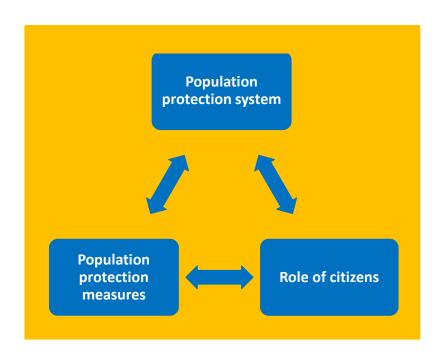


# PROPOSED NEW DIRECTIONS TO ADVANCE POPULATION PROTECTION SYSTEM IN THE CZECH REPUBLIC





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### 1 INTRODUCTION

Increasingly interconnected threats and the associated risks directly or indirectly affect the system of population protection and call for an ongoing development of the capabilities of security systems' constituent elements. Potential threats can spill over with multiplying effects on the protected interests of the society. As part of systematic implementation of the policy for prevention of emergency events and crisis situations, a logical requirement arises to define new directions for developing population protection.

Today, the issue of population protection is broadly enshrined in public international law through conventions constituting the international humanitarian law. Population protection structures are established around the world and focus on a wide array of threats. In addition, development of population protection systems is also supported through international efforts. These include, for example, activities of the United Nations (UNDRR – Office for Disaster Risk Reduction), of the European Union (DG-ECHO – European Commission Directorate-General for European Civil Protection and Humanitarian Aid Operations), NATO (CEPC – Civil Emergency Planning Committee), etc.

In the Czech Republic, the current understanding of the role and purpose of population protection is the outcome of extensive changes in the overall security environment and in the European security architecture. The original focus on armed conflicts was gradually confronted with different trends resulting from the transformation of socio-political conditions. Due to the changes in the probability of some of the threats – in particular military threats, which, although not completely absent, were pushed out of the centre of attention – focus was placed on threats that had not been directly linked to external security earlier. However, the reality of the second decade of the 21st century calls for a comprehensive approach to population protection, i.e. stress needs to be put on building and developing a system capable of responding to threats that are both non-military and military in nature.

In the conditions of the Czech Republic (CR), the current system of population protection has been laid down by law since 2000. With its scope, focus and legal definition, it encompasses civil defence and civil protection, i.e. systems that preceded the current population protection system.

The Czech system of population protection can be understood in a narrower and a broader sense. The narrower definition stems from Act No. 239/2000 Coll., on the integrated rescue system, where population protection means: "Fulfilment of civil protection tasks, namely warning, evacuation, sheltering and emergency survival of citizens, and other measures ensuring protection of lives, health and property." The broader concept is framed by the concepts of population protection<sup>1</sup>, which allow to better capture the complexity of population protection tasks and also better reflect the variability of determining conditions.

The current key legislation regulating population protection has been amended 12 times since its adoption 20 years ago. With regard to dynamic social and technological changes introduced by the upcoming Society 4.0, a solution based on further amendments is no longer sustainable, and therefore improving systemic conditions for an effective prevention, preparedness and response policy by drafting a completely new piece of legislation becomes of major importance.

The ambition of the present project, in line with Article 3(1)(a) of Decision No. 1313/2013/EU of the European Parliament and of the Council, is to foster a culture of prevention in the conditions of the Czech Republic and improve cooperation between individual

<sup>&</sup>lt;sup>1</sup> Population protection concept until 2006 with outlook to 2015 (2002); Population protection concept until 2013 with outlook to 2020 (2008); Population protection concept until 2020 with outlook to 2030 (2013)

components of the civil protection system. The main output of the project is the presented analytical-synthetic study reviewing the existing national system and examples of good practice from abroad. Part of the solution is the proposal of key directions for further development of population protection.

The secondary use of the present study is strengthening of information activities. The study can be seen as a comprehensive introductory document, which can be followed by further research and analytical activities carried out by Member States or the European Commission (e.g. activities of the Disaster Risk Management Knowledge Centre).

### 2 STUDY GOALS AND FOCUS

In the Czech Republic, population protection is a system of organisational and technical measures, through which the protection of lives and health of people, property and the environment in the event of emergencies and crisis situations is ensured. Although the functionality of the current system has been proven on repeated occasions, the system is confronted on an increasing scale with new trends, integrated risks and the emergence of Society 4.0. There is room for improvement primarily in the area of institutional capacity building and the legislative environment. The existing legislation fails to create the environment required for further developing the system and ensuring a flexible response to current threats.

Practical experience shows there is a need to newly anchor population protection in the law by a separate piece of legislation addressing specifically population protection.

This situation has become the starting point for determining the main objective of the present study, which is to:

# Identify the possibilities of further development of population protection in the conditions of the Czech Republic.

Partial objectives, which are also partial steps of the process:

- Description and assessment of the current status of population protection in the Czech Republic;
- Description of the current state of population protection systems in selected countries and assessment of their applicability;
- Proposal of principal points of the new legal regulation.

### Study scope and focus:

- Matters related to fire protection, crisis management, critical infrastructure, provision of medical services, etc., are not primarily addressed by the study. They are only addressed when directly related to population protection.
- The purpose of the study is not to discuss terminology and to harmonise the terms used abroad with the terms used in the Czech Republic. The study focuses on the description of systemic parameters of population protection in selected countries.
  - If terms used for the agenda of population protection are discussed in more detail, it is only done for the purpose of clarifying the covered areas.
  - In the Czech Republic, population protection is a term encompassing a system of measures for which the terms "civil defence" and later "civil protection" were used historically. Analogous systems were built in most other countries and their focus has been primarily on the protection of the civilian population from the consequences of armed conflicts and are anchored in the public international law. The study therefore focuses on the continuation of these systems in national conditions. In the condition of the EU, the term "civil protection" is used for this set of measures.

### 3 METHODOLOGY

In order to achieve the highest possible information value and obtain a qualified overview of the current status of population protection systems, individual thematic areas were first outlined during the initial project team meetings and criteria were chosen for the description of population protection systems in the Czech Republic and in selected countries.

The criteria serve as comparative indicators. They are elaborated in more detail in a questionnaire provided in an Annex to this study.

The criteria are shown in Table 1.

**Table 1:** Comparative indicators

THEMATIC AREA	THEMATIC AREA COMPARATIVE INDICATOR	COMPARATIVE INDICATOR CHARACTERISTICS
1 Population	a) System focus	Threats / threat categories addressed by the
protection system		system
	b) Legal framework	Key legislation
	c) System financing	Key sources of financing (vertical financing –
		budget-based; horizontal financing - fund-
		based; other financial instruments)
	d) Management	Management structure at national, regional and
		local levels
	e) Key actors	Government organisations – forces and
		resources financed mainly from the state
		budget
		Non-governmental organisations – forces and
		resources financed mainly from territorial
		budgets
	f) Existence of a research base	Research support for the fulfilment of tasks and
	-,	measures
2 Population	a) Measures in relation to non-	Codification of key technical and
protection measures	military threats	organisational measures
1	b) Measures in relation to military	
	threats	
	c) Planning of population	Planning documentation update schemes
	protection measures	
	d) Early public warning	Existence of the system and its components
3 Role of the citizen in	a) Legal anchoring of personal	Personal and material participation of citizens
the system	engagement of the citizen	
•	b) Education and training of	Forms of preparation of elected representatives
	elected officials	
	c) Education and training in	Forms of education and training of the studying
	school curricula	population
	d) Educating and informing the	Forms of education and training of the general
	public	population

The project consisted of the following key steps:

# • Description and assessment of the current status of civil protection in the Czech Republic (hereinafter "KA 1").

The first step for the implementation of KA 1 was data collection and subsequent data evaluation. For data collection, the relevant Czech information sources, in particular legal regulations, strategic and conceptual documents and expert studies were used as starting documents. The description and content analysis method were used and comprehensive research in the matter was performed. The obtained findings were subject to critical review.

• Description of the current state of population protection systems in selected countries and assessment of applicability of the applied approaches in the Czech Republic (hereinafter "KA2")

The subject of the comparison were the following selected countries, which are relevant from the point of view of the needs of the Czech Republic, shown in Table 2.

**Table 2:** Countries assessed under KA 2

GROUP OF COUNTRIES	COUNTRY
Baltic countries	Estonia
	Lithuania
	Latvia
Scandinavian countries	Denmark
	Norway
	Sweden
Southern European countries	Italy
	Croatia
	Slovenia
Western European countries	France
	Germany
	United Kingdom

The above countries are part of the EU and NATO structures. Exceptions to this rule are the United Kingdom and Norway, which are not members of the EU, and Sweden, which is not a NATO member.

The countries represented in the above groups differ in many aspects. Therefore, to ensure better understanding, we provide a brief characteristic of each country in the descriptive part of the study (the data are presented as at 2018):

- Area (km<sup>2</sup>);
- Selected demographic indicators (population; population density inhabitants/km²);
- Selected macroeconomic indicators (GDP USD million; GDP/capita USD);
- Administrative set-up.

Similarly as in the case of the KA 1 activity, the first step consisted of data collection. In the case of KA 2, three data collection sub-steps were planned.

In the first step, publicly available information was researched, focusing mainly on legislative, strategic and conceptual documents, as well as expert studies.

The second data collection step consisted of developing a questionnaire the extent of which corresponded to the comparative indicators shown in Table 1. The questionnaire was subsequently distributed to the relevant organisations. The questionnaire was distributed to a total of 29 organisations (of which: 12 governmental agencies or national authorities responsible for population protection; 13 universities or colleges; 3 fire rescue services; 1 research organisation) in the 12 compared countries. Five countries responded to the questionnaire.

The third data collection step was planned to be carried out during study stays at the relevant national and regional population protection authorities. The planned number of countries visited was set at half of the total sample, taking into account organisational and financial limits. The countries selected as countries of primary interest for the local survey were

Denmark, Sweden, Lithuania, Latvia, the United Kingdom, and France. However, due to the unexpected outbreak of the SARS CoV-2 pandemic and due to restrictive national measures imposed by individual European countries, it was not possible to validate the information in this way. The project team therefore decided to use an alternative approach focusing instead on an in-depth analysis of population protection systems with the aim of ensuring high information value of the study in spite of the occurring *force majeure* circumstances.

Following the data collection step, a description of the current situation was prepared, mainly based on content analysis of the collected data and thorough research of the issue. The obtained findings were subject to critical review. The general scientific method of an analogy was applied to evaluate their applicability to address the needs of the Czech Republic.

### • Elaboration of final implementation outputs (hereinafter "KA 3")

Synthesis was the main method used for the last project activity. Findings obtained in the KA1 and KA2 stages were subjected to synthesis. The result is a solution proposal adapted to the conditions of the Czech Republic based on the assessment of the current status and of the experience from other countries.

The descriptions of the current state of the system in the Czech Republic and in other countries also contain a list of information sources used. The used abbreviations are explained in the text.

# 4 POPULATION PROTECTION SYSTEM IN THE CZECH REPUBLIC

### 4.1 System history and its basic characteristics

When initially established, the population protection system was developed primarily as a response to a threat of an armed conflict. The implemented measures were therefore initially aimed primarily at protecting civilians from the impacts of an armed conflict.

The development of an organised system of population protection in the Czech circumstances can be divided into several stages. In terms of system development, the following development stages can be distinguished:

- Civil air defence (1935–1951);
- Civil defence (1951–1992);
- Civil protection (1993–2000);
- Population protection (2001 present).

When describing the individual development stages, we focus mainly on the following indicators:

- Designation used;
- Predominant focus;
- Departmental affiliation;
- Selected key legislation.

A general overview of key information summarising the development of population protection with regard to the monitored indicators is provided in Table 3.

**Table 3:** *Developmental stages of population protection* 

DESIGNATION	PREDOMINANT FOCUS	DEPARTMENTAL AFFILIATION	SELECTED KEY LEGISLATION
Civil air defence	Protection against air attacks and use of chemical weapons	Ministry of the Interior	<ul> <li>Act No. 82/1935 Coll.</li> <li>Act No. 75/1938 Coll.</li> <li>Government Regulation No. 136/1938 Coll.</li> <li>Government Regulation No. 127/1938 Coll.</li> </ul>
Civil defence	<ul> <li>Protection against the impacts of attacks during conventional armed conflicts</li> <li>Protection against the impacts of attacks during armed conflicts involving the use of weapons of mass destruction</li> <li>Protection against the impacts of large-scale</li> </ul>	<ul> <li>Ministry of the Interior</li> <li>Ministry of Defence</li> </ul>	<ul> <li>Government resolution of 1951</li> <li>Government resolution of 1958</li> <li>Act No. 40/1961 Coll.</li> <li>Directive on Civil Protection of the Czechoslovak Socialist Republic of 9 December, 1982</li> </ul>

DESIGNATION	PREDOMINANT FOCUS	DEPARTMENTAL AFFILIATION	SELECTED KEY LEGISLATION
	natural disasters and industrial accidents	AFFILIATION	LEGISLATION
Civil protection	<ul> <li>Preparation for the fulfilment of tasks arising from Additional Protocols I and II to the Geneva Conventions</li> <li>Protection against the impacts of large-scale natural disasters and industrial accidents</li> </ul>	Ministry of Defence	<ul> <li>Government Resolution No. 126 of 17 March, 1993</li> <li>Government Resolution No. 710 of 12 November, 1997</li> <li>Act No. 110/1998 Coll.</li> </ul>
Population protection	Protection against emergency events and crisis situations	Ministry of the Interior	<ul> <li>Act No. 239/2000 Coll.</li> <li>Act No. 240/2000 Coll.</li> <li>Act No. 320/2015 Coll.</li> </ul>

Detailed description of individual developmental stages of population protection is provided below.

### **Civil air defence (1935–1951)**

The civil air defence system is generally considered to be the forerunner of today's civil protection system. Although the period from 1935 to 1951 is a stage where civil air protection was established as an organised system anchored in legal regulations, it is possible to identify certain initiatives pertaining to this system already during World War I.

World War I was the first armed conflict in which the potential of aerial space was used to a greater extent as a place to conduct war operations. Initially, the air force was used primarily for intelligence purposes and thus no measures were systematically developed to protect against air attacks aimed at civilian targets in the then territory of Austria-Hungary. The situation did not change significantly until after May 1915, when Italy revoked its neutrality and declared war on Austria-Hungary. Italy, which had a relatively large number of attack squadrons, posed a threat to some rear areas of Austria-Hungary, especially industrial operations and larger cities. These areas behind the battle line were called the "rear". It was therefore necessary to start implementing measures that would prevent potential damage caused by air attacks. Due to lack of experience, defence against these attacks was modelled according to the approaches applied in Germany, and a system of "anti-aircraft defence in the rear" (hereinafter "RAD") was gradually developed, initially only as part of military structures.

The importance of the rear stemmed mainly from its military production potential. The RAD system consisted of observation and reporting services operated as part of the army's activities, later also with the participation of civilian forces. In November 1916, at the request of the Minister of War, a decree was issued by the Minister of the Interior on the basic principles of RAD, which already presumed significant participation of the civilian population. The army became primarily responsible for active RAD (e.g. the use of anti-aircraft batteries), while the civilian RAD primarily consisted of passive protection measures (e.g. the use of acoustic signals to warn the population, blackout to mitigate the consequences of night attacks).

After the end of World War I, when the generally shared euphoria over the end of this protracted conflict subsided, all concerns relating to the threat of a war conflict were pushed aside. The situation didn't change significantly until the late 1920s. The use of aviation and the development of passive defence (a set of procedures and defence measures aimed at protection against air attacks) naturally attracted the attention of military theorists and the general political public. The war experience also drew attention to the danger of chemical weapons.

In response to the above facts, based on an initiative by the Ministry of National Defence and with the active contribution of the Czechoslovak Red Cross, the Central Office of Population Defence and its local committees were established and launched operation in 1930. It was a non-governmental organisation that dealt mainly with the study of the options of protecting the population against air attacks and against the threat of the use of chemical weapons. The establishment of the organisation marked a symbolic beginning of the development of a system of protection of civilian population against impacts of war conflicts.

In the context of political developments in the neighbouring Germany, in particular after 1933, it could not be ruled out that the German foreign policy might be to use all means, including military, to achieve the outlined objectives. As part of intensive rebuilding of the German army, extensive effort was invested also in building the German air force.

It thus became clear that passive defence could no longer be ensured on a voluntary basis and therefore, in accordance with this belief, Act No. 82/1935 Coll., on the protection and defence against air attacks, was adopted in 1935, which became a pillar of the civil air defence system (hereinafter "CAD"). With the adoption of the new law, the operation of the Central Office of Population Defence and its local committees was automatically terminated. The central management of CAD became the responsibility of the Ministry of the Interior.

This above-mentioned piece of legislation was complemented with government regulations. In 1938, the Act on Civil Air Defence was amended by Act No. 75 of 8 April, 1938, in response to the imminent military threat faced by Czechoslovakia from Germany.

Act No. 82/1935 Coll. focused on the following areas:

- Section 1 Protection against air attacks;
- Section 2 Defence against air attacks;
- Section 3 Trade licensing provisions;
- Section 4 Criminal law provisions;
- Section 5 Final provisions.

The structuring of the Act allowed for almost every provision to be extended by an implementing legal regulation, which to a large extent had the potential to keep the original wording of the Act "alive". In particular, it specified the obligations of the key entities constituting the system. The Act did not elaborate on the specific areas of CAD and the respective institutional structure as these were specified in more detail in separate laws and implementing departmental regulations.

Although the topics addressed in the above-mentioned Act are obsolete from today's point of view, the approach to the issue through an umbrella law is inspiring.

Specific laws governing specific areas of CAD were, for example:

- Act No. 184/1937 Coll., of 1 July, 1937 on military education;
- Act No. 131/1936 Coll., of 13 May, 1936 on national defence.

Selected implementing regulations of Act No. 82/1935 are shown in Table 4.

**Table 4:** Regulations implementing Act No. 82/1935

REGULATION	REGULATION TITLE
NUMBER	
83/1935	Government Regulation of 17 April, 1935 on trade involving production, repair and sale of gas masks and their components, as well as their testing, import and export
199/1935	Government Regulation of 18 October, 1935 adopting certain regulations governing the acquisition of gas masks and certain obligations of municipalities under the Act on Protection and Defence against Air Attacks
192/1937	Government Regulation of 9 July, 1937 amending and supplementing Government Regulation No. 83 Coll. of 17 April, 1935 on trade involving production, repair and sale of gas masks and their components, as well as their testing, import and export and stipulating provisions on certain other items and equipment used to protect against air attacks
127/1938	Government Regulation of 9 June, 1938 stipulating further regulations governing the acquisition of gas masks
136/1938	Government Regulation of 24 June, 1938 stipulating regulations governing the provision of kits for provision of first aid after air attacks.

Legal regulations governing CAD were *de facto* valid only until the proclamation of the Protectorate of Bohemia and Moravia, i.e. until 15 March, 1939. Significant changes took place during World War II, when all CAD management was transferred under the Protectorate Police in 1940. A year later, all passive defence activities were completely transferred under the German Luftschutz.

The emergence of CAD was thus a response to the growing threat of war, especially to attacks by the air force and potential use of chemical weapons.

### **Civil defence (1951–1992)**

Just as the CAD system was influenced by the atmosphere of the interwar period, the civil defence system was formed under the influence of the then post-war arrangement of powers, when as a result of bipolar confrontation two blocs representing antagonistic ideologies stood against each other.

At the beginning of the 1950s, potential new subject matter areas and new organisational set-up of passive protection were discussed. The result of these considerations was the adoption of Government Resolution on Civil Defence of 13 July, 1951.

With the adoption of the said resolution, a system of civil defence was established in the Czechoslovak Republic, the management and organisation of which became the responsibility of the Ministry of the Interior, which established a dedicated organisational unit for this purpose. Specific laws governing the field of civil defence were, for example:

- Act No. 92/1951 Coll., on military education, which repealed the existing Act No. 184/1937 Coll., on military education;
- Act No. 87/1952 Coll., on reorganisation of military education.

In accordance with the concepts of the time, the civil defence system was built in response to a threat of a war conflict involving use of conventional or chemical weapons.

However, starting from the mid-1950s, it became clear that the existing system would need to be adapted to the growing threat associated with the development of weapons of mass destruction (WMD). Therefore, a revision of the hitherto valid resolution on civil defence of 1951 was initiated and Government Resolution No. 49 on civil defence together with the accompanying directive were adopted in 1958.

Although the system was still designed primarily to protect against the threat of war associated with the use of WMD, the 1958 resolution and the accompanying directive also included a provision stating that the role of civil defence (hereinafter "CD") is also to respond to natural disasters and calamities.

The new resolution preserved the basic principles of CD; most importantly, the system was still managed by the Minister of the Interior. A partial change in the legal basis of CD was brought about by Act No. 40/1961 Coll., on the defence of the Czechoslovak Socialist Republic, which, among other things, repealed Act No. 82/1935. The Act introduced the first legal definition of civil defence and it remained in force until 1999 when it was repealed by Act No. 222/1999 Coll., on securing the defence of the Czech Republic.

Act No. 40/1961 Coll. had the following structure:

- Part Basic provisions
- Part Defence in the state of military readiness
- Part Civil defence (S. 15, S. 16)
- Part Training citizens for national defence
- Part Other measures in the interest of national defence
- Part Refund provisions
- Part Common and final provisions

S. 15 of the said Act contained the following clause: "The civil defence, as part of national defence, includes measures to ensure protection and defence of the population against the consequences of enemy air attacks, to create conditions for the smooth operation of the economy under enemy air attacks, and to eliminate the consequences of such attacks."

Based on a government decision, obligations could be imposed on citizens and organisations to secure civil defence tasks. Civil defence training became part of the training of citizens for national defence. The common and final provisions of the Act granted the Ministry of Interior the powers to ensure civil defence that had until than belonged to the military administration (according to the Building Code).

The ongoing process of normalisation together with the influence of the doctrinal ideology of the Warsaw Pact led to the adoption of a resolution of the National Defence Council of the Czechoslovak Socialist Republic as a result of which the responsibility for CD was transferred to the Federal Ministry of National Defence. Starting from 1 January, 1976, CD became an integral part of the national defence system.

Similarly as before, the system was conceived to ensure protection against the threat of a war conflict involving the use of WMD. However, its role in non-military areas continued to increase in significance.

On 1 January, 1983, the Government Resolution of 1958 regulating civil defence was replaced by the Directive on Civil Defence of the Czechoslovak Socialist Republic, which had the following structure:

- Head 1 CD mission, tasks and measures;
- Head 2 CD management;
- Head 3 CD tasks and organisational set-up;
- Head 4 Role of National Front organisations in ensuring CD;
- Head 5 Material, technical and financial securing of CD.

In connection with the events of 1989 and the subsequent socio-political changes, it was necessary to adapt the existing system to a qualitatively different security situation and thus

ensure its transition to use for peacetime purposes. Accordingly, in 1990, with the adoption of amendments to the hitherto valid Directive on Civil Defence of the Czechoslovak Socialist Republic, the hitherto used terminology was replaced with terms corresponding to the new conditions and new directives governing the operation of non-military civil defence were adopted. Furthermore, new Additional Protocols to the Geneva Conventions were ratified on 19 January, 1990.

### **Civil protection (1993–2000)**

The proclamation of the independent Czech Republic brought about significant changes in the conditions defining the functioning of CD. In particular, a new term was adopted to designate the matters in question – "civil protection". This development stage was completed in 2000 and can be characterised as a period of searching for the new role and place of civil protection in a changed security environment and of building a system based on models used by developed countries.

The term "civil protection" was introduced in connection with the amendment of the Act on the Establishment of Ministries and Other Central Government Authorities of the Czech Republic, which stipulated the Ministry of Defence of the Czech Republic as the central state administration authority responsible for matters of civil protection. The newly introduced term reflected a narrower interpretation of civil defence within the meaning of the international humanitarian law, but it was not exactly defined by a generally binding legal regulation.

One of the key documents regulating the subject matter was Government Resolution No. 126 of 17 March, 1993. In an annex to the Resolution, "Civil Protection Measures of the Czech Republic" were set forth and the annex stipulated that the new civil protection system would take into account a concept created by the Army of the Czech Republic and would be in full compliance with Additional Protocol I and II to the Geneva Conventions.

In connection with the Czech Republic's efforts to participate in European and Euro-Atlantic structures, also international activities in the field of civil protection were intensified starting from the mid-1990s. In relation to the European Union (hereinafter the "EU"), cooperation was initiated with relevant organisations, in particular with the European Commission – Directorate-General for the Environment, which covered the matters of civil protection. Within the framework of cooperation with the North Atlantic Alliance (hereinafter the "NATO"), introduction of civil emergency plans began as one of the tools of non-military cooperation under the Partnership for Peace programme.

These integration efforts, combined with the aftermath of major floods in 1997, accelerated the adoption of Government Resolution No. 710 of 1997, which assigned the Minister of the Interior and the Minister of Defence the task of transferring civil protection back under the Ministry of the Interior. Another significant step contributing to the creation of legal environment for the newly conceived security system and to shaping the role of civil protection was the adoption of Constitutional Act No. 110/1998 Coll., on the security of the Czech Republic.

The process of transferring the execution of state administration in civil protection matters to the Ministry of the Interior of the Czech Republic was completed on 1 January, 2001 with the entry into force of the relevant legal regulations.

### **Population protection (2001 – present)**

The change in departmental responsibilities in matters of population protection created a qualitatively different situation. This developmental stage, which has lasted since 2001 until

present, can be characterised by an effort to safeguard the protection of the population and its living conditions especially in relation to everyday emergency events and crisis situations of non-military nature, but also by focus on preparing the system for a potential armed conflict.

In mid-2000, an "emergency and crisis legislation" package was adopted, in particular Act No. 238/2000 Coll., on the Fire Rescue Service of the Czech Republic and on amendments to certain acts, Act No. 239/2000 Coll., on the integrated rescue system and on amendments to certain acts, and Act No. 240/2000 Coll., on crisis management and on amendments to certain acts. The concept of population protection was introduced into the legal system.

The key piece of legislation pertaining to population protection, the Act on the Integrated Rescue System (hereinafter the "IRS"), was further detailed by implementing regulations. The structure of the Act is as follows:

### Part 1

- Head 1 Basic provisions
- Head 2 IRS
- Head 3 The role and tasks of state authorities and bodies of territorial self-governing units in emergency preparedness and in carrying out rescue and relief work
- o Head 4 Organisation of rescue and recovery work at the scene of the intervention

### • Part 2

- Head 1 Legal entities, self-employed persons and individuals
- o Head 2 Exceptions
- o Head 3 Audits, penalties, compensations and financial security
- Head 4 Common and final provisions

### Part 3

- Head 1 Amendment to the Act on the Establishment of Ministries and Other Central State Administration Authorities of the Czech Republic
- o Head 2 Repealed

### • Part 4

The necessary changes were made to the Act on the Establishment of Ministries and Other Central Government Authorities of the Czech Republic as a result of which the Ministry of the Interior of the Czech Republic became the central body of state administration in matters of population protection.

In 2015, the current Act on the Fire Rescue Service of the Czech Republic was repealed and replaced by Act No. 320/2015 Coll., which already explicitly states that the Fire Rescue Service of the Czech Republic participates in ensuring the security of the Czech Republic, including by executing and organising tasks relating to population protection. The tasks of the Ministry of the Interior in the area of population protection are performed by the Ministry of the Interior – Directorate General of FRS CR. In relation to population protection, regional FRS units act as administrative bodies responsible for the execution of state administration in the territorial district of the relevant higher territorial self-governing unit.

At present, population protection is defined by law as: "Fulfilment of civil protection tasks, namely warning, evacuation, sheltering and emergency survival of citizens, and other measures ensuring protection of lives, health and property." This definition refers to the term "civil protection", while the law refers to Article 61 of Additional Protocol I to the Geneva Conventions of 12 August, 1949, relating to the protection of victims of international conflicts, adopted in Geneva on 8 June, 1977. However, the text of Protocol I includes the term "civil

defence" as well as "protection of civilian population". The term "civil protection" is not explicitly mentioned in Protocol I.

The current concept of population protection in the context of its development is shown in Table 5.

**Table 5:** *Systemic integration of population protection* 

POPULATION PROTECTION						
	Civil protection Civil defence					
				f national State of war reat		
	NON-MILITARY THREATS MILITARY THREATS					

### 4.2 Attempts to adopt dedicated legislation

As regards the definition of the scope of the matters relating to population protection in legislation at various stages of the system's development, it should be noted that during the existence of the system, a total of three attempts were made to regulate population protection by adopting a dedicated piece of legislation. In essence, these attempts were to replace the incumbent or unsatisfactory legislation and legislate population protection in a generally binding legal act (law).

These attempts were made in the following periods:

- 1948–1950:
- 1969–1974;
- 1990–1993.

### Period of 1948–1950

In the autumn of 1948, the then Ministry of the Interior drafted an outline of the Civil Protection Act (or the Air Defence Act). The presented proposal was significant in that it sought a unified approach to addressing the issue of fire protection and protection against air attacks. Given the name of the act, it is evident that the issue of population protection, or civil air defence / civil protection was perceived as an umbrella approach.

The outline of the law consisted of three parts:

- The first part addressed civil protection;
- The second part addressed fire safety;
- The third part addressed protection against air attacks.

The act defined civil protection as an organised, state-controlled activity aimed at preventing and eliminating the causes, consequences and damage caused by fires, natural disasters and other threats, and during wartime by air and other similar attacks.

Such a unified concept was rejected by the Ministry of National Defence and the bill was not discussed by the then legislative body (National Assembly).

Further developments in the effort to draft a law regulating population protection were paralysed by the adoption of the Fire Protection Act (Act No. 62/1950 Coll.) on 17 May, 1950 and by the adoption of accompanying government regulation on the establishment of a system of protection against fire and other natural disasters, which blocked any efforts to ensure participation of civil defence in a response to emergency events.

The result was an approach addressing civil defence through the above *Government Resolution on Civil Defence* of 1951.

### Period of 1969–1974

At the end of the 1960s, work began on drafting the Civil Defence Act. The main reason for this step was that civil defence measures affect nearly all spheres of society and cannot be further implemented within the intentions of the Government Resolution of 1958 and the Defence Act of 1961, which elaborated on civil defence only marginally. However, preparations for the bill were long and the final draft was not ready for discussion by the State Defence Council until 1974.

At that time, however, preparations were already being made for the transfer of departmental responsibility for the matters of civil defence to the Ministry of Defence, and further preparation of the law was suspended.

### Period of 1990–1993

In the period of 1990–1991, when adaptation of the existing civil defence system to new conditions was necessary, the issue of laying down population protection (civil defence) in the law became pressing again, also in connection with the newly drafted constitutions of the Czech Republic and the Slovak Republic. Until then, the issue had been regulated very broadly by Act No. 40/1961 Coll., on the defence of the Czechoslovak Socialist Republic. After the analysis of the said act, it was concluded to regulate civil defence in a dedicated act (as in all developed countries).

The structure of the bill was as follows:

- Introductory provisions;
- Location, mission, tasks, scope and organisation of civil defence;
- Rights and obligations of legal entities, individuals and other business entities;
- Legal settlement;
- Breach of obligations and infringement proceedings;
- Property relations;
- Financing of civil defence activities;
- International relationships;
- Final and transitional provisions.

### 4.3 Description of the system according to comparative indicators

 Table 6: Basic characteristics of the Czech Republic

DEMOGRA		LECTED OGRAPHIC ICATORS	SELECTED MACROECONOMIC INDICATORS		SYSTEM OF	
(km²)	Population	Population density (inhabitants/km²)	GDP (millions of USD)	GDP/capita (USD)	GOVERNMENT	
78,870	10,629,928	134.8	245,226	23,069	Parliamentary republic	

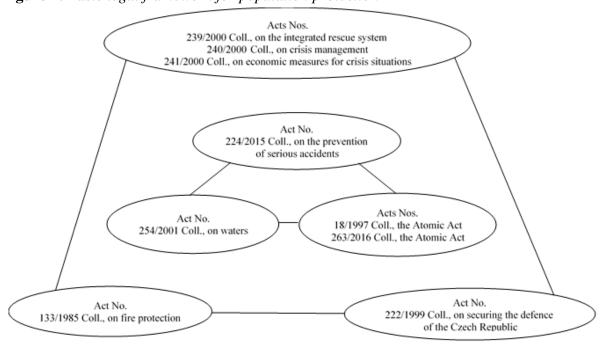
1a)

The term population protection refers to an integrated system of relationships, links and specific measures implemented to eliminate impacts of various situations on protected interests – on the lives and health of the population and on property. It focuses on commonly occurring emergency events, large-scale non-military disasters and armed conflicts. Fulfilment of population protection tasks in situations of a state of national threat or a state of war does not significantly differ from their fulfilment during peacetime. These are complemented by specific tasks arising from the Geneva Conventions of 12 August, 1949 and their Additional Protocols.

**1b**)

In the Czech Republic, population protection is not codified by a dedicated piece of legislation that would deal with this issue exclusively or primarily. The key legal regulation is Act No. 239/2000 Coll., on the integrated rescue system. However, population protection is regulated also by other legal regulations. The basic legal framework in a broader sense is shown in Figure 1.

