

***Driv***ing Innovation in Crisis Management for ***E***uropean ***R***esilience

**ESTONIA**
Policy, Legislation, Organisation, Procedures & Capabilities (PLOPC) in crisis management and disaster response



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Scope and limitations

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

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

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

This report was revised at the end of 2015, reviewed internally by ECORYS and amended according to reviewer's comments and recommendations upon the decision of the author/s.

# Overview

The Estonian crisis management system is based on measures that can be taken in order to protect human life, property and the environment during civil emergencies. In Estonia the highest authority responsible for emergency and disaster management is the Ministry of Interior. It is responsible for policy formulation and its execution in the area of civil security. At regional level county governors are directly responsible to the Minister of the Interior for crisis management matters. The county governor is the highest crisis management authority at regional level. At local level the main body responsible for civil protection is the local government council which has established the local crisis management committee chaired by the mayor.



Figure 4. Logo of the Estonian Rescue Board[[1]](#footnote-1)

The Estonian Rescue Board is directly subordinate to the Ministry of Interior and has a key role in representing Estonia in various international forums such as the UN, EU and NATO and other relevant civil security organisations. Another national government institution under the authority of the Ministry of Interior is the Emergency Response Centre responsible for processing emergency calls to the emergency 112 number and sending out rescue teams to the place of the emergency.

As in the other Baltic Region States the organisational structure is centralised, i.e. coordinated and mostly organised by the central national civil protection authority, as is the case with Estonia, Latvia, Lithuania. Additionally, the use of private rescue services is low in the Baltic Countries.[[2]](#footnote-2)

The Defence Forces could be deployed in response of crisis or disaster, but only in cases where all the other crisis management capabilities of the state have been exhausted or where the required resources or capabilities are only available to the Defence Forces.

The civil protection expenditures are approximately 0.6% of GDP of Estonia.[[3]](#footnote-3)

The most important non-profit and volunteer organisations in Estonia are regarded the Red Cross, the Estonian Volunteer Fire-Fighters Union, the Estonian Association of Fire and Rescue Chiefs, and the Estonian Life Saving Association and Defence League, who have also been given the task of assisting in rescue work.

The main regulative framework for civil protection and emergencies is defined by the Emergency Act and the Rescue Act of Estonia.

The National Security Concept of the Republic of Estonia is a key document that establishes the objectives, principles and directions of security policy. The National Security Concept highlights crisis management as one of the essentially important tasks. Another important conceptual document is the Strategy of the Estonian Rescue Board 2015-2025 which plans the Board’s activities in a ten year timeframe.

The systems for training in the field of civil protection are quite different in the Baltic region, however they share some basic features. Education in civil protection and rescue has a legal foundation in all of the Baltic Region countries. Basic and advanced education at the national level is standardised through the use of certificates, as well as the development of educational and training curricula. All of the Baltic region states have specialised schools and colleges which carry out education in civil protection and rescue area.[[4]](#footnote-4)

Estonia has signed regional and multilateral provisions of the Council of Europe, the EU, the NATO and the OSCE for assistance in crisis situations. Estonia is also an active initiator in the field of maritime cooperation and of strategic and operational dialogue among the Baltic Sea countries.

Potential niche capability in which Estonia could realistically contribute to the European crisis management community is the development of software solutions in the cyber defence and the programming of autonomous platforms and systems field of expertise. Estonia could provide software solutions and expertise from which EU member states could benefit and establish new ways for cooperation in the cyber security field.

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## List of Abbreviations

|  |  |
| --- | --- |
| CERT | Computer Emergency Response Team of Estonia |
| CRBN  | Chemical, Radiological, Biological, Nuclear |
| EDRT | Estonian Disaster Relief Team |
| EFSCA | European Fire Service Colleges' Association |
| EISA | Estonian Information System’s Authority |
| ERB | Estonian Rescue Board |
| ERC | Estonian Red Cross |
| EURASHE | European Association of Institutions in Higher Education |
| JATE Project  | Building Cross-border Capacity to Perform Joint Activities in Tough Environment |
| MAppERS | Mobile Application for Emergency Response and Support |
| NISPAcee | Network of Institutes and Schools of Public Administration in Central and Eastern Europe |
| OSCE | Organization for Security and Cooperation in Europe |
| RIA | Estonian Information System Authority |
| SDC | Swiss Agency for Development and Cooperation |
| VSR | Virtual Situation Room |

# Policy

According to article 2 of the Emergency Act of Estonia “emergency is an event or a chain of events, which endangers the life or health of many people or causes significant proprietary damage or significant environmental damage or severe and extensive disruptions in the continuous operation of vital services and responding to which requires the prompt co-ordinated activities of several agencies or the persons engaged by them’; while Crisis Management is described as ‘a system of measures, which includes preventing emergencies, preparing for emergencies, responding to emergencies and mitigating the consequences of emergencies.”[[5]](#footnote-5)

In other words, crisis management is defined as national arrangements that are prepared and implemented by governmental organisations in cooperation with local governments, private enterprises and non-profit organisations in order to guarantee safety of the population and continued functioning of vital services during an emergency.[[6]](#footnote-6)

Key crisis management activities are considered (i) the identification of potential emergencies or risk analysis; (ii) to prevent or reduce the severity of consequences of emergency measures in the development and implementation; and (iii) the action plans for emergency action (i.e. emergency plans).[[7]](#footnote-7)

The Government of the Republic of Estonia has the responsibility to develop a national crisis management policy, and to direct and co-ordinate the crisis management activities of ministries, the State Chancellery and county governors. In addition, It also approves the national crisis management plan and forms a permanent crisis management committee in order to harmonise and co-ordinate crisis management activities.[[8]](#footnote-8)

## Risk Assessment

Estonia’s risk assessment mechanism/procedure is specified in the *Emergency Act*, which is in force since 2009. Further, risk assessments the Ministry of Interior establishes guidelines for preparing an emergency risk assessment through a regulation named - *Guidelines for preparing continuous operation risk assessments*, which is in force since June 2010.

The Emergency Act defines emergency risk assessments as a document, which describes the following aspects which are relevant on the national and, if necessary, on the regional and local government level:

* the emergency;
* the threats and hazards causing the emergency;
* the probability of the emergency;
* the consequences of the emergency;
* other important information related to the emergency;
* references to models, source materials and other such information, on the basis of which the risk assessment is prepared.[[9]](#footnote-9)

The Government establishes list of emergencies, concerning the preparation of risk assessments and appoints competent agencies of executive state power to prepare the assessments. At least once in every two years the Government must assess the need to amend the list of emergencies, concerning which risk assessment has to be prepared.[[10]](#footnote-10)

The procedures for organising the preparation of risk assessment of important social services called vital services are described by the “Guidelines for risk assessment”. These vital services include healthcare, safety and security as well as the economic and social welfare of the public.[[11]](#footnote-11)

The institution or person preparing a risk assessment submits it to the relevant institution that organises the continuous operation of vital services on a yearly basis. There are 43 vital services and approximately 140 provides in Estonia.[[12]](#footnote-12)

According to “Guidelines for risk assessment”, a risk assessment consists of the following parts:

* table of contents and a list of persons engaged in preparing the risk assessment;
* analytical part;
* necessary tables and diagrams prepared for performing the assessment;
* risk matrix;
* summary of the risk assessment.[[13]](#footnote-13)

The Government forms a permanent crisis management committee which provides an opinion on the guidelines for preparing emergency risk assessments and operations. It also approves the risk assessment summaries of emergencies.[[14]](#footnote-14) At regional level, County Governors are directly responsible to the Minister of the Interior for the review of the risk analysis of an emergency of a certain region. At local level, the head of the local government crisis management committee is the rural municipality mayor or the city mayor, who is responsible for reviewing the risk assessment of a certain region.[[15]](#footnote-15)

In addition, the crisis management plan of a county has to be reviewed by the county crisis management committee, which on its part presents opinion to the county governor. County governors shall review crisis management plans as necessary but not less frequently than once in every two years. An amended crisis management plan shall be submitted to the Minister of Internal Affairs for approval.[[16]](#footnote-16)

Key risks and former disasters

The key risks and areas of concern in Estonia include extreme weather conditions, more precisely winter storms, extreme temperature, forest fire and flooding. Major transport and technological accidents, such as the sinking of the MS Estonia in 1994 and the Copterline helicopter crash in 2007, have also occurred and have resulted with significant casualties.[[17]](#footnote-17)

The „Gudrun“ storm, which struck the Baltic Sea area and caused considerable floods in the Estonian towns of Pärnu and Haapsalu in 2005, raised enormous attention among population, crisis managers and authorities.

In addition, the fact that more than 20% of the terrain in Estonia is covered with forests increases the risk of fires. Measures are taken by the County Rescue Services to prepare forest fire suppression plans each spring. A development project was launched by the Estonian Forestry Board to increase the fire resistance of forests. Estimation reveals that on yearly basis over 800 forest fires occur in Estonia and it is considered as one of the main hazards.[[18]](#footnote-18)

Estonia’s security could be threatened not only by natural disasters and catastrophes, but also by infectious diseases, radiation and transport accidents. Despite the fact that Estonia does not possess nuclear plants, the threat of radiation accidents is increased by older type nuclear power plants that are still in operation in the Baltic Sea area. Intensified ship traffic and the increase in the transport of oil and oil products in the Baltic Sea area increase the threat probability of a major marine disasters or extensive environmental pollution.[[19]](#footnote-19)

## Policy and Governance

The Estonian civil protection could be best described as centralised due to the fact that the different ministries and agencies are responsible in their respective functional fields for civil emergency issues, while the Ministry of the Interior has overall responsibility for civil protection and emergency situations.

The civil security system is two-dimensional – on one hand, the functional responsibility allows a certain ministry to be in charge of a specific emergency or disaster management duty at national, regional and local levels. On the other hand, the area of responsibility is based on geographic mapping of respective areas.

At national level the highest body for civil emergency planning is the Governmental Crisis Committee. The committee’s tasks are (i) to monitor national policy on crisis management; (ii) to coordinate crisis management on the ministerial and county levels and (iii) to present proposals to the national government regarding crisis management issues. The Governmental Crisis Committee is supported by the Ministry of the Interior.[[20]](#footnote-20)

At regional level county governors are directly responsible to the Minister of the Interior for crisis management matters. The county governor is the highest crisis management authority at regional level and chairperson of the County Civil Protection Committee.[[21]](#footnote-21)

At local level the main body responsible for civil protection is the local government council which has established the local crisis management committee chaired by the mayor or an equivalent official.[[22]](#footnote-22)

In addition, the Estonian Rescue Board is a key government institution under the jurisdiction of the Ministry of the Interior and has a leading role in planning preparedness for emergencies and the operational management of the four regional rescue centres. It is also responsible for the development and implementation of national rescue policies. There are four territorial interagency emergency preparedness committees that are managed by the Estonian Rescue Board.[[23]](#footnote-23)

The Estonian Rescue Board is actively involved in the crisis management mechanism at local, regional and national levels. The county governors report directly to the Minister of Interior and are responsible for crisis management development and planning at regional level. The Board examines and reviews the regional dimensions of the national crisis management system, the regional risk map and the overall preparedness to respond to risks. The Estonian Rescue Board also organizes crisis management training, supports the regional civil protection agencies and establishes and maintains the territorial crisis committee which is chaired by the head of the regional crisis centre.

