






PEER REVIEW
BULGARIA
2015

Funded by
European Union
Civil Protection

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2015-2016 Programme for peer reviews in the framework of EU cooperation on civil protection and disaster risk management

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Annexes

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1 Introduction

Peer review is a governance tool where the disaster risk management system of one country ('the reviewed country') is examined on an equal basis by experts ('peers') from other countries. The EU programme for peer reviews in civil protection and disaster risk management was set up following two successful pilot peer reviews of the UK (2012) and Finland (2013) that were run jointly with the OECD and the UN International Strategy for Disaster Risk Reduction (UNISDR).

The EU peer review programme aims to facilitate the exchange of good practices and identify recommendations for improving reviewed countries' disaster management policy and operations. The programme encourages mutual learning and understanding and facilitates policy dialogue internally, between countries and among experts.

In late 2014 Bulgaria contacted the European Commission to express an interest in undergoing a peer review of their disaster management system. Earlier that year, the country had experienced extensive flooding which affected a large part of the population. The floods resulted in the deaths of 16 people and damage to critical infrastructure, cultural heritage sites, agriculture and businesses. As part of its response to the flooding, Bulgaria decided to reform its disaster management system and wanted to use the peer review to feed into the planned reforms. Its specific objectives in undergoing the review were to:

- ensure an integrated approach to disaster management;
- identify weaknesses and strengths in risk management;
- improve dialogue and cooperation mechanisms for sharing responsibilities at local, regional and national level;
- share good practice in the areas covered by the review.

Bulgaria thus became the first country to be reviewed under the EU peer review programme.

Review process

Once Bulgaria's participation in a general disaster risk management review was confirmed, a call for nominations of experts was sent to countries participating in the EU Civil Protection Mechanism and eligible neighbouring countries. Three peers from EU Member States — Greece, Sweden and the United Kingdom — and a fourth peer from Turkey were selected to participate in the review. The peers were supported in their tasks by the European Commission and a project team contracted by the Commission.

The peer review mission was conducted over 10 days from 22 June until 1 July 2015. The review began with an inaugural meeting with the National Disaster Risk Reduction Platform, representatives from government departments and other stakeholders. The European Commission representative addressing the meeting

expressed his appreciation to Bulgaria for their willingness to participate in the process and introduced the peer review team.

During the 10-day mission in the country, the peer review team met and interviewed more than 100 stakeholders from many different organisations. These included central, regional and local governmental authorities and agencies, NGOs, academia and the media. By bringing together stakeholders with a variety of backgrounds, expertise and responsibilities, the peer review sessions helped achieve one of the key objectives of the peer review process, namely to share knowledge and encourage cooperation between disaster risk management stakeholders in Bulgaria.

Interviews took place at the following locations:

- The Ministry of Interior in Sofia
- The Municipality of Sofia
- The municipal and regional Fire Safety and Civil Protection Headquarters in the city of Dobrich
- The Directorate-General for Fire Safety and Civil Protection Operations Centre
- The Sofia Municipality Operations Centre
- The National Training Centre in Montana
- The Warehouse of the Bulgarian Red Cross in Dobrich.

On 12-13 January 2016 the peer review team presented and discussed the draft report during a stakeholders meeting in Sofia.

Scope of review

The review centred on disaster risk management principles and policies developed at global level (the Hyogo Framework for Action, now the Sendai Framework for Disaster Risk Reduction[1]) and European level (the EU Civil Protection Mechanism[2] and EU directives relating to specific risks). The general review framework covers five broad areas. These are:

- an integrated approach to disaster risk management;
- risk assessment;
- risk management planning;
- preparedness;
- public awareness (see diagram 1).

The detailed framework is annexed to this report (Annex IV).

[1] Sendai Framework for Disaster Risk Reduction 2015-2030, http://www.unisdr.org/we/coordinate/sendai-framework.
[2] Decision No 1313/2013/EU of the European Parliament and of the Council of 17 December 2013 on a Union Civil Protection Mechanism (OJ L 347, 20.12.2013, p. 924).

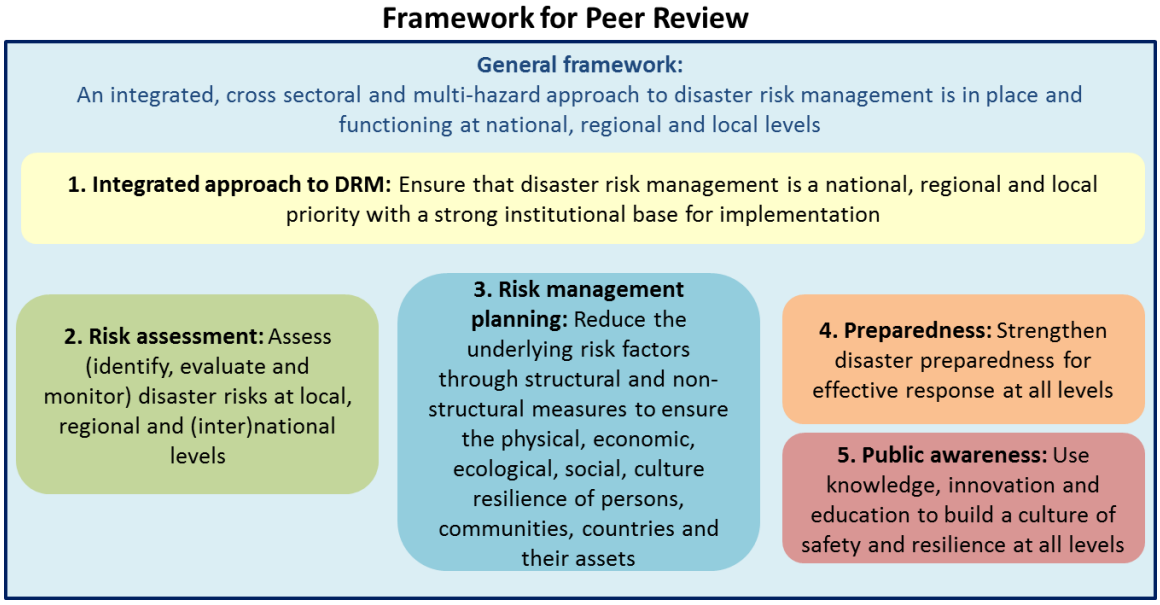


Diagram 1: General review framework

This report identifies good practices and proposes a series of recommendations under the different objectives. As the recommendations are non-binding, it is for the Bulgarian government and other stakeholders to consider how these could best contribute to achieving their goal of a resilient society and sustain a national policy dialogue.

As this report represents an analysis of the situation in Bulgaria in June 2015, we have not taken into account new developments such as the establishment in August 2015 of an expert interagency working group with the task of making proposals for amendments to the Disaster Protection Act. The January 2016 stakeholder meeting showed that many recommendations in the report were in line with proposals by the interagency working group.

1.1 Key findings and recommendations

Bulgaria's objective is to move from a response-focused emergency management system to a more holistic **disaster risk management (DRM)** system. The peer review tried to identify how Bulgaria can build on current strengths in its response to emergencies and move towards a system that places equal value on prevention and preparedness as well as recovery. The key findings and recommendations of the peer review can supplement the **disaster risk reduction (DRR)** strategy and roadmap that Bulgaria has already developed. Changing the emergency management system's focus will require fundamental changes in both strategy and everyday work processes.

