | Centre for Security and Defence Management

www.IT4Sec.org

Sofia, March 2015

Valeri Ratchev, Todor Tagarev, Zlatogor Minchev, ROMANIA: Capabilities, Organisations, Policies, and Legislation in crisis management and disaster response, *IT4Sec Reports* 121 (March 2015), <http://dx.doi.org/10.11610/it4sec.0121>

IT4SecReports 121 „ROMANIA: Capabilities, Organisations, Policies, and Legislation in crisis management and disaster response“ This report explores a country highly vulnerable to natural disasters, located in a seismically active region with a history of devastating earthquakes, and also at risk by other natural and technological hazards such as floods, drought and heat/cold waves. It examines the conceptual basis of crisis management in Romania and its structure, with the main executive administrative body being the General Inspectorate for Emergency Situations (GIES), which coordinates plans and operational activities in cases of natural and man-made emergency situations. The author specifically discusses the role of private sector and NGOs, mostly in the fields of education and training. Further, the Romanian capacity for emergency response is discussed in the context of the international cooperation in crisis management.

Keywords: disaster preparedness, disaster response, Romania, National Emergency Management System, Emergency Management Information System

IT4Sec Reports 121 „РУМЪНИЯ: Способности, организация, политики и законодателство за управление на кризи и реагиране при бедствия“ Обект на настоящия доклад е Румъния – държава, силно уязвима от природни бедствия; разположена в сеизмично активен регион с история, белязана от разрушителни земетресения, и подложена на въздействието на множество рискове, например наводнения, суша и горещини. Докладът изследва концептуалната основа на управлението при кризи в Румъния и структурата на системата, в която основна координираща роля по отношение на плановете и оперативни дейности играе Главният инспекторат за извънредни ситуации. Авторът отделя специално внимание на ролята на частния сектор и НПО, активни основно в сферата на образованието и обучението. Способностите на Румъния за реакция при кризи и извънредни ситуации се разглежда в контекста на международното сътрудничество в областта.

Ключови думи: подготовка, отговор при бедствия, Румъния, Национална система за управление при извънредни ситуации, Информационна система за управление при извънредни ситуации

Acknowledgement. The research leading to these results has received funding from the European Community's 7th Framework Programme (FP7/2007-2013) under Grant Agreement n°607798. We thank the DRIVER project partners contributing to the described work. Only the authors' views are reflected, the Commission and the Project are not liable for any use that may be made of the information contained therein.

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ISSN 1314-5614

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).

Table of Contents

Overview	3
Table of Contents	5
List of Figures.....	6
List of Tables.....	6
1 Policy	8
1.1 Risk Assessment	8
1.2 Policy and Governance	20
1.3 Financing	30
1.4 Policy review, Evaluation & Organisational Learning.....	33
1.5 Resilience.....	35
1.6 Information sharing and data protection.....	37
2 Legislation	39
2.1 Crisis (emergency, disaster) management concept	39
2.2 General crisis (emergency, disaster) management law	40
2.3 Emergency rule.....	43
2.4 Specific, department/agency-level legal arrangements and regulations on emergency and disaster management.....	46
2.5 Specific to the regional and local authorities legal arrangements and regulations on emergency and disaster management.....	47
2.6 Legal regulations on the involvement of volunteers and specialised NGOs	48
2.7 Legal regulations for international engagements of first responders and crisis managers	49
3 Organisation.....	50
3.1 Organisational chart	53
3.2 Organisational co-operation	59
4 Procedures	61
4.1 Standing Operating Procedures (SOPs) and Guidelines	61
4.2 Operations planning	61
4.3 Logistics support in crises.....	63
4.4 Crisis communication; Alert system; Public Information and Warnings.....	63
5 Capabilities.....	68
5.1 Human resources	68
5.2 Materiel (non-financial) resources.....	68
5.3 Training.....	69
5.4 Procurement.....	69

6	Conclusion.....	70
	Resources	72
	Legislative acts.....	72
	Official documents (white papers, strategies, etc.)	73
	Online resources (websites of key CM organisations)	73
	Publications	74

List of Figures

Figure 1:	Seismicity map of Romania for the period 1900 – 2012	12
Figure 2:	Seismic hazards from Vrancea seismic zone	13
Figure 3:	Usually the most affected counties by floods	14
Figure 4:	Most affected areas by the 2010 floods (June 29 – July 1)	15
Figure 5:	Average number of months/year with drought (referenced period 1951-2010).	17
Figure 6:	Nuclear risks areas in Romania	18
Figure 7:	Chemical industry risks areas in Romania	19
Figure 8:	Flow of information in the Romanian National Emergency Management System.....	38
Figure 9:	Protesters against “special security zone” in Plungesti	46
Figure 10:	The Government’s Command Operational Centre (COCG) at the Victoria Palace	52
Figure 11:	General structure of NEMS	54
Figure 12:	Institutional chain of command by levels of activation	54
Figure 13:	Sharing of responsibilities within the NEMS	57
Figure 14:	Romanian Emergency Management Information System within the NEMS	63
Figure 15:	EMIS operational process.....	64
Figure 16:	EMIS modular architecture	65
Figure 17:	EMIS information workflows.....	65

List of Tables

Table 1:	Natural hazards, which affected or may affect Romania	9
Table 2:	Summarised table of natural disasters in Romania between 1900 and 2014.....	10
Table 3:	The most affecting disasters in Romania for the period 1900 – 2014	11
Table 4:	Average disasters per year	11
Table 5:	Droughty/rainy years in Romania, 1901-2010	16
Table 6:	Dedicated resources to implement disaster risk reduction activities	31
Table 7:	EU Solidarity Fund for Romania.....	32

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	TYPES
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
			Falls, rolling land-slide or crumblingof rocks
	Movement of snow and ice masses	Avalanches	
3. Hydro-meteorological 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
	Natural arsons		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, Viral 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.