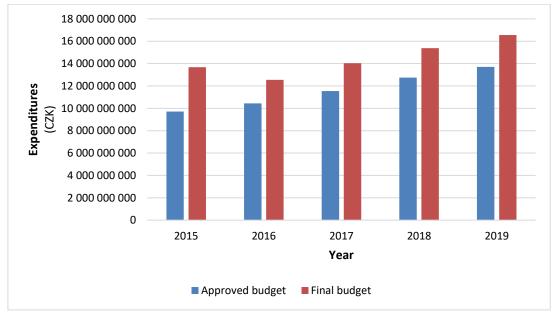
**Figure 1:** Basic legal framework for population protection



Act No. 239/2000 Coll., on the integrated rescue system, stipulates that the Ministry of the Interior and the regional government shall earmark funding in their draft budgets to cover expenditures necessary, inter alia, for population protection.

However, according to Decree No. 323/2002 Coll. on the budget structure, also other ministries and central administrative authorities co-finance population protection from their budgets. Although there is no specific budget chapter reserved for expenditures relating to population protection, the budget heading "5 National security and legal protection" can be described as the most clearly relating to population protection, namely the sections "52 Civilian preparedness for emergency situations" and "55 Fire protection and integrated rescue system".

The evolution of expenditures from the approved budget and the final budget for sections 52 and 55 for the period 2015 to 2019 is shown in Figure 2.



**Figure 2:** Population protection expenditures

As regards the financing of population protection, no political commitment to a fixed share of expenditures in relation to GDP has been made by the Czech Government as is the case with defence expenditures (commitment resulting from NATO membership -2% of GDP).

In addition to financing from the state budget, also financing from Structural Funds and, indirectly, from insurance companies is used to cover expenditures relating to population protection.

As far as the Structural Funds are concerned, the Integrated Regional Operational Programme (IROP) is the major source of financing in the current programming period of 2014–2020 available for the acquisition of equipment that can be used for population protection purposes. The support available under IROP is available to all regions of the Czech Republic with the exception of the capital city of Prague. The funds have been used, for example, for the acquisition or reconstruction of fire stations, modernisation of training centres, acquisition of equipment for training centres, acquisition of firefighting equipment for volunteer fire departments, purchasing of equipment for rescue and relief work in natural disasters, acquisition of fire trucks and/or transport vehicles for evacuation and emergency supplies to residents, etc. Funding is obtained also under other programmes, e.g. the Operational Programme

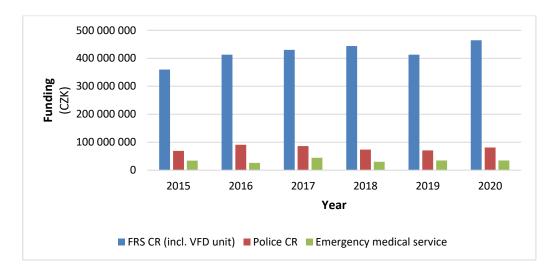
Environment (financing of mitigation measures in connection with climate change, financing of elements of warning and information systems, etc.).

A Damage Prevention Fund was established in the Czech Republic to finance the equipment of Integrated Rescue System units, and thus also for mediated action to ensure population protection. It brings together contributions from insurance companies made from premiums collected from statutory motor third party liability insurance.

The Damage Prevention Fund was established by Act No. 160/2013 Coll., amending Act No. 168/1999 Coll., on motor third party liability insurance. Since 1 January, 2014, it has been managed by the Czech Insurers' Bureau, acting as a trade association.

Insurance companies that are entitled to provide liability insurance for damage caused by the operation of a vehicle in the Czech Republic annually contribute 3% of the premiums received from motor third party liability insurance to the Damage Prevention Fund. The collected funds are used to prevent damage arising from the operation of vehicles (acquisition of equipment or material resources needed for the activities of basic and other IRS units relating to mitigation and prevention of damage caused by operation of vehicles; modifications of equipment and activities of operational and information centres of the Fire Rescue Service in connection with provision of the necessary assistance to drivers; implementation of projects focusing on road safety approved by the Government of the Czech Republic; implementation of projects focusing on road safety according to prevention programmes focusing on damage from vehicle traffic).

Funding from the Damage Prevention Fund provided to the IRS units in the period from 2015 to 2020 is shown in Figure 3.



**Figure 3:** Funding provided by insurance companies to finance the equipment of IRS units

**1d**)

The proper functioning of the population protection system is conditioned by broad cooperation at all levels of state administration, self-government and the business and non-profit sector. The Fire Rescue Service of the Czech Republic plays a central role in this system. The Ministry of the Interior – Directorate General of the Fire Rescue Service of the Czech Republic (hereinafter the "MoI – DG FRS CR") is the central body for the performance of state administration in matters of population protection. In addition to the actual implementation of population protection, MoI – DG FRS CR coordinates and directly aligns procedures followed

by other ministries, central administrative authorities, regional and municipal authorities, legal entities and self-employed individuals.

At the regional level, the key role is played by regional authorities and authorities of municipalities with extended powers (hereinafter the "MEP"). In particular, these are regional authorities, MEP authorities, or regional governors or mayors of MEP. The tasks of the regional and MEP authorities are performed by the respective regional FRS unit.

At the local, i.e. municipal level, the municipal authorities, i.e. the municipal office and the mayor's office, play a decisive role. An organisation called civil protection establishment can also be used to fulfil the tasks imposed by law on the municipal authority, but most often the relevant fire protection units established by the municipality are used for this.

### 1e)

In the Czech Republic, both governmental and non-governmental organisations are active in the field of population protection.

According to the IRS Act, a distinction is made between core and other components. The core components include:

- Fire and Rescue Service of the Czech Republic;
- Fire protection units included in the area coverage of the region by fire protection units (hereinafter the "FP units");
- Emergency medical service;
- Police of the Czech Republic.

Other components of the IRS that provide planned assistance on request during rescue and relief operations include:

- Dedicated forces and resources of the armed forces;
- Other armed security forces;
- Other rescue corps;
- Public health authorities;
- Emergency, assistance, professional, and other services;
- Civil protection establishments;
- Non-profit organisations and civic associations that can be used for rescue and relief work;
- In emergency events, also acute inpatient care providers who have established an emergency reception.

### **Selected governmental organisations**

### • Fire and Rescue Service of the Czech Republic

The FRS CR is a key organisation established by the government in the field of population protection, whose activities are regulated by Act No. 320/2015 Coll. on the Fire and Rescue Service of the Czech Republic. The Fire and Rescue Service of the Czech Republic is a unified security corps, whose basic task is to protect the lives and health of the population, the environment, animals and property from fires and other emergencies and crisis situations.

The FRS CR participates in protecting the security of the Czech Republic by fulfilling and organising tasks relating to fire protection, population protection, civil emergency planning, integrated rescue system, crisis management and other tasks, to the extent and under the

conditions set by Act No. 320/2015 Coll. on FRS and other legal regulations, such as Act No. 239/2000 Coll., on IRS, Act No. 240/2000 Coll., on crisis management or Act No. 133/1985 Coll., on fire protection.

The Fire and Rescue Service consists of the Directorate General, regional FRS units, the rescue unit, and the school. The staffing of the FRS CR is shown in Table 7.

**Table 7**: FRS CR resources (2018)

NUMBER OF	NUMBER OF	NUMBER	NUMBER OF STAFF
REGIONAL FRS	TERRITORIAL	OF	
UNITS	DEPARTMENTS	STATIONS	
14	76	243	10,850 (9,793 on service duty and 1,057 in employment relationship)

### • FP unit – FPU I

 $FPU\ I-fire\ protection\ unit.$  Other fire protection units are listed among NGOs, see below.

### • Police of the Czech Republic

PCR is a governmental organisation that is an executive body of the state power responsible for safeguarding the security of citizens, protection of property and public order. Its tasks, organisation and powers are set forth by Act No. 273/2008 Coll., on the Police of the Czech Republic, as amended.

In 2018, there were a total of 40,401 police officers in the Czech Republic.

### • Army of the Czech Republic

In the area of population protection, the Czech Army provides assistance on a subsidiary basis. In accordance with Act No. 219/1999 Coll., on the armed forces of the Czech Republic, the Army of the Czech Republic may also be used, inter alia, for rescue operations during disaster events or other serious situations when lives, health, material property or the environment are in danger, or to deal with the consequences of a disaster; to eliminate another imminent danger using military equipment; to ensure air medical transport; to provide air services; to fulfil humanitarian civil protection tasks.

In 2018, the Ministry of Defence had a total of 33,084 employees, of which 25,105 were professional soldiers, 6,796 civilian employees and 1,183 civil servants. In addition, the system of voluntary military service, i.e. a system of active reserve forces, is enacted in the Czech Republic. Their primary purpose is replenishing the armed forces in a state of national threat or a state of war, but the reserves can also be deployed in non-military crisis situations to protect human health, prevent damage to property caused by natural disasters or to eliminate their consequences. In 2018, there were 2,853 members of active reserve forces registered.

### **Selected non-governmental organisations**

### FP units

Fire protection units perform fire interventions and rescue and relief work during natural disasters and other emergencies. They consist of professionally trained persons and are equipped with firefighting equipment and material means for fire protection.

For the purposes of area coverage, FPUs are organised as shown in Table 8.

**Table 8:** Overview of FP units

SERVICE PERFORMANCE	FPU	DESCRIPTION	CREW TURNOUT TIME (min.)	SERVICED AREA (min.)	NUMBER OF FPUs	NUMBER OF STAFF
	I	FRS CR unit	2	20	243	6,797
Professional	IV	Corporate fire rescue service unit	2	-	96	2,899
Voluntary	II	Municipal volunteer fire brigade	5	10	236	
	III	Municipal volunteer fire brigade	10	10	1,355	69 162
	V	Municipal volunteer fire brigade	10	-	5,255	68,463
	VI	Corporate volunteer fire brigade	10	-	140	

FP units are a specific type of response units positioned on the borderline between the governmental and non-governmental organisation. More specifically, FPU I are government organisations, as they are part of the Fire and Rescue Service of the Czech Republic (regional FRS) and their activities are financed from the state budget. FPU II–VI are non-governmental units and are therefore financed from the budgets of their founders (municipalities, companies).

### • Emergency medical service

The provider of emergency medical services is a budgetary organisation established by the region, which is authorised to provide emergency medical services pursuant to Act No. 374/2011 Coll., on emergency medical services.

The emergency medical service is a health service which, on the basis of an emergency call, provides mainly pre-hospital urgent care to persons with severely impaired health or persons whose life is in imminent danger.

In 2018, the Czech Emergency Medical Service operated 308 response bases, 588 response groups and had a total of 6,549 regular employees.

### • Municipal / city police

Pursuant to Act No. 553/1991 Coll., on the municipal police, the municipal police is a municipal body that can be established or abolished by the municipal council by issuing a generally binding decree.

The municipal police is primarily responsible for protecting public order in the municipality and performing other tasks, cooperates with the Police of the Czech Republic, state authorities and authorities of territorial self-governing units.

In 2018, there were a total of 377 municipal police units in the Czech Republic (9,656 employees, 8,385 police officers).

# • Association of Firefighters of Bohemia, Moravia and Silesia (Sdružení hasičů Čech, Moravy a Slezska)

The Association of Firefighters of Bohemia, Moravia and Silesia (hereinafter the "Association") is a civic association operating in the field of fire protection pursuant to Act No. 133/1985 Coll., on fire protection, as amended. It was established in 1991 and it is the Czech legal successor of the Fire Protection Association of the Czechoslovak Socialist Republic.

The Association pursues the following key objectives:

- O To cooperate in creating the conditions for effective protection of lives and health of citizens and protection of property against fires and to participate in providing assistance during natural disasters and other events in which lives, health or property are put in danger;
- To create conditions for activities for children and youth supporting their healthy development, in particular mental, intellectual, moral, social and physical abilities, to lead young members to take responsibility for their self-development, to respect their homeland, nature and the entire human community, and to lead them to compliance with preventive educational principles in the field of fire protection, population protection and other emergency events;
- O To support general sporting activities of its members with a view to healthy development of their personalities, intellectual and physical abilities and to increase their physical fitness in the spirit of the principles of sport for all and healthy lifestyle, sports representation and preparation for it;
- o To organise and support the performance of volunteering.

The Association has over 350,000 members organised in 7,662 volunteer fire brigades (VFB) and over 60,000 children and youth under the age of 18. Over 68,000 members are organised in 6,846 municipal volunteer fire brigades. The Association is organisationally divided into 14 regional firefighter associations and 77 district firefighter associations.

### • Czech Firefighters Association (Česká hasičská jednota)

The Czech Firefighters Association (hereinafter the "Association") is a voluntary civic association operating in the field of fire protection established in 1990. It cooperates within the framework of Act No. 133/1985 Coll., on fire protection, as amended, with the Ministry of the Interior, regional authorities, FRS units and municipalities in the performance of fire protection tasks, especially in the field of fire prevention and increasing the response capacity of municipal volunteer fire brigades. Its activities mainly focus on:

- o Assistance to fellow citizens during fires, floods and other crisis situations;
- Organising competitions;
- o Professional training and working with the youth.

The Association has over 3,000 members in a total of 54 fire brigades organised in four counties.

### Moravian Firefighters Association (Moravská hasičská jednota, o. s.)

The Moravian Firefighters Association is a civic association established in 1992. Its main goal and mission is to bring citizens together to ensure protection of lives and health of citizens and protection of property against fires and to provide assistance during natural

disasters and other emergency events in which lives, health or property are put in danger. Other key activities of the Moravian Firefighters Association include:

- Assistance to the FRS CR in providing professional training for members of municipal volunteer fire brigades;
- o Preparation of children and youth for activities in municipal volunteer fire brigades;
- o Promotion and preventive educational activities in the field of fire protection, crisis management and population protection;
- Cooperation with other civic associations active in the field of fire protection, crisis management and population protection;
- o Organising professional conferences for members of municipal volunteer fire brigades;
- o Organising competitions in the firefighting sport in all age categories.

The Moravian Firefighters Association associates over 5,000 full members, which inextricably also include children and youth organised in teams of young firefighters.

### • Czech Red Cross

The Czech Red Cross (hereinafter the "CRC") is the National Society of the International Red Cross and Red Crescent Movement in the Czech Republic. Its mission is, in accordance with the provisions of the Geneva Conventions, "to prevent and alleviate suffering, to protect health and respect for the human being, and to promote mutual understanding, friendship and peace amongst all peoples".

In relation to population protection and in accordance with Act No. 126/1992 Coll., on the protection of the Czech Red Cross emblem and name, and on the Czechoslovak Red Cross, the organisation participates in the preparation of training relating to population protection and provides assistance in the event of disasters and other emergencies.

In accordance with the organisation's statutes, there exists collective membership in the CRC. Any legal entity that has its registered office in the Czech Republic, identifies with the principles, goals, tasks and mission of the CRC and actively fulfils them or contributes to their fulfilment can become a collective member of the CRC. The most important collective members of the CRC currently include:

- Water rescue service;
- o Association of Dog Handling Rescue Brigades of the Czech Republic;
- o Mountain Rescue Service.

The CRC has a total of 15,971 members and volunteers associated in 489 CRC Local Groups in 66 CRC Regional Associations; the number of CRC employees is 804.

### • Water Rescue Service (Vodní záchranná služba ČČK, z.s.)

The Water Rescue Service of the CRC was founded in 1968. It is the largest and oldest nationwide organisation dedicated to water rescue, education and rescue sports. It currently operates in ten regions of the Czech Republic and is an active part of the IRS.

The Water Rescue Service is also a collective member of the Czech Red Cross (CRC) and adheres to its principles and mission.

The activities of the Water Rescue Service of the CRC have four main pillars:

 Rescue and provision of extended first aid on water surfaces and in their proximity, including technical assistance and rescue;

- Water Rescue Service of the CRC as an active part of the IRS;
- o Sports and leisure activities for young people and adults, including drowning prevention;
- o Comprehensive curricula for rescue workers from juniors to specialists in specific types of aquatic environments and lecturers / instructors / trainers not only for the IRS units.

The Water Rescue Service, as another component of the IRS, is then commonly called for primary response on water surfaces or in their proximity by regional operational centres of the Fire and Rescue Service of the Czech Republic, Emergency Medical Service, Police of the Czech Republic, or it responds to direct emergency calls from citizens. It cooperates with the Air Rescue Service, the National Navigation Authority, the Municipal Police, and water management authorities managing water courses and reservoirs.

It operates mainly in locations that are difficult to access or completely inaccessible for ground-based forces without a rapid deployment of a motor vessel. The Water Rescue Service also provides its boats to emergency medical crews for accessing hard-to-reach places and for the subsequent rapid transport of the patient on a Water Rescue Service boat to the ambulance vehicle or to Air Rescue Service helicopter.

In 2018, the Water Rescue Service had 1,549 members registered in 36 branch associations (of which 505 up to 14 years of age, 170 up to 18 years of age, 222 up to 26 years of age, 652 over 26 years of age).

### • Mountain Rescue Service

Based on the decision of the Government of the Czech Republic, the Ministry for Regional Development of the Czech Republic established a non-profit organisation on 21 December, 2004 – Horská služba ČR, o.p.s. (Mountain Rescue Service of the Czech Republic, a public benefit organisation) This organisation, together with Mountain Rescue Service of the Czech Republic, a registered association, (Horská služba České republiky z.s.) which was established by registering with the Ministry of the Interior of the Czech Republic on 20 June, 1990 as a civic association and on 1 January, 2014 as a registered association, provide all mountain rescue service activities in the Czech Republic.

The Mountain Rescue Service of the Czech Republic is responsible in particular for the following:

- Organising and conducting rescue and search operations in mountainous terrain;
- o Providing first aid and transporting the injured;
- o Ensuring the operation of rescue and reporting stations of the Mountain Rescue Service;
- o Cooperating in publishing and disseminating public safety and prevention materials;
- o Informing the public about weather and snow conditions in the mountains and measures adopted by the Mountain Rescue Service to ensure safety in mountains;
- Cooperating with public administration bodies, nature and environmental protection and other bodies and organisations;
- o Performing avalanche monitoring.

The total number of permanent employees in 2018 was 101, of which 93 were rescuers, 8 were administrative employees and the organisation's director. Horská služba ČR, o.p.s. ((Mountain Rescue Service of the Czech Republic, a public benefit organisation) relies on significant assistance of approximately 370 voluntary members of the Mountain Rescue Service – the rescuers, organised in the registered association Horská služba České republiky, z.s. and on more than twenty doctors of the Mountain Rescue Service. The Mountain Rescue Service concludes seasonal employment contracts with approximately thirty volunteer members,

mainly for the winter season. The voluntary members of the Mountain Rescue Service are in service mainly on weekends, during holidays and when permanent employees take holidays or become ill. They also play an irreplaceable role in emergency events such as search for people in inaccessible terrain, rescue operations during avalanche accidents, natural disaster relief operations, etc.

### Association of Dog Handling Rescue Brigades of the Czech Republic

Association of Dog Handling Rescue Brigades of the Czech Republic (Svaz záchranných brigád kynologů – SZBK) is an organisation specialising in rescue work with the help of specially trained dogs. The dogs are trained in searching for living and dead people in various environments. In winter seasons, the dogs are mainly used to search for people buried in snow or avalanches; in summer seasons, they are used to search for people lost in inaccessible terrain, mostly children or the elderly. Some dogs are trained to search for drowned persons under water surface.

The main activity in emergency situations in European conditions is mainly the search for people buried in rubble of different types and origin. This includes, for example, searching for people in family houses damaged by gas explosion, in collapsed buildings, or relief operations after industrial accidents. In their activities, SZBK closely cooperates with the core and other components of the IRS. Abroad, SZBK members are deployed mainly in the search for survivors buried beneath rubble after earthquakes.

SZBK is organised in regional brigades, which operate on the territory of individual regions and report to and are managed by the presidium of SZBK. Each brigade has an intervention unit consisting of a number of dog handlers, who are ready to respond at any time at the request of regional authorities.

An Emergency Unit of SZBK consists of the best-trained members of the Association and the Emergency Unit is ready to respond at any time upon request, not only in the Czech Republic but also abroad. For these purposes, dog handlers and dogs are trained not only in professional skills, but they also get psychological training and are subject to health examination.

**1f**)

Research support is indispensable in ensuring the functionality of the population protection system. This is provided mainly through security research programmes. The role of specialised security research resources is decisive for the actual implementation of research activities, namely research organisations established primarily to provide research support to parts of the security system. For population protection, the Population Protection Institute, which is a central research organisation established by the Ministry of the Interior – DG FRS CR responsible for the research implementation, organisation and coordination and for development and innovation in the area of population protection plays a key role. The Population Protection Institute meets all the criteria defining a research organisation under the new European Union rules effective from 1 July, 2014, namely Commission Regulation (EU) No. 651/2014 declaring certain categories of aid compatible with the internal market in application of Articles 107 and 108 of the Treaty and the Communication from the Commission – Framework for State Aid for Research and Development and Innovation.

Selected universities and colleges play an important role. According to their area of specialisation, they participate in research projects in the field of population protection.

### 2a)

In relation to population protection, the IRS Act explicitly mentions, in particular, the warning, evacuation, shelter and emergency survival measures. However, it is also possible to infer other measures, the provision of which is required by the IRS Act and by other legal regulations.

The following selected measures in particular are planned, developed and implemented in connection with the protection of the population against non-military threats:

- Early public warning and information;
- Evacuation;
- Provision of emergency accommodation to evacuees;
- Provision and organisation of humanitarian aid (i.e. supplies and services provided to evacuees in emergency accommodation);
- Sheltering;
- Rescue operations;
- Securing and marking of dangerous areas;
- Provision of individual protective equipment (i.e. respiratory protection, body surface protection);
- Decontamination;
- Self-protection and mutual assistance.

### Early public warning and information

The national Unified Warning and Notification System is used in the Czech Republic for early warning and for informing the public about threats. Among other things, the system serves to notify IRS units, self-government and state administration bodies, legal entities and self-employed persons according to emergency or contingency plans.

The Unified Warning and Notification System covers more than 90% of the country's territory with an acoustic signal. In accordance with the IRS Act, the system is operated and provided by the MoI – DG FRS CR. The system includes more than 8,300 endpoint warning devices (of which 1,779 electronic sirens, 2,196 local public address systems, 4,650 rotary sirens, i.e. a total of 8,625 items).

The warning signal and notifications are disseminated by regional FRS units and are initiated by:

- Municipal authorities;
- Mayors of municipalities with the assistance of FPU members;
- Holders of respective permits in the event or suspicion of a radiation accident, in cooperation with the FRS CR;
- Owners, keepers or users of facilities in which hazardous chemicals are used.

### **Evacuation**

Evacuation is a set of organisational and technical measures ensuring the transfer of persons, animals and assets from areas exposed to an emergency or crisis situation to locations where emergency accommodation and meals (emergency survival) are provided for persons, housing for animals and storage for assets.

Evacuation can be classified according to various criteria. The classification of evacuation types, including more detailed description of individual types of evacuation, is shown in Table 9.

**Table 9:** *Evacuation – types of classification* 

	types of titlestyreams	
CLASSIFICATION TYPE	CLASSIFICATION	DESCRIPTION
Scope	Building evacuation	Evacuation of people from one building or a small number of buildings
	Area evacuation	Evacuation of a larger area
Duration	Short-term	Evacuation not requiring long-term absence from home, up to approx. 24 hours
	Long-term	Evacuation requiring long-term absence from home, longer than approx. 24 hours
Method of implementation	Uncontrolled	It is a spontaneous action; no transfer is provided for the evacuees
	Controlled	Evacuation is organised, including organised transfer of the evacuees

Evacuation is planned for the following situations:

- For responding to emergency events that require the announcement of level 3 alarm or a special alarm;
- From emergency planning zones of nuclear installations or workplaces with very significant sources of ionising radiation;
- From emergency planning zones of facilities or installations in which hazardous chemicals are used:
- From flood zones and in the event of a threat of a possible armed conflict from a territory set aside for the needs of combat training, for anticipated combat activities and other areas of interest of the armed forces in accordance with the interests of national defence.

Evacuation may be ordered by the government, by a regional governor, or by a response commander. The responsibility for organising and ensuring the evacuation in the case of emergency events lies with:

- Regional FRS units;
- Municipal authorities in the performance of state administration;
- Mayors of municipalities in carrying out rescue work;
- Response commander;
- Municipal flood protection authorities in the case of floods;
- Owners, keepers or users of facilities in which hazardous chemicals are used.

### Provision of emergency accommodation to evacuees

As far as accommodation of persons affected by an emergency event is concerned, the following is provided in the Czech Republic:

• Emergency accommodation, i.e. temporary accommodation of the population in buildings which are not primarily intended and commonly used for accommodation of persons, but are temporarily adapted and equipped for this purpose to meet the basic sleep, rest and hygiene needs of persons (e.g. sports halls, community centres);

• Alternative accommodation, i.e. temporary accommodation of the population in buildings that are intended for the accommodation of persons and commonly used for such purpose (e.g. hotels, hostels).

In order to ensure rescue and recovery work, they organise and coordinate emergency accommodation for regional FRS units; in crisis situations, emergency accommodation is coordinated by the regional governor. In the event of a flood, temporary (emergency) accommodation is provided by municipal flood protection authorities. Members of regional FRS units operate means of emergency survival and provide accommodation during emergency events (e.g. they deploy and operate an emergency survival container).

### Provision and organisation of humanitarian aid

In the Czech Republic, this measure means the activities of governmental and non-governmental bodies and organisations, charitable associations and individuals performed for the benefit of the population affected by a crisis situation. Internationally, this also includes aid to the population in another countries, suffering as a result of domestic or international conflicts.

The Ministry of the Interior organises rescue and material assistance abroad in cooperation with the Ministry of Foreign Affairs, IRS units or central administrative authorities.

The responsibility of the regional authority to organise and coordinate humanitarian aid upon declaration of a state of danger is performed by the respective regional FRS unit. The readiness of the region in the HOPKS system and the allocation of humanitarian aid reserves is ensured by the regional governor. The humanitarian aid materials are issued by members of regional FRS units.

### **Sheltering**

Natural protective properties of buildings are used to shelter the population in the event of non-military emergencies with a risk of contamination with hazardous substances and effects of penetrating radiation, or partial modifications are made to protect against penetration of these substances. The sheltering effect is therefore predominantly based on an makeshift method of protection, i.e. on makeshift sheltering.

The following are responsible for sheltering:

- Mayors of municipalities and owners of permanent shelters or buildings designated by the shelter plan for the establishment of an makeshift shelter;
- Municipalities;
- Developers of emergency shelter plans, owners of permanent shelters and owners of buildings intended as makeshift shelters;
- Municipal authorities and MEP authorities;
- Owners, managers or users of facilities in which hazardous chemicals are used.

### **Rescue operations**

Rescue operations are activities organised to avert or reduce the imminent impact of risks occurring during emergency events, especially in relation to threats to lives, health, property or the environment, and leading to removal of their causes.

IRS units are used for rescue operations, i.e. rescue operations are performed by two or more IRS forces. Upon request, other IRS forces provide planned assistance during rescue operations.

They following entities are responsible for organising and carrying out rescue operations:

- Ministry of the Interior;
- Regional authorities during plan development;
- Regional governor;
- MEP authorities;
- MEP mayor;
- Municipal office.

### **Detection and marking of danger areas**

The detection and marking of danger areas is carried out by the regional FRS unit responsible for rescue and relief work.

The regional FRS unit organises decontamination work and other protective measures in accordance with the Act on IRS; when performing these tasks, it uses the assistance provided by the FPU.

### Provision of individual protective equipment

As far as individual protective equipment in relation to non-military threats is concerned, there is a long-term task of informing the public and ensuring its preparedness through acquiring basic skills ensuring self-protection and ability to provide mutual assistance. Emphasis is therefore placed in this context on makeshift ways of protection, i.e. the use of commonly available items, clothing, etc., and items available in households for the protection of the respiratory tract, body surface, etc.

As part of the research activities, a number of functional samples and patents for the production of respiratory and body surface protection equipment intended for the population were developed.

The use of individual protective equipment became more important during 2020 in connection with the occurrence of a dangerous strain of coronavirus causing COVID-19.

### **Decontamination**

Decontamination is a set of methods, procedures, organisational arrangements and means for effective removal of hazardous substances (contaminants). Different methods of decontamination can be used including dry (sweeping, wiping the equipment), semi-dry (dry foam) and wet (water, detergent, solvents) decontamination methods.

Decontamination as part of rescue and relief work is organised by the regional FRS unit. For this purpose, a reserved area is set up, which is dedicated to decontamination of the responding forces and their equipment after returning from the danger zone. For the activities carried out by the FRS, decontamination procedures are described in the methodological sheets of the FPU Field Manual.

### **Self-protection and mutual assistance**

Education and training of the population in the field of population protection includes a set of measures aimed at educating the population about the principles of self-protection and mutual assistance. The aim is to develop and maintain the knowledge and skills needed to minimise negative consequences of a broad range of emergency events and crisis situations. The required effect is the development of the necessary skills for the provision of aid to oneself and to other persons, at least for the necessary time until the arrival of professional IRS forces (in particular core IRS forces).

The responsibility for educating the population in self-protection and mutual assistance is divided as follows:

- MoI DG FRS CR;
- Regional FRS units;
- Regional authorities;
- Municipal authorities;
- Legal entities and self-employed persons included in the emergency plan.

### **2b**)

The basic rule that applies is that protection of the population against military threats must be ensured by the forces that carry out this activity in peacetime. To this end, it is necessary that the IRS forces retain their personnel and equipment during wartime. For the period of a state of war, it will be necessary to create a satisfactory system ensuring that the personnel, especially the basic IRS forces can be strengthened by predetermined forces from the ranks of existing volunteers.

Fulfilment of population protection tasks in situations of a state of national threat or a state of war does not significantly differ from their fulfilment during peacetime. They only are complemented by specific tasks arising from the Geneva Conventions and their Additional Protocols. Other specifics result from the rules for operational preparation of the national territory developed by the Ministry of Defence. The IRS units are subordinated to the Minister of the Interior.

In order to fulfil the population protection tasks in a state of national thread and/or a state of war, it is necessary to methodically resolve issues related to the conscription of persons performing tasks relating to population protection. Furthermore, it is necessary to define wartime arrangement of IRS units (in particular the FRS units), identify forces and persons necessary for the performance of population protection tasks and release them from military service, and resolve issues concerning participation of ACR members in the performance of population protection tasks.

The following selected measures are discussed in detail in connection with the protection of the population against military threats:

- Early public warning and information;
- Evacuation;
- Provision and organisation of humanitarian aid;
- Sheltering;
- Rescue operations;
- Securing and marking of dangerous areas;
- Provision of individual protective equipment;
- Self-protection and mutual assistance.

### Early public warning and information

When conducting military operations, consistent care must be taken to protect the civilian population, civilians and civilian objects. Therefore, as a precautionary measure, warnings must be issued in good time and by effective means against attacks that might affect the civilian population. The fulfilment of the tasks of early public warning and informing the population takes place in the same way as during peacetime.

### **Evacuation**

Evacuation is planned from a territory set aside for the needs of combat training, for anticipated combat activities and other areas of interest of the armed forces in accordance with the needs of ensuring national defence. It is carried out on the basis of a decision of the competent military or civilian authorities. Evacuation from the places of the expected combat activity and other areas of interest of the ACR will be planned only in the case of signs of imminent threat of a war conflict. For this purpose, the "population evacuation plan", a part of emergency plans, would be used, adjusted with regard to the designated evacuation zones and reception areas.

Priority evacuation of the following population groups is planned:

- Children under 15 years of age;
- Patients in healthcare facilities;
- Persons residing in social care and similar facilities;
- Disabled people and the required number of people to accompany the above groups.

Mandatory evacuation applies to all persons other than military personnel, civilians participating in the performance of civil protection tasks in a state of war, and other persons designated to guard the evacuated area, buildings and equipment or performing other urgent tasks (ensuring continuous operations, etc.).

### Provision and organisation of humanitarian aid

The international humanitarian law is the domain of the International Committee of the Red Cross. Non-profit organisations, volunteers and other persons not participating in the performance of state protection tasks will be used to provide and organise humanitarian aid.

In the event of an armed conflict in the Czech Republic, humanitarian aid from the Administration of State Material Reserves will probably soon be depleted and provision of aid will be required from citizens outside the endangered areas or from abroad. Providing humanitarian aid will be complex, organisationally demanding and its amount and possibilities of transport will be very limited. Priority will be given to transports on safe roads to non-combat areas so as not to put the lives of other persons in danger.

### **Sheltering**

A system of existing shelters (permanent shelters not resistant to blast, permanent blastresistant shelters, protective systems of underground transport structures) is intended as protection against military threats. The shelters were built mainly between the 1950s and the 1980s and are no longer compatible with current warfare strategies and methods nor with current highly effective intelligent weapon systems.

The number of shelters has been steadily declining since 1995, when the maximum number of permanent shelters was reached. The decline in the number of shelters is both a result of privatisation of buildings in which shelters were located (the new owners demanded the removal of shelters from the register) and a result of increasing costs of shelter maintenance and mandatory inspections. Annually, financial resources are allocated only for the operation of the protective system of underground transport structures and the system of shelters in selected teaching hospitals in Prague. In places where sheltering cannot be secured in permanent shelters, makeshift shelters would be built in connection with military threats<sup>2</sup>.