The Board has the responsibility to review and implement the national crisis management systems at local level. Other key duties include risk mapping, development and enhancement of disaster prevention and maintaining preparedness. Additionally, the Rescue Board provides training related to preparedness, responsiveness and consequence management. It also provides support in terms of communication systems and coordination to the local government agencies dealing with emergency management.[[24]](#footnote-24)

Following the Fukushima nuclear accident and in concert with changes in legislative framework, Estonia has revised its Emergency Preparedness and Response procedures. Further:

Estonia is a State that has no nuclear facilities under the definition given in Convention. There are no plans to build an NPP in Estonia at present time. After the Fukushima accident, the focus of Estonia in nuclear safety is primarily related to the safety of nuclear installations in the neighbouring countries and to the implications that accidents at such installations, should they occur, may have on the health of the population and on the environment. There is a number of NPPs in neighbouring countries close to Estonian borders – the closest one is approximately 70 km away. Therefore, it is of utmost importance for Estonia to fulfil its obligations according to the Article 16, to "take the appropriate steps for the preparation and testing of emergency plans for their territory that cover the activities to be carried out in the event of such an emergency".[[25]](#footnote-25)

### Strategy scope and focus

The Estonian crisis management system is based on measures that need to be taken for the protection of the population, property and the environment during civil emergencies. The aims of crisis management system are:

* To define possible emergency situations by risk analyses;
* To define prevention and mitigation measures for emergency situations;
* To develop crisis management plans;
* To prepare crisis management structures;
* To guarantee mitigation resources;
* To deal with emergency situations;
* To organise the management of public information and early warning;
* To organise emergency management training courses;
* To restore critical infrastructure services.[[26]](#footnote-26)

During the last decade Estonia had several significant crises affecting the civil security system. These include the flooding of the Northern Baltic Sea following the 2005 storm, the Copterline transportation accident in 2005 and the cyber-attacks in 2007. These cases revealed some requirements to improve the Estonian crisis management system, including situational awareness and rapid response mechanisms. Following inquiries made at political level there have been improvements in operational, tactical and strategic perspective in the civil security system.[[27]](#footnote-27)

According to data from prevention web, the overall risk of natural hazards or crises in Estonia is relatively low.[[28]](#footnote-28) The different policies and measures provided by the state authorities for prevention, preparedness, response and recovery in crisis situation, are taken to ensure that the Estonian crisis management system is well prepared and equipped.

In addition, the 2014 Security Policy document of the Ministry of Interior reveals that Estonia has built upon previous years to achieve better life-saving capabilities, decrease in crime, increased number of volunteers and community involvement, improved fire and traffic safety and faster response of the emergency response teams.[[29]](#footnote-29)

To a great extend people feel safe in Estonia. More than 95% of the residents of Estonia consider the Rescue Board to be a highly trustworthy organisation.[[30]](#footnote-30)

Another conceptual document concerning crisis management is the Strategy of the Estonian Rescue Board 2015-2025. It plans the Board’s activities in a ten year timeframe. The Strategy has been developed in accordance with the foundations of safety policies, development plans and other governmental planning documents. The document stresses on the importance on the changes in the operating environment of the Board, the impact of the globalisation processes and advanced technologies, the social economic environment. In addition, it sets out objectives which target fewer fatalities caused by fires and drowning, decline in number of rescue events and operations and property damage.[[31]](#footnote-31)

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

The Estonian Academy of Security Sciences develops activities of Internal Security and Law Enforcement related subjects including rescue and crisis management. The Research and Development activities of the Academy include innovative learning technologies such as Virtual Training Exercises as tools for joint instruction and evaluation of crisis management command and control both on operational and strategic level. New training methods, such as the above mentioned systems, play an important role in the development and training of prepared crisis management specialists. The Academy has a leading role as centre of excellence of Internal Security in Estonia and has participated in many valuable research and development projects with EU Agencies, such as CEPOL and FRONTEX, as well as networks and European-wide cooperation bodies, such as EFSCA, EURASHE, NISPAcee, The Baltic University Network and others.[[32]](#footnote-32)

An important annual event is the International Internal Security and Law Enforcement Conference, held every year in the month of November in Tallinn. The seminar gathers high-level international scientists and security experts that exchange ideas and discus innovative views of current developments and future trends on societal security affairs.[[33]](#footnote-33)

A research and development asset that contributes to crisis management activities is developed under the supervision of the Estonian Information System Authority and is named the Virtual Situation Room (VSR). VSR has been created as a platform for crisis prevention which enables efficient cooperation between service providers, government agencies and also between service providers themselves. The VSR communication platform allows sharing of situational data between government agencies responsible for detecting, managing and preventing crises and companies providing vital services. The VSR also provides platform for analysis and visualisation of data, providing training using actual and simulated events, and for improving crisis management communication, decisions and procedures.[[34]](#footnote-34)

The modernisation and adoption of new technologies to improve the effectiveness for prevention and rescue efforts is foreseen in the Strategy of the Estonian Rescue Board. This process includes training and practice processes, adoption of e-solutions for prevention efforts and introduction of contemporary fire safety related technological solutions to the population.[[35]](#footnote-35)

### Policy for Prevention

Estonia’s security policy is aimed at preventing threats as well as responding to them in a swift and flexible manner. Estonia’s security is ensured through co-ordinated foreign and domestic policy measures.[[36]](#footnote-36)

In the Emergency Act is stated that crisis management committees shall be formed in counties in order to organise preventive and preparatory work in the field of crisis management and to respond to emergencies. Coordination and cooperation between civil protection and disaster prevention are provided by the Estonian Rescue Board.[[37]](#footnote-37)

According to the Rescue Act, the Rescue Board’s functions for prevention are immediately applied, unavoidable and urgent activities upon the occurrence of a rescue event, countering and eliminating a threat and alleviating the effects of that event.[[38]](#footnote-38)

The Estonian Rescue Board conducts risk mapping, develops and enhances holistic disaster prevention and maintains preparedness. The Board also has the responsibility to review and implement the national crisis-management systems at the local level.

The prevention efforts of the Rescue Board have resulted in decrease in number of accidents due to work done on prevention. In order to improve the quality of rescue service operations the Estonian Rescue Board has acknowledged the need for involving new technologies that would make it possible to reduce both the response time of reaching affected people and the damage caused by accidents. Volunteer rescue brigades continue to gain strength in Estonia as well, and their increased involvement in not only rescue operations but also prevention efforts is an important asset.[[39]](#footnote-39)

The Estonian Information System’s Authority (EISA) is part of the administrative area of the Ministry of Economic Affairs and Communications, responsible for large-scale cyber incident, maintains and updates an emergency handling plan.[[40]](#footnote-40)

Additionally, Estonia applies measures for preventing the spread of environmentally hazardous substances, and the neutralisation of sources of pollution on land and sea. In terms of prevention of marine pollution, the country is developing vessel traffic regulation and surveillance systems in the Baltic Sea. Remote surveillance of marine pollution is being developed, including air surveillance aimed at the early detection of pollution and the identification of the origin of the pollution.[[41]](#footnote-41)

With regard to forest fires, the emergency measures for mitigating the consequences are established in the Fire Safety Act and include spatial planning, specific prerequisites for forest fires or landscape protection, as well instructions to the vital service providers and the public.

### Policy for Preparedness

Forest fire is considered as one of the most hazardous threats in the Estonian landscape that require national preparedness and prevention measures. The Ministry of the Interior has established an emergency plan, which provides comprehensive directions for emergency management related to forest fire. The plan anticipates the participation in the management of emergencies of the Rescue Board and the Police and Border Protection Service, primarily for protection of public order, evacuation, traffic management, monitoring of flights; the Environment Agency for consulting and environmental assessment; the Environmental Inspectorate for consulting and environmental assessment; the Environmental Research Centre for conducting an air quality assessment; various health care providers, local governments responsible for evacuation and critical service providers.

Consideration of the risks involved in the planning stages is needed in order to raise the awareness of the local authorities through development of education and training programmes for local government officials.

In order to be prepared for reacting in emergency situations Estonia organises training exercises involving cooperation of all key sectors – civil, local governments, state authorities, business and non-profit entities. Rescue workers for crisis situations are trained and prepared by an emergency readiness and rescue training system, which includes: the Rescue College of the Public Service Academy – specialised in preparation of college-educated specialists for Rescue Service, and the Estonian Rescue School of the Public Service Academy in Väike-Maarja – specialised in preparation and training of fire fighters and rescuers.

### Policy for Response

The policies and procedures for response in emergency situation are defined by the Emergency Act of Estonia. The Act also regulates the declaration of, the response to and the termination of an emergency situation.[[42]](#footnote-42)

The Government, upon declaring the emergency situation, has to appoint a minister to direct and coordinate the response to the emergency due to which emergency situation was declared.[[43]](#footnote-43)

The crisis management committee of the Government of the Republic of Estonia has to assist the agencies responding to emergencies in the organisation of exchange of information and the coordination of the response to the emergency. It also has to assist the emergency situation response coordinator in the coordination of the response to the emergency due to which the emergency situation was declared and if required to perform other duties assigned by the emergency situation response coordinator. The crisis management committee makes proposals to the Government of the Republic and to the emergency situation response coordinator for the implementation of measures established in legal acts.

The emergency situation response coordinator has the right to issue orders for responding to the emergency to the coordinator of emergency situation work and the state and local government agencies appointed by the Government. The orders are given in the form of administrative acts.[[44]](#footnote-44)

The Rescue Board ensures preparedness and readiness for tackling forest fires through special rescue capabilities and management of the involvement of volunteers. In case of large-scale forest fire Estonia has signed mutual assistance agreements with Finland, Sweden and Latvia for cooperation.

Furthermore, in such scenario, the international assistance could be sought through the NATO EADRCC and the European Union's Civil Protection Mechanism.