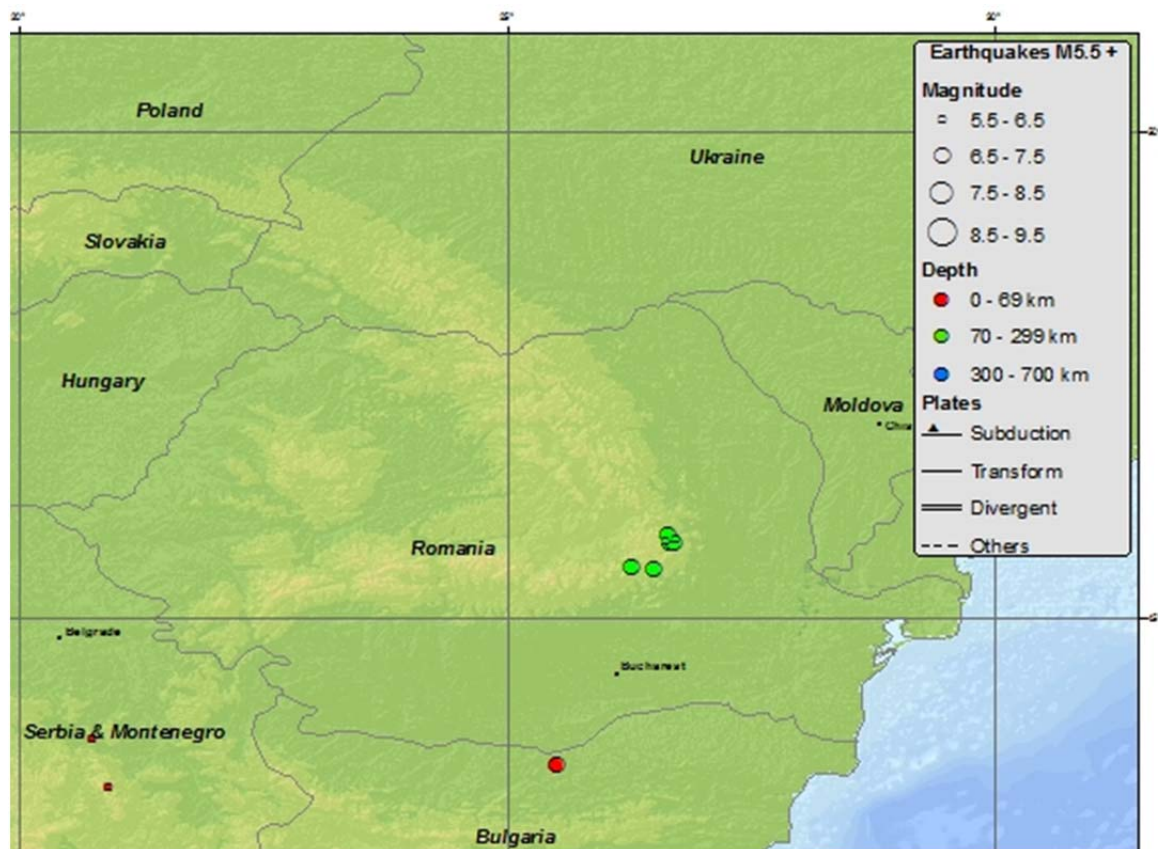


Figure 1: Seismicity map of Romania for the period 1900 – 2012

Source: United States Geological Survey's (USGS) Earthquake Hazards Program⁴

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

⁴ Available at <http://earthquake.usgs.gov/earthquakes/world/romania/seismicity.php>

significant population concentration, national critical infrastructure or industrial businesses, using dangerous substances. (Ozunu, 2011)