<sup>&</sup>lt;sup>2</sup> "Makeshift shelters" are built to protect the population against the effects of light and heat radiation, penetrating radiation, radioactive dust contamination and blast effects of weapons of mass destruction in the event of a state of emergency or a state of war and in wartime in places where permanent shelters cannot be used to protect the

In case of an armed conflict, municipal authorities will play a decisive role in organising the sheltering of the population. In the period outside crisis situations, municipal authorities shall cooperate with regional FRS units to identify buildings and premises (e.g. underground garages, cellars) suitable for makeshift sheltering of the population.

When the threat of a war conflict increases, the following would be used for sheltering:

- Functional permanent blast-resistant shelters and protective systems of transport structures;
- Decommissioned permanent shelters, suitable for commissioning for the original purpose (after installing the missing technologies);
- Decommissioned permanent shelters unsuitable for full restoration of modes of operation;
- Underground, basement and other areas in residential houses, operational and production buildings, identified for modifications allowing for their use as makeshift sheltering.

### **Rescue operations**

In the context of the concept of rescue operations according to Additional Protocol I, liquidation work can be considered as part of rescue work carried out during an armed conflict and can be carried out under direct or indirect threat of hostile action and does not address the effects of an armed conflict (natural disaster).

### Securing and marking of dangerous areas

To ensure population protection, the FRS assesses the threat arising from the occurrence or spread of a chemical substance, mixture or preparation and coordinates the actions of administrative authorities in evaluating the data about the occurrence and spread of these substances. During a state of national threat declared in connection with defending the Czech Republic against an external attack or in wartime, the FRS carries out this activity in cooperation with the ACR.

The tasks of ensuring the detection, transmission, evaluation and use of data on the radiation, chemical and biological situation in the event of a state of national threat or a state of war, when dealing with crisis situations related to terrorist attacks and for dealing with emergencies abroad will be performed in accordance with the CBRN Schedule, and the responsibilities for the performance of individual tasks shall be established. To coordinate these tasks, a National Coordination and Evaluation Centre for Weapons of Mass Destruction was established.

### Provision of individual protective equipment

In relation to the preparation for military threats, the effective legal regulations define the categories of persons which are planned to be provided standard protective equipment (protective bags, jackets, masks). They are the following categories of persons:

- Child protective bags for children up to 1.5 years of age;
- Child protective jackets for children between 1.5 and 6 years of age;
- Child protective masks for children between 1.5 and 18 years of age;
- Protective masks for persons located in medical and social care facilities;
- Protective masks for persons accompanying the above persons.

population; they are also built in the event of emergencies associated with the leakage of hazardous substances. On the other hand, the term "makeshift sheltering" refers to the use of the natural protective properties of buildings during non-military situations.

However, due to high costs, the stored supplies of individual protective equipment are limited. Conditions will be created for the rest of the population to purchase individual protective equipment in specialised stores. Its maximum selling price will be regulated.

As part of the research activities, a number of functional samples and patents for the production of respiratory and body surface protection equipment intended for the population were developed.

### 2c)

The population protection system is supported by an extensive framework of planning documents. In the context of non-military threats, the emergency and crisis planning system and the planning systems for specific areas are particularly important.

In case of emergency events requiring issuing of a third-level or special level alert, the regional emergency plan is used; external emergency plans are also established for emergency planning zones for the purpose of population protection. Both of these plans are drafted by the regional FRS.

In the area of crisis planning, the fundamental document is the crisis plan, which is created by ministries, other central administrative authorities and the Czech National Bank at the central level and by regional FRS departments at the level of regions and municipalities with extended powers. Legal entities and self-employed individuals implementing crisis plan measures draw up a crisis preparedness plan, and critical infrastructure entities are obliged to create crisis preparedness plans for their specific entities to ensure operation continuity.

Specific planning documents include flood control plans at the level of municipalities, municipalities with extended powers, regions and at the national level; the plans sum up organisational and technical measures to avert or mitigate flood damage. For the event of mass infections of population covering a large part of the country, the Pandemic Plan of the Czech Republic is established, complemented by regional pandemic plans. Similar plans are also created by central administrative authorities and hospitals. The National Radiation Emergency Plan is also currently under preparation to ensure protection against consequences of a radiation incident or accident.

Planning documentation relating to population protection measures is mostly updated cyclically in intervals stipulated by legislation. Population protection measures are explicitly described in the emergency documentation system; however they are also an integral part of the crisis documentation and other specific documents.

### **2d**)

One of the key measures in place is warning the public and informing it about an imminent or existing danger. The population is warned and informed using the Unified System of Warning and Notification (hereinafter the "JSVV"). The system consists of notification centres, data and radio networks and endpoint warning and notification equipment. The warning equipment includes rotating sirens, electronic sirens and public address systems. The most frequent type of endpoint equipment are rotating sirens which need power supply, usually do not have a back-up power unit and cannot be used to disseminate emergency information, therefore territorial coverage by verbal emergency information is limited. There are currently 8,500 endpoint warning equipment items.

The system infrastructure is primarily unidirectional and based on the POCSAG protocol. Direct audio input from notification centres to clarify emergency information is not commonly available. At the same time, there is a growing demand for rapid provision of verified information to the population and for keeping the population informed about ongoing

emergencies or crisis situations, especially through channels that are able to provide information in real time and are used by majority of the population (e.g. mobile applications, Facebook, Youtube, Twitter).

## 3a)

Personal involvement of citizens in implementation of population protection measures is stipulated in particular by the IRS Act, Fire Protection Act and Crisis Management Act. Among other things, the above regulations define the rights and obligations of individuals, including potential sanctions for non-compliance.

In principle, in the event of emergencies or crisis situations or their imminent threat, certain rights may be suspended in order to mitigate the impact of the situation on the lives and health of citizens, their property and the environment. In these situations, it is therefore possible for example to order performance of various types of work, work assistance, or provision of material resources. Similarly, in crisis situations for example, evacuation of persons and property from a defined area may be ordered; entry to and stay and movement of persons in designated zones may be prohibited.

The scope of powers increases depending on severity of the situation and with regard to the level of management of the situation, i.e. from the level of the Czech Government as the highest strategic level, to the level of the response commander, as the tactical level. The powers to intervene therefore depend on the situation and its severity as stipulated by law.

## **3b**)

In the Czech Republic, there is no legal obligation imposing mandatory population protection training on elected officials. Especially in relation to education and training of mayors of municipalities, who play a fundamental and irreplaceable role in preparations for and management of emergencies and crisis situations, the non-existence of such an obligation is a significant obstacle. A one-day specialised training is usually provided to mayors once during their term of office. The trainings are organised by the FRS CR in cooperation with the ministries concerned, other IRS units and government and self-government authorities. As a principle, maximum attention should be paid to local preparedness, i.e. acquainting the mayors with the course of action in situations that may actually occur in their regions. However, participation in the training is significantly influenced by the fact that mayors have a very busy agenda and a considerable part of them perform the mayor's duties in addition to their regular employment.

The methods of education and training of elected officials are specified in the Education Concept in the Area of Population Protection and Crisis Management (2017).

#### 3c)

In the Czech Republic, the title "Population Protection in Emergency Situations" (hereinafter the "OČMU") is used to designate student courses in the area of population protection. The aim of this course is to create and maintain the knowledge and skills needed to minimise negative consequences of emergencies and thus contribute to the acquisition of the necessary competencies to eliminate potential impacts of these situations. After course completion, students should be able to provide aid to themselves and others, at least in an extent as necessary until the arrival of professional rescuers.

It should be noted, however, that apart from OČMU, which is organised by the Ministry of the Interior – FRS CR, other programmes are implemented that focus on security issues and

on strengthening of self-protection and mutual assistance. These include the programmes "Preparation of Citizens for Defence of the State" by the Ministry of Defence, "Health Protection" by the Ministry of Health, and "Traffic Education" by the Ministry of Transport.

The basic framework outlining Population Protection in Emergency Situations is provided by Act No. 561/2004 Coll., on pre-school, primary, secondary, advanced vocational training and other education, and the relevant curriculum documents, in particular the "Framework Educational Programmes" (hereinafter the "FEPs"). The FEPs define generally binding educational frameworks and are further developed at the level of individual schools into specific School Educational Programmes. When drafting the programmes, schools take into account their resources and choose relevant teaching methods and forms of organisation.

At present, FEPs are the only binding documents relating to OČMU education. FEPs do not specify any requirements for basic standards to be met as regards content or teaching methods used in the courses. Currently, OČMU topics are covered by various educational areas. At the primary and secondary education level, the topic is usually covered by 6 or 7 subjects. The educational system is most fragmented at the level of secondary vocational education where a separate curriculum document is drafted for each field of study. In total, this means 284 curriculum documents, i.e. 284 different approaches to teaching of OČMU.

#### **3d**)

To a limited extent, nationwide campaigns broadcast on television or radio are currently used to educate and inform the public. Approx. since 2015, social media, especially Facebook and YouTube, have been widely used to inform the population and raise awareness.

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# 5 POPULATION PROTECTION SYSTEMS IN SELECTED COUNTRIES

Worldwide, the first population protection efforts date back to the second half of the 1920s and the first half of the 1930s. At that time, population protection organisations were founded in a number of European countries and key legal regulations defining their activities were adopted. The organisations' activities consisted mainly in the prevention of effects of military attacks on civilian population.

In Germany, for instance, an association seeking to promote the preparation for passive defence (the Association of Former Members of the Anti-Aircraft Defence) started its activity almost immediately after the end of World War I. In 1927, the German Air Attack Protection Association (Deutscher Luftschutzverein) was established with the aim of promoting preparations for passive defence. In an effort to cover all federal activities carried out in this area, the German Air Attack Protection Union (Deutscher Luftschutzverband) was founded in 1932. The relevant agenda was managed by the Reich Ministry of the Interior. Based on the Reich President's Decree of 1933 (RGB1), on the Reich Commissioner for Aviation, the agenda was transferred to the office of the above Commissioner.

In Poland as well as in some other countries not neighbouring Czechoslovakia (e.g. France, Italy, Latvia), passive defence regulations were adopted in 1934. In some countries, however, unlike in the then Czechoslovak Republic, the issue was not addressed comprehensively and only certain measures were regulated, especially the production and sale of protective masks (France).

Following temporary reduction of activities in this area immediately after the end of World War II, framework for organised population protection was re-established and the relevant legislation adopted in many countries as a result of the emerging bipolar division of the world. All measures were aimed at protecting the population exclusively in case of war, led by conventional warfare until the mid-1950s, and later they focused on protection against WMD.

The adoption of the Additional Protocols to the Geneva Conventions of 1949 in 1977 and the *de iure* establishment of civil defence were a major step forward at the international level. The rights and obligations of those who assist victims of disasters in case of an armed conflict were established. The scope of civil defence was gradually expanded to include peacetime crisis situations.

The usability of civil defence in times of peace is based on implementation of defined tasks requiring long-term preparation. Competences of a state or society supporting the ability to deal with the consequences of a crisis situation and ensure the protection of lives and health should therefore be the same in times of peace and war (e.g. measures that need to be taken in case of ammonia leakage in a chemical plant as a result of an accident during peacetime are similar to those that are adopted after bombing of a chemical plant in wartime).

With the end of the Cold War, individual countries had to address how the growing requirements for population protection during peacetime disasters should be regulated in international humanitarian law since this issue had not been specified in the Additional Protocols. In many countries, the priorities in population protection therefore gradually shifted from wartime to peacetime operations.

Outside armed conflicts, some tasks were perceived as almost impracticable (e.g. organisation and provision of shelters, black-out). On the other hand, opportunities opened for a different approach to certain measures. The warning service, for instance, could serve not

only for informing the public about an imminent danger but it could be also used for the purposes of prevention and awareness-raising.

The scope of civil defence has thus become more and more comprehensive and now covers not only military threats, but also natural, environmental, energy, technological or other, yet unknown, disasters.

## 5.1 Croatia

**Table 10:** Basic characteristics of Croatia

AREA	SELECTED DEMOGRAPHIC INDICATORS		SELECTED MACROECONOMIC INDICATORS		SYSTEM OF
$(km^2)$	Population	Population density (inhabitants/km²)	GDP (millions of USD)	GDP/capita (USD)	GOVERNMENT
56,590	4,087,843	72.2	60,972	14,915	Parliamentary republic

1a)

The system is managed mainly centrally (a unitary state), but some tasks are entrusted to territorial self-government units, especially counties (*županija*) and municipalities (*općina*: municipality, *grad*: town).

From a legislative viewpoint, the system focuses primarily on non-military threats, although Article 1(2) of the Civil Protection Act defines civil protection broadly as a system of organising stakeholders, operational forces and citizens in order to protect and rescue people, animals, material and cultural assets and the environment in the event of major accidents and disasters, and eliminate consequences of terrorist acts and wars. Clearly, it is assumed that the system would be used against military threats, too. However, subsequent provisions of the Act do not refer to any military threats specifically.

The term "population protection", covering both civil protection and civil defence (or any similar term), is not used in legislation. The relevant laws refer primarily to "civil protection", however, it can be deduced from the content and division of powers that they are applicable also during emergency events arising in connection with military operations.

**1b**)

The basic law governing civil protection is the Civil Protection Act (2015), which replaced the Protection and Rescue Act (2004). It was significantly amended effective 01/01/2019. The law regulates the system and functioning of civil protection; rights and obligations of state administration authorities, territorial self-government units, legal entities and individuals; civil protection training; civil protection funding; administrative and inspection supervision over the implementation of this law, as well as other civil protection aspects.

The above-mentioned Civil Protection Act has a number of implementing by-laws. E.g. a regulation on the mobilisation, conditions and method of operation of civil protection forces; a regulation on the public warning procedure; a regulation on uniform alert notification; a regulation on the composition and structure of civil protection forces.

The Constitution of the Republic of Croatia further provides that in the event of a major emergency event, armed forces may be called on to support the police and other state authorities. They can also be called on to assist with firefighting, rescue operations and surveillance activity at coastal waters to protect Croatia's rights at the sea. The Constitution

also enables restrictions of certain constitutionally guaranteed fundamental rights to be imposed in the event of a declaration of war or a natural disaster.

Similar provisions are included in the Defence Act, which specifies that the armed forces may be used to assist during disasters and rescue operations, and their deployment is subject to approval by the Government upon proposal of the Minister of Defence. In the event of support during major accidents, the Minister of Defence shall approve the deployment of the armed forces upon request of the responsible central state administration authority. The Minister of Defence shall also approve the deployment of the armed forces to assist with firefighting, rescue operations and tracing persons provided that the authorities bearing the primary responsibility are unable to perform.

The Local and Regional Government Act is a piece of legislation relevant from the viewpoint of county and local levels.

In addition, there are special regulations governing fire protection, natural disaster protection, radiation and nuclear safety, demining operations, etc.

In addition to legal framework, Croatia has a number of strategic and concept documents. The Government has adopted a number of security strategies dealing in particular with terrorism, defence, chemical safety, water management, etc.

#### 1c)

Pursuant to Article 70 *et seq.* of the Civil Protection Act, the system is funded from the state budget of the Republic of Croatia, local and regional government departments' budgets, other resources and donations.

Funds from the state budget of the Republic of Croatia are used to:

- Develop and equip civil protection systems at the national level;
- Implement civil protection measures and activities at the national level;
- Provide support to and receive assistance from other countries in line with the Republic of Croatia's obligations arising from international treaties;
- Cover additional costs of the civil protection system at the national level.

Funds from the local and regional government departments' budgets are used to:

- Call on, deploy, equip, train, activate, mobilise and operate civil protection operational forces;
- Implement civil protection measures and activities;
- Local and regional government departments can co-fund programmes and projects aimed at developing associations with an important role in the civil protection system.

The law also envisages the establishment of an extra-budgetary civil protection fund (at the national level), whose resources would be allocated to protection and rescue operations during major accidents and disasters. It is also possible to establish civil protection funds at the regional level. Specific sources, purposes and methods of using the funds allocated at the regional level shall be stipulated by special laws whereby the funds are established. It is not confirmed yet if any of the funds have already been established as of the date of this document.

# **1d**)

In terms of legislation, the management structure is defined in Part IV of the Civil Protection Act whereby civil protection management centres are established at national, regional and local government levels.

Please note that in 2019 the system of state authorities in Croatia underwent a fundamental change: 54 state authorities were abolished. Until then, civil protection had been coordinated by the National Protection and Rescue Directorate (Državna uprava za zaštitu i spašavanje – DUZS), which, however, was abolished and the agenda passed directly onto the Ministry of the Interior where the Civil Protection Directorate (Ravnateljstvo civilne zaštite – RCZ) was established, forming part of the Ministry. The current organisational chart of the civil protection management structures has not been ascertained from any existing publicly accessible sources. Due to the fact that the responsibility for the civil protection system passed to the RCZ, it can be assumed that a relatively significant change took place in the structure of authorities dealing with emergency events. The governments of territorial self-government units also play their role in the system.

**Figure 4:** Organisational chart of the emergency response system prior to the establishment of the RCZ

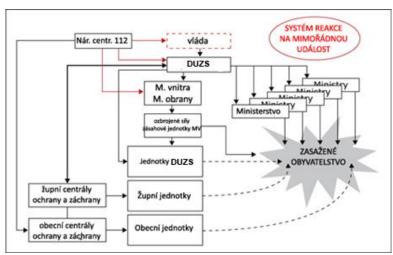


Figure content translated into English:

SYSTÉM REAKCE NA MIMOŘÁDNOU UDÁLOST	EMERGENCY RESPONSE SYSTEM
Nár. centr. 112	National Centre 112
vláda	Government
DUZS	National Protection and Rescue Directorate (DUZS)
M. vnitra	Ministry of the Interior
M. obrany	Ministry of Defence
Ministerstvo	Ministry
ZASAŽENÉ OBYVATELSTVO	DISASTER AFFECTED POPULATION
ozbrojené síly	Armed forces
zásahové jednotky MV	Intervention units of the Ministry of the Interior
Jednotky DUZS	DUZS units
Župní jednotky	County units
Obecní jednotky	Municipal units

župní centrály ochrany a záchrany	County protection and rescue headquarters			
obecní centrály ochrany a záchrany	Municipal protection and headquarters		and	rescue

**Figure 5:** Expected change in the emergency response system following the abolition of the DUZS and the establishment of the  $RCZ^3$ 

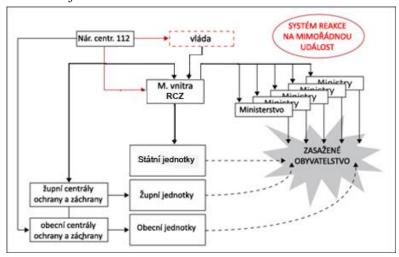


Figure content translated into English:

SYSTÉM REAKCE NA MIMOŘÁDNOU UDÁLOST	EMERGENCY RESPONSE SYSTEM			
Nár. centr. 112	National Centre 112			
vláda	Government			
M. vnitra	Ministry of the Interior			
RCZ	Civil Protection Directorate (RCZ)			
Ministerstvo	Ministry			
ZASAŽENÉ OBYVATELSTVO	DISASTER AFFECTED POPULATION			
Státní jednotky	Government units			
Župní jednotky	County units			
Obecní jednotky	Municipal units			
župní centrály ochrany a záchrany	County protection and rescue headquarters			
obecní centrály ochrany a záchrany	Municipal protection and rescue headquarters			

# **1e**)

# **Selected governmental organisations**

Article 3(29), Article 8 and Article 20 of the Civil Protection Act stipulate the competences of the following state authorities that are responsible for direct execution of rescue operations:

<sup>&</sup>lt;sup>3</sup> Source: The chart as amended by the authors.

- Fire brigade (pursuant to Article 28(2), firefighters are the backbone of the civil protection system);
- State intervention unit (established *ad hoc*, comprising professional rescue workers and back-up rescue teams);
- The armed forces of the Republic of Croatia, and the police;
- Local and regional government departments (or rather civil protection units set up by those departments).

## **Selected non-governmental organisations**

The following non-governmental organisations participate in the civil protection system pursuant to Article 29 *et seg.* of the Civil Protection Act:

- Croatian Red Cross;
- Croatian Mountain Rescue Service;
- Fire Brigade Association;
- Speleological, dog handling and other associations.

In addition to the above organisations which have established formal partnerships with the Croatian government and are governed by special laws, there are other non-profit organisations and volunteers involved in the civil protection system, e.g. radio amateurs, divers, rescue dog organisations, psychological help organisations, etc.

Table 11 shows the number of officers in governmental and non-governmental response units ensuring civil protection.

RESPONSE UNIT	NUMBER	
Firefighters	3,425 professional, 1,100 seasonal	
Armed forces	16,000 active soldiers, 18,000 reserve soldiers	
Red Cross	550 employees, 370,000 volunteers	
Mountain Rescue Service	800 members	
Fire Brigade Association (voluntary firefighters)	57,000 members	

## **1f**)

Article 48(1) of the Civil Protection Act provides for research in the given field as one of the preventive activities within the civil protection system: "Preventive activities of the civil protection system shall encompass specific research activities concerning disaster risk assessment and reduction, forecasting in the field of development of natural processes and material standards, as well as technical and operational solutions of interest in order to decrease vulnerability."

However, the Act neither enacts specific research institutions, nor refers to specific research-related legislation.

At the RCZ website, in the Recommended Topics (*istaknute teme*) -> Projects (*projekti*) tab, information can be found on existing and completed projects implemented by various entities. Available at: https://civilna-zastita.gov.hr/projekti/87

#### 2a)

There is just a list of population protection measures in the Civil Protection Act (Article 46). The following measures are included:

- Warning;
- Evacuation;
- Shelter:
- Rescue;
- First aid;
- Disposal;
- CBRN protection;
- Decontamination (human, animal, environmental);
- Protection of animals and food of animal origin;
- Protection of plants and food of plant origin.

## **2b**)

No measures other than those listed in answer 2a) have been identified.

## **2c)**

The central civil protection planning authority is the RCZ; further planning activities take place at the regional level. The RCZ performs a risk analysis and based on its results the RCZ develops a protection and rescue plan for the Republic of Croatia, which is submitted to the Government for approval.

Executive authorities of territorial self-government units are obliged to adopt a civil protection action plan and a civil protection drill schedule. They also issue an external protection and rescue plan for the event of accidents involving dangerous substances.

The Act further stipulates that the Minister of the Interior, based on the previously raised opinion of central state administration authorities that are responsible for defence, environmental protection and the civil engineering sector, shall define the rules, content and processes to produce planning documents in the field of civil protection and notify the public of the process of adoption thereof.

# **2d**)

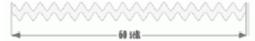
The early public warning system is not governed by the Civil Protection Act as such, but rather by the public warning procedure regulation. Pursuant to this regulation, the early public warning system comprises sirens, loudspeakers, digital media and short message service (SMS). The digital media include Channel 1 of the Croatian Radiotelevision, regional programmes (for more information, please see below), the RZS website and mobile applications. All warnings are coordinated by operations and communication centres (112 centres). After an early warning, the public is also notified of the type of danger and the measures to be adopted.

Warning sirens (pursuant to the regulation on uniform alert notification):

• Warning against upcoming danger (100 seconds, three 20-second still tones separated by two 20-second fluctuating tones)



• Imminent danger (60 seconds, fluctuating tone)



• All clear (60 seconds, still tone)



• Fire alert (90 seconds, three 20-second tones separated by two pauses lasting 15 seconds)



Despite the fact that the regulation on the public warning procedure includes mobile applications in the list of public warning devices, no official mobile application to early warn the public has been identified.<sup>4</sup>

Pursuant to the regulation on uniform alert notification, warnings and press releases for the public can be distributed via SMS. In such case, operators can deliver a message to all users' devices in the affected area even without their consent.

Social media is not a primary channel used to early warn the public.

3a)

The position of a citizen in the civil protection system is regulated by Articles 43–45 of the Civil Protection Act. Pursuant to the said provisions, citizens shall provide for their own safety and protection, adopt personal and mutual protection measures and contribute to civil protection efforts. The government has the authority to call upon citizens to proceed with civil protection efforts. The obligation to perform falls upon:

- Croatian nationals;
- European Economic Area nationals;
- Third-country nationals who have obtained the status of a permanent resident;
- Stateless persons aged 18–65 with a regulated status in the Republic of Croatia, enrolled in the register of non-military protection units of local governments.

At the same time, however, the law specifically regulates the following categories of persons:

- Pregnant women;
- Mothers of children under 10 years of age;

<sup>&</sup>lt;sup>4</sup> The only official application found is the Nautical Info Service Croatia, which does not serve to early warn the public. Its task is to facilitate rescue at the sea and transfer information on maritime incidents from citizens to state authorities.

- Single parents of children under 15 years of age;
- People caring for people with disabilities or other people unable to take care of themselves;
- Soldiers, firefighters, healthcare professionals;
- Employees of legal and administration authorities of territorial self-government units that form part of the operational forces of the civil protection system of territorial self-government units and central state administration authorities.

# **3b**)

Pursuant to Article 65 of the Civil Protection Act, stakeholders and operational forces' members must be trained for the purposes of the civil protection system. As regards elected officials, mayors and county governors are explicitly mentioned. The training can be held by a ministry, public institution or another legal entity meeting the conditions set by individual programmes and regulations in the field of education. Further details of the training sessions have not been set yet.

#### 3c)

Emergency event instruction forms part of the primary and secondary school curricula (but not as a separate subject). The NPRD developed the National Action Programme to Educate the Children in Protection and Rescue; its representatives held informative lectures for children, as well as training workshops for school personnel.

Article 48 of the Civil Protection Act currently includes the education and training of children through existing or specific programmes among preventive activities in the field of civil protection. Article 64 provides that education in the civil protection system shall be done formally and informally, through information and promotion activities, training sessions, drills, counselling, workshops and courses. More detailed information regarding the individual forms of education is not known.

The University of Applied Sciences Velika Gorica is the only university offering degrees in crisis management. To a smaller extent, similar courses (with a special focus on natural disasters) exist at other universities, too.

## **3d**)

In general, the obligation to educate the public in population protection is governed by Article 45 of the Civil Protection Act, which stipulates the obligation of civil protection stakeholders (within the meaning of Article 43 of the Civil Protection Act – see 3a) to participate in educational programmes and drills.

As regards the media, the nationwide HRT 1 television and HR 1 radio channels are used to alert the public. Additional information is provided through regional and local channels. Article 68 of the Civil Protection Act further stipulates that<sup>5</sup> in the event of a threat, major accident or a disaster, the media shall make available the service of their communication networks without charge in order to transmit signals and notifications and broadcast official communications.

The scope of notification of the public by the state through social media is very limited. The government uses Twitter to share short informative messages. However, the platform is not reserved to notify the public of current events relevant from the viewpoint of population

<sup>&</sup>lt;sup>5</sup> The term "media" is not enacted. Therefore, is it not possible to declare if only traditional media (TV and radio) are concerned, or if new media (internet media, social networks, mobile applications) are also included.

protection, but rather to inform about current activities of the government and its subordinate units.

Certain selected information can be found at the RCZ website (https://civilna-zastita.gov.hr/).

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# 5.2 Denmark

**Table 12:** Basic characteristics of Denmark

AREA	SELECTED DEMOGRAPHIC INDICATORS		SELECTED MACROECONOMIC INDICATORS		SYSTEM OF
(km²)	Population	Population density (inhabitants/km²)	GDP (millions of USD)	GDP/capita (USD)	GOVERNMENT
43,094	5,739,963	133.2	324,872	55,220	Unitary state (constitutional monarchy)

#### 1a)

The population protection system is conceived as a system ensuring rescue preparedness and covers a range of situations from non-military incidents to military threats. Together with the armed forces, the police and civil preparedness, it forms an integral part of the country's total defence concept (totalforsvar).

The Danish system is decentralised and the day-to-day crisis response is mainly organised at the local level, i.e. by municipalities.

#### **1b**)

Denmark has no special legislation covering only/predominantly the area of population protection. However, the below pieces of legislation have been identified as the relevant framework:

- Emergency Management Act Act No. 660 of 10 June, 2009, LBK No. 137 of 1 March, 2004;
- Act on Shelters LBK No. 732 of 20 August, 2003;
- Act on Safety and Environmental Control of Nuclear Installations LBK No. 244 of 12 May, 1976.

Other specific aspects of population protection are further defined in the following regulations:

- Order of the Ministry of the Environment No. 1156 of 18 November, 2005, on control of major accidents involving dangerous substances (Miljøministeriets bekendtgørelse nr. 1156 af 2005 om kontrol med risikoen for større uheld med farlige stoffer);
- Order of the Ministry of Defence No. 765 of 3 August, 2005, regarding risk-based municipal fire and rescue service as amended by Order No. 872 of 6 July, 2007 (Forsvarsministeriets bekendtgørelse nr. 765 af 2005 om risikobaseret kommunalt redningsberedskab som ændret ved bekendtgørelse nr. 872 af 6. juli 2007);

#### 1c)

The Danish statistics only provide information on the budgets of the Ministry of Defence (the ministry responsible for population protection) for four-year periods. A separate budgetary item earmarked for population protection financing has not been identified.

Fire services, one of the key elements of the rescue preparedness system, are provided partly by public providers and partly by the private sector (especially the company FALCK). According to the identified comprehensive information on population protection financing, the

national population protection expenditure amounted to approx. DKK 475 million (i.e. approx. EUR 63.3 million). The expenditure is directly linked to the activities of the Danish Emergency Management Agency and represents approx. 0.3% of the GDP.

# **1d**)

Pursuant to the Emergency Management Act, at the national level, individual ministers are responsible, within their respective areas of government, for planning and adopting the necessary civil preparedness measures. The Minister of Defence is responsible for the coordination of civil preparedness planning, for implementing any associated measures and attending the work that is not taken care of by other authorities.

The Danish civil protection system has a three-tier structure and corresponds to the administrative division of the country:

- Central national level: the Danish Emergency Management Agency (*Beredskabsstyrelsen*, hereinafter "DEMA");
- Regional level: regional base of the National Rescue Service (5)
- Local level municipal commissions, town councils (98) as flexible management departments of municipalities (towns)

DEMA is the central state administration authority in the area of population protection and civil emergency planning and has the coordinating responsibility on behalf of the Minister of Defence. Its principal task is to manage the emergency response centres, to supervise rescue preparedness at national and municipal levels and to advise the authorities on matters of preparedness.

DEMA has direct responsibilities regarding fire prevention and the general development of emergency preparedness and response. Furthermore, DEMA is directly responsible for both chemical and nuclear preparedness and response. It is subordinate to the Ministry of Defence and it has the following tasks:

- Management of the National Rescue Service;
- Coordination of activities of the central civilian authorities and their cooperation with regional or local authorities;
- Supervision of national and municipal rescue preparedness;
- Counselling and consultations to authorities that are stakeholders in rescue preparedness;
- Management of emergency response centres;
- Chemical and nuclear preparedness and response.

Two national educational facilities and six rescue preparedness centres are managed by the Agency.

At the regional level, rescue preparedness is ensured by six regional DEMA bases and two national educational facilities. Implementation of rescue preparedness tasks is managed by a commission, established by a regional council, which is legally obliged, among other things, to draft a rescue preparedness plan for the given region.

At the local level, rescue preparedness is managed by the commission. Two or more municipalities can establish joint commissions. During crisis or war, a national local rescue preparedness department is set up at the local level and it is managed by the relevant police commander. Municipal councils sign contracts with local fire and rescue services and voluntary

organisations. Municipalities are the fundamental and most important element of rescue preparedness.

**1e**)

In Denmark, both governmental and non-governmental organisations are active in population protection.

# **Selected governmental organisations**

## • National Fire and Rescue Service

The basic executive body of rescue preparedness is the National Fire and Rescue Service, whose headquarters is part of DEMA. The service consists of professional soldiers and soldiers in military service called on under the Military Service Act to contribute to rescue preparedness.

The agency has approx. 600 employees. About 170 of them are employed in the central emergency management office in Birkerød. The rest of the employees work in six agency centres and two schools.

DEMA centres are located all over the country and almost every part of the country can be reached within one hour of receiving an alert.

Crisis assistance is organised mainly at the local level, as the main player in emergencies is the local fire and rescue service, supplemented by local police forces and medical services.

Fire and rescue services have a two-level structure; the national level (directly subordinate to the Minister of Defence) and the municipal level (directly managed by local governments). Although local fire and rescue services fall within the competence of local governments, the Minister of Defence is entitled to supervise these services. The Minister of Defence can also transfer the right of supervising these services to DEMA. In practice, this means that DEMA took over this responsibility from the Ministry of Defence and is therefore responsible for day-to-day supervision of the local fire and rescue services.

During emergencies, the police is responsible for general coordination of activities. The police must ensure that the area is sufficiently contained so that both the fire brigade and the medical service can provide their services without interruption and interference of the public.

From the technical viewpoint, rescue operations are managed by the fire and rescue service. Its commander must ensure that adequate measures are adopted for sufficient emergency response and that risks are minimised as fast as possible. The commander is also responsible for safety of the brigades on site for the entire duration of emergency response.

The medical service commander is primarily responsible for the medical services provided and for the well-being of his/her employees. If support by other organisations is also needed during the emergency response, the organisations are responsible for their activities. This is in line with the principle of responsibility within this field, which is one of the fundamental principles of the Danish approach.