The Bulgarian civil protection system includes a number of good practices:

- There is a well-established body of law on civil protection that clearly sets out the roles and responsibilities of the various components of the 'Unified Rescue System' (URS). Bulgaria can build on this strong legal tradition when moving from a rescue-focused towards a holistic disaster risk management system.
- Bulgaria actively participates in EU cooperation on civil protection, including technical working groups, exercises and training. It also has a number of bilateral agreements with neighbouring countries.
- Bulgaria places a high value on training and also uses its National Training Centre for international training activities.
- Bulgaria has closely integrated the Bulgarian Red Cross into the country's preparedness and response management system. This cooperation could serve as a model for cooperation with other non-governmental players such as NGOs and businesses.

The following high-level recommendations were identified and will be presented in more detail throughout this report:

Integrated approach to disaster risk management

- Implement an integrated and comprehensive (all hazards, all phases, all stakeholders) approach for disaster risk management, risk assessment and risk management planning.
- Draw up a comprehensive roadmap for legislative change to ensure consistency across sectors. The roadmap should reflect the chosen DRM approach and all action should conform with and contribute to this model. Cross-cutting working groups bringing together different stakeholders could be established to support implementation of the roadmap.
- Encourage stronger cooperation with all stakeholders through consultation in all DRM phases and improve capacity building at national, regional and local level, e.g. by building regional and local DRR platforms that complement the national platform. The existing cooperation platform should be reviewed; changes could be

financed through EU cohesion funds under objective 11 on institutional capacity building.

- Allocate funds for DRM activities at the national level through a coordinated approach to ensure that the objectives of the existing national DRR platform are met. A lead Ministry, possibly the Ministry of Interior, should be appointed to coordinate this.
- Improve dialogue and information sharing on risk between stakeholders in the public and private sector and NGOs. This should be encouraged and possibly made a requirement. Integrate disaster risk management into the different ministries' and stakeholders' work programmes and include communication and consultation plans for each activity.
- Assess and take account of local needs and characteristics in risk management planning activities and provide local government with the necessary resources to communicate them to the public. Bulgaria could make use of EU cohesion funds to achieve this, particularly under objective 5 on risk prevention.
- Produce and implement evaluation, monitoring and lessons learned programmes across the whole disaster risk management cycle. All three processes should be integrated to collect good practices and ensure that any ad hoc initiatives with a positive outcome become part of the system through the evaluation and feedback mechanism. The lessons learned process should cover multiple sectors, cut across the different areas of disaster risk management and also identify priorities at national, regional and local level.
- Make the overall system flexible enough to accommodate new developments resulting both from local needs and global trends, e.g. through regular reviews or overall evaluations.

2. Institutional and legal framework

Objective 1: Integrated approach to DRM: Ensure that disaster risk management is a national, regional and local priority with a strong institutional basis for implementation

2.1 National policy and legal framework for disaster risk management

The primary legislation for civil protection and disaster management in Bulgaria is the Disaster Protection Act (DPA) (State Gazette No 102/19.12.2006). Since 2006, several articles of the DPA have been amended to improve the system and tie its provisions to those of other legislative acts governing specific disaster risks, including spatial planning, the environment and critical infrastructure.

Examples of sectoral legislation relevant for DRM are:

- the Environmental Protection Act, which has incorporated Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances;
- the Water Act, which implements the Floods Directive (2007/60/EC).

Sectors such as nuclear and civil aviation also follow disaster risk management procedures in line with international and European regulations.

As a result, the legislative framework already contains aspects that are in line with disaster risk reduction and disaster risk management concepts agreed at EU level. However, the key policy instrument, the DPA, still takes an emergency management perspective which focuses mostly on the emergency services' response and preparedness and leaves out wider disaster risk management and disaster risk reduction considerations. In addition, some key prevention and disaster risk management elements such as risk assessments, planning, training, exercises and interoperability are not widely integrated into the specific legislation in crucial sectors.

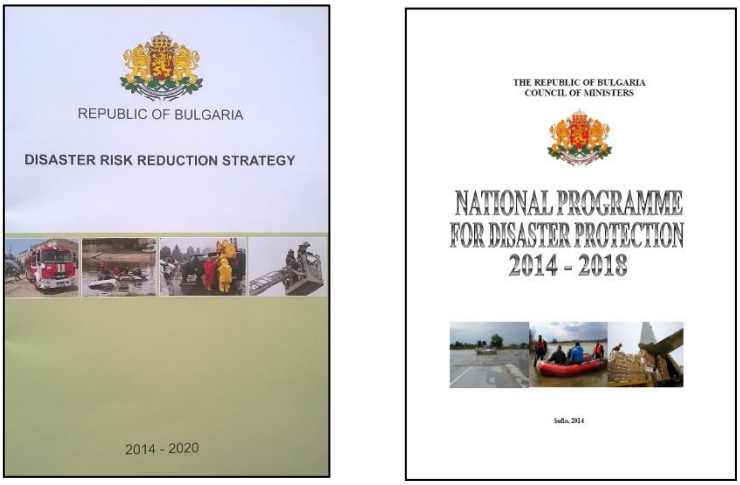
The DPA did, however, set up a disaster risk reduction (DRR) platform in line with the Hyogo Framework for Action 2005-2015. The DRR platform helps Bulgaria's Council of Ministers to set DRR policy. The platform consists of representatives of ministries, agencies, the Bulgarian Academy of Sciences, the National Association of Municipalities, the Bulgarian Red Cross, the Bulgarian Chamber of Commerce and the Bulgarian Industrial Association.

Bulgaria's Council of Ministers has also approved a DRR strategy for 2014-2020, which includes an analysis of the status quo and indicates a number of key values that should underpin the strategy.

The DRR strategy sets the following strategic goal: *'prevention and/or mitigation of the adverse consequences for human health, socioeconomic activity, environment and cultural heritage in Bulgaria caused by natural or manmade disasters'.* Based on this goal, four priorities for action have been set:

i. developing a sustainable national policy and ensuring a stable legal and institutional framework for DRR;
ii. identification, assessment and monitoring of disaster risks. Expansion and maintenance of effective national systems for forecasting, monitoring, early warning and alert in the event of disasters;
iii. building a culture of disaster protection at all levels of management and in society by using knowledge, education, scientific research and innovation;
iv. reducing the underlying risk factors and strengthening preparedness for effective response to disasters at all levels of management.

These priorities have been translated into a roadmap which specifies the activities that need to be implemented for each priority, indicating the responsible authority and timeline. The DRR roadmap provides for a complete review of all legislation relevant to disasters. Lastly, the National programme for disaster protection 2014–2018 sets out the objectives, priorities and tasks for disaster protection.



Picture 1: DRR strategy 2014-2020 and Natural Programme for Disaster Protection 2014-2018, English language versions

Good practice:
Bulgaria has developed a national programme for disaster protection and a national strategy for DRR, the latter accompanied by a roadmap. The DRR strategy in particular highlights the need for legislative and cultural change in Bulgaria's approach to DRM.