The Estonian Rescue Board is responsible for ensuring a response to an emergency on the basis of the Emergency Act. The emergency response functions of the Emergency Response Centre include receipt and processing of an emergency call to the emergency 112 phone number or a notification received in another manner and an order to respond to the Rescue Board and a provider of emergency services.[[45]](#footnote-45)

The vision of the Estonian Rescue Board is to reach the level achieved by the Finland, Sweden, Denmark, Norway and Iceland by the year 2025, in terms of the level of rescue-related safety and in terms of the number of accidents and extent of consequences.[[46]](#footnote-46)

The key steps for response to emergencies encompass immediate notification to the emergency 112 helpline, followed by an immediate reaction by the relevant agencies or legal persons for notifying the Ministry of Interior. The next step for response in a crisis situation is to warn the public of the impending risk of the occurrence of an emergency that threatens the public and may endanger human lives and health or cause major infrastructural damage. The government of Estonia or the relevant crisis management authorities may use the media for informing for an emergency situation.[[47]](#footnote-47)

In 2005 major storm the Estonian Government enforced the media to inform people in timely manner and without interpreting the government announcement. A website was created where all the government announcements, warnings and other information were stored. The Governmental Crisis Management Committee and local crisis management committees were set up in the towns of Pärnu and Haapsalu. The data from the storm was analysed, proposals regarding the compensation of the damages were drafted and sent to the Government.[[48]](#footnote-48)

The experience from the 2005 flooding contributed to the development of a more systemic response, planning and streamlined crisis management in Estonia. It also enhanced the communication between the crisis management actors and improved the cross-border cooperation and information exchange between agencies in Estonia and Finland.[[49]](#footnote-49)

### Policy for Relief and Recovery

The Estonian Disaster Relief Team

The Estonian Disaster Relief Team (EDRT) is a rescue unit that provides international cooperation and can operationally take part in international rescue actions as well as to react to emergencies in Estonia. Since its establishment in 1996 the EDRT has participated in more than 20 international training exercises and missions in Indonesia, Pakistan and Latvia. The EDRT consists of five teams: search and rescue team; medical team; chemical team; support team and a group of experts.[[50]](#footnote-50)

The Defence forces

When conducting disaster relief, responding to natural or technological catastrophe, conducting search and rescue operations, or when mitigating extensive pollution to the environment, the Defence Forces could be employed without announcing the emergency situation or state of emergency. The Defence Forces, with the support of the Defence League (see p.34), are the primary supporter of the civilian authorities in ensuring domestic security in case of crisis. Acknowledging that the Ministry of the Interior has the overall responsibility for ensuring domestic security and crisis management, the Defence Forces are employed to settle civil emergencies in cases where all the other crisis management capabilities of the state have been exhausted or the required capabilities are only available to the Defence Forces. The use of the Defence Forces for ensuring domestic security is only possible by a decree from the Government of the Republic.[[51]](#footnote-51)

The crisis management structures within the area of governance of the Ministry of Defence are ready to support the civilian structure in compliance with the crisis management plans that are developed by the Ministry of the Interior and approved by the Government.

## Financing

### Investing in preparedness

Investing in emergency preparedness is one of the most important factors when it comes to crisis management. The planning of financial resources needed to implement the objectives of the national strategy will be in accordance with the planning of the state budget. Due to the objectives, particular attention will be paid on increased funding of volunteers, proportion of investments and increased wages. The Civil protection expenditures, according to data of the European Commission, are approximately 0.6% of the GDP of Estonia.[[52]](#footnote-52)

The Strategy of the Estonian Rescue Board 2015-2025 foresees increase in financing for the available technology and equipment with an appropriate service life and safety requirement. Investments currently account for 2.8% of the Rescue Board’s budget. The Strategy also expects increase in the average salary of Rescue Board employees in order to match the average salary in the public administration and national defence sectors.[[53]](#footnote-53)

In accordance with the trends in volunteer rescue, it is planned to increase the amount invested in the competence of volunteer rescuers to 1.5 million euros by the year 2016.[[54]](#footnote-54) Moreover, state financial support for volunteers has increased significantly in recent years, reaching 938,874 in 2013 and 1,146,748 euros in 2014.[[55]](#footnote-55)

Contributing factor for the decreasing number of fatalities caused by fires and drowning is the increased budget for prevention work. In 2014, Estonia allocated over 700,000 euros.[[56]](#footnote-56)

Additionally, Estonia has signed framework agreements with the Swiss Agency for Development and Cooperation (SDC) for the implementation of two projects related to emergency preparedness. The first one was for prevention and management of natural disasters worth around 1,3 million euros. The project lasted over two years and resulted in improved fire safety of the Estonian social and health service institutions, decrease of the potential fire sources in these institutions and improving the preparedness among the staff to react in danger situations.[[57]](#footnote-57)

The second similar project was for strengthening information and communication technology systems of the Emergency Respond Centre and the grant was estimated at almost 1,67 million euros. This project lasted for three years and resulted in improvement of the time needed for responding and processing emergency calls and sending rescue vehicles. The projects will also aid the establishment of an emergency management monitoring system onto an electronic map, which will enable to display information regarding the location of the emergency caller and the location of the available rescue vehicles.[[58]](#footnote-58)

Estonia has developed good collaboration with the private sector, as the Estonian civil security authorities are looking at solutions for improving and upgrading their data exchange and operational efficiency. Many private entities actively take part in the EU funded projects and programmes in civil security domain.[[59]](#footnote-59)

### Investing in consequence management

The Government by regulation establishes the bases and procedures for financing the response to the emergency due to which emergency situation was declared.[[60]](#footnote-60)

The January 2005 “Gundun” severe winter storm that struck Estonia and the Baltic Sea area could provide an example for understanding the processes related to investing and allocating funding for consequence management.

The damages were estimated at 48 million euros, of which 28,2 million were attributed to the private sector and 19,6 million euros to the public sector. Following the storm, the EU Solidarity Fund granted Estonia 1.3 million euros for mitigation and recovery. The rapid activation of the EU Solidarity fund aided the restoration of power lines and communications systems which was completed within few days after the storm. Any further postponement would have resulted in much higher costs.[[61]](#footnote-61)

At national level, the Government allocated more than 1,4 million euros compensation in support to the most deeply affected people, with low income to purchase basic goods, and for support of immediate repair works.

At local level, dry firewood, pumps for watering out the flooded houses and organising cleaning of the dirt left by the storm were allocated by that the local administration allocated in the aftermath of the storm. Pärnu City Government has covered the expenses of its citizens with low income for heating, roof restoration and electricity. The total amount allocated for 208 families is about half a million euros.

At international level, the Red Cross, UNICEF and Norway (Buskerud County) all allocated funds in support of the affected population.

The insurance companies have compensated damages caused by the storm amounting to 11.7 million euros.[[62]](#footnote-62)

The 2005 storm was the biggest natural disaster to hit Estonia since its independence in 1991. The data provided above reveals that the main responsibility for covering the costs of such crisis lies with the Estonian government, local government authorities and insurance companies. Depending on the scale of the damages inflicted, there are other actors that allocate funds and efforts for mitigation.

## Policy review, Evaluation &Organisational Learning

### Post-Disaster Assessment

This information could not be obtained within the given timeframe.

### Departmental Lessons Learned systems

The Crisis Management Bureau of the Ministry of the Interior conducted an analysis following the emergency situation caused by the 2005 storm, based on the information received from the counties and ministries.[[63]](#footnote-63)

The report analysed the actions of the different state offices that reacted during the storm as well as the description of the problems that became evident as a result. The analysis also presented proposals for improving preparedness in emergency situations and preventive measures that need to be implemented in order to avoid difficulties in similar situations in the future.

Following the events in 2005, it was analysed that there is a need for informing the people about anticipating risks in case of natural hazard or other extreme situations, the information exchange between the relevant institutions needs to be improved and the operational radio communication between the institutions subordinated to the Ministry of Interior should be developed.

The Prime Minister tasked the Minister of Finance to set up a Committee for assessing the damages with the Secretary General of the Ministry of Finance acting as Chairman. The members include secretary-generals of involved ministries and county governors of the three most affected counties.[[64]](#footnote-64)

The Committee assessment document noted and recommended measures that include updating the crisis plans of several ministries and counties and improvement in the information service and better communication between the authorities. Additional highlighted measures were the need of improved forecast and prognoses of the water level rise velocity and enhanced cooperation between neighbouring countries.

### Centralised (national) Lessons Learned system

In Estonia there is no specific lessons learned system or framework outside of the competence of the Ministry of Interior and the local/regional authorities.

During one of the crisis events of 2010 - snow storm Monika, which hit Estonia at the beginning of December - the rescue crews were required in various places in northern and central Estonia where nearly 200 vehicles with total of 600 people were trapped in snow. In less than 24 hours the rescue teams managed to conduct an operation and 177 people were evacuated from the trapped vehicles. Despite conducting a successful operation in very inhospitable weather conditions, the rescue team required more available capabilities, more particularly, modern off-road rescue vehicles. Improved crisis communication between the involved actors is another identified shortfall from the operation.[[65]](#footnote-65)

In 2010, with the support of the European Fund for Regional Development, the Rescue Board acquired specialised technology and equipment for responding to various types of rescue events. This allowed the Board to considerably improve the efficiency of responding to chemical accidents, oil pollution capture works, and the logistical support and management of large scale rescue works.

Moreover, the capability of responding to floods was improved by the joint programme of the Baltic States, or also known as the BaltFloodCombat. The joint Baltic unit participated in two foreign missions in 2010, eliminating the consequences of floods in Poland and Moldova.

### International exchange for Lessons Learned

Estonia evaluates and exchanges lessons learned in the field of crisis management through collaboration in various cross-border and international exercises and activities. See point 3.2 for more information regarding cross-border cooperation.

### Regular policy reviews

The Estonian Rescue Board has the responsibility to review and implement the national crisis management systems at local level. The Board supports the local government agencies with regard to communication systems and coordination, as well as provides comprehensive training for preparedness, response and consequence management where it is deemed necessary.[[66]](#footnote-66)

At regional level, County Governors are responsible for the review of the risk analysis of an emergency of a certain region. At local level, the head of the local government crisis management committee is the rural municipality mayor or the city mayor, who is responsible for reviewing emergency policies and risk assessments of a certain region.[[67]](#footnote-67)

The same procedures apply for local and rural municipalities or cities, where the crisis management committee is the main responsible entity. The crisis management plans are reviewed not less frequently than once a year and are submitted to the county governor.

Following the Fukushima nuclear accident and in concert with changes in legislative framework, Estonia has revised its Emergency Preparedness and Response procedures, with special attention to communication between the authorities and to the public. In order to assess the capabilities and the preparedness of Estonia to respond to nuclear or radiological emergency, the country hosted the Emergency Preparedness Review Mission of the International Atomic Energy Agency in 2011.[[68]](#footnote-68)

## Resilience

Resilience concepts are namely developed for critical infrastructures such as the supply of basic services like water, food, energy, transport, housing, communications, etc.