# **Selected non-governmental organisations**

Over the past few years, rescue services in Denmark have undergone major development. Fire protection and medical rescue services are increasingly carried out by private operators. An important aspect of the Danish approach to emergency management is that

municipalities can outsource fire and rescue services to a private company (Article 13 of the Emergency Management Act).

#### FALCK

FALCK Redningskorps Ltd is a Danish company based in Copenhagen. It was established in 1906. The company provides rescue and assistance services, medical care and organises rescue and safety training. It is currently present in 31 countries worldwide and employs more than 32,000 people. It is the key non-governmental organisation in Denmark offering fire and rescue services; it operates on a contractual basis at the municipal and regional levels (it operates more than 60% of all fire stations in Denmark). It also operates approx. 85% of all ambulance services in Denmark. According to the most recent data, Falck employs approx. 10,000 people in Denmark.

#### Red Cross

The Red Cross is one of the oldest non-profit organisations operating in Denmark. Approx. 32,000 volunteers work in Denmark in 220 Red Cross branches. In case of emergency, the Red Cross members can provide medical assistance on the site of an emergency by sending an urgent medical response team, or support the local government in providing shelter and relief to the evacuees and in registering and tracing missing persons. Furthermore, the Red Cross provides supplies of bandages, mattresses, blankets, etc.

# • Danish Civil Protection League

This organisation has approx. 6,200 members and operates in 65 municipalities in five regions. It comprises predominantly volunteers in local rescue teams working for the safety of the civil population and aims to be the uniting groundwork for the volunteers engaged in municipal or national rescue preparedness. Moreover, the League aims to increase population awareness about preparedness and prevention and to increase its level of self-protection and resilience through education. The Danish Civil Protection League is involved in training and education of volunteers in connection with the following measures: food supply and temporary housing, fire service, rescue operations, use of rescue dogs, communication and SAR (Search and Rescue) teams. Additionally, the League offers first aid courses to all members as well as management courses to selected members. Furthermore, the League is involved in first aid training of the population, including the capability to extinguish small fires and handle accidents before they become major disasters.

#### Home Guard

The Danish Home Guard (*Hjemmeværnet*, hereinafter "HJV") is a paramilitary militia type corps which is established by the state and is part of its armed forces, but it at the same time only consists of citizens who exercise their right to participate in the protection of their homeland on a voluntary and unpaid basis. HJV is the fourth defence service (besides the army, air force and navy) ensuring defence of the Danish territory. Its main task is to defend and support the country and civil society in times of both peace and war. It supports the police during its response to natural disasters or other large-scale accidents, it is involved in search and rescue operations, etc.

Since 2017, the Danish Home Guard has had approx. 45,600 members, out of which about 15,600 are active members. It is divided into four sections. Apart from the military, police and naval sections, it also includes the infrastructure section (*Virksomhedshjemmeværnet*)

which helps ensure smooth operation of businesses and authorities during crises or emergencies.

# **1f**)

Research concerning population protection is carried out by the *Centre of Knowledge* and *Analysis* which is part of DEMA's Legislation and Planning Division. Other research centres focusing on population protection are situated mainly at universities, e.g. at the University of Copenhagen.

An important role in population protection research is also played by the *Statens Serum Institut (SSI)*, Danish Copenhagen-based research institute controlled by the Ministry of Health and Prevention. It primarily focuses on research in the area of combating infectious diseases and threats related to weapons of mass destruction.

#### 2a)

The main technical and organisational population protection measures are not explicitly enumerated in the Emergency Management Act; however, they ensue from other associated documents. The primary responsibility lies with local governments and is sometimes shared with the police and DEMA. The main technical and organisational population protection measures include:

- Early public warning and information
  The alarm siren system is operated and maintained by DEMA; however, warning is issued and sirens are activated by the police. The police is also responsible for sending emergency messages.
- Evacuation

The police is responsible for ordering evacuation; municipal emergency commissions and rescue services then carry out the evacuation. In case of mass evacuation, DEMA provides assistance and help to regional fire centres.

#### **2b**)

No other measures than those specified under item 2a) have been identified in relation to an armed conflict.

#### 2c)

Pursuant to the Emergency Management Act (Chapter 5(24)), each ministry must ensure preservation and maintenance of its functions in emergency situations by drafting emergency plans. The primary authority responsible for population protection planning is DEMA which issues planning guidelines and the annual vulnerability report and organises regular information meetings. According to the above guidelines, the plans must be reviewed when the risks change, when a modification is required based on experience gained during previous incidents/drills or when there is a change in organisational structure or area of responsibility.

Pursuant to Chapter 5(24/2) of the Emergency Management Act, preparedness plans must be reviewed at least once in every four years. If possible, the plans should also incorporate previously gained experience. With the aim of ensuring planning consistency, DEMA published the "Comprehensive Preparedness Planning" guide that is downloadable from DEMA's website. The Emergency Management Act also imposes an obligation on private entities to prepare an operation continuity plan for emergency situations which cannot be resolved by standard means and procedures.

The Act imposes an obligation on regional and municipal authorities to operate a national communication network used to inform the public during emergencies. The early warning system falls under the responsibility of DEMA which is also authorised to issue warnings together with the police. The Danish warning system consists of approx. 1,100 electronic and back-up sirens and the associated command and control systems. The warning system can warn population in all urban areas with more than 1,000 inhabitants. That means that approx. 80% of the Danish population can be warned by means of stationary sirens. The remaining 20% will be warned by mobile sirens mounted on police cars. The Danish *Broadcasting Corporation* (DR) – public radio and television corporation is connected to the same data network as the sirens. This ensures that the population will receive the necessary information and instructions via radio and television at the same time as the sirens sound the alarm.

The sirens can be remotely controlled from police stations and local control centres. The function of the sirens is tested every night – without producing any sound. Once every year (on the first Wednesday of May) the sirens are tested with sound.

Furthermore, DEMA is responsible for the warning system for nuclear and radiological emergency situations. The system includes 11 automatic online measurement stations located across the country. If increased radiation is detected in any of the 11 stations, DEMA is warned by an automatically activated alarm.

DEMA also manages the warning system for industries using or producing hazardous materials. The sound of sirens means that citizens should hide inside the building, close windows and doors and turn on local television and/or radio to receive more information. When warning the public, municipalities are obliged to take into account vulnerable groups of population.

The official mobile application 112, developed in cooperation with the National Police, the Copenhagen Fire Service and the Swedish Geodat agency, can be used to call help in an emergency. The application can be used to call the emergency centre and at the same time to inform about the exact position using the GPS coordinates of the mobile phone. The 112 application is free-of-charge and is available for Android, iOS and Windows Phone. The application is not intended to replace the 112 emergency call line, but serves as its supplement. Almost daily, DEMA also uses available electronic media, including social networks such as Twitter, to inform the public.

Furthermore, the MobileALERT (*Mobilvarsling*) warning application was launched by DEMA. In addition to sending warning messages, it also provides the user with other necessary information on how to act in emergency situations. The application is available for Android and iOS. The application icon is shown in Figure 6.

Figure 6: Icon of the Mobilvarsling mobile warning application



3a)

According to the Danish Constitution (S. 81) and the Danish Law of Conscription (S. 2) men over 18 years of age are obliged to undergo military service. In DEMA's operations section conscripts may perform military service for the Danish Army and the agency recruits approx. 450 conscripts every nine months.

Unlike service in the army which typically lasts four months and includes no operational tasks, service in DEMA lasts nine months. After 1 month of service, the conscripts are included in the national emergency response team and they often participate in firefighting and rescue operations. The conscripts undergo full firefighting training.

Pursuant to S. 56 of the Emergency Management Act, any person permanently residing in Denmark and aged over 18 and under 65 may be called on to serve in the fire and rescue services if it is necessary due to exceptional circumstances. The Minister of Defence may stipulate rules for these situations and define which authorities may order citizens to serve in fire and rescue services.

#### **3b**)

Education and preparation of elected officials are not regulated by law. However, DEMA manages, develops and performs a wide range of training programmes within the preparedness system.

# **3c)**

No separate subject focusing on protection of the population against disasters has been identified in Danish schools. DEMA publishes educational materials for teachers and runs campaigns aimed at changing the behaviour and attitude of children and young people towards fire prevention. Several campaigns are organised every year, e.g. a fire prevention campaign targeting primary school children or a national campaign promoting comprehensive testing of the Danish system of warning sirens.

#### **3d**)

Several campaigns were organised to inform and educate the public about what to do in crisis situations. In these campaigns, special attention was paid to floods. To educate and inform the public, DEMA uses its website or social media, such as Twitter or Facebook, to inform and

advise citizens through fire prevention campaigns targeting mainly house owners. The campaigns are organised 6–7 times a year.

The media inform the public using the nationwide television channel TV2 and radio channel RDS. Apart from the governmental organisation DEMA, this issue is addressed also by the Danish Civil Protection League (*Beredskabsforbundet*) which uses its website to inform the public on how to behave in emergency situations.

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# 5.3 Estonia

Table 13: Basic characteristics of Estonia

AREA	DEMO	LECTED OGRAPHIC ICATORS	SELECTED MAC	SYSTEM OF	
(km²)	Population Population density (inhabitants/km/		GDP (millions of USD)	GDP/capita (USD)	GOVERNMENT
45,340	1,321,977	29.2	30,732	23,247	Parliamentary republic

# **1a**)

The Estonian Population Protection Concept (*Elanikkonnakaitse konseptsioon*) defines population protection as follows: "*Population protection is a system of measures intended to protect people in situations of emergency or a threat to national security or constitutional order*." It therefore includes population protection in any crisis situation with nationwide impact. Population protection is based on the ability and need of the population to protect itself and to help each other until aid comes, and it involves various players in society.

## **1b**)

Estonia has no law or another legal document regulating exclusively or predominantly population protection. Similarly to the situation in the Czech Republic, the topic is covered by several different pieces of legislation. The most important ones are:

- The Rescue Act of 2010 which regulates the organisation of fire and rescue operations and defines the rights and responsibilities in this area for government and voluntary entities; among other things, it defines the Rescue Agency, which consists of the Rescue Board and the Emergency Response Centre.
- The Emergency Act of 2017 which provides the legal basis for crisis management, including emergency preparedness and management and ensuring the continuity of vital services. The Act also regulates announcement, management and termination of emergency situations. However, it does not provide for preparedness in the context of a threat to national security or constitutional order, which is defined in the State of Emergency Act.
- The State of Emergency Act of 1996 defines the conditions and procedures for declaring a state of emergency and the powers and responsibilities of authorities and persons in the state of emergency, threat to national security, sovereignty or constitutional order.
- The Police and Border Guard Act of 2009 which regulates protection of public order as well as execution of search and rescue operations at sea and the monitoring and, if necessary, elimination of pollution of the marine environment.

1c)

Given the fact that the main population protection players are entities subject to the Ministry of the Interior and the key executive body is the Rescue Service, it was possible to identify specific amounts of financing and their share in the state budget.

The relevant amounts and their share in Estonia's budget over the past four years are shown in Table 14.

Year	State budget (millions of EUR)	Operation of the state fire and rescue service (millions of EUR)	State budget share
2016	8,900	60.21	0.68%
2017	9,660	87.16	0.90%
2018	10,580	70.53	0.67%
2019	11 310	73 56	0.65%

**Table 14:** Funds for the operation of the Estonian Rescue Board

Although no law or another legal documents stipulate a fixed amount or a share from the state budget to be spent on the funding of civil protection, the amount has been quite constant and amounted to approx. 0.65% of the total state budget. The sum corresponds also to the information published on the website of the European Commission according to which Estonia spends approx. 0.6% of its GDP on population protection. The only exception was the year 2017 when large investments in procurement of firefighting equipment were made using the European Funds.

#### **1d**)

The Estonian population protection structure is two-dimensional and in emergency management, two principles apply: functional responsibility (each ministry responsible for a specific function manages and coordinates emergency planning at all levels – national, regional and local) and territorial responsibility (responsibilities have been assigned to different levels of government – national, regional and local). Emergency planning is handled according to the degree of competences that exists at each level.

At the national level, the coordination responsibility lies with the Ministry of the Interior which established the Rescue Board for this purpose. Sometimes, the term Estonian Rescue Board is also used. In the text below, we only use the legal term Rescue Board regardless of the designation used in the primary source of information. The Rescue Board has a leading role in emergency preparedness planning and also ensures operation of four Regional Rescue Centres and the Explosive Ordnance Disposal Centre (EOD Centre). It is also responsible for the development and implementation of national rescue policies. The Rescue Board also represents Estonia in bilateral and multilateral relations in the area of civil protection and cooperates with the emergency management and civil protection bodies of the UN, EU, NATO, and other relevant organisations.

The position of the Rescue Board in the structure of the Ministry of the Interior is shown in Figure 7.

**Figure 7:** *Rescue system structure* 



The main areas of activity of the Rescue Board are:

- Development of emergency plans for responding to major accidents and eliminating the direct consequences thereof, and counselling to county rescue service agencies on the preparation of emergency plans;
- Planning and development of communication and information systems for firefighting and rescue;
- Where necessary, management and coordination of firefighting and rescue operations in the event of a major accident;
- Administration and state supervision of fire safety;
- Supervision of the operational readiness of rescue service agencies;
- Administration and implementation of explosive ordnance disposal;
- Drafting of legislation on general applications;
- Definition of general principles and rules for the procurement of firefighting and rescue equipment.

Responsibility for operational crisis management is usually assigned to the individual administrative units – counties (maakond = county); Estonia consists of 15 counties (13 on the mainland + 2 islands), and independent cities (79), or individual municipalities. Depending on the nature of the crisis and the resources available, local and regional authorities may involve permanent staff in civil security tasks. Once a state of emergency or disaster is declared, counties or independent cities can set up specialised working groups, which are led and coordinated by a local political entity or institution. When necessary, or in case of escalation of the situation, assistance is provided by specialised state authorities.

Each county is headed by a county governor (*maavanem* = governor) appointed by the central government for a term of five years. County governors are directly responsible to the Minister of the Interior. In the area of population protection, they are responsible for the following activities in their county:

- Examine and analyse the national crisis management system, including emergency preparedness and management;
- Control the functioning of vital (essential) services at the regional level;

- Analyse and define potential emergencies and possible ways of preventing them or minimising their consequences at the regional level;
- Review the risk analysis of the given region in case of an emergency;
- Assist the authority managing the emergency situation and follow its instructions;
- Assist all regional agencies responsible for emergency management;
- Provide training in crisis prevention, preparedness and response;
- Establish the regional crisis management committee, appoint its chairman, establish its status and approve the staff. The head of the regional crisis management committee is the head of the Regional Rescue Centre.

At the local level, the local government council is the highest civil protection authority. The head of the crisis management committee is the mayor of the municipality. Local responsibilities are to:

- Examine and analyse the national crisis management system, including emergency preparedness and management, control the functioning of vital (essential) services in local government;
- Analyse and define potential emergency events and possible ways of preventing them or minimising their consequences;
- Assist the authority managing the emergency situation and follow its instructions;
- Assist all local government agencies responsible for emergency management;
- Provide training in crisis prevention, preparedness and response to local government;
- Inform the public about the emergency.

#### 1e)

In Estonia, both governmental and non-governmental organisations are active in population protection. Like in other Baltic countries, the executive bodies of government play a dominant role.

## **Governmental organisations**

# • Rescue Agency

The Rescue Agency is the key executive body in the area of population protection. It was established under the Rescue Act and covers five main areas (prevention, safety surveillance, rescue, demining, emergency preparedness) of population protection.

The Rescue Agency consists of the Rescue Board and the Emergency Response Centre (Chapter 2(4) of the Act), entities subject to the Ministry of the Interior.

The main tasks and activities of the Rescue Board include:

- Rescue operations on land and at inland waters;
- Participation in search and rescue operations in coastal sea areas (in case of direct threat to human life or health);
- Demining operations on land and at inland waters;
- Supervision of compliance with the requirements set by the Fire Safety Act;
- Prevention;
- Emergency preparedness and response;
- Approval of general and specific crisis plans;
- Granting approval to or rejecting of a building design.

To fulfil its tasks, the Rescue Board includes 34 services, such as basic rescue service, explosive ordnance disposal unit, detection of fire causes, firefighting in the countryside, rescue from heights, elimination of chemical and radiation risks, building inspections, etc. (for more information, see https://www.rescue.ee/et/teenused).

In 72 professional and 119 voluntary rescue (fire) brigades established by the Rescue Board, 300 professional and 200 voluntary rescuers are ready to help 24/7. Thanks to that, 95% of the population receive assistance within less than 15 minutes.

Main tasks of the Emergency Response Centre:

- Receipt and response to emergency calls via the emergency phone number 112;
- Risk assessment and deployment of forces and resources;
- Provision of information to the police and the Border Guard.

The Rescue Board employs 2,320 people (data as at 1 November, 2018), out of which 1,916 are directly involved in rescue operations and serve in one of the 72 brigades.

## Non-governmental organisations

#### • Volunteer rescuers of the Rescue Board

Volunteer rescuers of the Rescue Board account for approx. 2,000 (2,032 in 2019) rescuers working in 117 volunteer rescue brigades and 3 reserve rescue brigades all over Estonia.

#### • Rescue Association

The Rescue Association (*Päästeliit*) includes 128 different voluntary rescue organisations (e.g. firefighters, water rescuers) and prevention and educational organisations. The full list is available at https://paasteliit.ee/liikmed/

#### • Defence League

This is a militia organisation with long tradition. It consists of voluntary reserve forces ready to participate in national defence. In a subsidiary manner, the organisation can be also used to implement population protection measures.

**1f**)

Research support focusing on population protection is marginal; no specialised research capacities focusing predominantly on this area have been identified.

## 2a)

The main technical and organisational population protection measures are not explicitly defined in general legislation. However, generally speaking, most activities are physically carried out by the Rescue Board which cooperates with other institutions and organisations on specific cases.

Below is a list of selected measures, including the responsible and implementing entity, or the entity which performs most of the activity:

• Early public warning and information Information that needs to be provided to the population is disseminated by the Regional Rescue Centre. Since there is no unified system of warning and notification in Estonia, several entities participate in relay of the information depending on the area where the event occurred (TV, radio, municipality, the police, manufacturing companies, etc.).

#### Evacuation

In case of mass evacuation, the key role is played by the police and the Border Guard Board (Chapter 3(16) of the Emergency Act). Actual measures are implemented by the police and the Border Guard in cooperation with voluntary firefighters and local governments. When a large-scale evacuation is required, the police and the Border Guard Board appoints an official to manage the evacuation (evacuation commander).

# • Provision of emergency accommodation to evacuees

No explicit regulation has been found. However, the Population Protection Concept and the recommendations available on the "Code of Conduct for Crisis Situations" website suggest, that the government aims to pass this obligation on to municipalities, communities, families and individuals. Large-scale evacuations are managed and organised by the Police Board which closely cooperates with local governments in this specific case – see Government Regulation No. 112.

## • Provision and organisation of humanitarian aid

No explicit regulation has been found. The aim is to delegate as much responsibility as possible on the population and to support its preparedness for crisis situations through awareness-raising. Based on recommendations of the Rescue Board, people should be able to sustain without state aid for 7 days (https://www.rescue.ee/et/juhend/soovituslik-haedaolukorra-varu).

#### Sheltering

No explicit regulation has been found. The aim is to delegate as much responsibility as possible on the population itself.

## • Rescue operations

Management and implementation of rescue operations falls under the responsibility of the Rescue Board which cooperates with other governmental and non-governmental voluntary rescue organisations when responding to real situations.

#### • Securing and marking of dangerous areas

This is under the responsibility of the Rescue Board which cooperates during the operations with selected voluntary brigades having the necessary equipment and skills.

## • Provision of individual protective equipment

No explicit regulation has been found. The aim is to delegate as much responsibility as possible on the population and to support its preparedness for crisis situations through awareness-raising.

#### Decontamination

This activity is under the responsibility of the Rescue Board which cooperates during the operations with selected voluntary brigades having the necessary technical equipment and skills.

## • Self-protection and mutual assistance

Awareness is raised primarily by the Rescue Board which largely cooperates with other non-governmental voluntary organisations involved in population protection.

# • Explosive ordnance disposal (demining)

The Rescue Board is responsible for implementation of these specific activities. For this purpose, the Rescue Board established four special units covering the whole Estonian territory that are also able to dispose of underwater mines and charges. Members of these

units must be able not only to dispose of explosives but also to detect and eliminate, to the extent possible, any CBRN risks.

The Estonian armed forces participate in a subsidiary manner in most of the abovementioned measures since they are obliged by the National Defence Act to participate in emergency operations in peacetime. Their main tasks are to:

- Support civilian services through manpower, vehicles, communication equipment and population survival facilities;
- Participate in protecting the public order;
- Participate in rescue operations;
- Perform specific tasks, such as mine clearance, decontamination, etc.

The army, or the Defence League, usually sign mutual assistance and cooperation contracts with the relevant fire brigades and police units.

#### **2b**)

In the event of an armed conflict, the responsibility for implementation of a number of measures is assumed by the army which, however, still cooperates with civil security services. No other measures than those specified under item 2a) are regulated by legislation in relation to an armed conflict.

#### 2c)

No information concerning the methods of updating the planning documentation has been identified.

## **2d**)

Estonia does not have a nationwide warning system. In a state of emergency, population can be warned by radio, television, the Internet, text messages (all media and mobile operators are obliged, on request, to relay information to the public on threats and recommended measures). However, the information about the threat needs to be entered and sent by the operator, not directly by the Emergency Response Centre, which may cause certain delay. At present, text messages are sent directly by the Emergency Response Centre only within a pilot project for people with hearing disabilities, but the Population Protection Concept plans for widespread implementation of this service and has even quantified the estimated implementation costs (approx. EUR 1.5 million). This system could warn the population in an entire area and provide the initial instructions on how to behave.

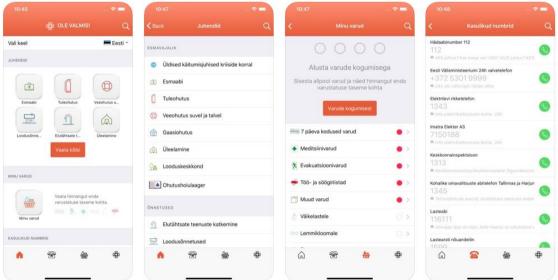
In certain areas warning can be also issued using sirens. Outdoor warning sirens are mainly used in chemical plants and their neighbourhood, and in certain cities (e.g. Sillamäe). It can be therefore said that in general the Emergency Response Centre contacts the relevant stakeholders (TV, radio stations, municipalities, businesses) and provides the information to be relayed to the population as soon as possible.

There is no specific mobile application used to disseminate warning and emergency information. This need is partially covered by the mobile application "Be Prepared!" (Ole valmis!). Its aim is to prepare the public for response to various crisis situations, such as power outages, getting lost in a forest, and it also provides first aid instructions. The application provides detailed information on issues such as fire and water safety, natural disasters, disruption of critical services, cyber security and various security threats. People can also find

there a list of household utensils and evacuation equipment that would help them remain self-sufficient for one week; the application also offers an equipment level test. Among other things, the application provides many useful phone numbers which can be called directly from the application.

Figure 8 shows visualisation of the application.

Figure 8: Visualisation of the "Be Prepared!" application



Another communication channel used for population warning are social media. Although Twitter is not an official channel, it sometimes shows posts from the site of intervention (see Figure 9 – the text has been loosely translated). However, social media are generally used mainly for prevention and awareness-raising or for post-event reporting.

**Figure 9:** Demonstration of a warning against strong wind and ban on airing indoor premises due to a heavy fire in Riga



Figure content translated into English:

záchranný Board	Rescue Board
Provoz na dálnici Vana-Narva je otevřený, záchranné týmy hledají a uhasí nejnovější požáry.	The Vana-Narva motorway has been re-opened to traffic, rescue teams are searching for and extinguishing the most recent fires.
Zobrazit toto vlákno	Show this thread
Budova skladu na dálnici Maardus Vana-Narva hoří, provoz je na místě uzavřen, doporučujeme se vyhnout provozu na dálnici Vana-Narva.  Zima se blíží. Poté se první jízdou na sněžnicích věnujeme zvláštní péči. A pokud vaše auto ještě nemá zimní pneumatiky, pokud možno nejezděte na jízdu.	A warehouse building in Maardu near the Vana-Narva motorway is on fire; the site has been closed for traffic, we recommend avoiding the Vana-Narva motorway.  Winter is coming. You should pay special attention when driving on snow. If you do not have winter tyres on your car yet, avoid driving, if possible.
Chování v bouři	How to behave in a storm
Záchranáři dnes přijali téměř 500 volání, aby odstranili stromy rozbité bouřkovým větrem. Stromy lámající se ve větru jsou vážnou hrozbou – asi v pět hodin zasáhl muž, který šel na ulici, strom padající v Räpině. Pokud je to možné, vyhýbejte se cestě venku a řízení a zůstaňte uvnitř.	Today, rescuers received almost 500 calls to remove trees broken by storm wind. Trees falling in the wind are a serious threat – around 5 o'clock a man walking in the street was hit by a tree in Räpina. If possible, avoid going out and stay indoors.

# **3a**)

In Estonia, the obligations of citizens (individuals) regarding emergency response are stipulated in two acts. More specifically, S. 19 of the Rescue Act stipulates that the rescue operations commander may summon any person over 18 to perform rescue works or activities contributing to mitigation of the effects of an emergency event. This obligation does not apply to situations where civilians could be exposed to a risk of explosion, chemical hazards or radiation. The commander is also entitled to enter other persons' property, cut down trees, carry out demolition and excavation works, etc.

Very similar obligations, described in more detailed, are also stipulated in the Emergency Act (S. 26–30). The Emergency Act also defines who is excluded from the obligation to provide requested assistance (e.g. women under 35 must not work in areas with ionising radiation; members of armed forces, pregnant women). In addition to these obligations, the Act gives the rescue operations commander the right to expropriate movable property (fuel, medicinal products) of citizens, whereas the relevant citizens will be provided with reasonable financial compensation after termination of the emergency event (the method of calculating the compensation for expropriation and mandatory provision of property for use in a state of emergency is defined in a government regulation).

**3b**)

No information concerning the system of preparing elected officials has been identified.

**3c)** 

No information regarding public education or training on matters of population protection has been found in legal regulations. Awareness-raising regarding the risks is therefore probably the responsibility of the state and is performed through the Rescue Board. Voluntary rescue organisations are also active in this area.

**3d**)

The Rescue Board plays a significant role in educating and informing the public about population protection, and it uses various channels for this purpose. One of them is for example the Rescue Board's YouTube channel (https://www.youtube.com/user/EstonianRescueBoard) on which videos with the topic of population protection (e.g. risks associated with swimming, carbon monoxide, discovery of ammunition, etc.) are published.

Another channel widely used to disseminate information are social media. Again, the Rescue Board and many other organisations involved in population protection have their profiles on different social media platforms.

Mainly news-type posts are published on social media, but also posts with prevention and educational content can be found there (e.g. a campaign recommending a purchase of carbon monoxide detectors, or an illustrative video promoting the "Code of Conduct for Crisis Situations" published by the Ministry of the Interior).

It is interesting that in Estonia, there is a special website focusing exclusively on population protection (https://kriis.ee). This website provides clear and concise information on how to prepare for crises within a family, but also within a community (What you should keep at home; How to manage crises in case of outage of basic services; How warning and notification of the public works; What a typical course of selected crisis situations is and how to behave during them). The website also clearly shows the scope of recommendations provided to the population regarding preparedness and survival in crisis situations. The website content was also compiled into a brochure (70 pages) entitled "Code of Conduct for Crisis Situations" which was published in three languages (Estonian, English and Russian) and distributed to all households in Estonia.

The mobile application "Be Prepared!", described above in more detail, also includes many recommendations. And last but not least, the population is informed through training sessions provided by voluntary organisations (e.g. https://www.rescue.ee/en/volunteer-rescuers).

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# 5.4 France

**Table 15:** Basic characteristics of France

AREA	SELECTED DEMOGRAPHIC INDICATORS		SELECTED MACROECONOMIC INDICATORS		SYSTEM OF
$(km^2)$	Population	Population density (inhabitants/km²)	GDP (millions of USD)	GDP/capita (USD)	GOVERNMENT
543,965	67,118,648	123.4	2,582,501	37,970	Unitary state

1a)

In France, the term used for population protection is civil security (*sécurité civile*). *Sécurité civile* is a public policy coordinated by the state and territorial collectivities. The term is defined in Act No. 2004-811 on the modernisation of civil security. The main civil security tasks are to prevent threats of all kinds, inform the population and ensure its protection as well as the protection of property and the environment, using measures and resources belonging to the state, territorial collectivities and private or public entities.

In French, the term *protection civile* is also used. This term, referring to the period after World War II, when many entities bearing this term in their name were established, is also an official designation recognised by the European and national law. Due to the increasing requirements of the public on security strengthening, *protection civile* was replaced by the civil security concept called *sécurité civile* in 1975. Although the original concept was recognised again under the Lisbon Treaty and today people tend not to discriminate between the meaning of these two terms, using predominantly the umbrella term *sécurité civile* as the prerogative function of the state, *protection civile* includes specific missions of both public and private entities.

#### **1b**)

Population protection is covered by a number of legal regulations with the most important being:

- Ordinance of 7 January, 1959, on general organisation of defence (*l'ordonnance no. 59-147 du 7 janvier 1959 portant organisation générale de la défense nationale*);
- Decree of 13 January, 1965 on civil defence organisation (*Décret du 13 janvier 1965 relatif à l'organisation de la défense civile*);
- Law of 22 July, 1987, establishing the Directorate of Civil Defence and Security (*décret no. 87-389 du 15 juin 1987 modifié relatif à l'organisation des services d'administration centrale*).

## 1c)

In France, the scope of population protection is very wide, which means higher funding requirements and broader obligations for education and availability of response units. The state budget is stipulated by the Budget Law (*Loi organique rélatif aux lois de finances*) which, since 2006, has not allocated expenditures to individual ministries, but classified them into seven categories which can be covered by multiple ministries. However, it is currently preferred to define a specific purpose for using the expenditure, which is a more transparent manner of showing for which public policy the taxes will be used.

Approx. 5–6% of budget expenditures are spent on security (sécurité). The category of security also includes the civil security (sécurité civile) sub-category. This sub-category receives annually approx. EUR 400–600 million from the state budget.

Furthermore, fire brigades as the key response units of population protection receive funding mainly from territorial collectivities – departments, communes or groups of communes. Departments usually contribute EUR 40.5 per inhabitant to the fire brigades. The funding needs of fire brigades amount to approx. EUR 4–5 billion a year.

#### **1d**)

Political and strategic management of the country during crisis situations falls within the competence of the President and the Prime Minister of the republic. The Minister of the Interior is the main coordinator of population protection activities at the highest level. At the lower levels, in case of a disaster, the departmental prefect and the mayor become commanders of rescue operations (*Directeur des Opérations de Secours*). Generally, this obligation falls within the competence of the mayor; however, if the available local capacity is insufficient to resolve the event or if the crisis situation concerns more communes, the prefect takes over the commander role.

For a better division of state defence powers, the vast French territory is divided into seven 7 defence zones. At this level, the relevant authorities coordinate both military and civil resources.



**Figure 10:** Population protection at the level of defence zones

The key person is the prefect of the defence zone who controls and coordinates the application of both military and non-military measures and the associated state defence tasks. From the organisational viewpoint, the prefect manages the Interministerial Zone Staff (*Etat major Interministériel de Zone, EMIZ*) and other administrative units.

State coordination in the area of civil security is ensured by the Directorate of Civil Defence and Security (*Direction de la défense et de la sécurité civiles, DDSC*) at the Ministry of the Interior. The director executes the office of the high civil servant for defence matters (*Haut fonctionnaire de défense*). The director has the power to adopt preventive and rescue measures required to protect population in all situations. S/he follows the instructions of the Prime Minister and acts in cooperation with military authorities. DDSC controls a large share of state deployment resources, including three military units that support departmental firefighters, e.g. when combating forest fires. In the civil security area, the Ministry of the Interior is supported by other ministries, especially the Ministry for the Economy and Finance and the Ministry of the Armed Forces.

Departmental prefects belong to the civil security staff (*Etat-major de zone de sécurité civile*) in their defence zones. The staff are situated in the defence zones.

The main responsibility for civil security measures lies with the departmental prefects. They are responsible for internal security, in cooperation with the police, the gendarmerie, firefighters and medical services. Prefects have the power to act within their department, or in their defence zone, to analyse plans of protection against predictable natural hazards (e.g. floods), manage education of firefighters and draft a Generic Emergency Plan (*Plan d'organisation générale des secours*).

At the local level, the mayor is responsible (as part of his/her political responsibility) for organisation of rescue measures and for security of the inhabitants of the given commune.

During everyday events requiring intervention, the commune mayor is responsible for deployment of fire and rescue forces. The mayor and the fire captain command the deployed forces.

The departmental prefect takes over the management of deployed rescue forces during disasters where the required deployment resources exceed those of the commune. Among other things, the prefect has the right to request support from private businesses. The prefect prepares the ORSEC plan to manage major events and disasters and s/he is responsible for its implementation. The prefect uses the departmental operational centre (*Service départemental d'incendie et de secours*) and the interministerial office for civil defence and security. Such a coordination centre exists in every department.