Recommendations:

- Develop an integrated and comprehensive (all hazards, all phases and all stakeholders) disaster risk management framework and amend the DRR strategy and roadmap and the National programme for disaster protection accordingly. The strategy, roadmap and programme could either be merged or their content and timelines aligned.
- Develop and include short-, medium- and long-term disaster risk management goals in the National programme for disaster protection or the new comprehensive framework. Goals should be linked to concrete targets, budgets, indicators and timeframes covering the national, regional and local level. The roles and responsibilities of each stakeholder and the responsible organisational unit in every ministry or organisation should be identified for each activity and responsibilities and should be clearly linked to funding.
- Ensure multi-stakeholder engagement at all levels (national, regional and local).
- Establish a clear protocol and governance for the DRR Platform Consultative Council. The Council could be supported by working groups consisting of relevant stakeholders on certain crosscutting subjects. This set-up should be linked to the DRR strategy and National programme for disaster protection. This will make it possible to have a clear understanding of the lead role for action of the DRR strategy and the distribution of subordinated tasks. Single points of contact in the ministries should be established and given sufficient resources for the task at hand.
- Prioritise information sharing and communication to create an open system allowing all stakeholders to cooperate, for example through the DRR Platform. Data and information should be produced in a standard format so that they can be shared.
- Create a scientific working group to support the Consultative Council on scientific issues related to DRM. The group should have a clear programme of priorities on risk assessment.

2.2 Responsibilities and capacities for disaster risk management at regional and local level

The Disaster Protection Act and Ministry of Interior Act set out the functions, activities, governance and structure of regional and local government and their duties and responsibilities during and after a disaster. Regional governors and mayors have the primary responsibility for disaster protection at province and municipality levels respectively. During the emergency response phase there is close cooperation between the Regional Directorate for Fire Safety and Civil Protection, regional governors and mayors.

The disaster protection plans produced at regional and local level were developed from the national disaster protection plan and are approved by the regional governor and by the mayor/municipal council respectively. Responsibilities are allocated to both institutions and individuals according to their legal role and mandate. In principle, the responsibilities of the governor and mayor include activities in all DRM phases, not only in emergency planning and emergency response. For example, they chair the coordination body in place at the regional and local level, which is described as the 'headquarters'. The headquarters predominantly focus on the emergency response phase and are not currently used to support an integrated and comprehensive approach in all phases of disaster risk management.

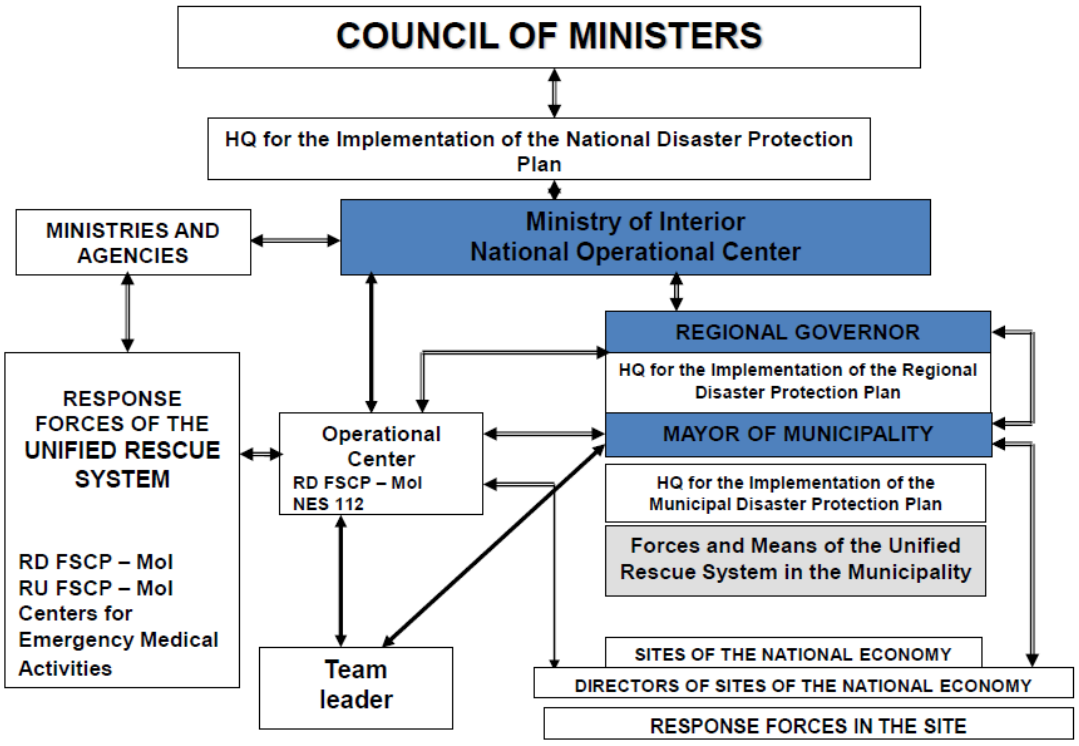


Diagram 2: Representation of the institutional framework as presented during the peer review mission

In addition, other specific risk-related legislation states which authorities are responsible for aspects of DRM for a number of risks e.g. river basin directorates for water quality and floods risk, or the regional offices of the Ministry of Environment and Water for risks resulting from the presence of dangerous substances in Seveso-type establishments. The different administrative boundaries of the various stakeholders lead to coordination issues that have to be addressed for each risk in order to maintain a comprehensive approach.

Good practice:

- Local and regional government have clearly defined roles in disaster management under the law. Organisational bodies for cooperation and coordination during the emergency phase between the national, regional and local levels are in place and are used.

Recommendations:

- Develop a national standard or guideline for disaster risk management at the regional and local level. Such a tool would enable a joint approach and could set a framework for sharing information and lessons learned at all levels. The concepts and processes set out in the ISO 31000 and NFPA 1600 standards could be used.
- Establish a platform at the local and regional level to improve cooperation and coordination among public and private stakeholders and NGOs during the prevention, preparedness and recovery stages of the disaster risk management cycle. The role of the existing headquarters could be expanded to all DRM phases and relevant risk-specific organisations could be included.
- Prepare risk reduction action plans at local and regional level in accordance with the National programme for disaster protection 2014- 2018. The action plans should include risk reduction goals, objectives, priorities and actions as well as monitoring, evaluation and reporting requirements. The proposed local and regional platforms could play an important role in achieving this.
- Improve cooperation between provinces and municipalities, especially those who share risks, for example in a river basin. The National Association of Municipalities could play a positive role in improving cooperation and coordination between municipalities.

2.3 Monitoring, evaluation and lessons learned

There are limited mechanisms in place to monitor or periodically assess compliance and publicly report on the progress on DRM plans and policies. Additionally, the Disaster Protection Act contains a requirement to report to the Prime Minister, the Ministry of Interior and the regional governor. However this only applies in emergencies and does not include the full DRM cycle.

Previous DRR activities are evaluated in the National disaster protection programme 2014-2018 and published on the web page of the Directorate-General for Fire Safety and Civil Protection (DGFSCP). After each disaster an evaluation is conducted and changes are subsequently implemented. However, any evaluation usually takes place within the confines of each organisation. There are no clear guidelines on how inter-institutional cooperation is supposed to work during the evaluation process. Current reporting is limited to one-way communication, including from the lower levels of administration to the upper ones. In addition, EU-funded programmes that relate to DRR issues are not covered by the reporting.

Good practice:

- There is a requirement for reporting to the Prime Minister, the Ministry of Interior and the provincial governor on disaster protection activities during emergencies.
- Information such as in the form of disaster protection plans is publicly available on the web page of the DGFSCP.