Resilience concepts need also to take into account the necessity to anticipate, to plan and to implement in the crises time a substitution process aiming to deal with a lack of material, technical or human resources or capacities necessary to assume the continuity of basic functions and services until recovery from negative effects and until return to the nominal position.[[69]](#footnote-69)

The resilience capability of Estonia to prevent and avert security threats depends on the readiness to maintain critical services. In promoting and enhancing resilience concepts, the state cooperates and involves other members of civil society, thus improving social cohesion and social risks are prevented. The prevention of social risks is addressed in the national economic and social policy.[[70]](#footnote-70)

In order to ensure the resilience of critical services, Estonia develops operational capability to recover interrupted services, provides sufficient reserves and action plans. Continuous evaluation and monitoring of risks that may disrupt or cause malfunction in critical services is conducted.[[71]](#footnote-71)

Moreover, to safeguard the state’s resilience, a plan for organising the functioning of national command and control and guaranteeing continuity of government in the event of risk situation and crises shall be drafted under the co-ordination of the Ministry of Defence.[[72]](#footnote-72) The Rescue Board also develops emergency plans in support of maintaining the resilience of the country.

Besides the National Security Concept of Estonia and the National Defence Strategy the resilience concept is not frequently used in other policy or legislative documents, nor in academic research in the disaster management domain.

## Information sharing and data protection

According to the Rescue Act disclosure of personal data is permitted only in such case and to such an extent it is unavoidably necessary for the notification of a threat or a rescue event. In order to perform its functions the Rescue Board or other rescue authority may process personal data on the bases of and pursuant to the procedure provided for in the Personal Data Protection Act.[[73]](#footnote-73)

Since the unprecedented cyber-attacks in 2007, Estonia unequivocally acknowledged the need to protect information systems and data. The coordinated cyber-attacks against the Estonian government, banks, media and telecommunications companies demonstrated vulnerability of the information systems as one of the important aspects of national security.[[74]](#footnote-74)

The 2008-2013 Cyber Security Strategy of Estonia was developed by experts from various ministries and agencies. The document recommended the development of a national legal framework for cyber security concerning areas which are either not covered or are insufficiently covered by the existing legislation.

The analysis showed that Estonia’s current legal policy for IT is decentralised and, in fact, partly contradictory. For instance, Estonia has adopted a liberal policy concerning the use of e-services and the information society generally; at the same time, the policy for personal data protection is rather conservative and the regulation of information society services complies only with the EU’s minimum requirements.[[75]](#footnote-75)

Furthermore, the Strategy emphasizes on the importance of the establishment a clear legal basis for processing any kind of personal data. The Personal Data Protection Act aims at fulfilling this as it provides general organisational, technical and physical security measures to ensure the availability, integrity and confidentiality of data.

However, it is necessary to point out that for national security reasons exceptions to the Personal Data Protection Act should be made, as EU Directive 95/46/EC on the protection of personal data and the Council of Europe Convention ETS 108 allows. The Cyber Security Strategy of Estonia recommends that these exceptions could be formed by amending the Personal Data Protection Act or through a separate regulation addressing the protection of the critical infrastructure.[[76]](#footnote-76)

The rescue information system

According to the Rescue Act, the Ministry of the Interior shall establish a database for the collection of data related to operations and proceedings related to the functions of the Rescue Board for the efficient and speedy performance of the functions of a rescue service agency and for the performance of efficient supervision. The official name of the database is *rescue information system* and its chief processor is the Rescue Board.[[77]](#footnote-77)

The MAppERS project

Estonia participates in the Mobile Application for emergency Response and Support (MAppERS) project. It is funded by the European Commission and it is aimed at identifying gaps in the information sharing system in terms of territorial knowledge, risk prevention and emergency.

Further, the application deals with human role as ''crowd sourced mappers'' through the development of a smart phone application that allows sharing of precise, GPS-localised information regarding the location of risk situations from the population to civil protection operators in a contest of geospatial response. The implementation of the project implies the design and testing of a smartphone application for volunteers and for citizens to be used as a communication device between citizens, volunteers and headquarters during phases of emergency.[[78]](#footnote-78)

The expected results of the project, with its completion scheduled for the end of 2015, include creation of a collaborative user environment for emergency response and support during crisis, raising public awareness and easy-to-use data for crisis management.[[79]](#footnote-79)

# Legislation

The 2013 Anvil Country Study describes the legal statute of the Estonian civil security system as:

fragmented and rests upon formal distinct bodies of formal legislation at the state and regional levels. From the functional perspective, the statutory basis is divided into laws for different emergency response services, sector specific regulations, and provisions for a formal state of emergency and for other kinds of disasters and crises. The Estonian civil security is a mixture of one level or institution coordination and, on the other, a combination of versatile vertical and horizontal control and command lines. A bottom line principle is to support the local decision-making process as much as possible.[[80]](#footnote-80)

The main regulative framework for civil protection and emergencies is defined by the Emergency Act and the Rescue Act of Estonia.

The Emergency Act, in force since June 2009, provides the legal basis for crisis management, preparation of and responding to emergencies. It regulates the use of the Defense Forces and the National Defense League in responding to emergency situations and rescue operations.[[81]](#footnote-81) It also defines the mechanisms to be activated in case of large scale natural or man-made disasters. The Emergency Act lists 42 vital services which are provided by public sector agencies, and imposes duties on authorities to maintain the sustainability of vital services as well as on service providers to provide vital services.[[82]](#footnote-82) For example, The Ministry of Economic Affairs and Communications shall organise the continuous operation of vital services such as functioning of electricity and gas supply. The Ministry of the Environment shall organise the functioning of air surveillance and early warning; and functioning of hydrological and meteorological monitoring and early warning.[[83]](#footnote-83)

The Rescue Act provides the functions, organisation and rights of a rescue service agency and the rights and obligations of voluntarily participating persons in the activity of a rescue service agency. The specifications of the organisation of the rescue service agency activities are provided by the State of Emergency Act.[[84]](#footnote-84) This Act provides the basis, conditions and procedure for declaration of a state of emergency, and the competence of authorities managing a state of emergency; and the measures to be implemented during a state of emergency, and the rights, duties and liability of persons during a state of emergency.[[85]](#footnote-85)

The main civil security and emergency management actors are four territorial inter-agency emergency preparedness committees that are managed by the national rescue board. [[86]](#footnote-86)

The National Defence League Act establishes the legal basis and portrays the activities of the Estonian Defence League, which may include participation in resolving an emergency, in rescue work and ensuring the safety according to the procedures provided in the Emergency Act.[[87]](#footnote-87)

## Crisis (emergency, disaster) management concept

The National Security Concept of the Republic of Estonia is a key document that establishes the objectives, principles and directions of security policy. The National Security Concept highlights crisis management as one of the essentially important tasks.

The Concept foresees as a vital task the readiness and preparedness for crisis management. The document emphasises on the importance of preventive diplomacy and the efforts in the prevention of conflicts through exchange of information and dialogue between partners. Participation in crisis management operations of NATO and the European Union as well as in NATO Response Force and EU battle groups is also described as an integral part of Estonian security policy.[[88]](#footnote-88) Further, the concept envisages that Estonia’s national security relies on the membership in NATO and European Union, as well as to close cooperation with its allies and international partners.[[89]](#footnote-89)

The implementation of the strategy will be monitored and analysed on a yearly basis. An assessment will be developed regarding the progress made towards the established objectives. Following the completion of the analysis, proposals will be made to update the strategy and the related documents as appropriate.[[90]](#footnote-90)

## General crisis (emergency, disaster) management law

The Emergency Act is in force since June 2009 and provides the legal bases for crisis management, including preparing for and responding to emergencies. “The Act also regulates the declaration of, the response to and the termination of emergency situations and the use of the Defence Forces and the National Defence League in responding to emergencies, performing rescue operations and ensuring security.”[[91]](#footnote-91)

The Act sets out the arrangements for the organisation of the preparation for emergencies, including for emergency risk assessments and plans, crisis management exercises and the organisation of responding to emergencies.[[92]](#footnote-92)

The Emergency Act provides the legal basis for the organisation of emergency preparedness and for crisis management by the government, government agencies and local governments. The Act defines the crisis management tasks and the duties of the responsible institutions with regard emergency preparedness.[[93]](#footnote-93) The tasks for crisis management require preparation of risk assessments in order to identify possible emergencies, the possibilities for avoiding them, as well as for mitigating the consequences. As other crisis management tasks listed are the preparation of crisis management plans, the organisation of crisis management training, and the build-up of the structure of units for responding to emergencies. The authorities must ensure the necessary resources for responding to emergencies, organising the informing of the population and raising public awareness on responding to an emergency.[[94]](#footnote-94)

Furthermore, the Rescue Act provides the functions, organisation and rights of a rescue service agency and the rights and obligations of persons participating voluntarily in the activity of a rescue service agency. The Rescue Act defines the rescue service agencies and their functions, as well as the participation in international rescue work and explosive ordnance disposal.[[95]](#footnote-95)

## Emergency rule

The State of Emergency Act, which entered into force on 16 February 1996, provides the basis, conditions and procedures for declaration of a state of emergency, the competence of authorities managing a state of emergency, as well as the measures to be implemented during a state of emergency, and the rights, duties and liability of persons during a state of emergency.[[96]](#footnote-96)

A state of emergency is declared on the basis of the Constitution of the Republic of Estonia in case of a threat to the constitutional order of Estonia, and when it is not possible to eliminate a threat to the constitutional order of Estonia without the implementation of the measures provided of the State of Emergency Act. According to the Act, the Government can declare a state of emergency throughout the state for no longer than three months. During a state of emergency, acts and other legislation are valid unless the State of Emergency Act does not provide otherwise.[[97]](#footnote-97)

A threat to the constitutional order of Estonia may arise from an attempt to overthrow the constitutional order of Estonia by violence; terrorist activity; collective coercion involving violence; extensive conflict between groups of persons involving violence; forceful isolation of an area of the Republic of Estonia; prolonged mass disorder involving violence.

The Act also defines that during a state of emergency *it is possible to restrict in the interest of national security and public order the following, rights and liberties of persons:*

1) the right to free self-realisation; 2) the right to liberty and security of person; 3) the right to freely choose domain of activity, profession and employment; 4) the right to freely participate in political parties and some types of non-profit associations; 5) the right to freely possess, use and dispose of property; 6) the right to inviolability of home; 7) the right to freedom of movement and to choice of residence; 8) the right to leave Estonia and to settle in Estonia; 9) the right to confidentiality of messages sent or received by post, telegraph, telephone or other commonly used means; 10) the right to freely access information disseminated for public use; 11) the right to access, pursuant to the procedure provided by law, information held by state authorities and local government bodies and in state and local government archives; 12) the right to freely disseminate ideas, opinions, beliefs and other information by word, print, picture or other means; 13) the right to assemble peacefully and to conduct meetings without prior permission.[[98]](#footnote-98)

Upon declaring a state of emergency state authorities and rural municipality or city governments shall notify the President of the Republic, the Government of the Republic and the Commander of the Defence Forces of the threat to the constitutional order of Estonia that has occurred. The crisis committee, established by the government for the implementation of measures regarding the threat, develops the state policy and action plans to forecast, prevent and eliminate the threat. The committee also develops an analysis concerning the prevention and the planning of elimination of the emergency situation and presents the results to the Prime Minister.[[99]](#footnote-99) The Prime Minister is the head of state of emergency.