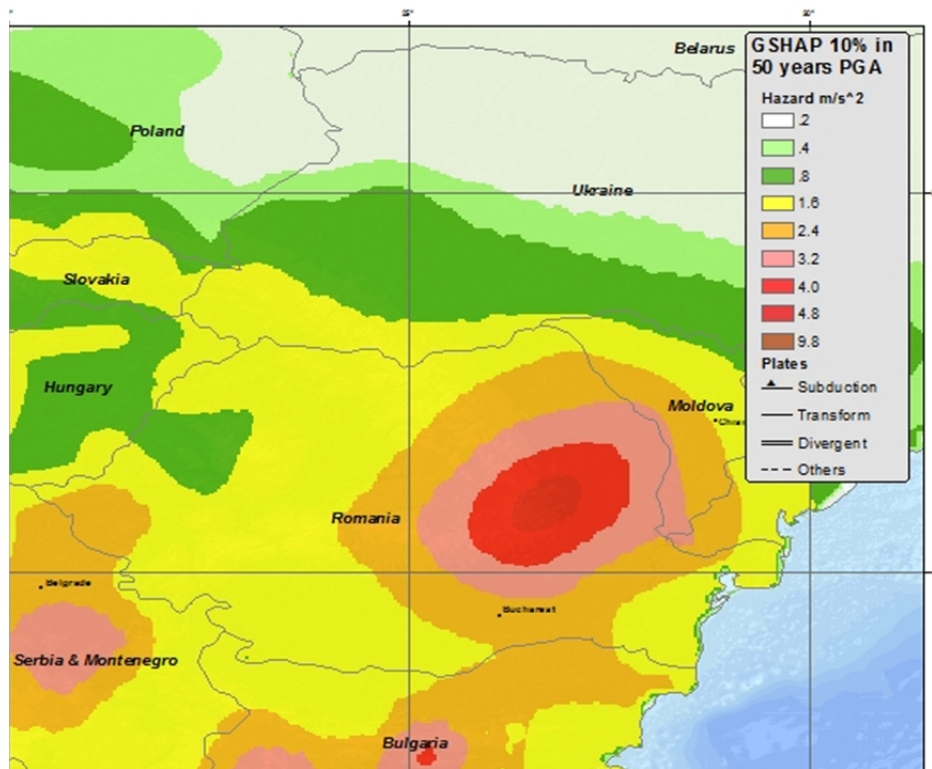


Figure 2: Seismic hazards from Vrancea seismic zone

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)

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.

⁵ Available at <http://earthquake.usgs.gov/earthquakes/world/romania/gshap.php>

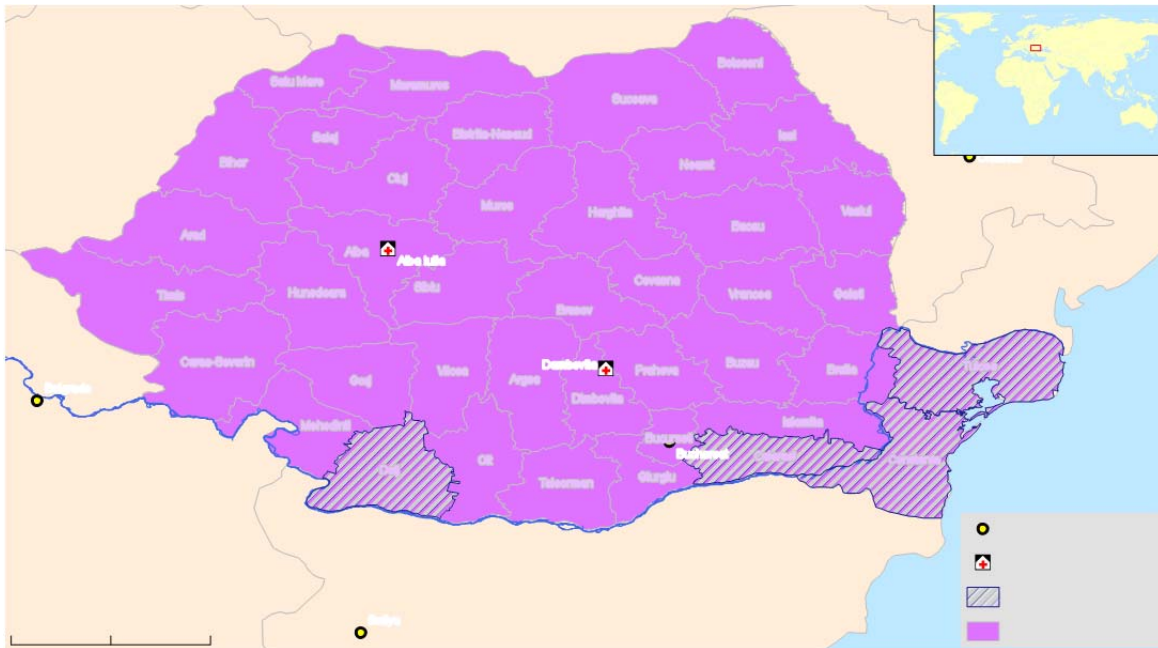


Figure 3: Usually the most affected counties by floods

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/OFF3563DE9D39410C1257161002AF351-ifrc_FL_rou010506.pdf