Recommendations:

- Develop a systematic and holistic approach to reporting, evaluation, identification of best practices and lessons learned at all levels and for all activities of the DRM cycle.
- Establish a feedback loop and a system for sharing experiences and information among all stakeholders at all levels: i.e. national, regional and local. The Ministry of Interior could publish an annual summary of all reports it receives.
- Monitor and evaluate action taken to reduce risk at least once a year. Results could be shared with public- and private-sector stakeholders.
- Specific care should be given to including activities carried out under EU-funded programmes. The evaluation process and mechanism should be specified in the appropriate legislation (i.e. the DPA should be amended).
- Make information and data sharing and the incorporation of research results a general priority for the DRM system.

2.4 International cooperation

Bulgaria has participated in the EU Civil Protection Mechanism since 2003. The Mechanism facilitates cooperation in disaster prevention, preparedness and response between European countries.

Bulgaria is active in various Mechanism initiatives (see sections 5.2 and 5.4) and representatives from relevant ministries participate in the various EU committees and networks addressing specific disaster risks and DRM aspects.

Bulgaria has both requested and offered assistance through the Mechanism and has requested the emergency mapping service from the EU's 'Copernicus' earth monitoring programme several times.

Bulgaria has also been involved in applying for and running EU civil protection prevention and preparedness projects, e.g. the DAMSAFE project on flood prevention and flood hazard awareness (2010).

A good example of scientific and practical cross-border cooperation is the EU-funded project entitled 'Danube Cross-Border system for Earthquake Alert' (DACEA) (2010-2013). In cooperation with Romanian institutions, the project set up an early warning system covering seven Romanian counties and eight Bulgarian provinces located along the Danube. The system is designed to exploit the specific features of earthquakes originating from the Vrancea area of Romania, which tend to have deep epicentres.

Bulgaria is a cooperating state in 'The International Commission for the Protection of the Danube River (ICPDR)' along with the EU and the other 13 countries sharing the Danube. The ICPDR is committed to implementing the Danube River Protection Convention. The ICPDR deals not only with the Danube itself, but also with the whole Danube River Basin, which includes its tributaries and groundwater resources. In addition, Bulgaria is contributing to a number of projects under the EU strategy for the Danube Region.

Bulgaria also participates in a number of bilateral and multilateral frameworks addressing different disaster risks. For instance, its Nuclear Regulatory Agency (NRA) has a number of bilateral agreements and cross-border cooperation with the regulatory bodies for nuclear safety and radiation protection of Russia, Serbia, Greece and Romania. In line with the International Atomic Energy Agency (IAEA), these agreements provide for timely notification and interaction between countries in the event of a nuclear or radiation emergency. With Turkey there are agreements in place on disaster and emergency situations and comprehensive planning projects in support of mutual aid and cooperation. In addition, Bulgaria cooperates closely on risk reduction and critical infrastructure protection with other countries in south-east Europe.

There is also cross-border cooperation between border municipalities and regions in neighbouring countries (Romania, Greece, Serbia and Turkey) that share the same risks. A number of EU projects have been implemented (e.g. under Interreg and the 'Greece-Bulgaria' European territorial cooperation programme) to address various DRR issues such as flood risk assessment and mapping, flood risk mitigation and prevention of river bank erosion.

Good practice:

- Bulgaria actively participates in exercises, programmes, policy working groups and exchanges under the EU Civil Protection Mechanism.
- Bulgaria participates in a number of bilateral and multilateral frameworks addressing disaster risks and makes use of EU funds, including at local and regional level.

Recommendations:

- Improve international cooperation by:
    - signing bilateral agreements with [remaining] neighbouring countries and continuing to cooperate on regional and international disaster prevention and preparedness projects;
    - staying closely engaged in the EU Civil Protection Mechanism (for example by participating in exchanges of experts, joint scientific meetings and working groups on topics such as prevention and disaster loss data).
- Share knowledge and experience on international projects and establish cooperation with other European countries and between experts at national, regional and local levels.
- Integrate EU-funded and other international projects as much as possible into the existing disaster risk management system and carry out a review and analysis of their content to ensure follow-up and synergies with national initiatives and avoid fragmentation of efforts.
- Use the opportunities offered by Interreg V-A Greece-Bulgaria 2014-2020 to fund small-scale flood protection infrastructure on specific points of the river basins and run pilot land improvement projects in areas with medium and high flood risk in the three river basins shared by both countries.

3. Achieving a high level of protection against disasters: risk assessment

Objective 2 — Achieving a high level of protection against disasters: risk assessment. Assess (identify, evaluate and monitor) disaster risks at local, regional and (inter)national levels

The Bulgarian approach to risk assessment is set out in the 'Regulation on procedures and bodies to perform disaster risk analysis, assessment and mapping'. The Regulation sets out the process of disaster risk analysis, assessment and mapping. It covers seismic risk, flood risk, risk of nuclear or radiological accidents, geological risks (landslides, landslips, active faults and other geological processes) and the risk of forest fires.

The main priorities in this area, as set out in the National programme for disaster protection 2014-2018, are risk analysis, assessment and mapping. The programme covers in detail the disaster risks specified in the disaster risk assessment regulation mentioned above.

In 2014, Bulgaria submitted a preliminary national disaster risk assessment to the European Commission. At the end of 2015, an updated national multi-hazard risk assessment was submitted in line with the EU civil protection legislation. In addition, sectoral legislation has been passed to deal with specific risks covered by EU directives or regulations and/or international agreements (e.g. on critical infrastructure, floods, nuclear risks, industrial accidents, marine pollution). This sectoral legislation, which includes the Act on the Safe Use of Nuclear Energy, the Environmental Protection Act and the Water Act, addresses specific aspects of the risk assessment process.

The completion of the risk assessment process appears to be hindered by data compatibility issues and the existence of bottlenecks in data sharing among the various organisations involved.

The national risk assessment does not cover certain risks that could potentially have a high impact in Bulgaria, such as extreme temperatures (high and low). Extreme temperatures have resulted in a significant death toll in Bulgaria over the last decade. Climate change is expected to cause more frequent and pronounced high temperatures (i.e. heat waves). In conjunction with increased urbanisation and the ageing of the population, this will result in increased vulnerability and therefore higher risk. The Regulation makes no mention of the need for a risk assessment for this type of disaster and does not designate an organisation responsible for providing it. There is also no specific mention of this type of disaster in the DRR strategy and roadmap.

A major risk faced by Bulgaria comes from earthquakes. Seismic hazard maps have been produced in accordance with Eurocode 8, covering the two recommended mean return periods (95 and 475 years) and four ground peak acceleration levels. There are plans to require a technical passport for every building by 2022. However, no authority has been designated as responsible for carrying out the earthquake risk assessment and to set, direct, coordinate, and monitor implementation of the various required structural and non-structural disaster risk management activities in all phases of the DRM cycle.

For certain risks (e.g. floods, nuclear and radiation risk, major accident in Seveso-type establishments), the legislation includes requirements for stakeholder consultation and risk communication. Both stakeholder consultation and risk communication appear to be addressed mostly by making information available on the official websites of the responsible ministries and using traditional media such as newspapers and pamphlets. There have been limited efforts through EU-funded projects like DANUBEFLOODRISK to provide information to the public using participatory and interactive methods and tie in the risk assessment process with spatial planning and infrastructure development.

Good practice:

- For a number of risks (radiation and nuclear risk, floods risk, landslides) specialised organisations in ministries or independent agencies have been designated as responsible for carrying out the risk assessment process. EU and international methodology is followed.
- Different stakeholders including academic institutions and private organisations are involved in the risk assessment process, working alongside the responsible ministries.
- Some memoranda of understanding (MoUs) are in place between ministries to share updated information on certain vulnerable groups for use in risk assessments.