During a state of emergency, the head of state may give orders to the chief of internal defence and to heads of governmental authorities and local government bodies. Furthermore, the Prime Minister may restrict the freedom of movement partially or in the entire territory of Estonia, provide broadcasters with information relating to the state of emergency and issue other orders by authorisation of the Government of the Republic.[[100]](#footnote-100)

The Government, upon declaring an emergency situation, has to appoint a minister to direct and co-ordinate the response to the emergency due to which emergency situation was declared.[[101]](#footnote-101) Estonia has not officially declared a state of emergency after its new independency in 1991.[[102]](#footnote-102)

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

The Rescue Act provides fundamentals of activity of the rescue service agency, the functions of the rescue service agency and the measures of the Rescue Board.[[103]](#footnote-103)

Duties of rescue service agencies and the organisation of inter-agency crisis management exercises are set out in the Emergency Act.

The leading responsibility in the field of crisis management in Estonia is held by the Ministry of Interior. The ministries and agencies are responsible in their respective areas for the following:

* Ministry of Internal Affairs - maintenance of public order, fire extinguishing and rescue work, organisation of protection of data banks;
* Ministry of Economic Affairs - functioning of the energy system, organisation of supply with staple goods;
* Ministry of Agriculture - organisation of supply with food;
* Ministry of Finance - functioning of the financial system;
* Ministry of Social Affairs - organisation of health care, social insurance and social welfare, provision of psychological and social aid, assistance to refugees and the evacuated, labour force calculation;
* Ministry of Transport and Communications - organisation of telecommunications, postal services and transport;
* Ministry of Culture - organisation of protection of cultural property;
* Ministry of the Environment - organisation of environmental protection and monitoring.[[104]](#footnote-104)

According to the Emergency act the duties of the ministries are as follows:

* to perform risk assessment in order to identify the emergencies which may occur in its area of government. Only exception is the Ministry of Defence that does not perform risk assessments;
* to prepare a crisis management plan and ensure the implementation thereof in an emergency;
* to form a structural unit in the ministry or designate one of the departments to be responsible for the general organisation of crisis management in the area of government of the ministry;
* to form a crisis management team;
* to determine the crisis management duties of agencies and inspectorates in the area of government of the ministry;
* to plan the use of resources necessary for responding to an emergency;
* to direct the responding to an emergency in its area of government;
* to organise crisis management training in its area of government;
* to perform an assessment in its area of government in order to identify the resources which are necessary for participation in international crisis management.[[105]](#footnote-105)

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

Estonians historically have a tradition of preference of the local self-government instead of strong state power.[[106]](#footnote-106) At regional level, the responsibility for civil security is shared between the fifteen county rescue services, which have since 2005 been subordinated to the national rescue board. At local level, the four regional services are the highest civil emergency planning authorities.[[107]](#footnote-107) (see 3.1 for organizational chart)

The Emergency Act sets out that the local rescue service agencies of the Rescue Board have to form permanent regional crisis management committees to operate in their respective regions. The main responsibilities of this regional committee include monitoring and analysing the crisis management system, including the preparation for emergencies, responding to emergencies and ensuring the continuous operation of vital services in the region; analysing the probability of the occurrence of emergencies and making proposals to the government crisis management committee and the respective competent agencies; reviewing the part of the emergency risk assessment concerning the area of activity of the crisis management committee; assisting the emergency situation response coordinator in the coordination of the response to the emergency; assisting agencies responding to emergencies with regional effect in the organisation of exchange of information and the coordination of the response to the emergency.

Additionally, the regional crisis management committees are responsible for the organisation of regional crisis management exercises; for informing the public of the emergency and forming a territorial crisis management committee. The head of the local rescue service agency is the chairman of the regional crisis management committee.[[108]](#footnote-108)

The rural municipality or city government establishes the statutes and approves the staff of the crisis management committee of the local government. The draft statutes and the staff of the crisis management committee have to be agreed with the local rescue service of the Rescue Board.[[109]](#footnote-109) The Minister of the Interior shall establish the statutes and approve the staff of the regional crisis management committee.

## Legal regulations on the involvement of volunteers and specialised NGOs

Chapter 7 of the Rescue Act provides the basis for the participation of volunteers in the activities of the relevant rescue service agency. Further, rescue service agency may enter into civil law contracts with legal persons for organising the activity of volunteer rescuers participating in rescue work and prevention work. The Act provides definition of volunteer rescuer, the procedures for acceptance, training and participation in prevention work, social benefits and guarantees, the work organisation and other related provisions.[[110]](#footnote-110)

The Estonian crisis management legislation emphasises on the role of the private sector at all levels of preparedness but not so much at the level of response. The role of non-profit relief organisations is limited because after the independence of Estonia in 1991 the sector has not yet fully developed. However, the existing non-profit organisations are included in all public crisis management structures and major exercises.

According to the contingency plans, the most important non-profit and volunteer organisations in Estonia are the Red Cross, the Estonian Volunteer Fire-Fighters Union, the Estonian Association of Fire and Rescue Chiefs, and the Estonian Life Saving Association and Defence League, who have also been given the task of assisting in rescue work.[[111]](#footnote-111)

In 2013 the “National development trends in volunteer rescue work 2013-2016” document was issued. The document’s main aim is to develop a nationwide volunteer rescue network that brings together different people from the society with trained professionals.

There are also several national support organisations created by citizens or private entrepreneurs. These include the Defence Involvement Fund, the Estonian Injured Veterans Association, the Estonian Border Guard Officers Union, and the Estonian Reserve Officers Union.[[112]](#footnote-112)

The Estonian Red Cross is certified by the Ministry of Education and Research (renewed in 2010) to provide the courses to the population. In 2013 alone the Estonian Red Cross has provided 459 courses for 6234 persons and 138 trainers have been prepared by the organization.[[113]](#footnote-113)

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

Participation in international rescue work and explosive ordnance disposal outside the territory of the Estonia takes place on the basis of a request for help submitted under an international rescue agreement or by a Member State of the European Union or on the basis of the Participation in International Civil Missions Act.[[114]](#footnote-114)

The procedure for sending a team to perform rescue work and explosive ordnance disposal is established by the Estonian government by a regulation. Under an international agreement the Rescue Board may involve an administrative authority of another country in rescue work on the territory of Estonia. The Estonian Rescue Board may be involved in rescue work on the territory of another country, the procedures for which is regulated according to the international agreement.[[115]](#footnote-115)

The purpose of the International Civil Missions Act, entered into force in April 2011, is to organise the system of participation in civil missions and to create a clear legal basis therefor. It also solves issues regarding salary, insurance and training of experts. The Act provides the possibility to also send experts employed in the private sector and freelance experts on a mission. The expenses related to preparation and participation in missions is covered from the state budget, usually from the funds allocated to the Ministry of Foreign Affairs or the Rescue Board. Furthermore, the Act defines the area of responsibility in the preparation and participation in mission.[[116]](#footnote-116)

Internationally, a Framework Agreement between Estonia and Latvia for mutual assistance in the event of natural or technological disasters. Moreover, the Estonian Rescue Board and the Republic of Latvia have signed a national fire and rescue cooperation agreement. Estonia also has signed an agreement with the Government of the Kingdom of Sweden for emergency prevention, preparedness and consequence management. Additionally, agreement with Finland for maritime and aeronautical search and rescue has been signed. Please see 3.2 for more information related to international cooperation and agreements.

# Organisation

## Organisational chart

The Republic of Estonia is a parliamentary republic. The government has the executive power and the function of coordination and supervision of institutions of the executive power of the state and is comprised of the prime minister and up to 14 ministers. Administratively, Estonia is divided into 15 counties and each county is led by a county governor. Counties consist of local governments that are led by local government councils. There are 227 local governments that consist of 194 rural municipalities and 33 towns.

In Estonia the highest authority responsible for emergency and disaster management is the Ministry of Interior. It is responsible for policy formulation and its execution in the area of civil security. The Estonian Rescue Board is directly subordinate to the Ministry of Interior and has a key role in representing Estonia in various international forums such as the UN, EU and NATO and other relevant civil security organisations.

The Rescue Board also develops emergency plans, develops communication systems for the rescue services, coordinates the fire-fighting and rescue operations when necessary, develops the legal basis for civil security mechanism, drafts the general principles and rules for fire-fighting and rescue work and its applications.[[117]](#footnote-117)

Additional national government institution under the authority of the Ministry of Internal Affairs is the Emergency Response Centre. It is responsible for processing the receipt and processing of an emergency call to the emergency 112 phone number, sending out rescue teams, ambulances, other needed technical means and rescue specialists to the place of the emergency, as well as informing the chairman of the local crisis commission of the county or the local administration in case of a crisis.[[118]](#footnote-118)

The Estonian Rescue Board’s tasks include:

* Participation in national and international development and implementation of crisis management policy;
* Providing advice to the Minister of the Interior regarding crisis management plans and risk analyses;
* Presenting proposals for the development of communications and early warning systems;
* Providing advice to local governments on crisis management matters;
* Coordinating crisis management related cooperation activities of the local governments with non-profit organisations and foundations;
* Planning and participating in crisis management training;
* Participating in crisis management related research activities;
* Conducting and coordinating crisis management activities in the rescue field;
* Participating in national and international crisis management operations;
* To gather, analyse and transmit national and international information related to emergency situations.[[119]](#footnote-119)



Figure 5 Organisation of Estonian Civil Protection[[120]](#footnote-120)



Figure 6 Organisation of Estonian Rescue Services[[121]](#footnote-121)

The police

The Police and Border Guard Board agency employs more than 5000 people. The main tasks of the Police and Border Guard Board are securing of the external border of the European Union and the security and public order within the state and the investigation and prevention of offences. The tasks are divided between four work areas: border guard, public order, criminal police, and citizenship and migration. The Police and Border Guard Board is a police authority and all officers, regardless of their position are police officers.