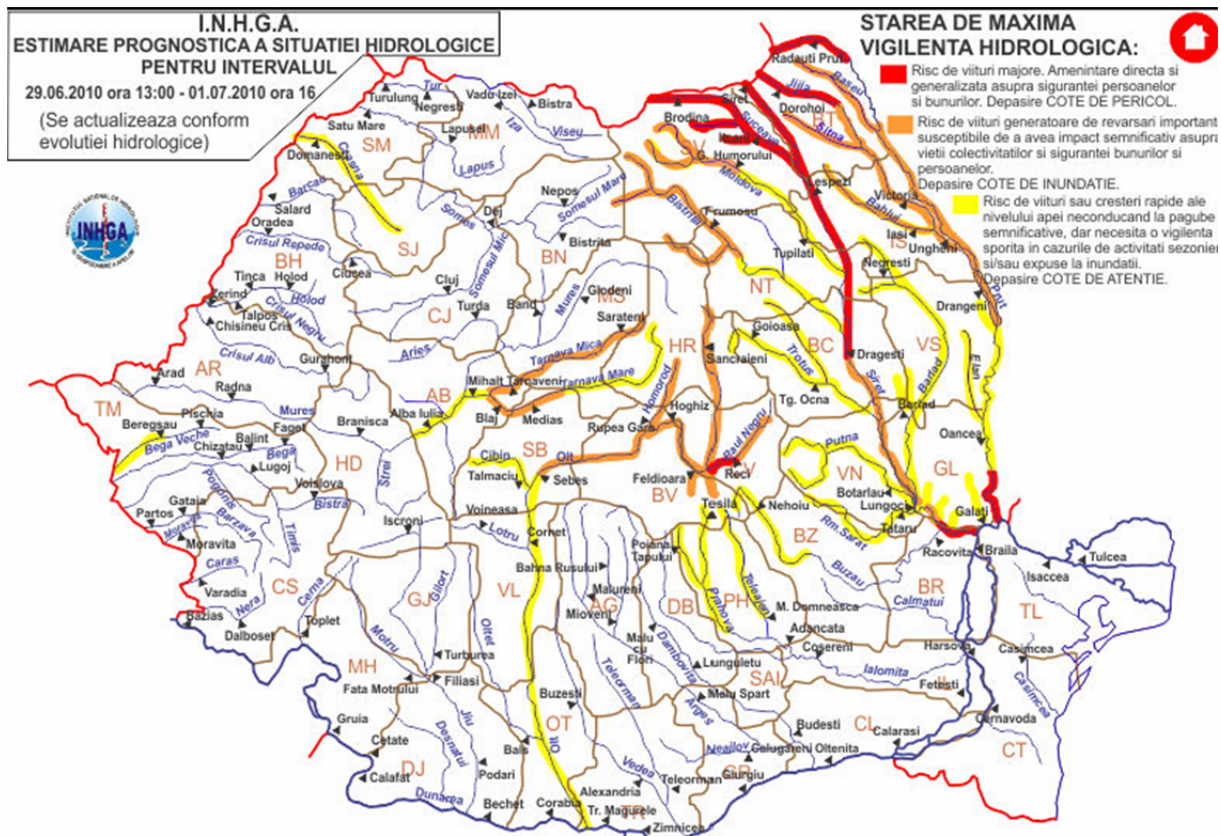


Figure 4: Most affected areas by the 2010 floods (June 29 – July 1)

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.

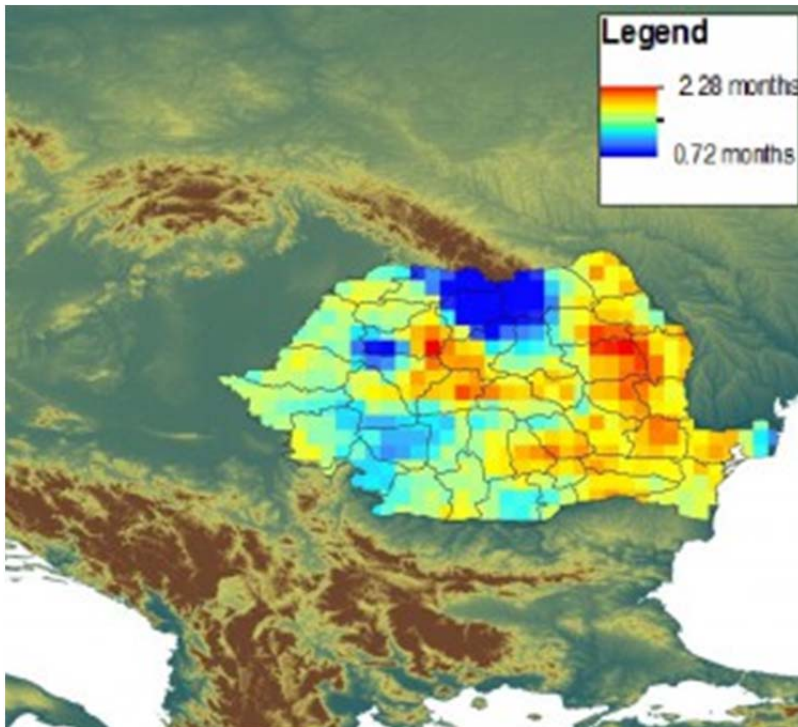


Figure 5: Average number of months/year with drought (referenced period 1951-2010).

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.