When the department's resources are insufficient to manage the event or when more departments are affected, the prefects of the regional civil security staff and the Ministry of the Interior may be called in to coordinate the rescue operations. The Ministry of the Interior may provide its own rescue resources to the departments. In case of a crisis, the interdepartmental support may be coordinated by the Interministerial Crisis Management Operational Centre (Centre opérationnel de gestion interministérielle des crises) of the Directorate of Civil Defence and Security.

1e)

Pursuant to the General Code of Territorial Collectivities, civil security missions are carried out mainly by firefighters (both professional and voluntary), public officials and permanent military units. Other entities fulfilling civil security tasks include the army, national *gendarmerie*, the police, public officials at the national and territorial levels as well as various private and state institutions and members of civil security associations.

## **Selected governmental organisations**

#### Firefighters

At the level of territorial collectivities, the civil security policy is pursued by departmental fire brigades (SDIS), with the exception of Paris and Marseille where military units are responsible for these tasks for historical reasons. That means, for instance, that in these two cities firefighters carry weapons and young firefighters are also trained to handle weapons. However, the Paris Fire Brigade (Brigade de sapeurs pompiers de Paris, BSPP) and the Marseilles Naval Fire Battalion (Bataillon de Marins-pompiers de Marseille, BMPM) fulfil the same tasks as other fire brigades. Unlike SDIS, however, they consist solely of professional firefighters.

In all French departments, firefighters are part of *Service départemental d'incendie et de secours (SDIS)*, a public institution funded by territorial collectivities and managed by locally elected representatives. From the organisational viewpoint, SDIS are part of the Ministry of the Interior *(Ministère de l'Intérieur)*. This institution was established pursuant to Article L1424-1 of the General Code on Territorial Collectivities and SDIS are part of the public administration operating in the relevant territory. French firefighters are the main players in the civil security system.

The Directorate General of Civil Security and Crisis Management includes three military units with a total of approx. 2,500 men and women serving as second-plan national forces. They support the departmental firefighters in their activities, in particular in combating forest fires, floods, major technical accidents, large-scale environmental pollution and in providing disaster relief abroad.

The military units are grouped into 18 general immediate deployment sections, 8 reinforcement sections and 4 specialised units. They operate more than 450 different items of equipment (fire trucks, ambulances, construction machinery, special air vehicles) and rescue, salvage, medical and other material, allowing them to operate in very diverse environments. These units also include specialists in disposal of mines and old ammunition.

The staff of military units are recruited by the Ministry of the Armed Forces and funded from the budget of the Ministry of the Interior – Directorate General of Civil Security and Crisis Management.

#### • Army

In France, the army has a supportive role in the area of civil security. DDSC has its own military units that support firefighters, in particular in combating forest fires, floods, major technical accidents, large-scale environmental pollution and in providing disaster relief abroad. These units typically belong to engineer corps which are, however, subordinate to the director of DDSC.

Military units may be called on by local authorities if deployment of civil resources is insufficient to handle the emergency event. Military units are therefore subordinate to the responsible local authorities.

## Selected non-governmental organisations

### Firefighters

A specific feature of the French model is extensive use of voluntary firefighters. Each voluntary firefighter is a member of a fire centre (*Centre de secours*) which is responsible for his/her training. According to French legislation, voluntary firefighters, unlike the professional ones, are not considered *travailleurs*, i.e. employees or civil servants, and therefore they receive contributions (*indemnités*) instead of a salary. The contributions ranged, based on the rank, from EUR 7.60 to EUR 11.43 per hour in 2014 and are not subject to tax and payment of social security contributions. After termination of service, voluntary firefighters are entitled to loyalty benefits, which are paid together with pension benefits.

#### SMUR and SAMU

Service mobile d'urgence et de réanimation (SMUR) consists of mobile resuscitation teams providing medical care (mainly specialised care) to victims of accidents and ensuring transportation of patients between hospitals. Service d'aide médicale urgente (SAMU) coordinates the SMUR units. SAMU permanently provides emergency medical services and ensures the availability of public or private hospital beds for people affected by emergencies. It provides urgent medical care and provides first aid training to rescue workers. Each department with an average number of 500,000 inhabitants operates one SAMU centre (i.e. there are about 100 such centres in France). Furthermore, there are other 350 SAMU centres located all over the country, especially in public hospitals.

## Red Cross

The French Red Cross is structured according to the administrative division of the country and operates at four levels (national, regional, territorial/departmental, and local).

The French Red Cross mainly participates in emergency response, provides social assistance to people in need, participates in the provision of medical care and organises training

in this area. Approx. 18,000 employees and 50,000 volunteers currently work for the organisation.

**1f**)

No information on research in the area of population protection has been identified.

2a)

No explicit codification of technical and organisational measures in the area of population protection has been identified.

**2b**)

See answer 2a).

2c)

Organisation of the security system is regulated by the above laws and by plans such as ORSEC, ORSEC RAD, the red plan, the white plan, POI (Internal Organisation Plan), PPI (Individual Plan of Intervention), PCS (Communal Safeguard Plan) and other specialised plans.

In France, the ORSEC plan (*Civil Security Response Organisation – Organisation de la Réponse de SEcurité Civile*) is the most important document in the area of civil protection and crisis management. It is a legislative support of crisis management rather than a plan in the true sense of the word. Among other things, the ORSEC plan stipulates that in the event of a disaster, the prefect must have a common database of emergency accommodation capacities in all communes within the relevant district rather than several separate lists of accommodation in communes. The ORSEC plan is launched (i.e. the crisis situation is announced) when standard means are no longer sufficient and a uniform command to coordinate the protection system needs to be established. Every public or private entity identified in the ORSEC plan is obliged to carry out the defined missions. If more entities perform the same task, the entities must cooperate and appoint joint management which will represent the state.

**2d**)

To fulfil one civil security mission – inform the population about an imminent emergency event, 10,000 sirens are located in the metropolitan area. The sirens are controlled and coordinated by the Directorate General of Civil Security and Crisis Management (*Direction générale de la sécurité civile et de la gestion des crises*); the information is also disseminated by the national radio *France* and television *France Télévisions*. Since approx. 2015, the SAIP system (*Système d'alerte et d'information des populations*) has been in operation; the system sends text messages not only to mobile phones of individual stakeholders but also to traffic panels on motorways, in cities and at railway stations.

The warning system was upgraded based on the civil protection act of 2004 and new warning elements were introduced, such as text messages, variable message display boards or information phone lines. The amended act makes it possible to warn the public using the national or regional TV or radio stations such as France Inter, France Bleu, Réseau France (overseas), France 3.

As a complement to sirens, a network of illuminated message display boards is being established in France in public spaces and transport infrastructure. The boards, situated at railway stations, in the underground, at airports or on motorways, show information on the

nature of danger. Vehicle-mounted loudspeakers (mobile sirens) are used to disseminate emergency information, too.

In addition, the *Vigipirate* alert mechanism has been used since approximately 1981. It features a system of general warnings, visuals and depictions, as well as media messages to be applied in situations of increased threat. In a wider scope, the *Vigipirate* model was first used in 1991 in connection with the Persian Gulf campaign; it was also employed in 1995 during a series of terrorist attacks in France. Since 2000, the plan has included natural disasters (floods, heat waves, air pollution), power line failures, transport of hazardous substances, and findings of unexploded ordnance. This aspect was further enhanced, for instance, during floods in the south of France in December 2003. The *Vigipirate* system measures include a special module to educate preschoolers and younger school children.

#### 3a)

No information concerning codification of personal involvement of citizens has been identified.

## **3b**)

No information concerning codification of an educational and training system for elected officials, i.e. mayors of municipalities, has been identified.

## **3c)**

Both elementary and middle schools give a 7-hour training programme (*Prevention – First Gestures*) focusing on population protection (the frequency of the programme in a school year has not been established). In elementary schools, pupils receive basic training on how to behave in an emergency.

In middle schools, there is always one teacher responsible for the training throughout the whole school. There are four pupils in every middle school class who help the teacher organise the lessons.

#### **3d**)

No relevant information concerning education and information in population protection for the public has been identified.

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# 5.5 Germany

**Table 16:** Basic characteristics of Germany

AREA	SELECTED DEMOGRAPHIC INDICATORS		SELECTED MACROECONOMIC INDICATORS		SYSTEM OF
(km²)	Population	Population density (inhabitants/km²)	GDP (millions of USD)	GDP/capita (USD)	GOVERNMENT
357,023	82,695,000	231.6	3,677,439	43,490	Federation (16 federal states)

1a)

The system of population protection is determined by the fact that Germany is a federation comprising 16 federal states ("Länder"). The population protection system has been built on the principles of federalism and each federal state has a different set-up.

The existing population protection system (*Bevölkerungsschutz*) comprises two subsystems, namely disaster protection (*Katastropheschutz*) and civil protection (*Zivilschutz*<sup>6</sup>). The *Katastropheschutz* subsystem is the responsibility of each federal state, aimed at non-military threats, while the *Zivilschutz* subsystem is the responsibility of the federation and focuses on military threats.

In addition, there is also a disaster relief subsystem (*Katastrophenhilfe*) based on the principle of subsidiary help of the federation to the federal states in cases of large non-military threats.

## **1b**)

Within the framework of the disaster protection subsystem (*Katastropheschutz*), population protection is enacted at the level of each federal state. At federation level, civil

<sup>&</sup>lt;sup>6</sup> The formerly used term "Zivilbevölkerung" – can be found for instance in the German Constitution.

protection (*Zivilschutz*) is enacted by a special legal regulation – the Civil Protection and Disaster Relief Act (*Gesetz über den Zivilschutz und die Katastrophenhilfe des Bundes*) adopted in 1997 and amended in 2009. The law consists of 32 articles and is divided into 12 parts.

Civil protection is also enacted at the supreme level, namely in the Constitution of the Federal Republic of Germany (*Grundgesetz für die Bundesrepublik Deutschland*). Pursuant to Article 73, it falls within the exclusive competence of the federation.

#### 1c)

Due to the applied federalist principle of division of competencies in *Bevölkerungsschutz* between the federation and the individual federal states, it is not possible to exactly identify expenditures associated with the system. At federal level, expenditures of the key central organisations, *Das Bundesamt für Bevölkerungsschutz und Katastrophenhilfe* and *Technisches Hilfswerk*, fluctuate around EUR 350 million per year.

## **1d**)

Population protection at federal level is ensured by the Federal Office of Civil Protection and Disaster Assistance (*Das Bundesamt für Bevölkerungsschutz und Katastrophenhilfe*, hereinafter the "BBK"), part of the structures of the Federal Ministry of the Interior. The BBK sets methodologies for federal and state authorities related to the performance of their tasks.

At the level of federal states, ministries of the interior are the responsible authorities.

#### **1e**)

Although we were able to identify governmental and non-governmental organisations involved in population protection, Germany is a country where the vast majority of activities in this area is carried out by non-governmental organisations.

## **Governmental organisations**

#### • Federal Agency for Technical Relief

The only governmental organisation active in the field of population protection is the Federal Agency for Technical Relief (*Technisches Hilfswerk*, hereinafter the "THW"). THW is a federal institute acting as a legal entity, whose activities are regulated by special law (*Gesetz über das Technische Hilfswerk*). It is a nationwide second-plan response unit. THW has a fixed structure supported by assisting persons based on the respective law, and volunteers.

The main statutory tasks of the THW include:

- o Technical assistance in the event of major disasters, emergencies and accidents;
- Activities under civil protection measures (Zivilschutz);
- o International technical assistance during humanitarian operations of the federal government.

The THW organisation has eight federal offices, 66 regional units and 668 local units. The THW structure currently includes two educational facilities in Hoya and Neuhausen.

### **Selected non-governmental organisations**

Non-governmental organisations, namely fire brigades and aid services, play a key role in the implementation of population protection measures.

## • Firefighters

In most cases, fire brigades are founded by municipalities. The fire brigades operate in the entire German territory. Fully operational fire brigades are set up, equipped and operated by municipalities at their own cost and depending on their own means. Activities are conducted by professional, volunteer, company and young firefighters.

As regards the nature of their service, most firefighters are volunteers, only approx. 100 largest cities (usually with a population over 80,000) have a professional fire brigade, founded either by the city or a private economic entity. Firefighters of all categories are associated in the German Fire Brigade Association (*Deutscher Feuerwehrverband*).

In recent years, in addition to the responsibility for firefighting, firefighters have become increasingly involved in technical assistance, which became clear especially during catastrophic floods after 2000. Firefighters in Berlin, Bremen, Hamburg and North Rhine-Westphalia are also trained in the field of medical rescue services. In North Rhine-Westphalia, firefighters transport 90% of patients. For this activity, the fire brigades are reimbursed by health insurance companies.

Table 17 shows an overview of the number of firefighters in Germany.

**Table 17:** *Numbers of firefighters according to the nature of their service* 

TYPE	NUMBER OF BRIGADES	NUMBER OF MEMBERS
Professional firefighters	100	28,000
Voluntary firefighters	24,500	1,000,000
Company firefighters	900	33,000
Young firefighters	17,000 groups	250,000

#### Aid services

Some aid services are decentralised and fall within the sole responsibility of the federal states. The most important aid services providing rescue are those listed in Table 18.

Table 18: Aid services

ORGANISATION	NUMBER OF ACTIVE VOLUNTEERS	NUMBER OF PROFESSIONALS (employees)	
German Red Cross	425,000	164,200	
German Life Saving Association	45,500	800	
Johanniter Accident Assistance	37,000	22,000	
Malteser Aid Service	35,000	3,000	
Worker's Samaritan Federation	20,000	40,000	

The Red Cross, Johanniter Accident Assistance, Malteser Aid Service and the Worker's Samaritan Federation, render, among other things, also medical ambulance services.

**1f**)

In order to support the implementation of population protection, a security research programme (*Sicherheitsforschung*) is implemented by the Federal Ministry of the Interior. The role of the central research base and the coordinating body in this respect is performed by the

BBK. This role is enacted in S. 4 of the Civil Protection and Disaster Relief Act. Topics related to population protection are also tackled by a number of university facilities.

## 2a)

At federal level, population protection measures are governed by the Civil Protection and Disaster Relief Act (*Gesetz über den Zivilschutz und die Katastrophenhilfe des Bundes*). S. 1 comprises an exhaustive list of measures that are further elaborated:

- Self-protection (S. 5);
- Population warning (S. 6);
- Protective structures (sheltering) (S. 7–9);
- Evacuation (S. 10);
- Disaster protection, civil protection, disaster relief (S. 11–20);
- Health protection measures (S. 21–24);
- Measures to protect cultural values (S. 25).

Although these are technical and organisational measures related to the field of *Zivilschutz*, i.e. the subsystem designed to protect the population during armed conflicts, they can be potentially used in the event of large non-military threats (*Katastrophenhilfe*).

## **2b**)

See answer 2a).

#### 2c)

At federal level, no planning documentation exists concerning population protection measures. Procedures related to the planning of the measures are specified at the level of federal state laws.

#### 2d)

After the Cold War had ended, the network of sirens in Germany was dismantled and it was agreed that instead of sirens a radio would be used for population warning purposes. Of the total number of almost 100,000 sirens deployed across Germany, some were completely removed and some taken over by municipalities. The subsequent gap in population warning, when there was practically no central early warning system in Germany, was bridged by the SatWaS satellite system (*Satellitengestütztes Warnsystem*) set up in October 2001.

Today, early public warning and information at federal level is ensured by the BBK using SatWaS. The MoWaS system (*Modulare Warnsystem*) is built on the SatWaS platform. MoWaS is the next stage in developing a satellite warning system. All other elements of different systems, e.g. mobile devices or applications, can be connected to it using a common communication protocol. In Germany, it is the NINA mobile application.

The NINA application is the official application of the BBK. NINA operates throughout Germany and issues warnings against all sorts of emergency events. The application draws data mainly from MoWaS, but also from the German Meteorological Service and the BSH (Bundesamt für Seeschifffahrt und Hydrographie). The application also comprises information about self-protection and mutual assistance for various types of events, including checklists for

recommended emergency supplies for various types of events. NINA is available for iOS and Android.

The structure of NINA warning messages is as follows:

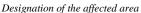
- Event characteristics: date and time, description of the event;
- Affected regions: list of the affected territories;
- Further information: links to the websites of responsible authorities;
- Responsibility: the name of the authority responsible for the content of the warning message.

A filter can be used to select warning messages related to population protection, weather conditions, flood situation.

Figure 11 shows selected screenshots from the NINA application.

Figure 11: Screenshots from the NINA application







Recommended practices



Reporting structure

In addition to the NINA application, there are other solutions available at the level of federal states, e.g. the KATWARN application or the BIWAPP application.

Katwarn is available as a mobile application (available for iOS and Android), or as a text messaging (SMS) or e-mail service. In the case of the mobile application, warnings are received depending on the device location. When using SMS or e-mail, only warnings applicable to the registered postal code are received. The application is currently operated in the federal states of Berlin, Hamburg, Hessen, Rhineland-Palatinate, and Saarland. In addition to Germany, the system is also used in Austria.

At federal level, social media channels are used to early warn the population in a limited extent.

#### 3a)

Pursuant to the Federal Constitution (Article 12a), men who have attained the age of eighteen may be required to serve in a civil defence organisation. Pursuant to the Federal Constitution (Article 17a), laws regarding protection of the civilian population may provide for restriction of the basic rights of freedom of movement and inviolability of the home.

Public engagement is carried out primarily on a voluntary basis, namely pursuant to S. 26–28 of the Civil Protection and Disaster Relief Act (Gesetz über den Zivilschutz und die

*Katastrophenhilfe des Bundes*). The public is engaged primarily through participation in the activities of aid services.

Beyond the framework of their engagement in aid services, men and women between 18 and 60 can be summoned pursuant to S. 28 in the event of staff shortage. The law does not provide for any detailed classification of groups of persons.

## **3b**)

At federal level, the law does not define any system of education of elected representatives.

### **3c)**

According to the current strategic document on population protection (Konzeption Zivile Verteidigung, 2016), the fundamentals of civil protection are built on the ability of the population to protect and help itself until trained, organised rescue officers arrive. According to S. 5 of the Civil Protection and Disaster Relief Act, the matter of self-protection falls within the competence of municipalities. When carrying out the activities, municipalities can cooperate with organisations specified in greater detail in S. 26 of the Act, i.e. aid organisations, such as the German Red Cross, German Life Saving Association, and others.

Until 1997, the Federal Association for Self-Protection had been engaged in raising awareness among all population groups in Germany. At present, the BBK plays a coordinating role at the national level.

There is no uniform approach to the education and training of the student population in place. Education is administered by the governments of the individual federal states; the actual curricula and key educational documents often vary considerably among federal states. The federal government only coordinates vocational training and scientific research, and supports the development of universities.

As a rule, security matters are not even part of school educational programmes and are addressed through extracurricular activities. Likewise, no educational events with mandatory participation targeting other population groups are organised. In principle, there are two basic forms of approaching the population. One consists of activities directly implemented by the BBK. In this case, it is mainly the publication of educational materials and the implementation of thematically focused awareness-raising campaigns. The other form represents indirect impact of the BBK through individual municipalities.

The role of fire services in the field of self-protection is marginal in Germany with regard to the legal definition of the role of cooperating organisations listed in S. 26 of the Civil Protection and Disaster Relief Act.

## **3d**)

At the federal level, nationwide television and radio campaigns or social media are used to a limited extent to educate and inform the population.

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# 5.6 Italy

**Table 19:** Basic characteristics

AREA	SELECTED DEMOGRAPHIC INDICATORS		SELECTED MACROECONOMIC INDICATORS		SYSTEM OF
$(km^2)$	Population	Population density (inhabitants/km²)	GDP (millions of USD)	GDP/capita (USD)	GOVERNMENT
301,340	60,421,760	200.5	2,083,864	34,489	Parliamentary republic

## **1a**)

The terms used for population protection include civil defence and civil protection. Civil protection is a subsystem of civil defence and its aim is to protect lives, property, settlements and the environment from the consequences of natural disasters, anthropogenic disasters and other emergency events. There is no strict division of tasks between civil defence and civil protection and some of their activities overlap. In principle, however, civil defence measures, or most of them, fall within the competence of the government, whereas civil protection measures fall within the competence of regions, provinces and municipalities.

The entire civil protection system is based on the principle of subsidiarity. The first response to an emergency event, regardless of the nature and extent of the event, must be ensured at the local level, starting with a local authority – the institution closest to the inhabitants. The first person responsible for population protection is therefore the mayor: in case of emergency s/he takes over control and coordination, assists and supports the public, organises municipal resources based on emergency plans prepared to address specific risks in the area.

### **1b**)

The key legal regulation is Act No. 225 of 24 February, 1992 establishing the National Civil Protection Service (*Servizio della Protezione Civile*) supervised by the Prime Minister's Office. The National Civil Protection Service operates at central, regional and local levels in accordance with the principle of subsidiarity. The main goal is to protect lives, property, settlements and the environment from harm and danger.

The Act was amended in 2012. On 2 February 2018, Italy amended the Civil Protection Law dealing with response to disasters and other emergency events (Legislative Decree No. 1 of 2 January 2018), which reformed all of the relevant pieces of legislation. This amendment to the law represents the Italian government's most significant legal efforts related to civil protection since the adoption of Act No. 225 of 1992 establishing the National Civil Protection Service.

Other laws dealing with population protection in general include particularly:

- Act No. 112 of 1998 to assign functions and administrative tasks of the government to the regions and authorities;
- Act No. 246 of 2000 to reinforce the national fire brigade;
- Act No. 267 of 2000 to organise local governments;
- Act No. 401 of 2001 on urgent measures to ensure operational coordination of the entities engaged in civil protection activities;
- Act No. 300 of 2003 to enhance the functioning of public security and civil protection;

A number of related presidential and governmental decrees have been issued to further specify and elaborate the provisions laid down by the laws. In order to resolve peacetime crisis situations, the government is also entitled to adopt *ad hoc* resolutions corresponding to the specific situations as they arise.

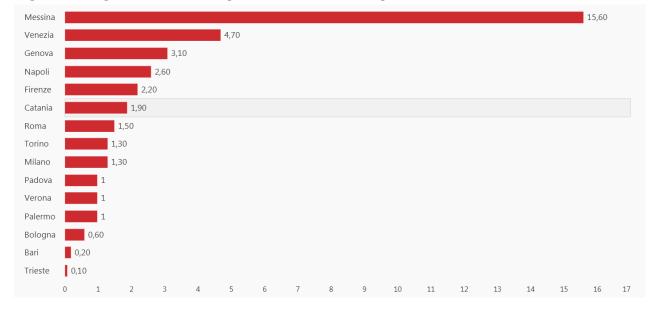
Civil protection is also enacted at the supreme level, namely in the Constitution of the Italian Republic (Articles 117 and 126).

#### 1c)

The average annual costs of the Italian civil protection system amount to approx. EUR 1.7 billion, which represents approximately 0.13% of the annual GDP. Two thirds of that amount are used to cover costs incurred during previous disasters.

In order to finance population protection in Italy, according to Article 5(5) of Act No. 225 of 1992, as amended by Article 10(1)(d) of Decree No. 93 of 2013, a special provision to establish the "National Emergency Fund" was adopted. It was also decided that at the end of each year, the use of funds of the National Emergency Fund must be highlighted in the financial statement of the Presidency of the Council of Ministers.

See Figure 12 for an example of per capita expenditures in the civil protection system in cities with more than 200,000 inhabitants in 2017 (in EUR per person).



**Figure 12:** Expenditures on civil protection at the municipal level

## **1d**)

Population protection is implemented by a system of "civil defence"; some activities are left aside and implemented within a relatively independent "civil protection" subsystem.

The governing structure for civil protection at the national level is the Civil Protection Department (hereinafter the "Department"), an operational and advisory body for the Prime Minister.

In the event of war, disaster or other emergency, no new structures are developed within the civil protection system; all responsibilities are taken over by existing authorities, which are reinforced with appropriate experts and material, depending on the situation.

The managing structure for civil defence is the Office for the National Firefighters Corps, Public Rescue and Civil Protection falling under the Ministry of the Interior, divided into nine main organisational units:

- Financial resources;
- Emergency and technical assistance;
- Civil defence;
- Civil protection support;
- Forces:
- Human resources;
- Prevention and technical safety;
- Logistics and technology;
- General matters.

Regional branches including provincial headquarters of the National Firefighters Corps are subordinated to the Office.

The national central executive body for rescue operations is the National Firefighters Corps (hereinafter the "Corps"), managed through the Office for the National Firefighters Corps, Public Rescue and Civil Protection.

The Corps engage professional firefighters and assistant firefighters. Professional firefighters work full-time or part-time. Assistant firefighters are enlisted within the framework of their alternative civilian service.

The system throughout Italy is complemented with voluntary firefighters serving within the Corps structures.

## **1e**)

## **Selected governmental organisations**

#### • National Firefighters Corps

The National Firefighters Corps is the key response force ensuring population protection. The National Firefighters Corps is obliged to provide for fire protection and technical assistance. If necessary, it would also be responsible for public safety in the event of chemical, bacteriological, radiological and nuclear attacks. The Corps renders rescue services abroad under international treaties, too.

The organisation has approximately 34,000 professional firefighters. The organisation is managed by the National Firefighters Corps, Public Rescue and Civil Protection, falling within the competences of the Ministry of the Interior. The National Firefighters Corps also comprise eight central directorates, 18 regional offices and 100 provincial posts with approximately 800 command stations throughout the country. They operate 40 helicopters and two aircraft distributed at 12 bases for the purposes of search, rescue and fighting forest fires, and 19 Canadair aircraft designed for aerial firefighting.

## **Selected non-governmental organisations**

Volunteering in civil protection began to develop in Italy mainly under the influence of major emergency events that affected Italy in the past 50 years, including the floods in Florence (1966) or the earthquakes in Friuli (1976) and Irpinia (1980). The widespread spontaneous mobilisation of citizens showed that people felt solidarity, but what was lacking was a public system able to organise them. According to the OECD, the system is characterised by high

mobility; in a few days, it is possible to gather tens of thousands of volunteers from various areas of civil defence.

Decree No. 194/2001 stipulates general guidelines for the engagement of voluntary associations in civil protection. In total, there are 3,798 registered voluntary civil protection organisations in Italy. The total number of Italian civil protection volunteers has grown. Currently, there are approximately 150,000 volunteers, of which almost 60,000 are theoretically ready to intervene with immediate effect in the event of a crisis in their neighbourhood.

The most important non-governmental organisations engaged in population protection include the Voluntary Firefighters, the Red Cross and the National Alpine Cliff and Cave Rescue Corps.

## • Voluntary firefighters

Voluntary firefighters support the National Firefighters Corps throughout the country; most units exist in the north, especially in the region with a special status, Trentino-Alto Adige, where a fire brigade must exist in every municipality according to regional law.

From the viewpoint of service, voluntary firefighters are incorporated in the above-mentioned National Firefighters Corps within the structure of the Ministry of the Interior.

Voluntary firefighters deal with the following events:

- Fires (excluding forest fires, which are tackled by the State Forestry Corps);
- Accidents affecting persons, animals and property;
- Structural failures and collapses;
- Road accidents;
- Dangerous situations in general.

Voluntary firefighters are associated in the National Association of Voluntary Firefighters (*Associazione Nazionale Vigili del Fuoco Volontari*), established in 1970, the only organisation authorised to act on their behalf, defend their interests and promote their legitimate demands. In terms of hierarchy, the association comprises the National Council, and regional, provincial and local organisations. It publishes and distributes its own bulletin.

## • Red Cross

Activities of the Italian Red Cross are governed by the fundamental principles of the International Red Cross and its own statutes. The task of this organisation is to provide social and health care (to complement activities of the state) and organise international humanitarian aid. From a professional point of view, it falls within the Ministry of Health and the Ministry of Defence.

The Red Cross is made up of the following organisational units:

- Water rescue service;
- o Special equipment unit (aerial vehicles);
- o First aid unit in ski resorts;
- o Dog handling unit.

The Italian Red Cross has about 160,000 members associated in six volunteer groups.

## • National Alpine Cliff and Cave Rescue Corps (CNSAS)

Corpo Nazionale Soccorso Alpino e Speleologico is an operations unit of Club Alpino Italiano. The main tasks of the National Alpine Cliff and Cave Rescue Corps include:

- Assistance to injured persons or persons in dangerous situations and searching for missing persons in mountainous terrain and caves;
- Assistance in the event of disasters along with other rescue organisations within the scope of its competences.

The Corps are managed at national, regional and provincial levels by councils – entities with legal personality.

**1f**)

Support of research aimed at population protection is ensured by a network connecting the civil protection service with national scientific research centres (universities, research institutes, centres of excellence), as well as technological systems gathering and processing information concerning various types of risks. Approximately 4% of the annual civil protection budget is spent on research and development.

The establishment of the Study and Research Institute for Civil Protection and Security (*Istituto di Studi e Ricerche sulla Protezione Civile e Difesa Civile*) on 31 January, 2001 was a major step forward in order to share professional knowledge at national and international levels. The Institute also provides consultations and training courses.

2a)

Technical and organisational measures to be implemented for the purpose of population protection in respect to non-military threats are not explicitly concentrated in a single piece of legislation. However, on a cross-sectional basis, the following measures can be identified based on analyses:

- Warning;
- Evacuation;
- Humanitarian aid;
- Decontamination.

The measures apply to non-military threats as well as armed conflicts.

**2b**)

See answer 2a).

**2c)** 

No information concerning the methods of updating the planning documentation has been identified.

**2d**)

The early warning system has a long tradition. The Italian Ministry of War started to install sirens and publish air defence regulations in 1938. The sirens were made by La Sonora, a company founded in 1911, which is still in business.

The operation of the national early warning system is ensured by the Civil Protection Department through a network of control centres. It also supports and implements risk reduction and mitigation programmes and projects.

In terms of monitoring technology, the Dewetra system has been developed for real-time monitoring, prediction and prevention of natural disasters; it is also available internationally. Dewetra operates within the Italian national system of control centres. It is a platform developed by the Civil Protection Department and the CIMA Research Foundation (International Centre for Environmental Monitoring) to contribute to the prediction and mitigation of risks associated with hydrometeorological and fire hazards.

The "Alert System" is also used to warn the population. It is designed to manage the communication between the public administration and the community. As part of civil protection, the system is used in the events of fire, flood, landslide, volcanic risk, etc. It is used to alert the population and coordinate rescue forces at the site.

In addition, regional civil protection departments inform citizens via Facebook and Twitter "in time" on a regular basis.

#### 3a)

No information concerning the position of citizens in the civil protection system has been identified.

## **3b**)

No information concerning the methods of preparing elected officials has been identified.

#### **3c)**

In 1992, two Italian regions launched the "Safe School" project of the Ministry of the Interior, Ministry of Education and the Civil Protection Department. A year later, a national coordination committee was set up, whose members were representatives of the ministries, the Italian Red Cross and other voluntary organisations. The project started in secondary schools and – given its success – was then expanded to primary schools in 1995/96.

At that time, the project was expanded to all Italian provinces. Provincial working groups were established to adapt the guidelines recommended by the National Organising Committee to local needs. In order to further expand the efforts in teaching children about civil protection, the idea has emerged to introduce civil protection as a subject to all Italian schools, but such a change in the curricula would require a new piece of legislation. In primary schools, the process continues, but in secondary schools the idea has been abandoned for the moment. Instead, a method was chosen to train teachers in every province. The teachers were specifically required to introduce civil protection to the programme of education in order to ascertain whether the instruction on safety and security matters could be covered by other school subjects.

Examples of the topics of safety and security covered by individual school subjects:

- History and literature research of documents and historical identification of past disasters.
- Geography study of geographical areas and identification of areas with environmental and technological risks.
- Physical education in primary schools and secondary schools, including behavioural training for emergency situations.
- Science and technical education study of the dynamics of natural physical and chemical phenomena and related human influence.

• Visual education and arts – knowledge of safety signals and the identification of safety systems by creating escape maps and emergency evacuation plans.

The Safe School project continued to follow this trend. Approximately nine million Italian students from 11,000 primary and secondary schools participated in the project during the first 10 years of its existence (i.e. 1992–2002). The project is still running.

Education in population protection often takes the form of a one-day training.

## **3d**)

At the national level, the use of nationwide campaigns in new media and traditional media to educate and inform the public is very limited. There is some space for improvement.

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### 5.7 Latvia

**Table 20:** Basic characteristics

AREA	SELECTED DEMOGRAPHIC INDICATORS		SELECTED MACROECONOMIC INDICATORS		SYSTEM OF
$(km^2)$	Population	Population density (inhabitants/km²)	GDP (millions of USD)	GDP/capita (USD)	GOVERNMENT
64,490	1,927,174	29.9	34,409	17,855	Parliamentary republic

**1a**)

Population protection (referred to as "civil protection" in Latvia) is understood as a set of organisational, technical, economic, financial, social, educational and scientific measures adopted by central and local government authorities and the society. The main purpose is to ensure the safety of people, the environment and property in the event of a disaster or a threatening disaster situation. At the same time, primarily through its resources, it serves to support the national defence system in the event of an attack on Latvia or the declaration of a state of war.