Recommendations:

- Draw up an all-hazard risk assessment, building on existing sectoral disaster risk assessments. Designate a responsible organisation for each risk and set up a specific working group reporting to the National DRR platform to coordinate the national risk assessment.

- Include risk identification, risk analysis, risk evaluation and capability assessment in the national risk assessment. This should refer, among others, to:
  - the EU guidelines on risk mapping and assessment[3] and on risk management capability assessment;[4]
  - possibly also ISO 31000 standards: Risk management — principles and guidelines (ISO 31000:2009) and Risk management — risk assessment techniques (ISO 31010:2009).
- Use the results of the risk assessments to feed into an overall capacity development plan.
- Develop a more comprehensive and strategic approach to risk identification by taking into account new and emerging risks such as extreme temperatures, the effects of climate change and introducing horizon scanning. Cascading effects and dependencies should also be taken into account, including natech (natural hazards triggering technological disasters) scenarios such as flood risk at large industrial Seveso-type facilities, nuclear power plants and other critical infrastructure.
- Connect the national risk assessment[5] to the risk assessments performed at regional and local level, e.g. by providing templates and guidance or joint training. For example, under the Floods Directive, the regional and local flood risk assessments could be integrated into the national risk assessment.
- Develop a functioning multiagency system for data collection and management in order to develop a disaster loss database in line with the JRC's 'Guidance for recording and sharing disaster damage and loss data'. Implement the INSPIRE Directive on exchanging spatial information and eliminate existing bottlenecks in sharing information.
- In order to reach a common understanding of risk, include public authorities, the private sector, civil society organisations and the wider public in the risk assessment process at the national, regional and local levels.
- Continue and strengthen cross-border collaboration with neighbouring countries on the risk assessment of shared risks such as floods.
- Organise training or seminars on risk management for stakeholders in the public and private sector and all relevant stakeholders that are exposed to risks. This would raise public awareness and increase participation by all sections of society in the communication and consultation phase (see ISO 31.000).

[3] Risk assessment and mapping guidelines for disaster management, Commission Staff Working Paper, SEC(2010) 1626.
[4] Risk management capability assessment guidelines, Commission Notice, OJ C261, 8.8.2015.
[5] Commission Staff Working Paper: Risk Assessment and Mapping Guidelines for Disaster management, SEC(2010) 1626 final (17899/10).

- Establish a Dam Authority[1] to provide a regulatory body to ensure dam owners adhere to their responsibilities under the dam safety requirements. The dam authority, in coordination with DGFSCP would need to establish the framework for the risk assessment guidelines and coordinate emergency planning between relevant organisations to provide an integrated system including plans, training, exercises, and lessons learned, as well as including information to the public.
- Establish an authority to coordinate the earthquake risk assessment and monitor implementation of the various required risk management activities (both structural and non-structural). The authority could be supported by scientific advisory committees in all earthquake-related issues (e.g. seismic hazard monitoring, building codes, research).
- Conduct microzonation studies and studies on the vulnerability to earthquakes of the building stock in general and especially of public buildings (schools, hospitals and critical public services).

4. Achieving a high level of protection against disasters: risk management planning

Objective 3 — Achieving a high level protection against disasters: risk management planning. Reduce the underlying risk factors through structural and non-structural measures to ensure the physical, economic, ecological, social, cultural resilience of people, communities, countries and their assets

Risk management plans

Bulgaria has carried out a general classification of the risks and hazards identified in the national risk assessment and legislation. Disaster protection plans are compulsory for earthquakes, floods and radiation. Planning is carried out at local, regional and national level. However, risk management planning has not yet been completed and there is no procedure for combining different sectoral plans at the national level.

Flood risk management plans were due to be completed by the four basin directorates of the Ministry of Environment and Water by the end of 2015. Risk management plans for other disasters will be completed in 2016.

All risk management planning activities are generally included in the programme and budget of the different ministries. Funding for such activities is set by a commission at Bulgaria's Council of Ministers. If a ministry decides that it needs additional funding, it can apply for this from the Ministry of Finance.

The risk management plans provide for a top-down distribution of responsibilities. Reporting, monitoring and public information requirements are described in detail in these plans, as well as the category and level of risks and the existing measures to counter them. Regional and local risk reduction action plans will be prepared following the preparation of the National disaster risk management plan.

Critical infrastructure

A total of 19 key sectors for critical infrastructure (CI) exist in Bulgaria. The responsible ministries have set up permanent working groups to draw up a risk management planning methodology. The owners/operators of critical infrastructure need to complete the risk assessment process using the method developed by ministries. They then prepare risk management plans to reduce the risk of disaster and protect the population.

The Ministry of Interior coordinates the identification of critical infrastructures and their sites. The necessary information on critical infrastructure is collected by governors and municipalities and the Ministry of Interior compiles and maintains a database of critical infrastructure and their sites.

It is the owners/operators of critical infrastructure who carry out the risk assessment of the identified critical infrastructure and their sites. However, if necessary, the owners/operators of critical infrastructures can have external experts carry out the risk assessment. A security plan for every critical infrastructure is prepared by owner/operators. These plans are approved by the relevant ministries and are updated annually.

Each year, the critical infrastructure contact point informs the European Commission of the number of designated CIs under the EU Critical Infrastructure Directive. However, to date Bulgaria has not identified any European critical infrastructure. Also, every two years the relevant ministry sends the European Commission a report on the types of vulnerable areas, threats and risks found for the different sectors of critical infrastructure.

EU funding

Bulgaria also receives funding from the EU cohesion fund. The funding covers adaptation to climate change and risk prevention. For the 2014-2020 period, Bulgaria plans to provide better flood protection and reduce the risk of landslides for 2.8 million people. Funding of EUR 67 million is available for this priority.[6]

Insurance

Sufficient financing for disaster risk management is a necessary part of a larger set of solutions for building a disaster- and climate-resilient society. The contribution of insurance to risk reduction and climate change adaptation in Bulgaria is still low. This is due to:

- insufficient information available to potential customers;
- a low level of insurance coverage;
- the general underestimation of risks;
- the lack of associated financial capacity.

Even though there has been some progress on insurance penetration and flood modelling, the rate of insurance coverage remains extremely low. Most household insurance policies include flood protection, but less than 10 % of all households are insured. However, the potential is there for insurance to play a bigger role in improving risk awareness and disaster preparedness.

[6] http://ec.europa.eu/regional_policy/en/atlas/bulgaria.

Good practice:

- Under a memorandum of understanding on data sharing between the Ministries of Interior and Health, data to support risk assessments and emergency planning are exchanged every six months.

Recommendations:

- Use the risk management plans to identify risk reduction goals, objectives, priorities and actions for risk management. A risk mitigation plan, monitoring, evaluation and reporting should also be included in the process.
- Establish a working group e.g. under the National DRR platform or a lead ministry to coordinate disaster risk management-related activities. These activities and prioritisation should follow from the multi-hazard or national risk assessment.
- Increase stakeholder engagement by involving the private sector and NGOs in the risk management process. For example, transport or shipping companies could be invited to participate in a risk management exercise. Closer cooperation with the Red Cross in this area could support this development.
- Develop national guidelines that can be applied to local and regional risk management planning (see related risk assessment recommendation in chapter 3).
- Draw up more data-sharing agreements among different ministries and agencies. The data obtained under such agreements could then feed into risk assessments.
- Disseminate the information from the different stages of the Floods Directive at regional and local level in order to improve flood preparedness. The information, consisting of flood hazard and risk maps and the flood risk management plans, is of great value for regional and local authorities when taking DRR measures. The information is also of great importance for the general public as it helps make them aware of the flood risk and of the need to protect themselves.
- Integrate appropriate parts of ISO 22301 — Business Continuity Management. This would support the development of a system that not only protects against and reduces the likelihood of disasters, but also ensures that organisations develop business continuity plans and/or risk management plans to enable them to recover from disruptive incidents.