The tasks and prime objective of the Estonian Security Police are related to reducing security threats aimed at the Republic of Estonia and to maintain national security. Additionally, it has “actively cooperate with the security and law enforcement authorities of other states and with international organizations.” With regard to crisis management, one of the key tasks of the Estonian Security Police is related to the multiple fields of critical infrastructure protection.[[122]](#footnote-122)[[123]](#footnote-123)

The defence forces

The Defence Forces could be deployed in response of crisis or disaster, but in cases where all the other crisis management capabilities of the state have been exhausted or where the required resources or capabilities are only available to the Defence Forces. In principle, the Defence Forces and the Defence League participate in the crisis management without using military activities or weapons.[[124]](#footnote-124)

The Defence League has a military supportive role in case of civil emergencies and disasters. This includes also the National Cyber Defence League. The Estonian Defence League is a volunteer militarily organised national defence organisation operating under the rule of the Ministry of Defence and part of the Defence Forces.[[125]](#footnote-125)

The Defence League incorporates other affiliated organisations such as Women’s Home Defence, Young Eagles and Home Daughters. Altogether the number of enlisted volunteers in action is 21,000.[[126]](#footnote-126)

The Department of Critical Information Infrastructure Protection at the Estonian Information System’s Authority (RIA) works in the field of protection of information systems that are needed for the sustainability of vital services. The department is responsible for planning the protection for the state’s critical public and private information systems on the national level. The Computer Emergency Response Team of Estonia (CERT) handles the protection of the information systems necessary for the provision of vital services.[[127]](#footnote-127)

The most important non-profit and volunteer organisations in Estonia are regarded the Red Cross, the Estonian Volunteer Fire-Fighters Union, the Estonian Association of Fire and Rescue Chiefs, and the Estonian Life Saving Association and Defence League, who have also been given the task of assisting in rescue work.[[128]](#footnote-128)

In Estonia the most significant non-governmental organisation is the Estonian Red Cross (ERC). Founded back in 1919 the ERC has over 3900 members including 500 active volunteers. The ERC has 257 trained volunteers which are prepared to act during the emergency situation. The ERC works in cooperation with Ministry of Interior, Ministry of Social Affairs, Estonian Rescue Service, Police and Border Department. In 2013 in cooperation with the Finnish RC the ERC started the training of volunteers for participation in foreign missions. The structure of the organisation consists of network of 16 local branches. The General Assembly meets every four years and elects the ERC Chairman, Head Committee, the Executive Board, as well as the auditing commission and the commission of statutes and ethics. Every local branch has its own board and auditing commission.[[129]](#footnote-129)

The Estonian authorities are looking at potential solutions for improving and upgrading the existing operational capabilities for data exchange. It is likely that many private entities will take part in the EU funded projects and programmes within the civil security domain.[[130]](#footnote-130)

## Organisational cooperation

International cooperation

Estonia has signed regional and multilateral provisions of the Council of Europe, the European Union, NATO and OSCE for assistance in crisis situations. However, Estonia has not officially requested assistance in the form of international support or cross-border assistance.

Operational cooperation within the European Union and Estonia has taken place mainly by information exchange and joint events and exercises.[[131]](#footnote-131) Estonia actively participates in several working parties as well as hosting conferences regularly. Estonia has been an active initiator in the field of maritime cooperation and of strategic and operational dialogue among the Baltic Sea countries. The European Commission contributes to research and professional civil security training, which has been mainly facilitated by the Estonian Academy of Security Sciences.

The Academy is a state institution that provides professional education for civil servants, under the umbrella of the Ministry of the Interior**.** Its goal is through internal security related academic education, research and development activities to create a secure state and conditions for stable development across the state of Estonia.[[132]](#footnote-132)

Cross-border cooperation

Cross-border operation cooperation is essential in crisis management due to the fact that the emergency may affect more than one country, for example in a major flood or forest fire. Therefore the development of transnational cooperation between states and international organisations in disaster management remains a key task. Another benefit of such cooperation is in the cases in which one state does not have enough resources and capabilities to cope with the emergency situation on its own. In such scenarios it is necessary to have effective cooperation with the neighbouring countries and international organisations.

Estonia has signed a series of agreements for cooperation in the rescue and crisis management domain with its immediate neighbours. Additionally, Estonian experts participated in EU Civil Protection Mechanism missions during EU citizens' evacuation from Lebanon through Cyprus (2006); in Environmental Assessment Mission in fire devastated areas of Nagorny-Karabakh (2006); in the floods in Ukraine and Moldova (2008); in the disaster following the 2010 earthquake in Haiti; the floods in Pakistan (2010) and Moldova through BaltFloodCombat (2010).[[133]](#footnote-133)

BaltFloodCombat is a cross-border cooperation project between Estonia, Latvia and Lithuania. The three Baltic States are represented respectively by the Estonian Rescue Board, Latvian Fire and Rescue Service and Lithuanian Fire and Rescue Department under the Ministry of the Interior. The project is within the framework of Preparatory Action of the Civil Protection Mechanism and is funded by the European Commission. The European Commission finances 80% of the project while the remaining funding comes from the national budgets. The aim of the project is to create reliable and efficient national flood response capacity, and also to establish and register in CECIS a multinational High Capacity Pumping (HCP) module, consisting of commonly trained personnel and up-to-date equipment. Main objectives of the project include enhancing national flood response capability; strengthening European rapid response capacity, and also to discover, through innovative approach, possibilities and ways of multilateral civil protection capacity building.[[134]](#footnote-134)

Estonia conducts operational cooperation with the EU through the Estonian Disaster Relief Team’s participation in the following EU exercises: ESCEX (2004), Finland and EU POLEX (2005), Poland, which simulated earthquake and other related emergencies in a fictitious third country; DANEX Denmark (2006), which anticipated terrorist accidents and severe weather scenarios; FLOODEX (2009), Netherlands, exercising reaction in flooding situation; and EU CREMEX (2011). Additionally, Estonia participated in 2010 AMPS EU Civil Protection Mechanism and 2011 MUSAR exercises in Germany/Netherlands.[[135]](#footnote-135)

Another on-going cross-border cooperation initiative was established in 2007 with the Estonia - Latvia Programme. The programme is implemented according to the principles of European Territorial Cooperation and it supports cross-border cooperation between the two countries. It is funded by the European Regional Development Fund, the Republic of Estonia and the Republic of Latvia. The objective of the Programme is to promote sustainable development and economic competitiveness through achieving an integrated and cross-border approach to economic, social and environmental development in ways, which involve and benefit local people and communities. Under the Estonia – Latvia Programme the JATE Project (Building Cross-border Capacity to Perform Joint Activities in Tough Environment) was created and implemented by the Estonian Rescue Board and the Latvian State Fire and Rescue Service.[[136]](#footnote-136)

This project’s goal is to look for ways for improving the initial reaction capabilities in remote areas and for rescue events. The aim is to reduce the response times and capacity building in areas where access is difficult or limited, and there are no fire-fighting water supplies needed.[[137]](#footnote-137)

Further, the Framework Agreement between Estonia and Latvia for mutual assistance in the event of natural or technological disasters relates to the co-operation and rendering of mutual assistance in the event of a disaster with the aim of preventing or avoiding human casualties and damage to the health, environment and property. According to the Framework Agreement either country could request assistance directly from the competent authorities of the other Contracting Party. The competent authorities maintain direct contacts and for Estonia they are the Ministry of Internal Affairs; the Rescue Board; and the Radiation Protection Centre.[[138]](#footnote-138)

Moreover, the Estonian Rescue Board and the Republic of Latvia have signed a national fire and rescue cooperation agreement, which foresees joint actions for implementing and facilitating the provision of assistance and cooperation in cross-border rescue operations, to develop operations applicable to common procedures and plans, and to develop cooperation in research and development programs reflecting the information and disaster response experiences.[[139]](#footnote-139)

Estonia has signed an agreement with the Government of the Kingdom of Sweden for emergency prevention, preparedness and consequence management. According to this agreement the countries will cooperate in the development of appropriate preventative measures to protect people, the environment and cultural heritage and other assets of natural, technological and environmental disasters. The Parties undertake to provide mutual assistance within its means and in accordance with the cooperation agreement.[[140]](#footnote-140)

Additionally, agreement with Finland for maritime and aeronautical search and rescue has been signed. Its provisions extend to the responsibilities, the operational guidelines and implementation of the maritime and aeronautical search and rescue cooperation.[[141]](#footnote-141)

The operational cooperation of Estonia in the Baltic region and with the EU is also conducted with the Baltic every day accident, disaster prevention and resilience (BaltPrevResilience) project. The project organised between Sweden, Finland, Estonia, Denmark, Poland and Latvia. The project coordinator is the Swedish Emergency Management Agency (MSB). Other partners in the project include Finnish National Institute for Health and Welfare, Injury Prevention subdivision (THL), Estonian Rescue Board, Frederikssund-Halsnæs Fire & Rescue Service, FHFRS, Denmark, Main School of Fire Service Warsaw, SGSP, Poland, Jelgava City Municipality, JCM, Latvia and Karlstad University of Sweden. In addition to the seminar are invited to participate in the Norway, Iceland and Lithuania Representatives.[[142]](#footnote-142) The aim of the project is to prevent and reduce consequences of accidents and crises and to create a common understanding of accident statistics and evaluation of experiences. It also aims at establishing a platform for sharing statistics, experiences, best practices and methodology for lessons learned.[[143]](#footnote-143)

# Procedures

## Standing Operating Procedures (SOPs) and Guidelines

The information could not be obtained within the given timeframe. Within the framework of this country study such procedures have not been highlighted in policy or legislative documents related to civil protection or crisis management.

## Operations planning

The ANVIL study identifies four levels of responsibility for operational crisis management: state level, regional level, municipal/county level, and private/volunteer level, and also describes the operational procedures in case of crisis:

Operational crisis management responsibility typically lies with the counties and independent cities and municipalities. Depending on the character of the crisis and available resources, local and regional authorities may include permanent staff for civil security tasks. Once a state of emergency or state of disaster has been declared, the counties or independent cities may form specialized task forces that are led and coordinated by the local political actor or institution. Specialized state agencies will provide assistance when needed and when the situation escalates.[[144]](#footnote-144)

Civil protection planning in Estonia consists of risk-based planning, holistic preparedness planning, national contingency planning (central, national), planning methodologies, risk analysis and risk assessment methodologies. Particular feature of the planning mechanism is the bottom-up approach where plans are prepared at local, regional and national levels. Every national institution concerned has to prepare its own contingency plans.[[145]](#footnote-145)

The Government Regulation No. 17, in force 21 June 2010, titled “Guidelines for preparing continuous operation plans”, regulates the organisation of the preparation of plans for the continuous operation of vital services provided by a provider of vital services. The document provides specific guidance for the organisation of the preparation of plans, the preparation of plans itself and the terms and conditions for introducing the plan.[[146]](#footnote-146)

According to the Emergency Act an emergency plan is a document, which describes the organisation and the management structure of responding to emergencies, the responsibilities of the agencies participating in responding to emergencies and the organisation of informing the public of emergencies. These components are valid at national and, if necessary, on the regional and local government level. The Government is responsible for the establishment of a list of emergencies that require preparation of an emergency plan and enacts the competent agencies of the executive state power to prepare it.[[147]](#footnote-147)

The Government establishes a list of emergencies, identifying which emergency plan has to be prepared, and subsequently appoints the competent executive power agencies to prepare the emergency plan. The emergency plans are then approved by a regulation of the Estonian Government. The plans need to be updated regularly, at least once in every two years, while the Government has the obligation to amend the list of emergencies at least every two years. The guidelines for preparing the emergency plans are established by a regulation of the Minister of the Interior.[[148]](#footnote-148)

## Logistics support in crises

The Estonian Disaster Relief Team occasionally participates in international humanitarian missions, as it was the case in 2012, when the Team provided logistical support to the UNHCR refugee camp in Dollo Ado, Ethiopia.[[149]](#footnote-149)

Additional information could not be obtained within the given timeframe as it requires internal agency-specific information.