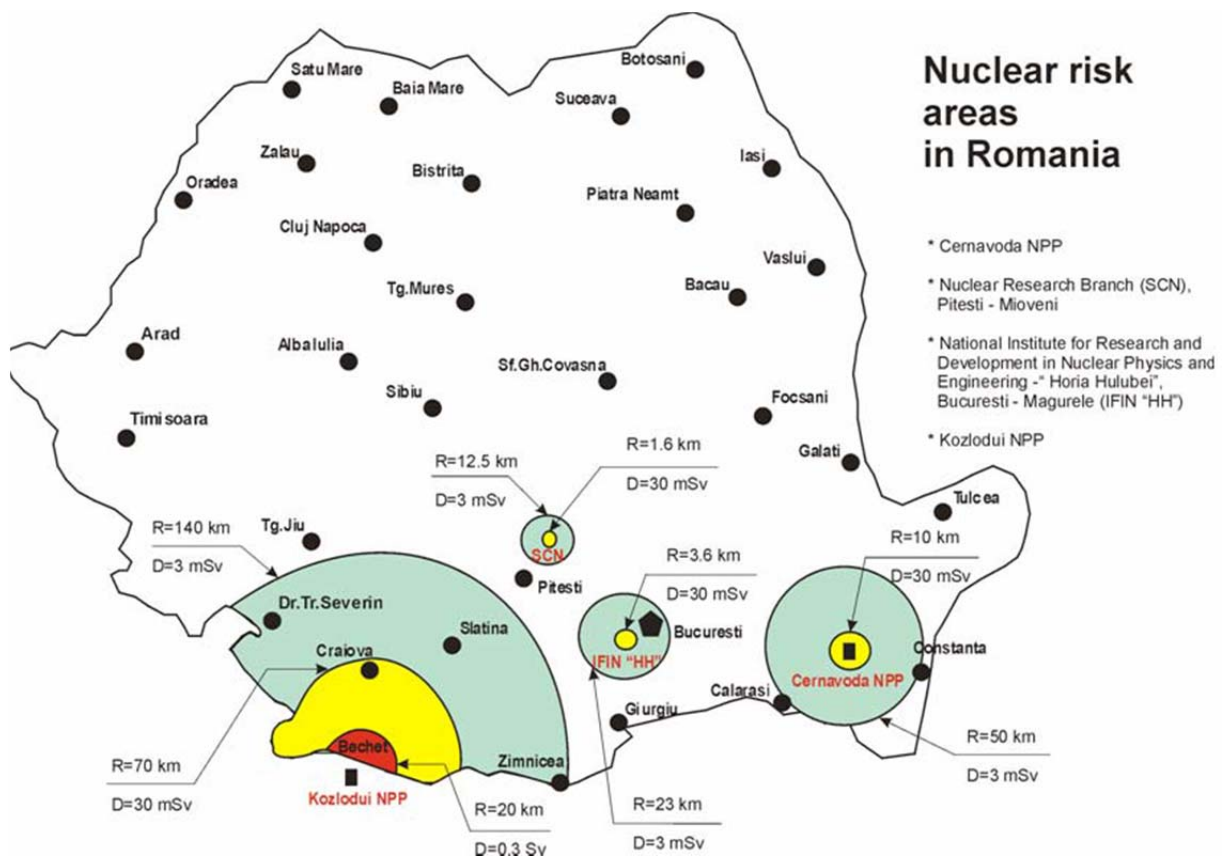


Figure 6: Nuclear risks areas in Romania

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 Someș 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

The dam was built as recently as 1998. Romanian interests and Esmeralda, an Australian company, have jointly owned the gold mine. (UNEP/OCHA, 2000)

Chemical industry

The chemical industry in Romania is a traditional branch – more than 4 500 companies operate in the sector. More than 75% of them are micro business, while only 7% could be classified as middle (248), large (48) and very large (10 with more than 1 000 employees). Their main activities could be grouped in four clusters: Manufacture of coke and of refined petroleum products (19), manufacture of chemicals and chemical products (20), manufacture of basic pharmaceutical products and pharmaceutical preparations (21), and manufacture of rubber and plastic (22).⁸ As Figure 7 illustrates, most of them are distributed south from the Carpathian Mountains where are located the main oil sources and big refineries, and highly populated areas as well.



Figure 7: Chemical industry risks areas in Romania

Source: UNISDIR, 2008. Courtesy of the Romanian General Inspectorate for Emergency Situations.

In addition to that, in some cases, a combination of natural disasters with technological incidents may cause NaTechs with wide and complicated consequences.

Overall, a brief review of data shows several core tendencies:

- the number of climate-generated crises has grown over the last three decades;
- there has been a tendency towards limiting the number of affected population;

⁸ Source: The Coface Economic Publication Panorama, 2013.

- 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.

1.2 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 Vrancea: 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.”

1.2.1 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.

1.2.2 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

¹² Available 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.

1.2.3 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.

1.3 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.

1.3.1 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_NationalHFProgress_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)

1.3.2 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 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	 ROMANIA	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.

1.4 Policy review, Evaluation & Organisational Learning

1.4.1 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 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 produces by inter-ministerial commissions. They are usually established under the supervision of the National Committee for

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.

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 neighbouring 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

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,

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>

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

1.5 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.

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.

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.

1.6 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.

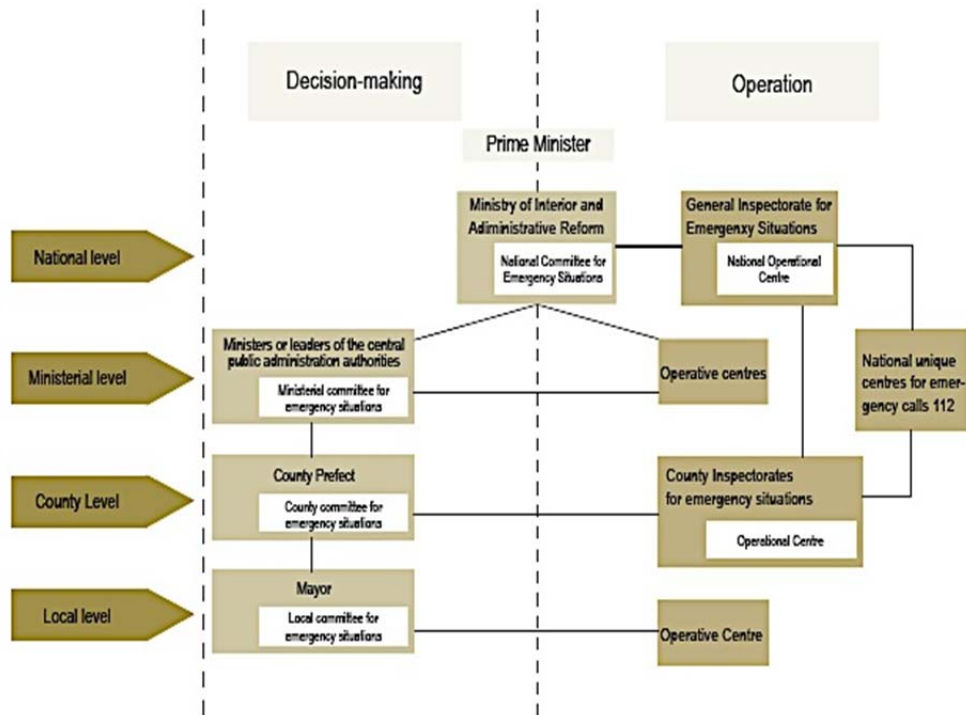


Figure 8: Flow of information in the Romanian National Emergency Management System²⁸

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.”