- Strengthen the protection of critical infrastructure based upon the national risk assessment and broaden the scope of critical infrastructure to include vital social functions. The EU's Critical Infrastructure Directive and programme for critical infrastructure can be used as a basis.
- Develop critical infrastructure protection plans taking into account alternative providers or scenarios e.g. for energy supply; organise education and training in accordance with risk scenarios; use inspections and reporting requirements on critical infrastructure operators and owners to find out about risk reduction measures undertaken.
- Together with the insurance industry, explore the role of disaster insurance in raising risk awareness and discouraging risky behaviour.
- Establish a more structured and predictable approach to the funding of both risk assessment and risk management planning.

5. Enhancing preparedness to respond to disasters

Objective 4 — Strengthen disaster preparedness for effective response at all levels

5.1 Legal basis and emergency plans

As previously mentioned, the legal basis for the emergency response system is the Disaster Protection Act (DPA), together with other sectoral legislation (the Water Act, the Environmental Protection Act, the Ministry of Interior Act, the Safe use of Nuclear Energy Act, the Spatial Development Act). These acts set out the roles and responsibilities of the components of the unified (integrated) rescue system (URS).

There is a clearly defined structure in place which, during an emergency, identifies the lead authority for each type of disaster at the various management levels (on the scene, operational, strategic) and the corresponding supporting bodies. The territorial unit of the DGFSCP (through its operational centre) has the responsibility to:

- ensure 24/7 readiness;
- alert the whole system;
- coordinate all URS components.

In almost all types of disasters, the onsite commander comes from the DGFSCP. Only for epidemics and epizootics is the leading role taken by another body, namely the regional health inspectorate and the regional food safety directorate respectively.

Depending on the level of the emergency, operational coordination is provided by the mayor or the regional governor, who heads the headquarters during the emergency. At national level, DGFSCP has the role of supporting the Ministerial Council in managing the emergency. In addition, MoI operates the 112 system.

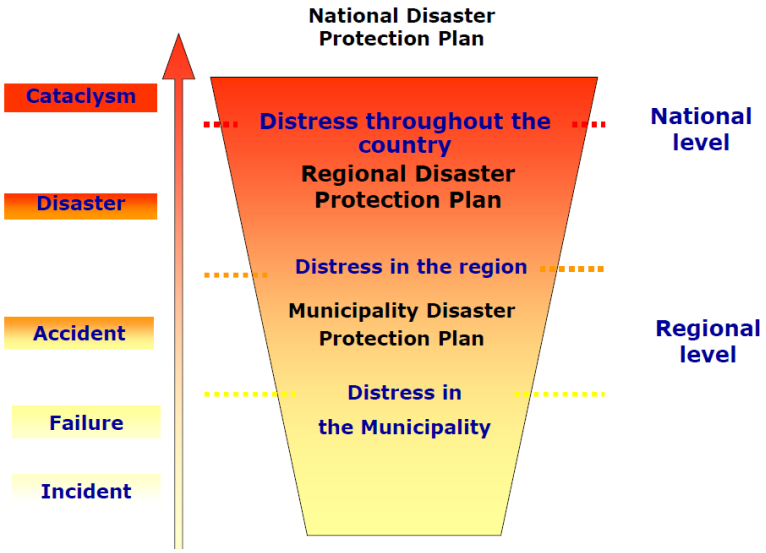


Diagram 5: Levels of disaster — National disaster protection plan Bulgaria

The law specifies that the mayor and regional governor can declare a state of emergency and thus restrict certain rights of the population in order to reduce impacts. This makes it possible to have a quick first response when faced with an emergency. However, there are no criteria laid down to guide the assessment and decision to declare a state of emergency, which can result in misuse of this important tool.

The main responsibility for preparedness activities such as emergency planning, training and exercises at the national, regional and local level lies with the Ministry of Interior. Emergency plans (called 'disaster protection plans' in Bulgarian legislation) exist at all levels of the public administration for three types of disasters (earthquakes, floods, nuclear and radiological accidents).

The National disaster protection plan is drafted at national level and adopted by the Council of Ministers. Regional disaster protection plans follow on from the national disaster protection plan. They are drawn up by the regional services and approved by the governor. Likewise, municipal disaster protection plans are drawn up by the municipal services and approved by the mayor/municipality council. Emergency planning responsibilities under sectoral legislation (e.g. the Water Act, the Environmental Protection Act and the Safe Use of Nuclear Energy Act) are also in place. There does not seem to be a clear legal obligation governing the regular updating and revision of disaster protection plans.

The role of the armed forces is to provide general support resources and certain specific capabilities such as aerial means for medical evacuation, search and rescue and limited firefighting capabilities. This is governed by a special ordinance between the three ministries involved (Interior, Defence and Health). During emergencies any request to the Ministry of Defence for the mobilisation of its resources is channelled through the DGFSCP. In addition, the role of the Bulgarian Red Cross during emergencies is clearly set out in the existing legislation. Its responsibilities include mountain rescue, support, participating in the running of refugee camps and relief provision.

The emergency planning process is mostly based on a disaster specific concept rather than an all-hazard approach. As a result, plans are not necessarily attuned to each other and there is fragmentation between the various sectors. A framework and a basis are needed to strengthen interagency cooperation during the planning process and overcome the 'siloes' approach.

Good practice:

- The state authority that assumes the leading role in an emergency for each type of disaster is clearly defined, which is a good basis for an effective response.
- The role and the procedures for using Ministry of Defence resources during an emergency are well established and conducted through the DGFSCP.
- The role of the Bulgarian Red Cross is clearly set out in the existing legislation and the Red Cross is well integrated into the civil protection system.

Recommendations:

- Link preparedness activities closely to the prevention and risk assessment stages of the disaster management cycle (see also chapter 1).
- Establish an integrated and comprehensive approach to emergency planning for all hazards and sectors (e.g. health, education and transport). The approach should follow international guidelines, practices and standards and ensure a balance between general planning, scenario-based planning and specific site and contingency planning.
- Incorporate other aspects such as continuity of operations, mass fatalities, international assistance, training and exercises. Establish clear guidelines for the regular revision and update of emergency plans in line with:
    - risk assessment findings (for example disaster frequency and seasonality);
    - lessons learned from operations and exercises;
    - national or EU legal requirements.
- Establish a cooperation mechanism and cooperation arrangements between affected municipalities or regions to ensure continuity of operations.
- Develop guidelines on declaring a state of emergency. Consider a revision of the current system combining flexibility with the need for fulfilling certain criteria and consulting with the upper administrative levels. The guidelines should be part of the disaster protection plan.