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

According to the Emergency Act, the Ministry of the Environment shall organise the continuous operation of the following vital services, such as functioning of air surveillance and early warning; hydrological and meteorological monitoring and early warning; and the functioning of the system for early warning of a risk of radiation.[[150]](#footnote-150)

There are three crisis management committees on national level, on regional level and on local level. In case of an emergency they are called together and take necessary actions to solve it.[[151]](#footnote-151)

According to the procedures set out in the Emergency Act in case of emergency, natural persons must notify immediately the 112 emergency helpline about the impending risk they have encountered. Agencies or legal persons have to notify the Ministry of the Interior of the emergency that has occurred in the fulfilment of their responsibilities or in their area of activity.

The Government has the obligation to establish the procedures for notifying the public of the impending risk of the occurrence of an emergency and the response to the emergency, the requirements for the information to be communicated as well as the organisation of exchange of information between the agencies and persons responding to the emergency.[[152]](#footnote-152)

The Estonian Information System Authority (RIA) coordinates the cooperation, development and administration of the state information systems and also organises activities related to information security and handles the security incidents occurred in Estonian computer networks.[[153]](#footnote-153) The RIA provides advisory services for the providers of public services on how to manage their information systems and if required monitors them. In addition, RIA is an implementing entity of the structural assistance of the European Union.[[154]](#footnote-154)

An early warning system is expected to be implemented, allowing the public to be notified of the occurrence of accidents and emergencies. The system will be able to warn about the possible failure in communication and power. In 2011, the Rescue Board with the Estonian National Broadcasting implemented a project for providing operational information to the public, in case of emergencies.[[155]](#footnote-155)

Additionally, Estonia has an automated Early Notification System that is in place for emergencies, composed of 10 Permanent Monitoring Stations. However, the systems’ capabilities are outdated and in need of an upgrade.[[156]](#footnote-156)

The country also has an early radiation warning system which is used to identify and notify of any radiation accidents at nuclear plants in neighbouring countries. Estonia devotes efforts to enhance radiation protection, as well as to ensure the safety of nuclear power plants and reduce radioactivity within the Baltic Sea region.[[157]](#footnote-157)

# Capabilities

## Human resources

Over the last four years the Rescue services in Estonia have significantly improved based on the experience from past crises and emergency situations. There are more than 6,000 people working in the field of civil security in Estonia.[[158]](#footnote-158)For example, air rescue units are capable of reaching people and ships in need of assistance within one hour and 45 minutes, while helicopter and airplane crews are on duty from 09.00 to 17.00 to perform patrol flights.[[159]](#footnote-159)

Since 2011 the rescue capability was enhanced through restructuring - nine units were closed and the rescuers were transferred to other insufficiently manned units. In 2013 Estonia had 65 units with 24-hour capability, with at least three rescuers on alert at all times and able to offer real assistance to people in case of an accident. The speed of the rescuers to reach people also improved, compared to previous years. Another result from the restructuring of the rescue services was the improved service coverage as rescue workers are 15 minutes away from 93% of the population.The decrease in the number of fatal accidents, compared to 2011, reveals the high standard and preparation of the rescue capability and rescue units.[[160]](#footnote-160)

Estonia has developed the capability to provide rescue and humanitarian aid that meets international standards and allows the country to send the Estonian Disaster Relief Team (EDRT) to tackle disasters and crises.[[161]](#footnote-161) The fundamental goal of the Estonian Disaster Relief Team is to ensure the readiness of the country to participate in international rescue and humanitarian aid operations and, when necessary, react to possible emergencies in Estonia. The Team has been sent on missions by the Foreign Ministry in cooperation with the Estonian Rescue Service if a request by the UN, EU, or nations has been submitted. The EDRT has participated in humanitarian aid missions in Namibia, Pakistan, and Indonesia, as well as in Poland, Moldova and Latvia.[[162]](#footnote-162)

The specialists in the Disaster Relief Team are primarily in the fire-fighting or rescue service, however there are representatives from the border guard, police force, medical institutions, and other government or private institutions. The operational capability envisages a search and rescue unit, a medical unit, and a chemical unit. The team also comprises of a support unit and expert group.

In 2013 the number of certified volunteer rescue workers increased significantly to almost 1,300 volunteers distributed along more than 100 units and contributing over 2,500 working hours to fire safety prevention and disaster response. In the 2014 Security Policy document, prepared by the Ministry of Interior, is anticipated that by 2016 Estonia should have 1,600 volunteers for prevention and rescue work. Where possible, volunteers are also provided with equipment and other technical aids. Volunteer maritime rescuers participated in 31 rescue operations in 2013, compared to 23 in 2014. 54 people were saved by the police and volunteers together. Volunteers also participated in joint trainings and drills.[[163]](#footnote-163)

Additionally, Estonia is in cooperation with other countries, pursuing safety of navigation in the Baltic Sea along the Gulf of Finland. In this regard special attention is paid to search and rescue at sea and the development of capabilities of detecting and response to marine pollution.

## Materiel (non-financial) resources

The Government forms an operation stockpile, or contractually secured resources in case of an emergency, to be used for mitigating the consequences of a crisis. Usually these stockpiles contain health and food supplies.[[164]](#footnote-164)

The state healthcare stockpile shall be formed by the Ministry of Social Affairs or an agency in the area of governance of the Ministry of Social Affairs appointed by a decree of the Minister of Social Affairs. The state food stockpile shall be formed by the Ministry of Agriculture or an agency in the area of governance of the Ministry of Agriculture appointed by a decree of the Minister of Agriculture. Other stockpiles shall be formed by state agencies appointed by orders of the Government of the Republic. Entities forming the state operation stockpiles shall be responsible for the organisation of the storage, use, control, and renewal and reporting of the stockpile.[[165]](#footnote-165)

The government establishes by regulation the procedures for storage, use, control and renewal and reporting of state operation stockpiles.[[166]](#footnote-166)

Moreover, Estonia has signed a contract for the procurement of a multifunctional ship intended for localising pollution incidents and for pollution control. In addition, in 2014 Estonia purchased various life-saving capabilities that include 90 thermal cameras, 12 hydraulic equipment and 17 telescopic poles for the 66 state rescue crews. The use of thermal cameras helps rescue crews effectively identifying the location of people in premises filed with thick smoke while the telescopic rescue poles will improve the water rescue capability.[[167]](#footnote-167)

One of the main hazards and area of concern for Estonian crisis management authorities is forest fire. In order to better respond and ensure preparedness of the population, vital service providers and enterprises, and to mitigate the consequences of forest fires, the State Forest Management Centre (RMK) placed over 250 labels “Fire” and installed fire separators in over 340 kilometres of actively visited forest areas.[[168]](#footnote-168)

In 2015 the Estonian rescue workers are expected to be equipped with additional aerial ladders and trucks that will enable the team to reach people in need of assistance in higher buildings and places.

The Estonian Red Cross has more than 25 trained volunteers prepared to act during the emergency situation. In addition, cooperation with the Finnish Red Cross started for training of volunteers for participation in foreign missions. Further, 20 Estonian Red Cross volunteers have been involved in the training cycle. One ERC volunteer has been involved in international team in foreign mission – 2013 August-September assembling the field hospital in Jordan and 2013 December/2014 January working at the basic health clinic in Philippines.[[169]](#footnote-169)

## Training

The Emergency Act of Estonia states that national emergency response exercises shall be conducted at least once in every four years. The aim of the exercises is to assess the procedures and capability of responding to one or more emergencies, which include all the competent agencies. The procedures for these exercises and the capabilities required shall be approved by the crisis management committee of the Government at national level. At regional and local levels the time and the organiser of regional emergency response exercises and emergencies as well as the capabilities that are assessed, shall be approved by the regional crisis management committee and local crisis management committee, respectively.[[170]](#footnote-170)

Nationally, there are two main organisations that provide extensive preparation for future rescue workers. The Rescue College of the Academy of Security Sciences and the Rescue School located in Väike-Maarja.

The Rescue College organises a four year higher education programme which allows students to acquire knowledge of rescue management, crisis management, monitoring of fire safety and prevention in the field of rescue work. The obtained qualifications and knowledge could then be applied in the specialty of rescue service, in the field of fire safety supervision, crisis management and operational service. [[171]](#footnote-171)

The Rescue School in Väike-Maarja provides vocational training that specializes in preparation of rescuers, rescue specialists, or dispatchers. The educational programmes use situational simulations to which every person taking on employment is exposed.

Estonia also maintains cooperation with foreign countries in the field of rescue training and education, which include Finland, Poland, Sweden, Latvia, Lithuania and Russia. Additionally, close interaction with the Rescue Board, the Regional Rescue Centers as well as with Tallinn University of Technology has been developed.[[172]](#footnote-172)

Training of volunteers is an important task for the Estonian crisis management authorities. In cooperation with the Ministry of Interior, the Rescue Board and the Police and Border Guard a seminar was held in 2010 for sea and lake rescue volunteer associations. Further, a yearly 2-day training event is organised, in order to practise and improve the skills needed during sea rescue operations and to practice cooperation between different parties.[[173]](#footnote-173) It is anticipated that by 2016 Estonia 30% of the volunteer rescuers for prevention and rescue work should undergo at least 10 hours of regular training of national rescue units.[[174]](#footnote-174)

The Estonian Ministry of the Interior develops the exercises while the Estonian Disaster Relief Team (EDRT) regularly participates in international exercises[[175]](#footnote-175) The Estonian Disaster Relief Team participated in the 2008 NATO Uusimaa exercise conducted in Helsinki, Finland. The aim of the exercise was to practice the Euro-Atlantic Disaster Response Coordination Centre procedures and Euro-Atlantic Response Unit capabilities, in order to improve nations’ ability to respond to a disaster. Furthermore, the collaboration and information sharing between international organisations and the capabilities of crisis management teams were exercised.[[176]](#footnote-176) The exercise enhanced the effectiveness of the national capabilities to effectively coordinate consequence management operations.