#### 1b)

The key piece of legislation is the Civil Protection and Disaster Management Law (*Civilās aizsardzības un katastrofas pārvaldīšanas likums*) of 2016. The law defines particular types of natural (e.g. hydrological – floods, ice barriers) and anthropogenic (e.g. falls of buildings, terrorist attacks) disasters and the extent thereof (from local to the national level).

Other legal regulations governing civil protection include the National Security Law, which introduces the notion of the State Civil Protection Plan and defines its content; at the same time, it stipulates that the civil protection falls within the portfolio of the Ministry of the Interior. The last applicable law is the National Armed Forces Law, which defines the civil protection system as one of the tasks of the armed forces. The involvement of the army is

expected mainly during preventive and reactive measures, including rescue, search and relief operations. There is also a number of implementing regulations to the Civil Protection and Disaster Management Law, such as the Procedures for Establishing, Operating and Financing the National Early Warning System, or the Minimum Requirements for the Content of the Mandatory Course in Civil Protection and the Content of Training of Employees in Civil Protection to be discussed below in greater detail.

## 1c)

The sources of funding of civil protection tasks are specified directly in the Civil Protection Law, however, without identifying any precise structure or share. Most of the funds originate from the state budget chapter earmarked for this purpose, i.e. they form part of the chapter reserved for Public Order and Security, namely Fire Safety and Rescue. It is also funded from local government budgets and also from private resources of legal entities and individuals.

The website of the Latvian Ministry of Finance shows the state budgets of the last three years. The operation of the State Fire and Rescue Service of Latvia (hereinafter the "SFRS"), whose task is, among other things, to coordinate and manage the functioning of the civil protection system, is covered from the budget of the Ministry of the Interior. Specific amounts and their share in the total budget of Latvia in the last three years are shown in Table 21 below. Although no law or other legal documents stipulate a fixed amount or a share from the state budget to be spent on the funding of civil protection, the amount has been quite constant.

Year	State budget (millions of EUR)	SFRS operations (EUR million)	State budget share
2017 8,327.5		64.9	0.78%
2018	8 054 2	67	0.75%

 Table 21: Financial resources to operate the SFRS and their relation to the state budget

In addition to the contribution from the state budget, the SFRS may, on the basis of a government regulation, provide certain fee-based services, which subsequently become part of its budget. In particular, they include services such as the maintenance of breathing equipment, firefighting museum, car rental, etc. Other sources of funding include the services of a university, falling directly under the SFRS, which offers various fee-based tests (testing of foaming agents, flash point, etc.) and training sessions (civil protection, firefighting courses, etc.). For the services and the amounts charged for the services, see the official SFRS price lists.

### **1d**)

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The system of population protection in Latvia is mostly centralised, however, local governments also have a partial role along with certain obligations; the Civil Protection and Disaster Management Law defines certain tasks and responsibilities even for the public.

The functioning of the system and the fulfilment of civil protection tasks at the national level is overseen by the Prime Minister. The government also decides on financing, use of EU funds for civil protection, sets procedures for establishing, operating and financing the national early warning system, establishes civil protection commissions, etc.

The key managing authority at the central level is the Ministry of the Interior, or rather the SFRS. The SFRS tasks are described in detail in Chapter 3(10) of the Civil Protection and Disaster Management Law. The main tasks of the SFRS related to civil protection encompass: organisation and implementation of civil protection measures, training and teaching of experts,

0.64%

education and notification of the public on civil protection issues, organisation and implementation of civil protection preventive measures, etc.

Other ministries also participate in the management of disasters and other emergency events within the scope of their competences (Chapter 2(6) of the Civil Protection and Disaster Management Law):

- Ministry of Defence maritime disasters pursuant to the Maritime Administration and Safety Law, as well as disasters occurring on the military premises, including civil engineering structures owned or operated by the Ministry;
- *Ministry of Foreign Affairs* disasters in buildings and civil engineering structures in representative offices and embassies of the Republic of Latvia abroad;
- Ministry of Economy disasters related to energy generation, energy sector, and energy and transportation infrastructure (gas leaks from main gas pipelines, emergency gas and fuel supply systems, power generation facilities, hydroelectric power station failures, power grid failures);
- *Ministry of the Interior* disasters related to fires, earthquakes, landslides, terrorist acts, civil disturbances, public unrest or traffic accidents at inland waters within land boundaries;
- *Ministry of the Environment and Regional Development* disasters related to the leakage of hazardous chemical substances and mixtures, with the exception of sea and inland waters from the baseline to the coast, including sea coast pollution, radiation emergency situations, storms, floods, hail, glaze ice, snow or heat;
- Ministry of Transport disasters related to rail, road or air transport and related accidents, as well as accidents related to civil engineering and crude oil products; port and marine hydrologic and technical structure accidents;
- *Ministry of Health* disasters related to human infectious disease outbreaks;
- Department of Agriculture disasters related to forest and peat fires, drought, polders, waterworks (with the exception of hydroelectric power plants, port and marine hydrologic and technical structures), epizootics and epiphytes associated with mass spreading of an animal disease or outbreaks of infectious diseases harmful to animals, spreading of organisms harmful to plants;

In terms of civil protection, Latvia is divided into 5 regions. Given the size of Latvia, the regional and local levels overlap to some extent. The main tasks of local/regional governments are to finance the fulfilment of civil protection tasks, approve civil protection plans for the area, ensure emergency evacuation and survival. The tasks are described in detail in the Civil Protection and Disaster Management Law (Chapter 3(11)).

The chart shown in Figure 13 provides a comprehensive overview of civil protection responsibilities and management in Latvia.

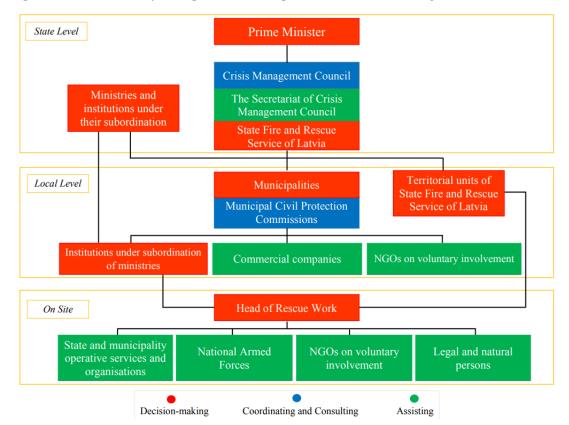


Figure 13: Structure of civil protection responsibilities and management in Latvia

## **1e**)

# Selected governmental organisations

#### • State Fire and Rescue Service

The main response force is the State Fire and Rescue Service of Latvia which assumes the main part of civil protection responsibilities in Latvia and is directly subordinate to the Ministry of the Interior. The SFRS consists of the central unit and five independent territorial units. It manages, coordinates and controls the functioning of the civil protection system.

The professional readiness of its members is ensured at the central level by their own specialised educational and training facility. In 2018, the organisation had 2,071 professional firefighters.

The SFRS structure is shown in Figure 14.

Chief of State Fire and Rescue Service The Assistant Manager Board of Deputy Chief Deputy Chief Deputy Chief Planning Finance Board of Control and Board of Board of Civil of Human Region Riga Protection Operations Resources Planning and Coordination Division Board of Fire Board of Brigade of Maintenance Technique Safety and Supervision Crises Board of Brigade of Law Division Procurement and Provision Project Prevention Management Division Region Zemgale and Public Relations Explanations Management Internal Brigade of Region Vidzeme Security Division Circulation and Central apparatus Latvian Fire Independent and Civil Protection fighting Museum structural units European Affairs and International Territorial Cooperation Division structural units Subordination institutions

Figure 14: Organisational structure of SFRS

#### Coast Guard

The Coast Guard is the part of the naval fleet coordinating search and rescue at sea (SFRS provides rescue at inland waters only). Its service is 24/7 and is under the direct command of the navy.

#### **Selected non-governmental organisations**

The role of humanitarian and non-profit organisations is relatively small and limited; since the restoration of independence of Latvia in 1991 the sector has not fully developed yet. However, the existing non-profit organisations are represented in every management structure and involved in every major drill. They also play a growing role in education and professional training.

#### • Red Cross

The main non-governmental organisation in Latvia is the Latvian Red Cross (Latvijas Sarkanais Krusts), a non-profit humanitarian organisation based on volunteers. Its activities cover the whole Latvian territory. It supports public authorities in their humanitarian tasks, in line with the needs of people of Latvia. The main tasks of the Latvian Red Cross in civil protection include the readiness to respond to emergency situations and crises by providing assistance to victims, and training citizens in first aid.

The Latvian Red Cross has 24 regional organisations with 5,200 members and also cooperates with approximately 2,300 volunteers.

## • Voluntary firefighters

In Latvia, voluntary fire brigades play a marginal role in population protection. They can be established by authorities, organisations, businesses and municipalities. Although the Latvian Voluntary Firefighters Association exists which organises various trainings and drills for its members so that they can engage in rescue operations, official documents do not give them too much credit.

#### **1f**)

The population protection research is, in part, conducted by the Fire Safety and Civil Protection College (*Ugunsdrošības un civilās aizsardzības koledža*), which is established directly by the Ministry of the Interior through the SFRS. The SFRS is thus the supreme and decision-making body of the college in terms of strategy, funding and economic matters. Although it is mainly an educational institution, its laboratories also carry out applied research (e.g. experiments to determine fire hazard characteristics of solid substances and materials).

Another important institution engaged in the field of civil protection research is the Department of Labour and Environmental Protection of the Riga Technical University; it has cooperated with foreign institutions and published the outcomes of its research in international journals (e.g. Assessment of Improving the Efficiency of Fire Extinguishing by Using Surface Active Agents, Wind-related Disaster Management and Prevention Improvement Strategy).

## 2a)

Most technical and organisational measures to protect the population against non-military threats are adopted by the SFRS, which – in specific cases – cooperates with other institutions.

Please find below a list of selected measures including the entity responsible for their implementation, or the entity that carries out a specific activity in most cases.

### • Early public warning and information

The Ministry of the Interior, or, specifically, the SFRS, is responsible for the early public warning and information transmission. The SFRS operates 164 alarm sirens belonging to the National Early Warning System. At the same time, the SFRS supplies information to contracted TV and radio stations. If need be, it is possible to use police or army sirens/loudspeakers. This topic will be discussed in greater detail below.

#### Evacuation

Pursuant to the law, this measure is a responsibility of local governments. In reality, it is most often implemented by the SFRS or the police, which usually arrives at a scene first. It cooperates with relevant municipalities, e.g. to notify the population via public address system.

## • Provision of emergency accommodation to evacuees

It is provided by local governments in cooperation with other governmental (e.g. SFRS, schools), but also non-governmental (e.g. Red Cross) institutions, depending on the specific circumstances and the extent of the emergency situation.

## Provision and organisation of humanitarian aid

It is provided by local governments in cooperation with other governmental (e.g. SFRS, schools), but also non-governmental (e.g. Red Cross) institutions.

## • Sheltering

The responsibility lies with local governments, which - in reality - are supported by both governmental (e.g. SFRS, schools) and non-governmental (e.g. Red Cross) institutions.

## • Rescue operations

Pursuant to the Civil Protection and Disaster Management Law, this task is assigned to the SFRS, which actually performs most of the rescue operations. The term rescue operations refers to firefighting; assistance in traffic accidents; assistance at inland waters using SFRS technical equipment and capacities – underwater search and other rescue operations. The only exception is rescue operations carried out in a specific environment or using special equipment. A good example is e.g. rescue and search operations at and under the sea, falling within the responsibility of the Coast Guard, a unit of the Latvian Naval Forces (a branch of the National Armed Forces). Like the SFRS, the Coast Guard provides a 24/7 service.

## • Securing and marking of dangerous areas

The task is performed by the SFRS, which has the necessary protective equipment and appropriate training.

## • Decontamination

The task is performed by the SFRS, which has the necessary material and technical equipment.

### **2b**)

As far as civil protection technical and organisational measures are concerned in the event of an armed conflict (state of war), another legal regulation addressing population protection is Act No. 388/389 on National Armed Forces (*Nacionālo bruņoto spēku likums*) of 1999. Pursuant to Chapter 2(6), the national armed forces provide support to the civil protection system in terms of preventive and response measures, emergency response measures, and during rescue and search operations. The form of the army's engagement in civil protection is decided by the government (Chapter 4(17)).

Otherwise, the Civil Protection and Disaster Management Law still applies and the SFRS bears the largest share of responsibility. This is because the SFRS is required to support the national defence system in the event of a military invasion or war as one of its eight fundamental tasks in civil protection.

#### 2c)

In Latvia, the basic planning document governing civil protection is the State Civil Protection Plan (*Valsts civilās aizsardzības plāns*, hereinafter the "SCPP") whose preparation is required from the Ministry of the Interior by virtue of law. The structure of the plan is determined by the government and its actual preparation is entrusted to the SFRS in cooperation with other relevant authorities.

The State Civil Protection Plan stipulates activities of the civil protection system stakeholders in order to determine preventive, preparedness, response and other measures for the event of a national or regional disaster or for the event of a military invasion or war. It is

divided into three major parts. Part I defines potential threats (extensive fires, power outages, or e.g. the fall of a satellite carrying radioactive material). The next part plans the response of the national civil protection system to particular threats (e.g. who will respond to an emergency situation and how fast, what preventive measures can be adopted, etc.). The last part deals with a system of reporting and evaluation of the level of compliance with the SCPP.

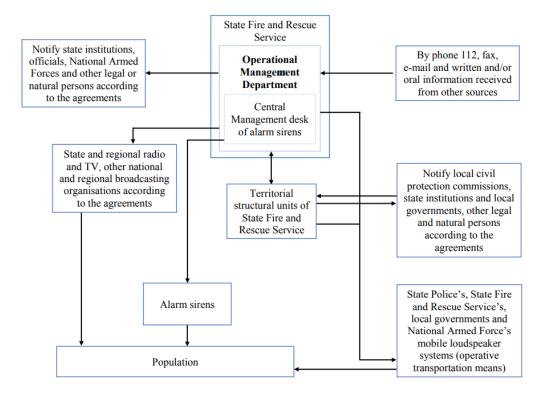
The Civil Protection Law (Chapter 5(16)) also sets deadlines for SCPP reviews. The Ministry of the Interior reviews the SCPP on an annual basis and submit an indicative report and a proposal for changes to the SCPP to the government by 1 May.

In addition to the SCPP, Latvia has the Civil Protection Plan for Municipalities and Higher Self-government Units and the Civil Protection Plan for High-risk Facilities. Pursuant to the Civil Protection and Disaster Management Law the plan must be reviewed and updated, if necessary, once in every four years.

### 2d)

Latvia has one consistent nationwide system to warn and inform the population. Its functioning is ensured by two government institutions. The Information Centre of the Ministry of the Interior is responsible for the installation of alarm sirens, their servicing and control. If necessary, the SFRS is responsible for the activation of the system, controlling 164 sirens directly from its operations centre. If need be, before activating the sirens, the SFRS can send information to the media so that they can subsequently provide it to the public based on a contract. More detailed information on the functioning of the system can be found in the Cabinet of Ministers' Regulation No. 440 "Procedures for Establishing, Operating and Financing the National Early Warning System". Figure 15 illustrates the functioning of the system.

**Figure 15:** Functioning of the population warning system in Latvia



Operational status of the sirens is checked every November and May for 3 minutes, which corresponds to the length of a warning signal. The public warning and information system includes:

- Alarm sirens in towns; the sirens are controlled and activated from the central control panel;
- Alarm and notification devices to be used by state and municipal institutions;
- Media, such as radio and television (they are obliged to broadcast the required information without undue delay and free of charge);
- Companies providing electronic communication services (telephone, internet);
- Other technical means capable of providing early warning (public address systems, army and police sirens, etc.)

Based on the Directive establishing the European Electronic Communications Code, as approved by the European Parliament, which also includes provisions on the introduction of a public warning system and caller location, the option is being considered of warning the population via SMS or a mobile application. The SFRS in cooperation with mobile network operators now strive to find the optimal technical solution and quantify the costs.

As regards cutting-edge technology, it is worth mentioning social media profiles owned and actively managed by the SFRS. In addition to the official website, the SFRS also has active Twitter and Facebook accounts with posts published on a regular basis. These channels are not the primary channels to warn and inform the population, they mostly feature news and preventive education posts (e.g. emotional campaign suggesting a purchase of autonomous smoke detectors). Occasionally, there is a warning on Twitter with additional information (e.g. strong wind warning with a link to the website of a meteorological service with simple advice how to proceed – see Figure 16), so even this channel can be used to warn some people about existing or imminent emergency situations.

**Figure 16:** Illustration of a warning against strong wind and ban on airing indoor premises due to a heavy fire in Riga



3a)

The personal engagement of citizens (legal entities and individuals) in civil protection tasks in Latvia is enacted in the Civil Protection and Disaster Management Law, whose Chapter 3(12) stipulates obligations of legal entities as well as individuals. Specifically, they are obliged to maintain and use things so as to ensure that the things do not jeopardise the safety of other persons, property and the environment; immediately notify competent state or local authorities of any existing or threatening disaster; in the event of an existing or imminent emergency event they are obliged to act as instructed by state or local government officials (SFRS members in most cases during the first phase); ensure accurate and timely implementation of the measures assigned to legal entities in the State Civil Protection Plan, or rather in the civil protection plan of the territory, developed in cooperation with the SFRS.

**3b**)

No information concerning the methods of preparing elected officials has been identified.

**3c)** 

Civil protection training of inhabitants is mentioned in the Civil Protection and Disaster Management Law (Chapter 7(23)), whereby educational institutions at higher, general and vocational levels are obliged to include a mandatory civil protection course in their curricula. The minimum requirements for the agenda of the course are set by the Government in regulation No. 716 "Minimum Requirements for the Content of the Mandatory Course in Civil Protection and the Content of Training of Employees in Civil Protection" adopted by the Government for this purpose in 2017.

The Government regulation stipulates minimum requirements for the content of the school curricula at each schooling level.

General and vocational schools must ensure that their students, within the framework of general and vocational instruction, acquire:

- Knowledge of everyday dangerous situations, behaviour under threats (including injury prevention), safe behaviour at home, transport, in the streets, outdoors, in educational institutions, other public spaces, digital environment, etc.
- Knowledge of environmental factors and the effects of the environment on individuals and society;
- Knowledge of national security (potential threats and risks related to national security);
- Knowledge of possible disasters and their consequences, and how to respond to such disasters:
- First aid skills for crisis situations (e.g. how to stop massive bleeding, resuscitate, etc.) and calling professional assistance.

The form of the transmission of compulsory information and skills during the instruction is not strictly defined by any norm.

**3d**)

Different types of brochures (most of them published by the SFRS or local governments), social media (e.g. Facebook and Twitter) and mass media (e.g. television and radio channels) are commonly used to educate and inform the public regarding civil protection. The purpose is to make the public aware of what to prepare and do under duress or in the event of a disaster. The option of using mass media to educate the public in civil protection is

mentioned in the Civil Protection and Disaster Management Law (Chapter 7(23)), too. However, precise campaign or airtime schedules are nowhere to be found. Therefore, the campaigns are organised *ad hoc* depending on current needs.

The most influential and most civil protection-oriented profiles are probably those of the SFRS. The SFRS has active and updated Facebook and Twitter profiles. Social media feature news-type posts (there was a fire, that many trees fell), but there are also lots of preventive educational posts (e.g. emotional campaign suggesting a purchase of autonomous smoke detectors).

Further information related to self-protection and mutual assistance is available at the SFRS website. You can also download from the website a brochure (or a poster) reading "Vai tu zini, kā rīkoties ārkārtas gadījumos?", which can be loosely translated as: "Do you know what to do in case of an emergency?" This 10-page brochure provides information how to behave in the event of fire, radiation accident, flood, storm, black-out, including ABCs of first aid.

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## 5.8 Lithuania

Table 22: Basic characteristics of Lithuania

AREA	SELECTED DEMOGRAPHIC INDICATORS		SELECTED MACROECONOMIC INDICATORS		SYSTEM OF
(km <sup>2</sup> )	Population	Population density (inhabitants/km²)	GDP (millions of USD)	GDP/capita (USD)	GOVERNMENT
65,286	2,801,543	42.9	53,429	19,071	Parliamentary republic

#### 1a)

Population protection forms part of the civil security system and the term commonly used for population protection is "civil protection". Population protection refers to activities involving crisis preparedness of the government, the regional administration centres, all economic entities, public organisations and inhabitants, including the response and implementation of relevant activities if such a situation arises. It also includes the use of all available government resources to ensure population survival, maintaining the national economy, protecting the property and the environment against risks arising from crisis situations with active involvement of the population throughout the process.

The civil security system in Lithuania has been developed in two ways: civil preparedness and rescue preparedness. No explicit distinction is made between internal security and external security, but the deployment of civilian and military forces is treated separately. Military and voluntary forces and resources play primarily a subsidiary role when dealing with non-military crisis situations.

#### **1b**)

The population protection is addressed primarily by the Civil Protection Law of the Republic of Lithuania, which thus constitutes the most important piece of legislation in the given field.

Specific cases are addressed in a number of other laws and applicable implementing regulations. These are, for instance, the following regulations:

- Law on the State of Emergency of the Republic of Lithuania;
- Law on the Basics of National Security of the Republic of Lithuania;
- Law on Fire Protection of the Republic of Lithuania;

- Law on Environmental Protection of the Republic of Lithuania;
- Law on Environmental Monitoring of the Republic of Lithuania;
- Law on Nuclear Energy of the Republic of Lithuania;
- Law on the Health System of the Republic of Lithuania;
- Law on Radiation Protection of the Republic of Lithuania;
- Law on Waste Management of the Republic of Lithuania;
- Law on the State of War of the Republic of Lithuania;
- Law on Mobilization and Preparation of Mobilization Reserve;
- Government Resolution on the approval of the criteria of emergencies.

## **1c**)

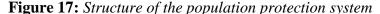
Pursuant to Article 38 of the Civil Protection Law, institutions managing the civil protection and rescue system, a training centre, other civil protection training institutions, and the civil protection and rescue system forces are funded from the state budget.

Although there are neither laws nor other pieces of legislation stipulating a fixed amount from or a share of the state budget to be spent on the funding of civil protection, the amount remains constant and fluctuates around 0.2% of the GDP spent on the funding of the Fire and Rescue Department, the key response force ensuring population protection.

## **1d**)

The key national and regional level organisations in the field of population protection include the Governmental Emergency Commission and the Office for Fire and Rescue Department falling within the portfolio of the Ministry of the Interior.

A similar management structure exists at regional and local levels, i.e. the key role is always played by the relevant emergency commissions and organisational units of the Fire and Rescue Department. Figure 17 depicts the management structure of the population protection system in Lithuania.





### **Selected governmental organisations**

## • Fire and Rescue Department

The Fire and Rescue Department is the main response force of the population protection. The organisation is managed through the Office for Fire and Rescue Department, operating within the structure of the Ministry of the Interior with the following subordinate departments:

- 10 fire and rescue departments in individual regions with subordinate fire and rescue services;
- 1 specialised fire and rescue department (unit);
- Fire and rescue services of strategic businesses (a power plant, a nuclear power plant and a crude oil terminal);
- Training facility;
- Research facility;
- Emergency call centre 112.

The staff includes approximately 3,000 professional officers.

#### • Maritime Rescue Coordination Centre

The Maritime Rescue Coordination Centre is administered by the Lithuanian Army. The Centre performs search and rescue operations at sea and responds to environmental incidents.

## **Selected non-governmental organisations**

#### Red Cross

The Lithuanian Red Cross Society renders subsidiary support when responding to situations requiring population protection. The organisation has signed contracts with regional governments with the main area of support being assistance to the public in mitigating the consequences of emergency situations.

**1f**)

There is a population protection research base established as part of the Fire and Rescue Department at the Ministry of the Interior. This role is assumed by the Fire Research Centre, specialising, among other things, in flammability research and testing of materials, assuming the main role in the conduct of CBRN teaching and research activities on behalf of the Lithuanian rescue services.

### 2a)

Most of the technical and organisational measures to protect the population against non-military threats are adopted by the Fire and Rescue Department in cooperation with other institutions.

Further details concerning the following measures are described below:

- Early warning;
- Evacuation;
- Sheltering;

• Rescue operations.

#### **Early warning**

The Fire and Rescue Department bears responsibility for the warning; it is also responsible for maintaining the technical aspects of the system. Critical infrastructure organisations also contribute towards its funding.

#### **Evacuation**

Evacuation of the population is addressed along with the provision and organisation of emergency accommodation and humanitarian aid. The organisational and coordination role is performed primarily by the Fire and Rescue Department. Local crisis commissions also contribute towards actual implementation.

## **Sheltering**

The system of population sheltering falls within the portfolio of the Ministry of the Interior, which approves the need to build shelters, other collective protection facilities, and the need for individual protective equipment.

## **Rescue operations**

Rescue operations during emergency events are coordinated by the crisis commission established by the government (at the national level) or a local crisis commission (at the regional level) and the Office for the Fire and Rescue Department. The actual work is done by the Fire and Rescue Department, the army, the police, other units and voluntary organisations, and last but not least, economic entities that are legally obliged to engage in the work.

### **2b**)

Technical and organisational measures pertaining to population protection in the event of an armed conflict (state of war) are not explicitly defined. The principle of ensuring the same measures as in peacetime is therefore applied.

### 2c)

No information concerning binding codification of the methods of updating the planning documentation has been identified.

#### **2d**)

The Office for the Fire and Rescue Department operates the P-160 public warning and information system covering the entire territory for the purpose of warning and notifying the public of imminent emergency situations.

In the event of threat, the Fire and Rescue Department sends information and recommendations to the public via the automatic "Signal" warning system, equipped with centrally controlled sirens and loudspeakers, as well as via national TV and radio. The national public warning and information system operates 706 central sirens, covering population of about 2 million inhabitants. The system also comprises 564 local sirens. The local sirens are located mainly in rural areas. Areas not covered by the sirens should be covered by special vehicles operated by the police and the fire brigade.

In addition, mobile phones are used to early warn the population, through the LT-Alert CB system, which uses the mobile network to distribute warning messages in multiple languages. The system is regularly tested every first Saturday of the month at noon.

## **3a**)

No codification of personal involvement of a citizen within the framework of population protection has been identified.

## **3b**)

No detailed information concerning the codification for preparation of elected officials and the applied forms of training has been identified.

## **3c)**

Training in the ABCs of civil protection is organised by secondary schools and universities through programmes developed by the Fire and Rescue Department and approved by the Ministry of Education and Science.

Nevertheless, no information has been found about the forms of instruction and the extent to which they are binding.

## **3d**)

We have identified certain deficiencies in respect of the information provided to the public for the purposes of population protection. They concern the use of social media, nationwide TV and radio campaigns, or the use of special websites by national authorities.

Government agencies, specifically the Ministry of Defence, issued the document "Prepare to survive emergencies and war: a cheerful take on serious recommendations", comprising the crisis preparedness information – starting with natural disasters and ending with a military conflict. Among other topics, the document discusses how to make adequate provisions for situations when people are cut off from help, or in need of a fast emergency evacuation. In general, it is recommended to have a 3-day supply of water, food, medications and other equipment on hand.

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# 5.9 Norway

 Table 23: Basic characteristics of Norway

AREA	SELECTED DEMOGRAPHIC INDICATORS		SELECTED MACROECONOMIC INDICATORS		SYSTEM OF
(km²)	Population	Population density (inhabitants/km²)	GDP (millions of USD)	GDP/capita (USD)	GOVERNMENT
385,199	5,320,143	13.8	398,832	75,990	Unitary state (constitutional monarchy)

### 1a)

The concept of population protection is not common in Norway. The subject matter is primarily framed, similarly to other Scandinavian countries, by the concept of total defence (including civil preparedness, or civil defence, and military defence). As for population protection, the closest concept in terms of content is civil protection, which is a subsystem of civil preparedness. The system of population protection is focused on addressing emergency situations in times of both peace and war.

The Norwegian civil security system is based on three main principles: accountability, decentralisation and compliance. This means that each citizen or institution is accountable for its own security; the accountability for crisis management rests at the lowest possible level; the state and the society must operate normally, regardless of the type or extent of the specific crisis.

## **1b**)

Population protection is codified by special legislation, the Civil Defence Act of 1953, which regulates in particular the organisation, the role of local governments, the issues of compulsory service and selected technical and organisational population protection measures.

In addition, a number of other related pieces of legislation can be identified, such as:

- The Fire Protection Act;
- The Fire and Explosion Prevention Act;
- The Planning and Building Act;
- The Protection Against Pollution Act;
- The Regulation on the Main Principles of the Organisation of the Search and Rescue Services;
- Act on Municipal Responsibility for Sectoral Risk, Vulnerability Assessment and Emergency Plan.

## 1c)

With regard to the applied principle where the responsibility for population protection rests primarily at the municipal level, it is not possible to exactly identify the expenditures associated with this system.

#### **1d**)

The Directorate for Civil Protection and Emergency Planning (hereinafter the "DSB"), which is part of the Ministry of Justice and Public Security (hereinafter the "MoJPS"), has a key managing role at the central level in matters of population protection. The DSB is

responsible for the coordination of the Norwegian rescue service and for the administration of the main coordination rescue centres. It also creates and issues national preparedness plans.

At the regional level, the principle of decentralisation is beginning to be applied and responsibility is gradually transferred to the regional councils headed by the relevant governor, the regional civil defence command centres and the police districts.

At the local level, the responsibility is taken over by the municipal civil emergency planning bodies, local rescue centres and non-governmental organisations.

# **1e**)

## **Selected governmental organisations**

Out of governmental organisations, only the allocated forces of the Norwegian Army are the executive bodies, exclusively on a subsidiary principle.

In addition, in large-scale incidents, members of the civil defence forces are called in in peacetime. Their role is to support the police, firefighters, rescue services and others in more serious incidents for which these organisations would not have sufficient human and material resources. In 2018, there were about 8,000 people available for these purposes – men and women aged 18 to 55 can be called to action.

Except for the above, no other governmental executive population protection bodies have been identified in Norway.

# **Selected non-governmental organisations**

#### Search and Rescue

It is an association of eight NGOs that provides an institutional bridge and ensures coordination between NGOs and the Norwegian civil security system. It is often supplemented by the armed forces (mostly members of the army).

# Firefighters

The founders of fire brigades are municipalities. In Norway, there are about 2,200 professionals and about 14,000 part-time workers enrolled in these units.

# **1f**)

Research in the field of population protection is partly conducted directly by the DSB. However, the main part of the research is addressed in cooperation with universities.

#### 2a)

No codified technical and organisational measures related to non-military threats have been identified.

#### **2b**)

No codified technical and organisational measures related to military threats have been identified.

2c)

Neither the frequency nor the methods of updating the planning documentation have been identified.

## **2d**)

About 1,250 sirens are used as endpoint devices for early warning of the population. Due to the low number of settlements, sirens are installed mainly in cities.

In addition, the DSB operates a *Kriseinfo* website designed to provide the population with up-to-date information on imminent events. This platform is connected to other communication channels (mobile phones, Twitter, national, regional or local radio and television stations).

The DSB also uses the localised text message service in cooperation with mobile operators.

#### 3a)

Population protection in Norway is based on three principles which transfer a large part of the responsibility for own safety and the safety of others to individuals. In addition, anyone between the ages of 18 and 65 may at any time be called upon to perform duties related to population protection in accordance with the Civil Defence Act.

#### **3b**)

No detailed information concerning the codification for preparation of elected officials and the applied forms of training has been identified.

#### 3c)

No information implying the forms of education and the degree of their binding nature has been identified.

#### **3d**)

The central authority for communicating measures and recommended methods of protection against various types of emergencies is the DSB. In doing so, it mainly uses the social media such as Facebook and Twitter, as well as specialised websites focused on awareness-raising activities in the field of self-protection and mutual assistance (*Kriseinfo*).

The DSB also uses cooperation with children's television programmes to educate children and participated in the design of a computer game aimed at strengthening the children's knowledge in the field of preparedness for and prevention of crisis events.

In addition, a 12-page booklet entitled *You are part of Norway's emergency preparedness* has been published, which provides recommendations on how to behave in an emergency. It also includes a check-list of recommended equipment that should be prepared for an emergency. This includes e.g. the following equipment:

- 9 litres of water per person;
- 3 tins of canned food or 3 bags of dried food per person;
- 3 boxes of long-lasting sandwich spreads or jams per person;
- Several sachets of dried fruit or nuts, biscuits and chocolate;

- Medicaments:
- Candles, flashlight with batteries, paraffin lamp;
- Matches or lighters;
- Warm clothes, blankets and sleeping bags;
- First aid kit;
- Battery powered radio;
- Wet wipes and disinfectants;
- Paper towels and toilet paper;
- Cash;
- Iodine tablets for the case of a nuclear emergency.