5.2 Training and capacity building

A number of institutions are responsible for training on disaster management. Training needs are identified and new training courses are consequently developed based on ad hoc initiatives within each separate organisation. The Academy of the Ministry of Interior has a faculty specialised in fire safety and civil protection, which provides bachelor's and master's degrees in fire and emergency safety and crisis management and also offers PhD programmes. The Centre for Qualification and

Professional Training in Fire Safety and Civil Protection, located in Varna, provides the initial professional training, qualification and requalification for DGFSCP employees and volunteers. The visit to the National Training Centre in Montana during this peer review provided insight into the way the different components of the URS are trained, focusing on specialised professional training such as CBRN and search and rescue.

The National Training Centre is actively involved in international training and exercises within the EU framework, but also in NATO, IAEA and regional initiatives. Bulgaria participates in the consortium that organises and conducts the 'Assessment Mission Course' in the European Civil Protection Training programme.

Bulgaria has also been active in organising and participating in a number of full-scale exercises of the Civil Protection Mechanism (e.g. EU TACOM SEE, EU HUROMEX 2008, EU DANUBIUS 2009, EU EVROS 2010). It organised a field exercise and plans an additional one in 2016.

In addition, Bulgaria participates in the SEESIM civil military cooperation computer-assisted exercises. These have been run jointly since 2002 by the civil protection and ministry of defence organisations of the countries of southeast Europe under the South-eastern Defence Ministerial (SEDM) initiative. Bulgarian facilities have also been used for EU-funded projects addressing aspects of CBRN response (DITSEF, EMERSYS).

A system of volunteers has been recently set up and is currently under development in a number of municipalities. The system, which is under the control of each mayor, is geared towards improving response capacity during the emergency response phase. The measures that govern the system's establishment, training requirements, benefits and insurance are set out in legislation.

Picture 2: National Training Centre in Montana

Good practice:

- Analysis of the response to major emergencies is conducted by DGFSCP and results are used for planning training courses. For instance, following the 2014 floods, a skills gap was identified for rescue in fast-flowing water. A specific course and a programme for capacity building for the DGFSCP personnel in this subject area have since been developed.
- Thanks to Bulgaria's active involvement and participation in international training and exercises within the EU framework and as part of NATO and regional initiatives, Bulgarian personnel have international contacts and exposure to a variety of innovative methods in disaster preparedness topics.

Recommendations:

- Develop an approach to training that links in to the overall integrated, multidisciplinary and comprehensive approach to disaster risk management, including by developing training programmes to improve knowledge and awareness of the whole DRM cycle among URS personnel.
- Make sure that training courses developed to address skill gaps observed in operations are accompanied by the acquisition of the necessary equipment in order to make the URS more effective.
- Establish a national strategy and programme for civil protection exercises. Develop a manual for exercise design, conduct and evaluation as well as a training course dedicated to this subject.
- Use the training system to promote cooperation between different stakeholders from public bodies, the private sector and NGOs by organising collaborative practical activities like table-top exercises and workshops. It would be useful to establish a specific training and exercise programme linked to the upcoming flood risk management plans (e.g. training of personnel in specific subjects like flood hazard and flood risk maps).
- Establish a comprehensive and integrated lessons learned system based on exercises and operations and subsequently feeding into training and planning. The system should operate at the local, regional and national levels in a multiagency format and provide a good basis for a realistic capacity building programme. Knowledge and experience from participation in international training and exercises could be more widely shared.
- Promote cooperation between different training institutions, including the Academy of the Ministry of Interior and the training centres. Special emphasis should be given to capacity building programmes for municipalities.
- Consider including risk concepts in certain university courses (e.g. engineering, natural sciences, etc.).
- Expand the certification of emergency response teams in line with international guidelines, e.g. INSARAG guidelines for search and rescue.

5.3 Early warning and alert system

The DGFSCP is responsible for operating the early warning system to alert the executive authorities and the components of the URS at the national, regional (province) and local (municipality) level, according to their respective disaster protection plans. The national early warning and alert system has two control units: the National Control Unit at the NOC in Sofia and the Alternative Control Unit in Burgas. There are also regional hubs at the DGFSCP regional operations centres.

DGFSCP also manages the system for alerting the population. The system can be activated either at central, regional or municipal level and uses an audible siren. It currently covers around 25 cities, 10 out of 28 regions as well as the NPP area or 25-30 % of the population. In the areas not covered by the system, announcements are done through other methods such as using megaphones and/or door to door.

The early warning system can be activated by the Ministry of Interior. The system is tested twice a year and the results are analysed centrally. Under the existing plans and scenarios, pre-recorded messages are available to inform the public, ensuring maximum efficiency in the dissemination of information. We understand that it is also possible to record situation-specific messages. Also, a number of early warning systems are shared between a lead organisation and the DGFSCP. For example, in the event of a nuclear accident at the Kozloduy nuclear power plant there are clear procedures to notify all stakeholders depending on their level of priority.

For flood warnings, there is a centralised system for information collection, forecasting flood risks and taking the decision to issue an early warning for floods related to dams. However, it is not clear to what extent the flood early warning system is currently functional.

Good practice:

- A system is in place for alerting the executive authorities and the components of the URS at the national, regional (province) and local (municipality) level. The system is operated by the DGFSCP.
- Early warning systems developed by the responsible organisation for each hazard are shared with the Operations Centre of the DGFSCP. This helps to produce a common picture of hazards among the involved organisations.
- Clear procedures are in place for prioritised notification of all involved in the event of nuclear accidents.

Recommendations:

- Consider developing an all-hazard early warning approach to ensure timely dissemination of information to communities.
- Identify complementary methods for dissemination of early warning notifications apart from the existing siren-based system and provide a consistent message across all channels, while ensuring a method of communication in the event of loss of the mobile network.
- Establish a central authority controlling the various aspects of dam safety, including the monitoring of the water level and a corresponding early warning system.
- Conduct an analysis and review the capacity of 112 operators and mobile operators to use the mobile telephone system and text messages to provide information in an emergency situation.
- Consider how to reduce the number of hoax calls to the 112 service, including through a media campaign stressing the detrimental consequences of this behaviour.
- Include early warning aspects in bilateral agreements with neighbouring countries.

5.4 International assistance

Bulgaria is a member of the European Civil Protection Mechanism, which facilitates cooperation in civil protection between European countries. The EU mechanism is intended to improve prevention, preparedness and response and provides an opportunity for active international cooperation on civil protection. It also has a number of bilateral agreements with neighbouring countries.

Bulgaria is currently developing a host nation support plan in accordance with EU guidelines. The DRR strategy roadmap acknowledges the need for integrated and comprehensive planning guidelines.

Good practice:

- The DGFSCP Operations Centre is designated as the single 24/7 point of contact for international requests for civil protection assistance.
- Host nation support procedures are known and used. A comprehensive host nation support plan is being developed according to EU guidelines.

Recommendations:

- Incorporate the subject of receiving and providing international assistance and host nation support guidelines into national, provincial and municipal disaster protection plans. This would also improve the awareness and knowledge of the concept of host nation support and its procedures among the personnel of provincial and municipal authorities.
- Boost the capacity to receive and use international assistance by setting up training for personnel to act as liaison officers during international emergencies; create a pool of trained personnel at regional and local level, especially in areas where it is expected that the reception of assistance may be needed.

6. Improving preparedness to respond to disasters — public awareness

Objective 5 — Use knowledge, innovation and education to build a culture of safety and resilience at all levels

6.1 Public awareness and education

The DRR strategy roadmap identifies many actions to educate and raise the awareness of the population. In recent years, many educational programmes and activities have been developed. National and regional competitions are encouraged. A successful example is the 'I saw the disaster with my eyes' competition run under a Council of Europe/EUR-OPA Agreement.