Other recent examples of cross-border and multinational training exercises include the sea rescue training event 2010 Baltic Sarex in Denmark and the joint practice and training event with sea rescue volunteers at Võsu. The EU Chemical and Radiological Emergency Management Exercise 2011 (CREMEX 2011) exercise was organised by the Estonian Ministry of Interior with the contribution by the EU, and its aim was to test the understanding, knowledge and response in the framework of the Union Civil Protection Mechanism.[[177]](#footnote-177) One of the main deliverables of the exercise was the testing of the coordination of assistance through the EU Monitoring and Information Centre, as well as the successful testing of the Estonian Emergency Act. The exercise provided valuable experience to the Civil Protection teams from the different participating EU members and organisations which participated. The exercise exploited the opportunity to use a complicated CRBN scenario within two different locations in Estonia – the city of Tartu and Tallinn Airport, thus involving all relevant authorities who have their role in Estonia responding to Chemical and Radiological incidents.

The exercise managed to achieve its objectives and to test and verify the operational and strategic procedures for resolving CRBN emergency, as well as to test the EU Mechanism for Civil Protection and coordination. CREMEX 2011 also accomplished its goals by enhancing operational cooperation between all involved parties and provided learning opportunities, and also by providing valuable lessons learned for tactical response and inter-organisational co-operation.[[178]](#footnote-178) The results of the exercise provided valuable experience in testing arrangements in requesting and receiving international assistance. During the exercise Estonia tested its crisis management system and coordination of international assistance.[[179]](#footnote-179)

## Procurement

### Procurement regulation

Please see below (p. 5.4.2), additional information could not be obtained within the given timeframe.

### Procurement procedures

Public procurement in Estonia is regulated by the Public Procurement Act and supplemented with several regulations of the Government of Estonia. The Ministry of Finance is the institution responsible for public procurement policy, related legislation, providing supervision and consulting.

Public Procurement notices are published on-line in the central State Public Procurement Register and all contracting authorities and suppliers have access to the information. Additionally it is possible for suppliers to access electronic tendering documents in case the contracting authority has made them available in the register.[[180]](#footnote-180)

## Niche capabilities

Estonia has to carefully concentrate its R&D investments in a few niche areas, where it can achieve excellence.[[181]](#footnote-181)

The BaltFloodCombat initiative is already producing excellent results in reacting to floods. The capabilities of the three-nation initiative could be deployed in EU Member States in need of immediate support in tackling emergency situations caused by floods. In the near future the initiative intends to work not only for strengthening national and European rapid response capacity in one of the most common types of disaster, but also to show, through the innovative approach, possibilities and ways of multilateral civil protection capacity building. The team has been deployed in the 2014 floods in the Western Balkans and in Moldova (August 2014).[[182]](#footnote-182)

Additional niche capability in which Estonia could realistically contribute to the European crisis management community is the development of software solutions comprised of several knowledge elements, which include cyber defence, programming of autonomous platforms and systems, etc.[[183]](#footnote-183)

Following the cyber-attacks in Estonia, the state has focused efforts for ensuring the safety of its critical infrastructure and maintaining vital services. Many experts and IT specialists have been trained and prepared to work in this environment. Estonia could provide software solutions and expertise from which EU member states could benefit and establish new ways for cooperation in the cyber security field.

An example in this sphere is the establishment of NATO Cooperative Cyber Defence Centre of Excellence. It is a NATO-accredited research and training facility dealing with education, consultation, lessons learned, research and development in the field of cyber security. The Centre’s work will contribute not only to NATO competence in the cyber defence field, but also for the enhancement of the national expertise of Estonian authorities.

The EU could potentially develop cooperation with the Centre for collaboration on projects related to the cyber security domain, or even establish similar centres for research and analytical activities in the field.

Furthermore, Estonia has been an active initiator in the field of maritime cooperation and of strategic and operational dialogue among the Baltic Sea countries. Many projects have been initiated in this domain, where Estonia could contribute not only to cross-border cooperation, but also in international exercises, events and missions.

# Resources

## Legislative acts

Emergency Act, adopted 15 June 2009

Rescue Act, adopted 5 May 2010

Emergency act, adopted 22 November 2000

Public Procurement Act, adopted 24 January 2007

Fire Safety Act, adopted 5 May 2010

Personal Data Protection Act, adopted February 2003

State of Emergency Act, adopted 10 January 1996

International Civil Missions Act, adopted 9 April 2011

## Other normative acts

Guidelines for preparing continuous operation risk assessments, adopted 21 June 2010

## Official documents (white papers, strategies, etc.)

National Security Concept of Estonia, adopted 12 May 2010Ministry of Defence, National Defence Strategy of Estonia 2011

Ministry of Interior, Security Policy 2010

Ministry of Interior, Security Policy 2011

Ministry of Interior, Security Policy 2013

Ministry of Interior, Security Policy 2014

Strategy of the Estonian Rescue Board 2015-2025

Ministry of Defence, Cyber Security Strategy 2008

Estonian National Report on lessons learned and actions taken in response to the Fukushima Daiichi nuclear accident

*Emergency Preparedness of Estonia*, Report of the National Audit Office to the Riigikogu, Tallinn, 16 May 2007

## Online resources (e.g. websites of key CM organisations)

https://www.siseministeerium.ee/ - Ministry of Interior

http://vm.ee/en - Ministry of Foreign Affairs

http://www.kaitseministeerium.ee/en/documents - Ministry of Defence

http://www.fin.ee/ - Ministry of Finance

http://www.rescue.ee/ - Estonian Rescue Service

http://ec.europa.eu/echo/files/civil\_protection/vademecum/index.html - EC ECHO - Civil Protection

http://www.astra-project.org/06\_winterstorm\_study.html - ASTRA Winter-storm study

http://www.estlat.eu/programme/activities-supported/Estonia – Latvia Programme

http://www.baltfloodcombat.eu/index.php?option=com\_content&view=frontpage&Itemid=28

– BaltFloodCombat organisation

http://www.welcomeurope.com/europees-nieuws/supporting-estonia-in-dealing-with-storm-disaster-in-2005-9911+9811.html#afficheTexte

http://vm.ee/en/estonia-provider-humanitarian-aid

https://www.riigiteataja.ee/akt/79169

https://www.msb.se/en/About-MSB/International-co-operation/EU-work/EU-project-BaltPrevResilience/ About-the-project/

http://www.redcross.ee/en/index.html

http://www.kaitseliit.ee/en/edl

https://en.wikipedia.org/wiki/Estonian\_Rescue\_Board

https://www.enisa.europa.eu/activities/Resilience-and-CIIP/workshops-1/2015/cyber-security-strategies-critical-information-infrastructures-protection-and-ics-scada-event/ciip-in-estonia

http://www.preventionweb.net/countries/est/data/

http://www.redcross.ee/en/activities.html

http://www.politsei.ee/en/organisatsioon

http://www.rescue.ee/oigusaktid/leping

http://www.redcross.ee/en/activities.html

http://www.sisekaitse.ee/eass/colleges/rescue-college/rescue-school/

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ANVIL Project Country Study: Estonia, Timo Hellenberg and Pekka Visuri, June 2013

Are Kont, Jaak Jaagus, Kaarel Orviku, Valdeko Palginõmm, Urve Ratas, Reimo Rivis,Ülo Suursaar, Hannes Tõnisson*, The 9 January 2005 storm impact on the Estonian coastal area*

Tomas Jermalavičius*, Defence Research & Development: Lessons from NATO Allies*, International Centre for Defence Studies Project Report, November 2009

Terhi Elomaa & Anna Halonen, *EUROBALTIC Survey:Civil Protection Research in the Baltic Sea Region,* November 2007

Christer Pursiainen, Sigrid Hedin And Timo Hellenberg, *Civil Protection Systems in the Baltic Sea Region - Towards Integration in Civil Protection Training*, Aleksanteri Institute, Helsinki, 2005

*Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters,* United NationsInternational Strategy for Disaster Reduction

National development trends in volunteer rescue work 2013-2016

Christopher, S. Chivvis, *EU Civilian Crisis Management- The Record So Far,* RAND National Defense Research Institute, 2010

*International CEP Handbook 2009 - Civil Emergency Planning in the NATO/EAPC Countries*, Swedish Civil Contingencies Agency (MSB), 2009

Strategic Evaluation on Environment and Risk Prevention under Structural and Cohesion Funds for the period 2007-2013, National Evaluation Report for Estonia, Main Report by Directorate General Regional Policy, GHK Brussels, 10 November 2006

Estonian Defence Handbook 2010

Jevgeni Jutkevitš, Eva-Liisa Ristsoo, Kriisireguleerimise osakond, Päästeamet Sügis, 2010

## Expert interviews

Expert from the academic field (13 November 2014).

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2. EUROBALTIC Survey: Civil Protection Research in the Baltic Sea Region, p.13 [↑](#footnote-ref-2)
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4. EUROBALTIC Survey: Civil Protection Research in the Baltic Sea Region, p.14 [↑](#footnote-ref-4)
5. Emergency Act of Estonia, Chapter I, art.2 (2) [↑](#footnote-ref-5)
6. International CEP Handbook 2009, Civil Emergency Planning in the NATO/EAPC Countries, p.77 [↑](#footnote-ref-6)
7. http://www.rescue.ee/642, last accessed 18.09.2014 [↑](#footnote-ref-7)
8. Ibid [↑](#footnote-ref-8)
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12. Urmo Sutermäe PowerPoint presentation 30.09.2015, available at: https://www.enisa.europa.eu/activities/Resilience-and-CIIP/workshops-1/2015/cyber-security-strategies-critical-information-infrastructures-protection-and-ics-scada-event/ciip-in-estonia [↑](#footnote-ref-12)
13. Guidelines for risk assessment, art.4 (1) [↑](#footnote-ref-13)
14. Emergency Act of Estonia, Chapter I, art.3 (1) [↑](#footnote-ref-14)
15. http://ec.europa.eu/echo/files/civil\_protection/vademecum/ee/2-ee-1.html#bilagr, last accessed 18.09.2014 [↑](#footnote-ref-15)
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21. International CEP Handbook 2009, Civil Emergency Planning in the NATO/EAPC Countries, p.77 [↑](#footnote-ref-21)
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23. Ibid p.13 [↑](#footnote-ref-23)
24. Ibid., p.10 [↑](#footnote-ref-24)
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