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

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>

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. 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

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

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.

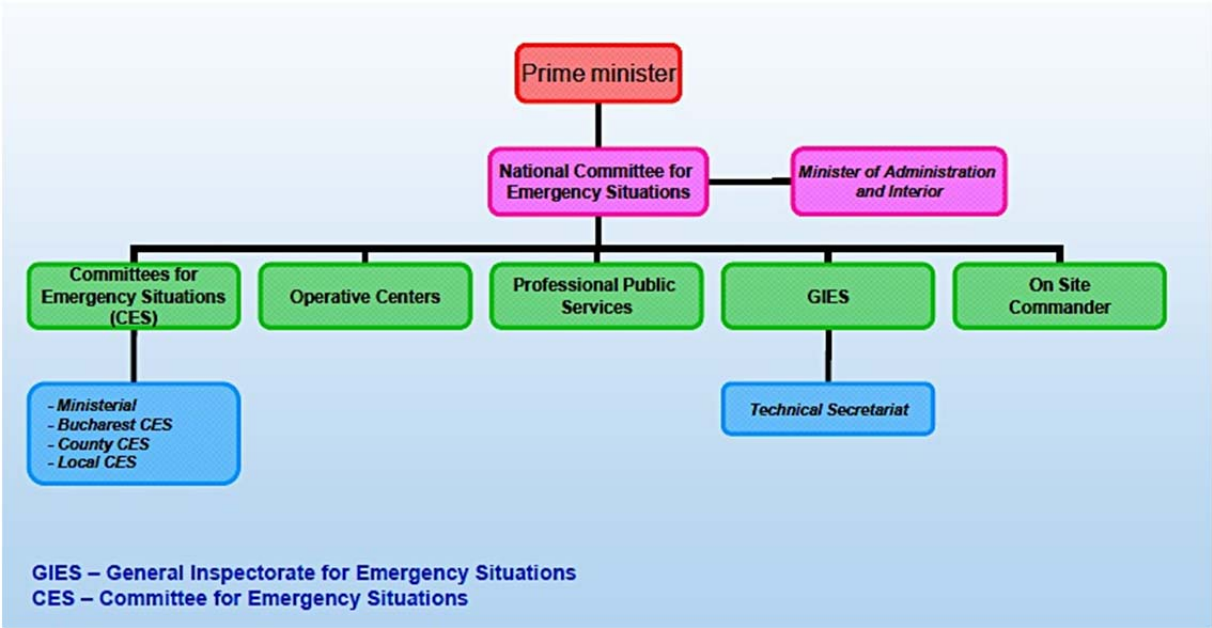


Figure 11: General structure of NEMS⁴⁵

Within this architecture, NEMS has three levels of activation:

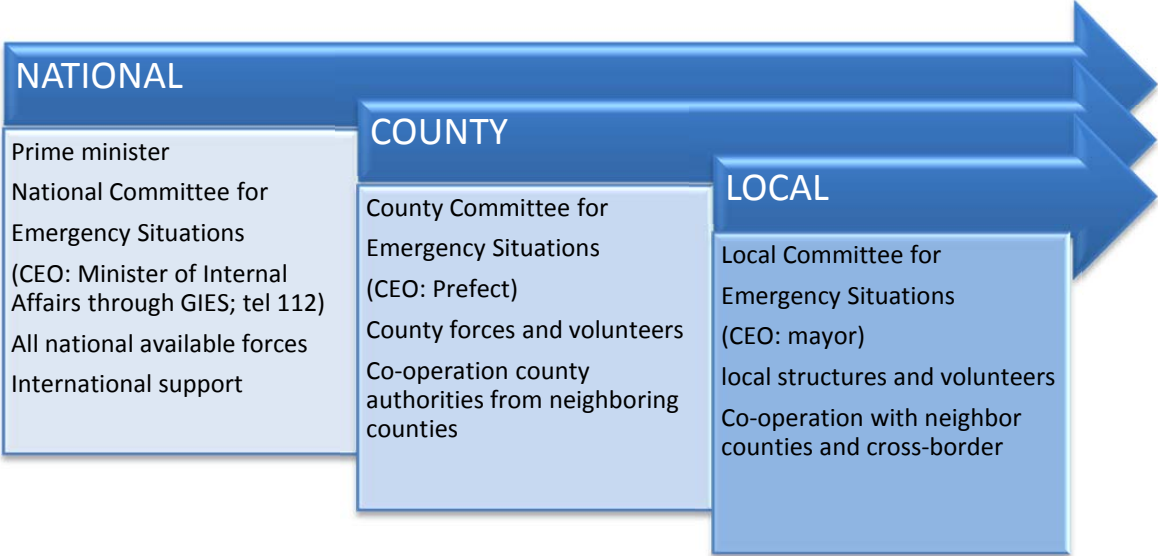


Figure 12: Institutional chain of command by levels of activation

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.