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# 5.10 Slovenia

 Table 24: Basic characteristics

AREA	SELECTED DEMOGRAPHIC INDICATORS		SELECTED MACROECONOMIC INDICATORS		SYSTEM OF
$(km^2)$	Population	Population density (inhabitants/km²)	GDP (millions of USD)	GDP/capita (USD)	GOVERNMENT
20,675	2,073,894	100.3	54,008	26,042	Parliamentary republic

1a)

Slovenia's population protection system focuses on both non-military and military threats. As the systems of civil protection and civil defence fall within the competence of the same ministry (Ministry of Defence), many elements complement one another or fully overlap (e.g. the Act on Protection against Natural and Other Disasters uses, in addition to non-military threats, also the terms of state of war, war, imminent threat of war, etc.). Article 81 of the Defence Act stipulates that the protection and rescue of the population, animals, property and other goods at war shall be carried out by the bodies, authorities, departments and organisations performing these activities in peacetime.

The term "population protection", covering both civil protection and civil defence (or any similar term), is not used in legislation. The legislation uses both the term of civil protection and the term of civil defence.

Definition of civil protection (Article 3 of the Act on Protection against Natural and Other Disasters): "Civil protection is a purposefully organised part of the system of protection against natural and other disasters. Civil protection consists of management bodies, units and services for protection, rescue and relief, protective and rescue equipment, as well as facilities and establishments for protection, rescue and relief."

Definition of civil defence (Article 5(2) of the Defence Act): "Civil defence is a set of tasks and activities of state bodies, local government bodies, legal entities, institutions and other organisations and citizens, which support and supplement the military defence of the state using non-military resources and ensure the functioning of public authorities, supplies, protection and survival of the population at war."

#### **1b**)

The main law in the field of civil protection is the Act on Protection against Natural and Other Disasters (1994). It regulates the protection of people, animals, property, cultural heritage and the environment against natural and other disasters.

There are a number of secondary legal regulations that specify in greater detail the provisions of the Act on Protection against Natural and Other Disasters. These are in particular: the decree on the construction and maintenance of shelters; the decree on the implementation of protection, rescue and relief tasks with the help of aircraft; the decree on remuneration and reimbursement of costs in the implementation of protection, rescue and relief tasks; the decree on the content and preparation of protection and rescue plans; the decree on property and equipment for personal and group protection; the decree on organising, equipping and training of protection, rescue and relief forces; the decree on the organisation and functioning of the observation, information and alarm system; the decree on civil protection service; and other bylaws.

The law on critical infrastructure is also important.

Other legal regulations in this area include: the Fire Protection Act; the Fire Brigade Act; the Drought Protection Act; the Act on the Elimination of the Consequences of Natural Disasters; the Slovenian Red Cross Act and other laws.

Article 92 of the Slovenian Constitution then regulates in general terms "the state of emergency" and "the state of war".

In the field of civil defence, the Defence Act is essential, which, in the provision of Article 3(1) on the defence system, explicitly states that national defence consists of military and civil defence.

Let's also mention the Material Obligation Act. This law stipulates the conditions under which individuals and legal entities are obliged to provide their property to defend the state and to manage natural and other disasters. Pursuant to Article 2, this Act applies to motor vehicles, work machines and equipment, vessels, aircraft, sources of electricity (stationary and portable generators, accumulators, etc.), equipment usable for radiological, chemical and biological decontamination and technical rescue equipment (chainsaws, cutters, etc.).

#### 1c)

Article 115 of the Act on Protection against Natural and Other Disasters stipulates that protection against natural and other disasters is financed from the following sources:

- Budget of the Republic of Slovenia;
- Budgets of local governments;
- Insurance;
- Voluntary contributions;
- International aid;
- Assets of companies, institutions and other organisations;
- Other sources.

Sources of civil defence financing are not addressed in the Defence Act.

#### **1d**)

Civil protection is managed by the Administration of the Republic of Slovenia for Civil Protection and Disaster Relief (ACPDR), which is a constituent body of the Ministry of Defence. Large-scale emergency events are managed by the Civil Protection Headquarters of the Republic of Slovenia consisting of representatives of ministries, experts and commanders of protection and rescue units. In the case of local emergency events of a smaller scale, management is transferred to the regional or local level.

The management scheme of the population protection system is shown in Figure 18.

ACPDR = Správa Slovinské republiky pro civilní ochranu a pomoc za mimořádných událostí Vláda (Administration of the Republic of Slovenia for Civil Protection and Disaster Ministersva Republiková centrála civilní celostátní Min. obrany - ACPDR\* ochranné a záchranné jednotky a Regionální oddělní Regionální centrály civilní služby ACPDR ochrany Starosta Obecní centrály Obecní služby civilní ochrany Místní ochranné a záchranné jednotky a Obvodní centrály služby civilní ochrany

Figure 18: Organisational chart of population protection in Slovenia

Figure content translated into English:

	<b>T</b>
Vláda	Government
1 1 1 1	ACPDR = Administration of the Republic of
civilní ochranu a pomoc za mimořádných	Slovenia for Civil Protection and Disaster
událostí	Relief
Ministerstva	Ministries
Min. obrany – ACPDR*	Ministry of Defence – ACPDR*

Republiková centrála civilní ochrany	National civil protection headquarters
Celostátní ochranné a záchranné jednotky a služby	National protection and rescue units and services
Regionální oddělení ACPDR	Regional ACPDR departments
Regionální centrály civilní ochrany	Regional civil protection headquarters
Starosta	Mayor
Obecní služby	Municipal services
Obecní centrály civilní ochrany	Municipal civil protection headquarters
Místní ochranné a záchranné jednotky a služby	Local protection and rescue units and services
Obvodní centrály civilní ochrany	District civil protection headquarters

# **1e**)

# **Selected governmental organisations**

The relevant civil protection activities are mainly performed by the police, the armed forces (on a subsidiary principle) and civil defence units.

As for civil defence, based on Article 69 *et seq.* of the Defence Act, the executive body consists of the Armed Forces of the Republic of Slovenia.

# Selected non-governmental organisations

# • Firefighters

Firefighters are a key non-governmental response force of population protection. The basic tasks include extinguishing fires, interventions in traffic accidents, rescue of people and animals, interventions in environmental disasters.

The total number of firefighters in 2018 was 40,850, of which 40,000 were volunteers and 850 professionals.

#### Red Cross

The Slovenian Red Cross participates mainly in search for people in the field, provision of first aid and intervention activities in the event of major emergency events.

#### • Mountain Rescue Service

The Mountain Rescue Service mainly provides rescue in difficult terrain and participates in search operations. The service is organised in the form of an association of 17 independent voluntary mountain rescue organisations. There are currently about 700 rescuers in its ranks.

**1f**)

Article 40 of the Act on Protection against Natural and Other Disasters lays down research in the field of protection against natural and other disasters. Research and development projects in the field of protection against natural and other disasters are a mandatory part of the national research programme. The law stipulates that the ministry responsible for protection against natural and other disasters participate in the decision-making process on research and development projects of the national research programme by proposing research and

development projects in the field of protection against natural and other disasters and provide opinions on research and development projects relevant to protection against natural and other disasters. The ministry may, after prior coordination with the ministry responsible for research, independently finance research and development projects aimed at protection against natural and other disasters.

# 2a)

The Act on Protection against Natural and Other Disasters sets forth the following measures:

- Spatial, planning, structural and other technical measures;
- Evacuation;
- Reception and care for vulnerable populations;
- Radiological, chemical and biological protection;
- Sheltering;
- Protection of cultural heritage.

#### **2b**)

The Defence Act sets forth the following measures which apply, in addition to the armed forces, also to civil defence:

- Preparedness measures;
- Mobilisation.

However, Article 81 of the Defence Act stipulates that the protection and rescue of the population, animals, property and other goods at war shall be carried out by the bodies, departments and organisations performing these activities in peacetime. Therefore, measures used in non-military threats can also be applied.

## 2c)

Planning of civil protection is regulated by Articles 44–47 of the Act on Protection against Natural and Other Disasters. It is based on threat analyses and expert findings. A five-year national programme is prepared, on which annual plans for protection against natural and other disasters are based. The law stipulates that protection, rescue and relief measures in the event of natural and other disasters and at war are planned through protection and rescue plans. Plans at the local level then fall within the competence of local governments.

Based on Article 69 of the Defence Act, the defence plan consists of a plan for the use of the Slovenian Armed Forces (General Staff), a government defence plan (government and ministries) and a plan for civil protection personnel (ACPDR). It also includes a psychological defence plan and an economic defence plan. The plan is approved by the government.

## **2d**)

The early warning bodies include crisis notification centres (13 regional and one central), which operate 24/7. In addition to alerts, these centres are also part of the monitoring system and serve as central offices for receiving, processing and switching calls to 112.

The early warning system makes use of sirens. Slovenia uses a total of five warning signals:

• Threat warning (2 minutes, still) – high water level, fire, natural and other disaster



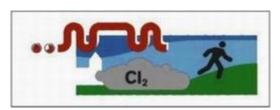
• Imminent danger (1 minute, fluctuating) – flooding, large-scale fire, radiological or chemical threats, threat of military attack and other types of threats



• All clear (30 seconds, still)



• Imminent danger with chlorine leakage (100 seconds: 30 s fluctuating / 40 s still / 30 s fluctuating) – chlorine leakage into the environment



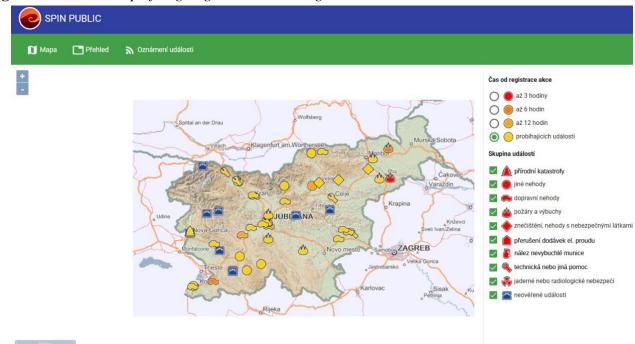
• Imminent threat of a flood wave (100 seconds: 4s intervals, interrupted by 4 s of silence) – threat of overflow or rupture of hydropower dams



The fourth and the fifth signals are only used in some regions.

In addition to sirens, crisis notification centres can use radio and television channels and national teletext to alert citizens (by law, notifications have priority in all mass media).

Slovenia also uses the SPIN system (Accident and Incident Notification System), which is primarily used for reporting events, but the user can also set the application to receive notifications of accidents and other incidents. The visualisation of the SPIN system is shown in Figure 19.



**Figure 19:** *SPIN – map of ongoing events with a legend* 

Facebook is used to disseminate warning messages, where instructions are also published on how to behave during upcoming/ongoing emergency events. The ACPDR also uses Twitter to disseminate warning messages.

# **3a**)

Pursuant to Article 15 of the Act on Protection against Natural and Other Disasters, in order to facilitate protection against natural and other disasters, the citizens are obliged to:

- Participate in civil protection activities (applies to men aged 18–63 and women aged 18–55, with the exception of mothers and single parents of children under 15 years of age and persons in military service);
- Provide material resources;
- Train and prepare themselves for personal and mutual protection and implement the required protective measures.

# **3b**)

No detailed information concerning the codification for preparation of elected officials and the applied forms of training has been identified.

## **3c)**

Article 109 of the Act on Protection against Natural and Other Disasters stipulates that the system of basic education should provide basic knowledge about threats posed by natural and other disasters and about how to achieve protection against them. It also stipulates that secondary and university education should convey knowledge on protection against natural and

other disasters in connection with the field of study. However, the law does not specify by what means this is to be achieved.

The optional subject of "Protection against natural and other emergencies" has been taught at 66 selected primary schools. The aim is to transfer the basic knowledge related to the protection and rescue system in Slovenia (the general system, its individual components, etc.). The subject's aim is also to develop students' critical thinking and values. The specific topics taught are designed to interweave the knowledge gained across other subjects.

Preschoolers and schoolchildren are also informed about emergency events through posters, leaflets and school newspapers. National literary and art competitions on the topic of natural disasters have also been held for many years.

Article 109 of the Act on Protection against Natural and Other Disasters stipulates that the system of basic education should provide basic knowledge about threats posed by natural and other disasters and about how to achieve protection against them. It also stipulates that secondary and university education should convey knowledge on protection against natural and other disasters in connection with the field of study. However, the law does not specify by what means this is to be achieved.

As part of university education, courses on natural threats are provided at the University of Ljubljana.

# **3d**)

There are, for example, video tutorials demonstrating the evacuation process posted on the server. However, it should be noted that there are relatively few videos in the official account, none of which are widely watched (the number of views for these videos is usually several hundreds or a few thousands).

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# 5.11 Sweden

**Table 25** Basic characteristics of Sweden

AREA	SELECTED DEMOGRAPHIC INDICATORS		SELECTED MACROECONOMIC INDICATORS		SYSTEM OF
(km²)	Population	Population density (inhabitants/km²)	GDP (millions of USD)	GDP/capita (USD)	GOVERNMENT
449,964	10,067,744	22.4	538,040	52,590	Unitary state (constitutional monarchy)

## 1a)

Under the terms of the total defence concept, which puts both military and non-military defence on an equal level, Swedish population protection is made up of civil protection, crisis management and civil preparedness (civil defence).

Civil protection represents public security in the form of protection against large-scale natural disasters and anthropogenic accidents. Crisis management is a process leading to the reduction of loss of lives and property and to the protection of lives, property and the environment, through a comprehensive prevention and defence programme based on a theoretical level of risk. Civil preparedness (civil defence) is a form of public security during a war.

# **1b**)

Population protection is codified mainly in the Civil Protection Act (*Lag 2003: 778*), which regulates activities aimed at prevention, reduction of personal injury and damage to property and the environment as a result of accidents and emergency events. The responsibilities lie primarily with municipalities. Public authorities are only responsible for certain types of consequences, such as emissions of hazardous substances at sea or emissions of radioactive substances from nuclear power plants.

Equally important is the Act on Municipal and County Council Measures Prior to and During Extra-Ordinary Events in Peacetime and During Periods of Heightened Alert (2006: 544). The law regulates the planning and preparation of solutions to complex emergency events that require coordinated management between various social activities at the local and regional levels.

Other important legal regulations include:

- The Emergency Preparedness and Heightened Alert Ordinance 2006:942;
- The Act (2006: 544) on Municipal and County Council Measures Prior to and During Extra-Ordinary Events in Peacetime and During Periods of Heightened Alert;
- Regulation (2017:870) on emergency preparedness of County Administrative Boards and tasks in case of emergency preparedness;
- Regulation (2009:956) on flood risks.

#### 1c)

With regard to the applied principle, where the responsibility for population protection rests primarily with the municipal level, the key legislation for financing population protection is the Act (2006:544) on Municipal and County Council Measures Prior to and During Extra-Ordinary Events in Peacetime and During Periods of Heightened Alert (LEH), Regulation

(2006:637) on Municipal and County Council Measures Prior to and During Extra-Ordinary Events in Peacetime and During Periods of Heightened Alert (FEH) and the Local Government Act (2017:725), pursuant to which funds are allocated to municipalities by the state. State compensations are applicable to specific tasks which are regulated in the LEH and the agreement between the *Swedish Civil Contingencies Agency* (*Myndigheten for Samhällsskydd och Beredskap*, hereinafter the "MSB") and the Swedish Association of Local Authorities and Regions (Sveriges Kommuner och Landsting). SEK 310 million per year have been earmarked for the 2019–2022 term – a total of SEK 1.2 billion (approximately EUR 110 million). The said funds are distributed among individual cities and regions according to the number of inhabitants.

#### **1d**)

The management of population protection at the national level is entrusted to the Swedish Civil Contingencies Agency (Myndigheten för samhällsskydd och beredskap – hereinafter the "MSB"), which falls within the structure of the Ministry of Defence. The MSB has approximately 1,000 employees in Karlstad, Kristinehamn and Stockholm, as well as in several other smaller branch offices. Its role is to promote and manage the dissemination of knowledge for the purpose of population protection, to promote cooperation, to finance development and, in certain areas, to issue regulations or to supervise any matters relating to population protection.

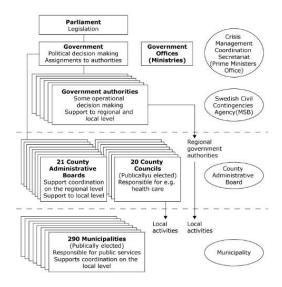
The main activities of the MSB are rescue services, emergency prevention and preparedness, civil protection, cyber security and secure communication.

At the regional level, the management rests with the County Administrative Board of each of the 21 counties. The County Administrative Boards are responsible for coordinating population protection activities, drills, and risk and vulnerability analysis. The County Administrative Board acts as a coordinator between public and private entities in population protection and also informs the mass media during major emergency events.

However, the primary responsibility lies with the local level – Municipal Administrative Boards. Swedish municipalities are highly autonomous. In a major emergency event, the highest civil body within a municipality is the Executive Board, which is responsible for managing all civil emergency events at the local level.

Figure 20 shows the organisational structure of population protection management.

**Figure 20:** Organisational chart of management



**1e**)

# **Selected governmental organisations**

#### • Coast Guard (Kustbevakningen)

It is a state organisation active in rescue at sea, a part of the overall defence system. In peacetime, in the context of population protection, it carries out actions aimed primarily at rescuing shipwrecked persons and managing disasters affecting the marine environment, in particular oil spills.

In four regions, it provides 24-hour service at 26 coastal ship stations. The Coast Guard has at its disposal also a number of aircraft for the purpose of surveillance and searching operations, which are carried out all year round. The aircraft are equipped to detect oil spills in water.

#### Air Search and Rescue Service

The service covers the coastal waters or lakes Vänern, Vättern and Mälaren. In other cases, the municipal rescue services are responsible for rescue operations. Air rescue operations are carried out by the Joint Rescue Coordination Centre in Gothenburg.

# **Selected non-governmental organisations**

# • Rescue services

They are a dominant response force of population protection. The founders of rescue services are municipalities. They include approximately 970 fire brigades with 4,880 professional and 10,550 volunteer (part-time) firefighters.

#### • Red Cross

The Swedish Red Cross mainly participates in the provision of first aid, the performance of rescue services and the implementation of first aid training. It currently has about

626 permanent employees and 26,000 volunteers. The entity is organisationally divided into 10 regional territorial departments with approximately 774 local branches.

# **1f**)

Research to support population protection is conducted through the Swedish Defence Research Agency (*Totalförsvarets forskningsinstitut*), which reports to the Ministry of Defence. It is based in Kista, Stockholm and other cities. Its activities include research and development of technologies designed primarily for military defence, but also for civil emergencies and other civil applications.

# 2a)

The Civil Protection Act (*Lag 2003:778*) imposes the responsibility for managing emergency events on municipalities, but individual technical and organisational population protection measures are not specified. However, various documents show that the measures are implemented by the police, rescue units and volunteers as necessary. The only measure stipulated by law is the supervision over fire protection and cleaning of combustion plants. In addition, other documents show that other measures are implemented in connection with population protection, such as early warning and notification, emergency evacuation, sheltering, self-protection and mutual assistance, and humanitarian aid. Rescue operations and the above-mentioned measures are carried out either by a dedicated organisation or by rescue services and volunteers.

# **2b**)

In the case of an armed conflict, pursuant to the Civil Protection Act (*Lag 2003:778*), the government is entitled to issue new regulations to regulate the responsibility for rescue operations. Until then, all the responsibilities rest with the municipality. As a specific technical and organisational measure in connection with an armed conflict, the law states the obligation of the municipality to ensure detection and decontamination of dangerous areas.

#### 2c)

Methodological guidance for the planning of measures at the central level is provided by the MSB. The Agency provides the relevant information on its website. However, the basic activities to reduce the risk of an emergency event lie at the regional and municipal levels.

Neither the frequency nor the methods of updating the planning documentation have been identified.

#### **2d**)

The VMA warning and information system (*Viktigt Meddelande till Allmänheten*) is used for early warning and informing of the population by the national population protection authority. Outdoor warning systems have been introduced in all municipalities with over 1,000 inhabitants and in the zones of nuclear power plants, where all households also have special public address or warning system receivers. This system contains approximately 4,500 sirens and ensures that information on imminent accidents and serious incidents is then immediately communicated to the public via radio and television.

The MSB is responsible for the VMA at the national level, while the operation and maintenance of the system lies at the municipal level, usually with local rescue services. In

addition to warning and informing the population through sirens, citizens receive news via television and radio.

With the change in national legislation on the provision of information on the location of an emergency event, as of June 2017, the Swedish warning system has been upgraded and configured to send localisation text messages to citizens and tourists in an emergency event. The same system can also be used to send messages to Swedish citizens travelling abroad. The geofencing function has been newly implemented. This means that a mobile phone user entering an area for which a public warning is issued will receive such warning, and when the user leaves the area, they will also subsequently receive an all-clear message.

In addition, the *Krisinformation.se* mobile crisis management app was launched by the MSB in September 2018. In addition to information on current situations that may lead to an emergency event in the vicinity of any residential area, the app provides information on crisis prevention and management. The app is available for both Android and iOS and also provides up-to-date traffic information. In addition to this mobile app, the same information is available on the website bearing the same name.

Another state-supported app is SOS Alarm, which provides a similar service to the Krisinformation.se app mentioned above.

#### 3a)

Personal participation of citizens in the performance of population protection tasks is codified by the Civil Protection Act (*Lag 2003:778*), Chap. 6(1). This law stipulates the responsibility of individuals for the protection of their own lives and property. The obligation to participate, upon request, in rescue operations applies to all citizens between the ages of 18 and 65, if their health and physical strength allow. The law also restricts certain basic rights of freedom and property ownership in an emergency event.

#### **3b**)

Chapter 3.3(14) of the Civil Protection Act (*Lag 2003:778*) stipulates that a person who, on behalf of the municipality, must perform preventive activities, plan, conduct, carry out and monitor rescue operations and perform supervision over them, shall have the necessary skills that can be obtained through education and practice. Mandatory training is not explicitly stipulated in relation to elected officials.

### **3c)**

Preparation of children for population protection is not part of curricula at primary schools, but government instructions stipulate that the MSB is responsible for raising awareness in this area. This agency provides support to teachers in publishing educational materials for children aged 3 to 16, and the *Säkerhetspolitik.se* website has been set up for this purpose. It deals with threats, risks, crisis management and defence issues and targets secondary school students and teachers.

In cooperation with other stakeholders, the MSB organises educational days for teachers and, in addition to publishing school materials, it also organises various knowledge quizzes and targeted campaigns for secondary school students.

The MSB provides training and drills to organisations, public authorities and individuals at the national and international levels. The aim is to ensure that all stakeholders have an excellent ability to prepare for, cope with, manage and mitigate emergency situations.

In addition to the MSB, non-profit organisations also carry out educational and awareness-raising activities targeting the public in areas such as fire and water safety, everyday safety and safety at emergencies, first aid and cardio resuscitation. These activities are primarily carried out by Swedish voluntary organisations, including the Swedish Red Cross.

In the spring of 2017, the Swedish government instructed the MSB to start raising public awareness of possible ways of managing crisis situations and of the principles of conduct in such situations. The reason was the deteriorating security situation in the region due to the annexation of Crimea to Russia and repeated violations of the Swedish airspace by Russian fighters. The aim is to increase preparedness for the consequences of major accidents, extreme weather, cyber attacks or military conflicts.

In response to the imposed task, the MSB has published a brochure titled *If Crisis or War Comes* (*Om Krisen kriget eller kommer*). On Monday, 21 May 2018, a press conference was held where the brochure was presented. In 28 May, 2018 – 3 June, 2018 (the Week of Readiness) the MSB distributed 4.8 million copies of the brochure to all households in Sweden. This is not the first manual of this type (there had already been a total of 6 editions of such brochures published before – in 1943, 1952, 1961, 1983, 1987, 1991). The brochure has a total of 20 pages and is published in 13 language versions.

The brochure is divided into sections devoted to emergency management, total defence and warning systems. It mainly contains general information related to recommended behaviour in a wide range of adverse events (natural disasters, cyber crime, war). In addition, it provides some specific information, such as warning signals (their acoustic tests always take place at 3 pm on the first Monday in March, June, September and December) or specific recommendations in relation to ensuring sufficient supplies of food, water, etc., in case of sudden crises. In this context, pp. 10–11 give a checklist for each area, listing the recommended supplies and necessary equipment which should be available in each household.

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# 5.12 United Kingdom

**Table 26:** Basic characteristics of the United Kingdom

AREA	SELECTED DEMOGRAPHIC INDICATORS		HIC MACROECONOMIC		SYSTEM OF
(km²)	Population	Population density (inhabitants/km²)	GDP (millions of USD)	GDP/capita (USD)	GOVERNMENT
243,610	66,022,273	271.0	2,622,433	40,530	Unitary state with delegated regional powers (England, Wales, Scotland, Northern Ireland)

1a)

Although the term of population protection is not used in the United Kingdom, it means civil protection of the population and its property. The structure of population protection in the United Kingdom is decentralised. The central government acts as a coordinator and provides advisory services, while local authorities deal with and respond to potential disasters.

However, emergencies are not tackled by a single organisation or agency; on the contrary, they require the involvement and joint efforts of a number of stakeholders. In the UK, therefore, there is a bronze-silver-gold command structure, which creates a hierarchical framework for the command of rescue services during the management of possible disasters. It represents the operational, tactical and strategic levels, respectively. In the context of the last mentioned element, the Strategic Coordination Group (hereinafter the "SCG") is established. Representatives of local organisations are represented in the SCG. In most cases, this group is chaired by the Chief Police Officer. Depending on the type and extent of the event,

representatives of other agencies, such as the fire brigade or rescue services, may take command.

## **1b**)

The key piece of legislation governing population protection is the *Civil Contingencies Act* of 2004. It is a special legal regulation governing population protection.

In addition to the above-mentioned regulation, population protection is codified in the following documents of a methodological nature:

- Emergency Preparedness Guidelines issued by the Civil Contingencies Secretariat;
- A handbook for dealing with major incidents issued by the emergency services for the London area;
- Guidelines for voluntary involvement designed to clarify the role of the voluntary sector in emergency situations.

## 1c)

With regard to the applied principle where the responsibility for population protection rests primarily at the municipal level, it is not possible to exactly identify the expenditures associated with this system.

However, the Bellwin scheme, which is intended to help local authorities reimburse unforeseeable costs incurred in dealing with the consequences of emergencies in their area, is used to cover the costs associated with emergency response.

If grant award criteria are met, this financial contribution is usually payable to the authorities at 85% of the eligible costs incurred above the established limit for each local authority – 0.2% of the local authority's net revenue budget. Occasionally, the grant rate may increase to 100% of eligible costs. The established limit takes into account the fact that local authorities have a long-term responsibility for preparing the financial coverage of costs incurred in emergencies.

The Bellwin scheme is activated in situations where an emergency exceeds this financial limit. Local authorities, the police, fire brigades and national park authorities are therefore eligible for financial support from the Bellwin scheme if they have spent more than the usual threshold of 0.2% of their calculated annual budget on works that meet the above criteria.

This scheme is named after former Minister of State for the Environment, Lord Bellwin, who introduced this compensation system in 1983. It was then incorporated into the Local Government and Housing Act of 1989, which was amended in 2014.

#### **1d**)

Emergencies are not dealt with by a single agency or organisation. In the event of large-scale major impact events, central involvement and coordination is essential. In such a case, the Lead Government Departments (hereinafter the "LGDs") play an important role. They are designated for various types of events on the basis of their responsibilities and functions aimed at managing and dealing with a given situation (e.g. the Home Office in the case of a terrorist attack).

In case of events where the responsibility for coordinating the response is not clear, the selection of the relevant LGD will be made by the Civil Contingencies Secretariat, which is also an existing management structure for population protection. Even though the Secretariat

has nationwide coverage, it exercises its competencies mainly in England and Wales. Scotland and Northern Ireland have a high degree of autonomy in these areas.

In case of government involvement, the Cabinet Office Briefing Room (COBR/COBRA) is also activated. It is usually headed by the Prime Minister or the Home Secretary, and its further staffing depends on the attributes of a given incident.

At the regional level, there are Regional Coordination Groups. They serve as intermediaries in communication between the central government and local authorities. They activate the efforts of regional centres. In case of the most serious events, a Committee on Civil Contingencies is convened to support response and reconstruction throughout the affected region.

However, the main responsibility for the response lies at the local level. The local level has the basic responsibility for managing a crisis situation and for this purpose it draws up general and specific plans.

1e)

In the UK, governmental and non-governmental executive bodies active in the field of population protection can be identified. However, the UK is a country where NGOs play a key role. Of the governmental organisations, only the army is used on a subsidiary principle. For this reason, only selected NGOs are listed below.

# **Selected non-governmental organisations**

The most important non-governmental organisations include the fire services and the Red Cross.

#### • Fire and Rescue Service

The *Fire and Rescue Service* is organised in a decentralised manner, its components are divided into fire and civil protection offices (in large cities), combined offices for the territory of one or more municipalities, and territorial fire protection offices. They are all set up by public fire brigades, which total 60 and employ about 40,000 professional and 20,000 semi-professional firefighters. Especially in remote rural areas, in addition to permanent service stations and local auxiliary corpses, there are also purely voluntary units that have only basic light equipment.

# Red Cross

The Red Cross provides emergency response services and first aid services in various types of emergencies. It provides direct support to police forces, fire and rescue services and medical rescue services. The organisation was founded in 1870 and is a registered charity. The British Red Cross registers more than 18,100 volunteers and employs around 3,300 people.

**1f**)

Information on research support has not been identified.

2a)

Population protection measures in connection with both non-military and military threats are not explicitly stipulated by the Civil Contingencies Act of 2004. The measures are

perceived primarily from an organisational point of view, i.e. measures of a technical nature, such as decontamination, warnings, sheltering, are not explicitly mentioned. It includes the following measures:

- Prediction;
- Evaluation:
- Prevention;
- Preparedness;
- Rescue;
- Reconstruction.

#### **2b**)

See answer to 2a).

#### 2c)

The Civil Contingencies Act and the related non-legislative measures provide a coherent framework for population protection in the UK. In relation to planning, the relevant document at the central level is "Preparation and planning for emergencies: responsibilities of responder agencies and others".

No information on binding codification concerning the methods of updating the planning documentation has been identified.

#### **2d**)

The *National Attack Warning System* was introduced in the UK in the past. It was developed in collaboration with the BBC, BT (British Telecom) and other suppliers to warn citizens in times of war. This system would warn of an impending missile strike via TV, radio and telephone.

The system was under development from the mid-1990s and was completed in 2003. After that, however, it was only kept in a state of readiness in peacetime so that the final phases of the work could be quickly completed to full operational readiness if necessary. However, in 2012, it was established that the nature of the risks faced by the UK and the overall technological development suggested that this system was no longer an indispensable part of the civil protection infrastructure and that robust warning alerts could be provided in other ways. Therefore, its development was stopped and it was decided to use the existing system of sirens and television and radio broadcasting to warn the population.

The Civil Contingencies Act stipulates the obligation to warn and inform the population in the event of an emergency. The exact instructions are given in "The Ten Step Cycle" guidance note.

There is currently no mobile app for early warning and informing the population.

In addition, the government is exploring the options of collaborating with the four major mobile network operators in the UK to send emergency alerts to citizens' phones. Warning messages would likely be initiated and formulated by the police and they would cover non-specific serious contingencies. The government would like these messages to be sent to all citizens' mobile phones (currently 92% of British citizens own mobile phones). The principle of this method of warning the population would be to send an alert to mobile phone

owners/users based on their location, containing important information and protective measures.

Two approaches are tested:

# CSB system

Sending text messages to all phones in a defined area. It is only a one-way sending of information messages to mobile stations.

# • SMS system

Sending text messages to all phones in a defined area and also based on the definition of predefined areas.

In the event of an emergency, the local authorities will start the process of informing citizens via social media (mainly Twitter, Facebook, YouTube, Flicker).

# 3a)

Personal participation of citizens in implementing population protection measures is not legally enshrined in the UK. However, temporary support from citizens at the request of public authorities is envisaged.

#### **3b**)

Education and training on emergency preparedness are not mandatory. For persons involved in the system – professionals, education is provided by the Emergency Planning College. Every year, 6,500 delegates attend the college, of which 10% come from the private sector.

The Emergency Planning College provides training in crisis management and emergency planning, including an introduction to civil protection and disaster recovery. Upon request, the College organises courses aimed at elected members of local governments, which are provided at the request of local authorities.

The obligation for elected officials to participate in this training is not explicitly stipulated.

#### **3c)**

There is no separate subject covering population protection in school curricula. Education on disaster risk reduction is integrated across subjects.

#### **3d**)

The use of nationwide campaigns for education and information on population protection is very sporadic (periodicity approx. once a year). The Civil Contingencies Secretariat administers the twitter.com/UKResilience account for educating and informing the population. However, the system of providing education and information through social media is not developed across the individual levels of management.

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# 6 CONCLUSIONS AND RECOMMENDATIONS FOR THE CZECH REPUBLIC

# 6.1 Conclusions

The following key findings have resulted from the comparison of the analysed countries for the individual topical areas.

# **Topic: Population protection system**

Population protection in the selected countries is referred to by the terms such as civil security, safety and rescue, etc. The most commonly used term is civil protection. In general, this term refers to a certain associated (integrated) system of relationships, ties and specific measures to protect the population and its property in a variety of situations in which they may be put at risk, from common adverse events through various disasters and emergencies to armed conflicts.

In all the compared countries, the system is primarily built to deal with emergency events in peacetime, with the provision that it will also be used in times of war, if necessary.

A specific group are the Scandinavian countries (Denmark, Norway, Sweden), where the concept of *total defence*, which includes population protection, is applied.

• In all the countries, the issue is codified by generally binding legislation. The majority approach (France, Croatia, Italy, Lithuania, Latvia, Germany, Norway, Sweden) is such that population protection is codified in special legislation dealing only/mainly with this issue and is also subject to component regulations (regulations governing the role of individual elements of the system, regulations governing the activities of individual executive bodies, etc.). In addition, the approach applied in Germany is determined by the territorial administrative division of the state – i.e. in addition to the common federal codification, population protection is also enacted at the level of the individual federal states, i.e. 16 subsystems of legal regulations.

In the remaining countries (the Czech Republic, Denmark, Estonia, Slovenia, the United Kingdom), the agenda is enshrined in a number of legal regulations which, among other things, regulate other areas of security and/or state administration. However, it is not defined uniformly by means of a separate legal regulation.

 As for system financing, a multi-source model is generally used. With the exception of Norway, where the identified information was not sufficiently referenced, it can be stated that funds allocated for this purpose within the state budget and funds allocated in the budgets of lower territorial units are predominantly used to finance the key agencies and services.

In addition to vertical sources, systemic horizontal financing can also be identified, i.e. establishing of programmes/funds, where the resources of the relevant national budget are allocated for prevention, preparedness and response activities.

The use of funds from the private sector can also be identified as a complementary pillar (e.g. participation of insurance companies – the Czech Republic, Slovenia).

Resources from the EU structural funds are also widely used. These are preferably used for the replacement of technology. However, given the considerable heterogeneity of these instruments at the level of the individual countries being compared, EU funding of the programmes is not further explored in the present document.

- In most countries, the management and coordination roles are entrusted to the Ministry of the Interior/Internal Affairs (Croatia, the Czech Republic, Estonia, France, Germany, Italy, Latvia, Lithuania, Norway). An exception are the Scandinavian states, namely Denmark and Sweden, where these roles are entrusted to the Ministry of Defence in line with the concept of total defence. In the case of the UK, the decisive role is vested in a specialised body set up by the Cabinet Office.
  - In general, the responsibility for the security of the civil population is spread across all levels of public administration with the predominant role of local governments (most often municipalities).
- The core of executive and partly also management bodies consists of professional organisations, which find sufficient support in the laws regulating their existence and mission (fire brigade, medical services and the police). These are supported by organisations of varied legal nature, as well as individuals and the armed forces.
  - The key executive bodies of population protection are usually firefighters. In relation to this component, two basic models of approach can be defined in more detail. One is based mainly on executive bodies financed primarily from the state budget. They include governmental organisations (the Czech Republic, Denmark, Estonia, Italy, Latvia, Lithuania). However, this does not mean that NGOs are marginalised in these countries. The other model is represented by a group of states where NGOs are preferred, i.e. their founders and key sources of funding are lower territorial units, often municipal entities (local governments and municipalities). These include Croatia, France, Germany, Norway, Slovenia, Sweden and the UK. However, this model cannot be interpreted as marginalising governmental organisations in these countries. As a rule, however, they do not represent such a significant force and are called up on a subsidiary principle, i.e. they are not first-line responders.
- In most of the compared countries, a research base is established and operated to support population protection (the Czech Republic, Denmark, Germany, Italy, Latvia, Lithuania, Norway, Slovenia, Sweden). Research in the subject area is usually carried out directly by the central authorities ensuring population protection and/or their organisational units. Research support is also provided by selected universities and colleges.

An overview of key findings is provided in Table 27.

**Table 27:** *Population protection system – comparison of approaches* 

COMPARATIVE INDICATORS: POPULATION PROTECTION SYSTEM						
COMPARED	Focus	Legal framework	Financing	Management	<b>Executive bodies</b>	Research
Croatia	Non-military and military threats	<ul><li>Special legislation</li><li>Other legislation</li></ul>	• State budget • Local government budgets	Ministry of the Interior	Mostly non- governmental organisations	-
Czech Republic	Non-military and military threats	Other legislation	• State budget • Local government budgets • Insurers	Ministry of the Interior	Mostly governmental organisations	Yes
Denmark	Non-military and military threats	• Other legislation	• State budget • Local government budget • Private entities	• Ministry of Defence	Mostly governmental organisations	Yes

COMPARED	COMPARATIVE INDICATORS: POPULATION PROTECTION SYSTEM							
COMPARED	Focus	Legal framework	Financing	Management	Executive bodies	Research		
Estonia	Non-military and military threats	Other legislation	State budget	Ministry of the Interior	Mostly governmental organisations	-		
France	Non-military and military threats	<ul><li>Special legislation</li><li>Other legislation</li></ul>	• State budget • Local government budgets	• Ministry of the Interior	Mostly non- governmental organisations	-		
Germany	Non-military and military threats	Special legislation     Other legislation     Legal regulation at the level of the federation and individual federal states	Federal budget     Federal state budgets     Local government budgets	Ministry of the Interior	Mostly non- governmental organisations	Yes		
Italy	Non-military and military threats	<ul><li>Special legislation</li><li>Other legislation</li></ul>	<ul> <li>State budget</li> <li>Local government budgets</li> <li>Special fund</li> </ul>	Ministry of the Interior	Mostly governmental organisations	Yes		
Latvia	Non-military and military threats	• Special legislation • Other legislation	State budget     Local     government     budgets     Private     entities	Ministry of the Interior	Mostly governmental organisations	Yes		
Lithuania	Non-military and military threats	<ul><li>Special legislation</li><li>Other legislation</li></ul>	• State budget • Local government budgets	Ministry of the Interior	Mostly governmental organisations	Yes		
Norway	Non-military and military threats	<ul><li>Special legislation</li><li>Other legislation</li></ul>	-	• Ministry of Justice and Public Security	Mostly non- governmental organisations	Yes		
Slovenia	Non-military and military threats	• Other legislation	State budget     Local government budgets     Private entities     Insurance	• Ministry of Defence	Mostly non- governmental organisations	Yes		
Sweden	Non-military and military threats	<ul><li>Special legislation</li><li>Other legislation</li></ul>	• State budget • Local government budgets	• Ministry of Defence	Mostly non- governmental organisations	Yes		
UK	Non-military and military threats	Other legislation	<ul> <li>State budget</li> <li>Local government budgets</li> <li>Special fund</li> </ul>	Cabinet Office	Mostly non- governmental organisations	-		

# **Topic: Population protection measures**

- Measures and tasks leading to population protection within the meaning of international humanitarian law in peacetime are usually hierarchically integrated into a country's defence and security system.
  - The measures are mostly of a technical nature and significantly overlap with the civil defence measures set out in Article 61 of Additional Protocol I to the Geneva Conventions of 1949. These are most often warning services (i.e. early warning and subsequent informing of the population), emergency evacuation, including provision of services to evacuees (i.e. accommodation, meals), organisation and provision of shelters; rescue operations; securing and marking of dangerous areas; decontamination and similar protective measures. In addition, other measures are often implemented, such as protection against CBRN substances, protection of cultural values, and activities in the field of preventive education.
- These measures are planned, prepared and implemented primarily for non-military threats. In such a case, implementation is ensured by the first-line responders, which in most countries include firefighters. However, the applicability of the measures is also considered in connection with threats of a military nature. In this case, the implementation would be ensured in cooperation with the dedicated units of the armed forces.
- Insufficient information has been identified in relation to the ways of updating the planned measures. However, for the countries where the answers have been identified, it can be stated that a method of updating based on intervals prescribed by regulations is applied.
- With the exception of Estonia, a solution based on a uniform national system using sirens is always used for early warning and subsequent emergency informing of the population. In addition to a unified nationwide system using sirens, solutions based on mobile phones (e.g. pushed text messages, mobile apps), social media, or communications published in the mass media are also used in all of the compared countries, with the exception of the Czech Republic and Latvia.

An overview of key findings is provided in Table 28.

**Table 28:** *Population protection measures – comparison of approaches* 

COMPARED	COMPARATIVE INDICATOR	RS: POPULATION PROT	TECTION MEASURES	
COUNTRY	Non-military threats	Military threats	Planning of measures	Early warning
Croatia	Warning Evacuation Shelter Rescue First aid Disposal CBRN protection Decontamination (human, animal, environmental) Protection of animals and food of animal origin Protection of plants and food of plant origin	See non-military threats	-	A nationwide system using sirens for warnings     Push text messages
Czech Republic	<ul><li> Especially warning</li><li> Evacuation</li><li> Sheltering</li><li> Emergency survival</li></ul>	Reasonable application of Art. 61 of Additional Protocol I	Periodic update     Updates in the event of major changes	A nationwide system using sirens for warnings

COMPARED	COMPARATIVE INDICATOR	S: POPU	LATION PRO	TECTION MEASURES	
COUNTRY	Non-military threats		ary threats	Planning of measures	Early warning
Denmark	Early public warning and information     Evacuation	See threats	non-military	Periodic update	<ul> <li>A nationwide system using sirens for warnings</li> <li>Mobile apps</li> </ul>
Estonia	Early public warning and information     Evacuation     Provision of emergency accommodation to evacuees     Provision and organisation of humanitarian aid     Rescue operations     Securing and marking of dangerous areas     Provision of individual	See threats	non-military	-	<ul> <li>There is no nationwide system using sirens for warnings</li> <li>Push text messages</li> <li>Mass media</li> <li>Mobile apps</li> </ul>
	protective equipment  • Decontamination  • Self-protection and mutual assistance  • Bomb disposal units (demining)				
France	-	See threats	non-military	-	A nationwide system using sirens for warnings     Push text messages
Germany	Self-protection     Warning of the population     Protective structures (shelters)     Evacuation     Disaster protection, civil protection, disaster relief     Health protection measures     Measures to protect cultural values	See threats	non-military	-	A nationwide system using sirens for warnings     Push text messages
Italy	Warning     Evacuation     Humanitarian aid     Decontamination	See threats	non-military	-	A nationwide system using sirens for warnings     Social networks
Latvia	Early public warning and information     Evacuation     Provision of emergency accommodation to evacuees     Provision and organisation of humanitarian aid     Sheltering     Rescue operations     Securing and marking of dangerous areas     Decontamination	See threats	non-military	Periodic update	• A nationwide system using sirens for warnings
Lithuania	<ul><li>Early warning</li><li>Evacuation</li><li>Sheltering</li><li>Rescue operations</li></ul>	See threats	non-military	-	A nationwide system using sirens for warnings     Notifications via selected mobile phone models
Norway	-	See threats	non-military	-	A nationwide system using sirens for warnings     Push text messages     Social networks     Mass media
Slovenia	Spatial, planning, structural and other technical measures     Evacuation     Reception of and care for vulnerable populations     CBRN protection     Sheltering     Protection of cultural heritage	See threats	non-military	Periodic update	A nationwide system using sirens for warnings     Social networks     Mass media

COMPARED	COMPARATIVE INDICATOR	S: POPULATION PROT	ΓECTION MEASURES	
COUNTRY	Non-military threats	Military threats	Planning of measures	Early warning
Sweden	Early public warning and information     Evacuation     Sheltering     Self-protection and mutual assistance     Humanitarian aid	See non-military threats as well as the detection and decontamination of dangerous areas	-	A nationwide system using sirens for warnings     Social networks     Mobile apps
UK	-	-	-	A nationwide system using sirens for warnings     Mobile apps     Notifications via selected mobile phone models

# **Topic:** Role of the citizen in the system

- In most of the compared countries, the obligation of individuals to provide personal or material assistance to resolve a given situation was identified (Croatia, the Czech Republic, Denmark, Estonia, Germany, Latvia, Norway, Slovenia, Sweden). Restrictions and/or exemptions from this obligation usually include categories of persons under 18 or over 65 years of age, persons with disabilities and/or other groups of persons.
- Preparation of elected officials and/or representatives of municipalities is only regulated in four countries (Croatia, the Czech Republic, Denmark, Sweden). However, there is no explicit obligation for elected officials to participate in person in such training schemes. It is mostly implemented in a manner similar to the Czech Republic, i.e. the preparation is provided primarily by the executive bodies in the field of population protection, participation is voluntary, or drills focused on real threats relevant for a given region/area are preferred as part of the preparation.
- In most countries, the subject of population protection is included as one of the topics in curricular documents. A combined model is mostly applied, where the topic is part of several educational subjects and at the same time it is supported by project tools, in the implementation of which national and regional authorities in the field of population protection play a significant role.
- In terms of awareness-raising activities, the efforts focus primarily on the use of social media, sometimes in combination with dedicated websites, and television and radio broadcasting. However, significant gaps in the use of these tools can be identified.

An overview of key findings is provided in Table 29.

**Table 29:** Role of the citizen in the system – comparison of approaches

COMPARED	COMPARATIVE INDICATO	ORS: STATUS AND RO	OLE OF THE CITIZEN	
COMPARED COUNTRY	Legal anchoring of personal participation	Preparation of elected officials	Preparation of students	Educating and informing the public
Croatia	Personal and material assistance	Optional preparation, existence of preparation codified	The topic is covered by several teaching subjects	Limited use of social networks     Use of terrestrial media
Czech Republic	Personal and material assistance	Optional preparation, existence of preparation codified	The topic is covered by several teaching subjects	Limited use of social networks
Denmark	Personal and material assistance	Optional preparation, existence of preparation codified	-	Use of social media – regular awareness-raising campaigns     Use of websites – regular awareness-raising campaigns
Estonia	Personal and material assistance and/or expropriation of movable property	-	-	Use of social media – regular awareness-raising campaigns     Use of special ad-hoc websites
France	-	-	The topic is covered by a special educational programme and is also part of several teaching subjects	-
Germany	Personal assistance	-	Within the competence of the federal states	Limited use of social networks     Use of websites – regular awareness-raising campaigns     Use of television and radio broadcasting
Italy	-	-	The topic is covered by a special educational programme and is also part of several teaching subjects	Limited use of social networks and terrestrial media
Latvia	Personal and material assistance	-	The topic is covered by several teaching subjects	Use of social media     Use of television and radio broadcasting
Lithuania		-	The issue is implemented through special educational programmes	Limited use of social networks and terrestrial media
Norway	Personal assistance	-	-	Use of social media – regular awareness-raising campaigns     Use of special ad-hoc websites
Slovenia	Personal and material assistance	-	The issue is integrated into a single subject – pilot operation	Limited use of social networks
Sweden	Personal and material assistance	Optional preparation, existence of preparation codified	The issue is not part of educational curricula	• Limited use of social networks
UK	-	-	The topic is covered by several teaching subjects	• Limited use of social networks

# 6.2 Recommendations for the Czech Republic

With regard to the plurality of approaches and concepts applied in the compared countries, the recommendations for the Czech Republic constitute a mix of identified examples of good practices and findings resulting from the assessment of the system in the Czech Republic. Therefore, none of the individual countries' concepts can be recommended for use in its fullest, and it would not be even desirable.

The following proposed options of further development of population protection have been identified for the Czech Republic:

# A) Content requirements for legislation

Basic theses of new directions of population protection development and the related legal regulation

# • Population protection as a comprehensive system

Due to the application practice and taking into account the approaches applied in the compared countries, it is recommended to codify the issue by special legislation, which, in the case of the Czech Republic, will also include the areas of crisis management, fire protection and partly IRS.

Population protection should continue to be prepared and implemented primarily with respect to non-military threats, i.e. to realistically reflect the security environment and the probability of the threats coming true. At the same time, however, it is essential to take into account the provisions of international humanitarian law and to build the whole system in a modular way, or in a manner enabling implementation of extension activities for threats of a military nature.

In this context, the following definition of population protection has been proposed: "Population protection is a systemic tool for prevention of, preparedness for and response to emergency events and crisis situations, the aim of which is to protect lives, health, property and the environment. Population protection covers non-military and military threats<sup>7</sup> and is the task of public administration bodies, legal entities and self-employed individuals, individuals, civic associations, public benefit organisations and other bodies and organisations operating in the field of population protection."

# • Population protection tasks and measures

The tasks of population protection are the protection of lives and health of persons and the protection of property and the environment. In addition to the current tasks, it is also recommended to include protection of cultural values and/or movable and immovable assets.

Protection of cultural values in the Czech Republic is currently implemented predominantly as part of fire prevention. With regard to the historical experience with natural disasters and with regard to examples of foreign practice, it is recommended to pay comprehensive attention to the protection of cultural property against naturogenic and anthropogenic threats, rather than fire protection.

While the tasks should be perceived as goals of an effort, population protection measures are already specific technical and organisational tools through which the tasks are performed.

<sup>&</sup>lt;sup>7</sup> In the context of military threats, reasonable application of measures to the extent specified in Article 61 of Additional Protocol I to the Geneva Conventions shall apply.

The following measures listed in Table 30 should be explicitly codified and clarified in a separate implementing regulation. These are measures that can be used against threats of both non-military and military nature. Their list is expanded in the table with indicative additional information that relates to selected proposals for new system elements, so it is not a comprehensive proposal/description of a given measure – this must be the result of the process of setting the principle of the law.

**Table 30:** *Proposed population protection measures* 

MEASURE	ADDITIONAL INFORMATION
Self-protection and mutual assistance	The Ministry of Education, Youth and Sports, which is responsible for managing the performance of state administration in the field of education, shall ensure that the content of education and training includes, to a reasonable extent, also issues of population protection. It is therefore recommended to create a separate subject focused on population protection within the educational programmes for primary and secondary schools.  In addition, greater emphasis will be placed on the active role of individuals in the prevention of emergency events and crisis situations. The Fire and Rescue
	Service of the Czech Republic, as a key executive body in population protection, will use a communication platform consisting of a unified web environment, unified social networks and media campaigns with a nationwide impact to strengthen these principles. In order to ensure own production of educational audiovisual materials, a documentary service will be set up.  The content of the information to be shared will be the recommended ways of behaving and responding to specific threats and the role of individuals in relation to individual measures.
Early warning and informing	To continue wide implementation of early warning and subsequent emergency informing of the population through a unified system based on the use of sirens as endpoint devices.  In addition to this system, the functionality of which needs to be ensured under any conditions, including situations of long-term power failure, to implement warning and informing of the population via mobile phones or a combination of pushed alerts (e.g. text messages, default alerts via telephones) and mobile warning apps, which, in addition to sending warnings and providing the necessary information, will also provide wider information support and thus represent a wider communication platform.  To mirror the communicated information through communication channels based
Evacuation	on the use of social networks.  To focus mainly on the extension of tools enabling evacuation control. The asyet untapped potential is the use of big data to monitor the movement of people in exposed areas. Current estimates/calculations of the expected volume of evacuation, e.g. the expected number of affected persons, are based on residence registers, etc., but normal daily fluctuations are not taken into account. The use of big data will extend the scope of monitoring to citizens who are not registered at a given address, making the basis for realistic planning and effective intervention more accurate.  One of the key conditions for the successful organisation of a large-scale evacuation is traffic security, i.e. enabling safe and timely leaving of the place of danger. In this case, it seems inspiring to enable the use of smart transport systems.
Provision of humanitarian aid	It is recommended to terminologically subsume the activities aimed at ensuring emergency survival under humanitarian aid measures.  In relation to the provision of accommodation, food and drinking water to the evacuated population, the economically more advantageous option seems to be the alternative solution where an emergency benefit is earmarked to the population affected by the event, i.e. an amount of funds to cover their needs in terms of accommodation and meals for the duration of the emergency. The citizens receiving this financial aid will be excluded from the humanitarian aid

MEASURE	ADDITIONAL INFORMATION
	system and will be seen as secure population, i.e. replacement accommodation, meals, etc. will be primarily provided for the benefit of the insecure population.
Securing, marking and decontamination of dangerous areas	Conditions will be created for the securing and subsequent marking/delimitation of dangerous areas, enabling the use of unmanned aerial vehicles, analytical tools enabling online visualisation of affected areas in the GIS environment and subsequent interconnection to the population protection measures – especially the interconnection to evacuation, humanitarian aid and individual protection tasks.
Individual protection	Means for individual protection will no longer be perceived as related solely to threats of military nature. The concept of protective means should be applicable in threats due to long-lasting CBRN incidents.
Sheltering	To use only the natural protective properties of buildings to shelter the population from the effects of hazardous substances (most often as a result of uncontrolled leakage caused by an accident, incident, etc.).  In situations associated with military threats, to use permanent shelters built for this purpose. However, for situations of this nature, development and standardisation of procedures aimed at building makeshift shelters will be much more important.
Protection of cultural values	In connection with threats of non-military nature, in addition to planning evacuation and subsequent storage of valuable movables and increasing the resilience of immovable monuments, security video documentation of important monuments is also foreseen.  In relation to military threats, the implementation of measures related especially to the Hague Convention for the Protection of Cultural Heritage in Armed Conflict (1954), methodological recommendations resulting from activities based on the Venice Charter (1964) – recommendations of the International Council on Monuments and Sites and further recommendations of the International Committee of the Blue Shield, is envisaged.

# • Organising population protection

The management and organisation of population protection is the responsibility of the Ministry of the Interior, which unifies the procedures and is the supreme body of state administration in the subject area. Other ministries and central administrative bodies report to the Ministry of the Interior in their fields of competence.

In connection with the new concept of population protection measures, the rights of state administration bodies, local government bodies, legal entities and self-employed individuals, individuals and civic groups, movements and organisations operating in the field of population protection will be expanded and their obligations clearly defined.

It is recommended to introduce education of persons/entities in the system who have legally defined decision-making powers in the management of a given emergency event. In this case, it is primarily an effective setting for the preparation of elected representatives at the territorial level.

Non-governmental organisations should get more involved in population protection and they should be engaged in all phases, i.e. prevention and preparedness (e.g. participation in education and training), response (e.g. participation in emergency management) and reconstruction (e.g. participation in land remediation). In order to operate in the system, these organisations should obtain accreditation; the certificate granted should be limited in time (e.g. to 2 years). It is recommended to set up a fund to compensate non-eligible costs of these entities to support their activities.

# • Organising population protection measures in the framework of prevention, preparedness and response

Activities for the prevention, preparedness and response phases will be developed for each measure. For non-military and military threats, these are mainly the following key activities:

- o Prevention: drafting and updating of planning documentation; modelling and forecasting activities; population education and information activities.
- o Preparedness: organisation of drills, their evaluation and subsequent transfer of knowledge back into the system; drills and preparation (including the use of tools simulating real conditions and based on virtual/augmented/mixed reality<sup>8</sup>).
- Response: organisation of intervention activities requiring a longer deployment of forces and resources, determination of specific procedures for the implementation of individual measures.

# • Population protection funding

Expenditures for population protection will be financed from the state budget of the Czech Republic through the budget heading of the Ministry of the Interior. Self-governing regions and municipalities will also participate in financing population protection to the extent stipulated by law. Legal entities, self-employed individuals and individuals who carry out activities increasing security risks in the territory (e.g. operators of Category IV facilities pursuant to the Atomic Act, operators included in Group B pursuant to the Act on the Prevention of Serious Accidents, operators of water works of Category I pursuant to the Water Act, etc.) will take part in financing selected population protection measures.

# B) Technical requirements for legislation

The law should be designed in such a way that an authorisation to issue implementing regulations is granted for all the basic parts, i.e. parts 1–6 (see below). This method of solution is primarily motivated by the intention to ensure material specification of the individual parts of the law while meeting the condition of its permanence. At the same time, such a solution will enable flexible updates and specifications related to the implementation of the law.

The structure of the law is designed with regard to the above-mentioned content requirements for a legal regulation:

- Part 1: Definition and explanation of terminology
- Part 2: Population protection measures
- Part 3: Organising population protection

<sup>8</sup> The purpose of virtual reality is to enable sensory, motional and cognitive tasks to be performed by a person in a digitally created artificial world, which can be imaginary and symbolic or which can simulate certain elements of the real world.

Augmented reality is a technology defined by the real physical world complemented by virtual elements that are projected in real time and localised in a certain way to a specific place in the real world, but the user cannot interact with them.

Mixed reality is a mixture of physical and virtual worlds that includes real and computer-generated objects. Both worlds are mixed together to create a realistic environment for users. The user can go through the environment and at the same time interact with both real and – using gestures – also virtual objects. Compared to augmented reality which only passively displays virtual elements, mixed reality offers the user an opportunity to actively interact with virtual reality elements.

- State administration bodies
- Local government bodies
- Legal entities and self-employed individuals
- Individuals
- Civic associations, public benefit organisations and other bodies and organisations active in the field of population protection
- Part 4: Organising population protection measures in the framework of prevention, preparedness and response
- Part 5: Population protection funding
- Part 6: Audit and sanctions
- Part 7: Joint and final provisions

# ANNEX SECTION

# Questionnaire for determining the state of population protection

Population protection in the Czech Republic is an associated system of relations, ties and specific measures in the field of prevention, preparedness and response, whose task is to protect the lives and health of the population, its property and the environment in various emergencies. Although the functionality of the current system has been proven repeatedly, the system is increasingly confronted with new trends, their dynamic development and the effect of integrated risks. There is room for improvement primarily in the area of institutional capacity building and the legislative environment of the system. The existing legislation does not create the necessary environment for further development of civil protection. The Czech Republic is therefore facing the challenge of recodifying the system of population protection.

The aim of the submitted questionnaire is to support research activities aimed at describing the approaches applied to the subject matter and thus help identify inspiring examples of good practice. By completing the questionnaire, you will also significantly help create an informal professional network of partner organisations.

The questions listed in the questionnaire are divided into the following thematic areas:

- I. POPULATION PROTECTION SYSTEM
- II. POPULATION PROTECTION MEASURES
- III. ROLE OF THE CITIZEN IN THE SYSTEM

#### **Ouestionnaire:**

#### I. POPULATION PROTECTION SYSTEM AND ITS CODIFICATION

- 1) Population protection is focused on (*multiple answers allowed*):
  - a) Common emergency events and large-scale non-military disasters
  - b) Armed conflict
  - c) Other situations specify:
- **2)** Population protection (*multiple answers allowed*):
  - a) Is codified by a special legal regulation dealing exclusively/mainly with population protection

Indicate key legislation:

- b) Is codified by other legislation Indicate key legislation:
- c) Is not legally codified
- 3) Population protection funding comes from (*multiple answers allowed*):
  - a) State budget

Indicate the amount of expenditures in 2018

b) Contributions from insurance companies

Indicate the amount of contributions in 2018

c) Other sources

Identify the sources
Indicate the amount of expenditures in 2018

- 4) Is there a fixed share of GDP earmarked for population protection funding?
  - a) YES

Indicate the share (%):

- b) NO
- 5) Indicate the key agency(ies)/authority(ies) responsible for population protection:
  - a) At the national level:
  - b) At the regional level:
  - c) At the local level:
- **6)** Indicate the key executive/rescue bodies in population protection which are:
  - a) Governmental organisations (for each organisation, indicate the total number of persons/members and the number of persons involved in direct performance – rescue operations):
  - b) Non-governmental organisations (for each organisation indicate the total number of persons/members and the number of persons involved in direct performance rescue operations):
- 7) Is there any organisation dealing with research in the field of population protection?
  - a) YES

Indicate the title:

Indicate the founder:

Give a brief description:

Provide a link to the website:

b) NO

#### II. POPULATION PROTECTION MEASURES

- **8)** What technical and organisational population protection measures are planned/prepared/implemented in connection with non-military threats (*multiple answers allowed*)?
  - a) Early public warning and information
    - i. Not addressed
  - ii. Addressed

Indicate the responsible body: Indicate the implementing body:

- b) Evacuation
  - i. Not addressed
- ii. Addressed

Indicate the responsible body: Indicate the implementing body:

- c) Provision of emergency accommodation to evacuees
  - i. Not addressed
- ii. Addressed

Indicate the responsible body:

Indicate the implementing body:

- d) Provision and organisation of humanitarian aid (i.e. supplies and services provided to evacuees in emergency accommodation)
  - i. Not addressed
- ii. Addressed

Indicate the responsible body:

Indicate the implementing body:

- e) Sheltering
  - i. Not addressed
- ii. Addressed

Indicate the responsible body:

Indicate the implementing body:

- f) Rescue operations
  - i. Not addressed
- ii. Addressed

Indicate the responsible body:

Indicate the implementing body:

- g) Securing and marking of dangerous areas
  - i. Not addressed
- ii. Addressed

Indicate the responsible body:

Indicate the implementing body:

- h) Provision of individual protective equipment (i.e. respiratory protection, body surface protection)
  - i. Not addressed
- ii. Addressed

Indicate the responsible body:

Indicate the implementing body:

- i) Decontamination
  - i. Not addressed
- ii. Addressed

Indicate the responsible body:

Indicate the implementing body:

- j) Self-protection and mutual assistance
  - i. Not addressed
- ii. Addressed

Indicate the responsible body:

Indicate the implementing body:

- k) Protection of cultural values
  - i. Not addressed
- ii. Addressed

Indicate the responsible body:

Indicate the implementing body:

- 1) Other measures specify:
  - i. Not addressed
- ii. Addressed

Indicate the responsible body: Indicate the implementing body:

- **9)** What technical and organisational population protection measures are planned/prepared/implemented in connection with armed conflicts (*multiple answers allowed*)?
  - a) Early public warning and information
    - i. Not addressed
    - ii. Addressed

Indicate the responsible body: Indicate the implementing body:

- b) Evacuation
  - i. Not addressed
  - ii. Addressed

Indicate the responsible body:

Indicate the implementing body:

- c) Provision of emergency accommodation to evacuees
  - i. Not addressed
- ii. Addressed

Indicate the responsible body:

Indicate the implementing body:

- d) Provision and organisation of humanitarian aid (i.e. supplies and services provided to evacuees in emergency accommodation)
  - i. Not addressed
  - ii. Addressed

Indicate the responsible body:

Indicate the implementing body:

- e) Sheltering
  - i. Not addressed
  - ii. Addressed

Indicate the responsible body:

Indicate the implementing body:

- f) Rescue operations
  - i. Not addressed
  - ii. Addressed

Indicate the responsible body:

Indicate the implementing body:

- g) Securing and marking of dangerous areas
  - i. Not addressed
  - ii. Addressed

Indicate the responsible body:

Indicate the implementing body:

- h) Provision of individual protective equipment (i.e. respiratory protection, body surface protection)
  - i. Not addressed

ii. Addressed

Indicate the responsible body: Indicate the implementing body:

- i) Decontamination
  - i. Not addressed
  - ii. Addressed

Indicate the responsible body:

Indicate the implementing body:

- i) Self-protection and mutual assistance
  - i. Not addressed
  - ii. Addressed

Indicate the responsible body:

Indicate the implementing body:

- k) Protection of cultural values
  - i. Not addressed
  - ii. Addressed

Indicate the responsible body:

Indicate the implementing body:

- 1) Other measures specify:
  - i. Not addressed
  - ii. Addressed

Indicate the responsible body:

Indicate the implementing body:

- **10**) The planning documentation relating to population protection measures is updated (*multiple answers allowed*):
  - a) Based on experience with past emergency events
  - b) Based on cyclical update stipulated by a legal regulation indicate the duration of the cycle:
  - c) Another way of updating specify:
- 11) Is there a unified nationwide system of early warning and informing of the population administered by a national population protection authority?
  - a) YES
  - b) NO
- **12**) Is, among other things, a nationwide mobile app used by a national population protection authority to provide early warning and information to the population?
  - a) YES

Indicate the title:

- b) NO
- **13**) Are, among other things, text messages with active participation of operators used to provide early warning and information to the population?
  - c) YES
  - d) NO

- **14)** Are, among other things, social media (e.g. Twitter, Facebook) used by a national population protection authority to provide early warning and information to the population?
  - a) YES

Please indicate which, provide the links:

b) NO

# III. ROLE OF THE CITIZEN IN THE SYSTEM

- **15**) Personal participation of citizens in the performance of population protection tasks is codified by law (e.g. the obligation to provide personal or material assistance at the request of a representative of the response units or authorised bodies):
  - a) YES

Indicate key legislation:

Indicate for which categories of persons the obligation to comply with a call for assistance is laid down:

- b) NO
- **16**) Is preparation of elected officials for population protection implemented?
  - a) YES

Select the form applied:

- Compulsory preparation
- Voluntary preparation
- b) NO
- 17) Is preparation of citizens for population protection part of school curricula?
  - a) YES

Select the form(s) applied (*multiple answers allowed*):

- Separate subject
  - Part of several subjects
  - Project form of learning (e.g. a week in the school year focused on the issue of population protection)
  - Other specify:
- b) NO
- **18)** Are nationwide TV campaigns used by national population protection authorities to educate and inform the population?
  - a) YES

Please indicate the average annual frequency of these campaigns:

- b) NO
- **19**) Are social media (e.g. Twitter, Facebook) used by national population protection authorities to educate and inform the population?
  - a) YES

Please indicate which, provide the links

b) NO

- **20**) Are purpose-specific websites used by national population protection authorities to educate and inform the population?
  - a) YES

Provide the link

- b) NO
- **21)** Do national population protection authorities provide citizens with recommendations in terms of material readiness/equipment to overcome crisis situations (e.g. recommendations to maintain water, food and medical supplies for a certain number of days)?
  - a) YES

Indicate the scope of recommendations: Indicate the form of recommendations (printed matter, social media, website, other) and its title

b) NO