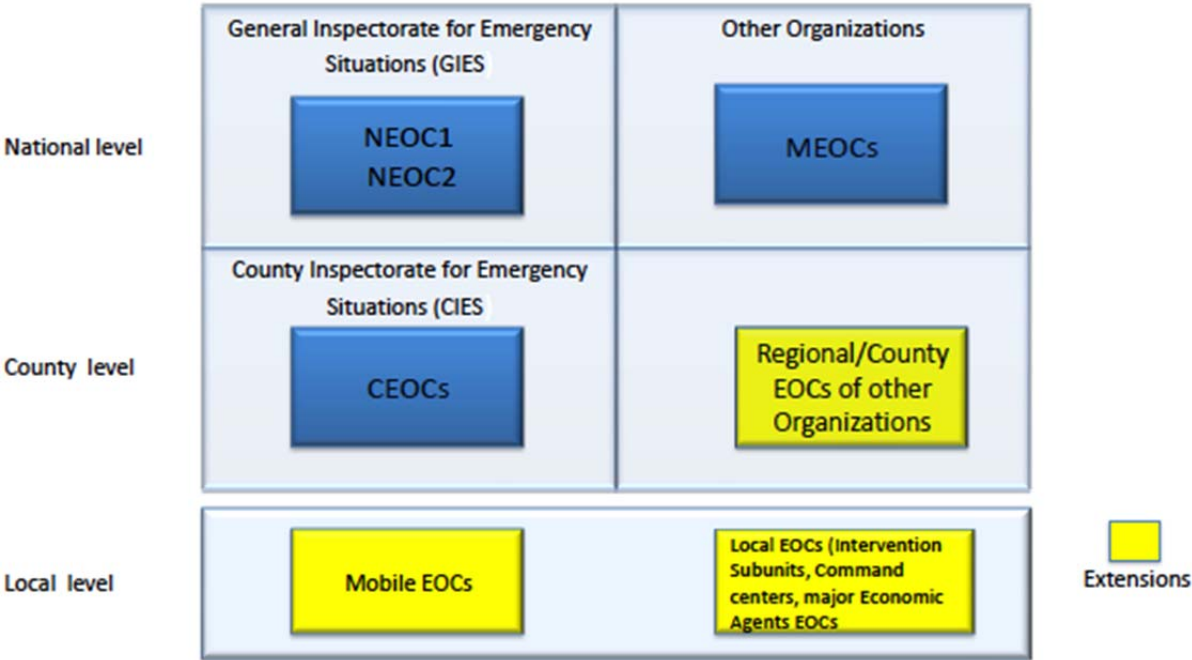


Figure 14: Romanian Emergency Management Information System within the NEMS⁵²

⁵² Monitor II available at http://www.monitor2.org/downloads/MONITORII_WP4_Partner%20specific%20module_EMIS_PP6.pdf

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.

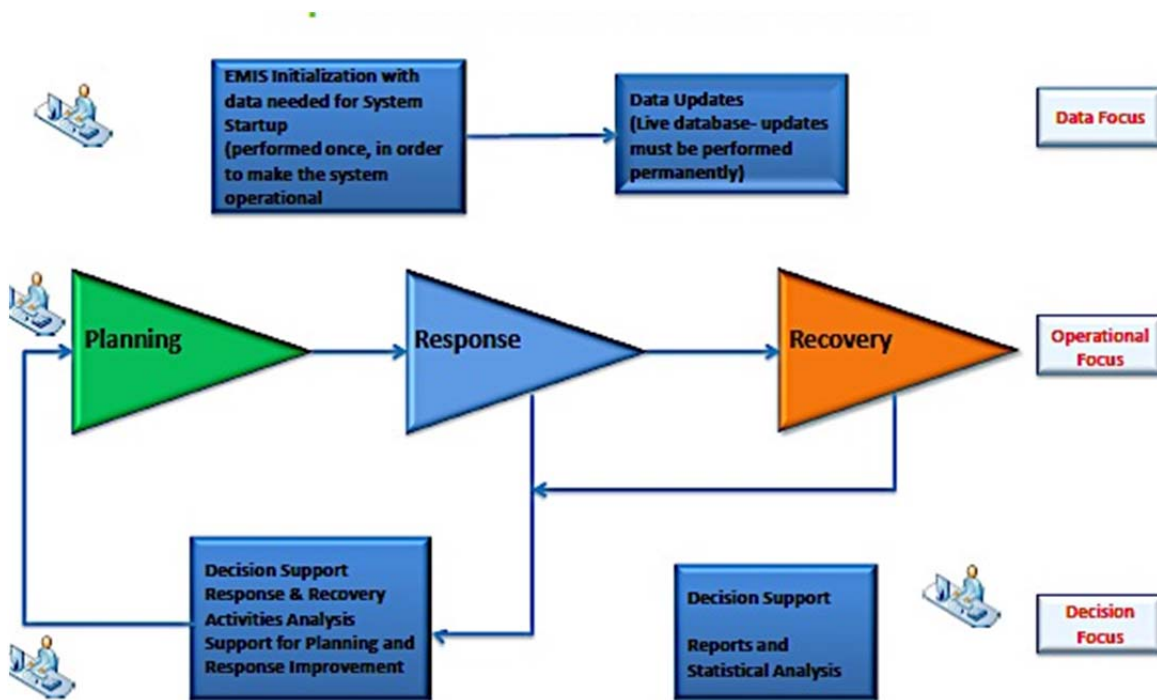


Figure 15: EMIS operational process

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;
- EMIS database management (including organisation, human resources, logistics, risks, hazardous materials management, evacuation, etc.)

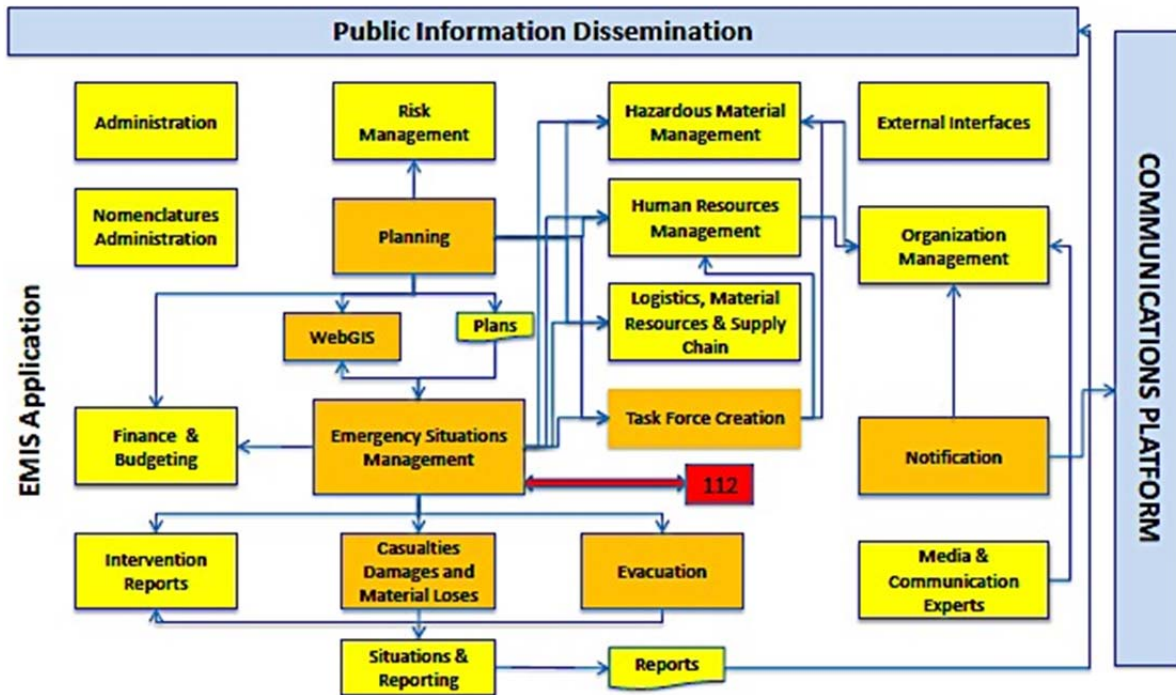


Figure 16: EMIS modular architecture

The workflow within the EMIS is described in Figure 18.

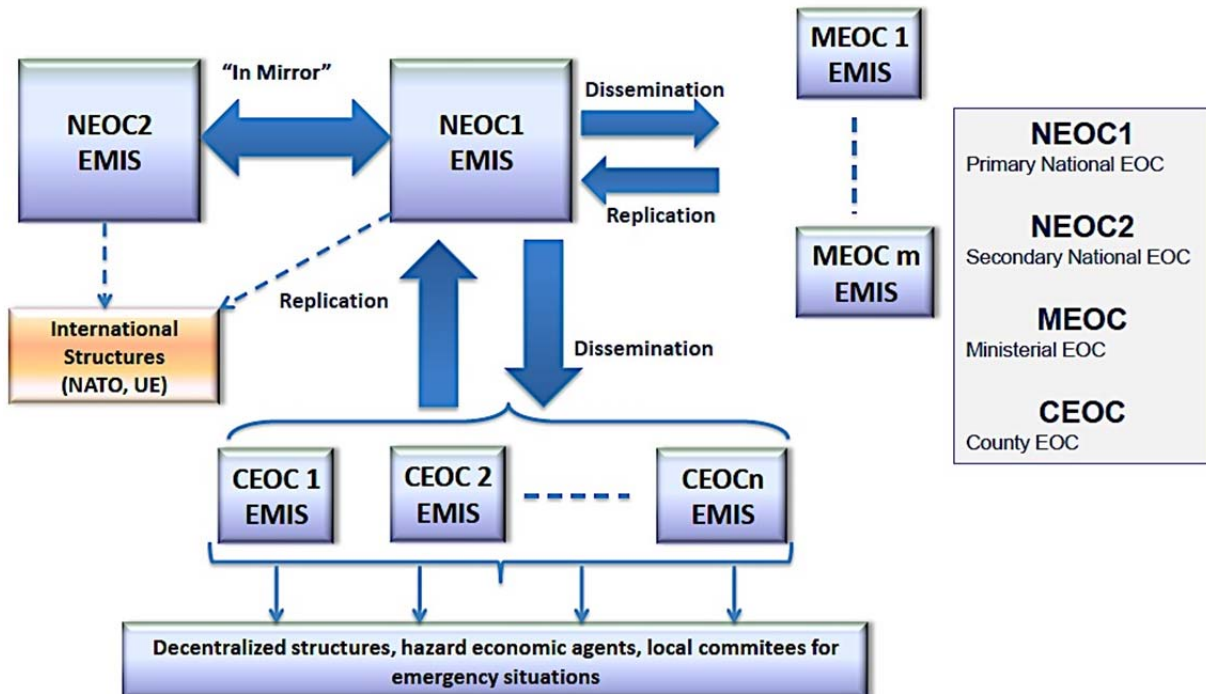


Figure 17: EMIS information workflows

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

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

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;

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.anrsps.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/>
The Special Telecommunications Service, <http://www.stsnet.ro/>

Publications

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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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