There are plans in place to establish several training centres for the public. These are intended to increase the resilience of society, support behavioural change and ensure that the population understands disaster prevention and response and the recovery phase. A programme to establish voluntary units to support municipalities and raise their emergency response capacity is also under development.

Good practice:

- Risk awareness education is provided in schools and tools such as national and regional competitions are used to increase participation and create interest.

Recommendations:

- Develop an integrated strategy on disaster risk awareness based on analysis of the various activities that are currently carried out. The strategy should incorporate the results of the risk assessment and address new and emerging risks e.g. extreme weather conditions due to climate change (such as heat waves and extreme precipitation events).
- Appoint a responsible authority and set up a platform where all national, regional and local stakeholders can exchange information and share good practice. This would ensure that authorities take a coordinated approach.
- Link the public awareness programmes to structural measures for DRR.
- Conduct an assessment of risk perception within the population and the effectiveness of the programmes and initiatives that have already been conducted, e.g. the programme addressing vulnerable segments of the population.

- Consider expanding the target groups for public risk awareness campaigns: young people have already been targeted, but other vulnerable groups such as the elderly, disabled and tourists could also be included. It is also important to include all hazards.
- Consider how to use the new local volunteer system in unison with the Bulgarian Red Cross and the capabilities of other NGOs and civil society organisations working in all DRM phases at the regional and local level.
- Conduct an analysis of how Bulgaria can use the resources of the multi-organisational teams of officials, emergency personnel and technical experts when preparing and providing risk information to the population. This would make the process more effective.
- Make regional and local maps and plans available to the public and develop information products such as webpages, booklets and material for schools to help the public protect themselves.
- Make the flood hazard and risk maps and the information in the flood risk management plans available to the public. This would raise their awareness of flood risk and empower them to take their own preventive and preparedness measures.
- Monitor and use social media to add to and influence any information distributed to communities before, during and after emergencies.
- Make use of funding available through EU programmes, UNISDR's 'Making Cities Resilient' programme and other initiatives under the Rockefeller Foundation's '100 resilient cities' initiative.

Picture 3: International children's drawing contest 'I saw the disaster with my own eyes'

6.2 Role of the media

The media plays an important role in delivering messages before, during and after an emergency situation. Nowadays, in addition to traditional media social media also play a significant role in helping communities to understand a situation and cooperate during the recovery stage. Therefore it is vital to understand social media and use it properly.

In an emergency, the media has an obligation to broadcast the official alert and information provided by authorities immediately and without changing it in any way.

Good practice:

- There is good cooperation between the media and the DGFSCP, including on presenting the work of the URS to the press.
- Training for journalists to provide them with practical information on issues related to radiological incidents. During the training sessions, journalists participate in the response to an incident such as one involving radiation from metal scrap. By being shown actual low radiation sources, journalists become more familiar with certain technical aspects and thus more able to deliver messages on this subject.

Recommendations:

- Ensure a consistent flow of information from the URS to the media during the response phase.
- Improve current procedures to support the delivery of messages through traditional media channels and through social media.
- Develop a programme of nationally coordinated media campaigns with a unified national approach but local focus and use other methods of communication such as local newspapers, which can then adapt the message to each focus group.
- Provide more training for journalists along the good practice model and expand this to other risks. This would enable the media to convey relevant risk information in a more accurate manner. Another effective method of raising media awareness is to invite journalists to training sessions and exercises.
- Provide media training to personnel required to appear on camera, and develop a network of press officers from the ministries to coordinate and share information and communicate with one another.

Annex I Terminology and abbreviations

Definitions

The following definitions are working definitions for the purpose of the peer review documents only. They are based largely on EU legislation and guidelines. Where official EU definitions were not available, UNISDR definitions have been used.[7]

Contingency planning — a management process that analyses specific potential events or emerging situations that might threaten society or the environment and establishes arrangements in advance to enable timely, effective and appropriate responses to such events and situations;

Disaster — any situation which has or may have a severe impact on people, the environment or property, including cultural heritage;

Emergency services — a set of specialised agencies that have specific responsibilities and objectives in serving and protecting people and property in emergency situations;

Peer review — a governance tool by which the performance of one country in a specific area (in this case risk management/civil protection) is examined on an equal basis by fellow peers who are experts from other countries;

Preparedness — a state of readiness and capability of human and material means, structures, communities and organisations enabling them to ensure an effective rapid response to a disaster, obtained as a result of action taken in advance;

Prevention — (i) where possible, preventing disasters from happening, and (ii) where they are unavoidable, taking steps to minimise their impact;

Resilience — the ability of a system, community or society exposed to hazards to resist, absorb, accommodate to and recover from the effects of a hazard in a timely and efficient manner, including by preserving and restoring its essential structures and functions.

Response — any action taken at national or sub-national level in the event of an imminent disaster, or during or after a disaster, to address its immediate adverse consequences;

[7] http://www.unisdr.org/we/inform/terminology.

Risk management capability — the ability of a Member State or its regions to reduce, adapt to or mitigate risks (impacts and likelihood of a disaster) identified in its risk assessments to levels that are acceptable in that Member State. Risk management capability is assessed in terms of the technical, financial and administrative capacity to carry out appropriate:
(a) risk assessments;
(b) risk management planning for prevention and preparedness;
(c) risk prevention and preparedness measures.

Stakeholders with an interest in disaster risk management include scientific communities (including engineering, geographical, social, health, economic and environmental sciences), practitioners, businesses, policy-makers, central, regional and local levels of government and the public at large.

Sub-national level — regional or local government level tasked with disaster risk management.

Abbreviations

Abbreviation	Definition
CI	Critical infrastructure
DACEA	Danube Cross-Border System for Earthquake Alert
DPA	Disaster Protection Act
DRM	Disaster risk management
DRR	Disaster risk reduction
EUR-OPA	European and Mediterranean Major Hazards Agreement
DGFSCP	Directorate-General for Fire Safety and Civil Protection
ICPDR	International Commission for the Protection of the Danube River
INSARAG	International Search and Rescue Advisory Group
IAEA	International Atomic Energy Agency
ISO	International Organisation for Standardisation
MoI	Ministry of Interior
MoU	Memorandum of Understanding
NFPA	National Fire Protection Association
NGO	Non-governmental organisation
NIMH	National Institute of Meteorology & Hydrology
NOC	National Operational Centre
NRA	Nuclear Regulatory Agency
OECD	Organisation for Economic Cooperation and Development
UNISDR	United Nations Office for Disaster Risk Reduction
URS	Unified Rescue Service

Annex II Overview of stakeholders

Representatives of the following institutions were involved in the peer review:

- Directorate-General for Fire Safety and Civil Protection — MoI
- Communication and Information Systems Directorate — MoI
- Defence and Mobilisation Preparation Directorate — MoI
- Directorate-General 'National Police' — MoI
- National System 112 Directorate — MoI
- Ministry of Environment and Water
- Ministry of Labour and Social Policy
- Ministry of Defence
- Ministry of Energy
- Ministry of Transport, Information Technology and Communications
- Ministry of Finance
- Ministry of Health
- Ministry of Justice
- Ministry of Economy
- Ministry of Agriculture and Food
- State Agency State Reserve and Wartime Stocks
- State Agency for National Security
- Nuclear Regulatory Agency
- Bulgarian Red Cross
- National Association of Municipalities in the Republic of Bulgaria
- Ministry of Regional Development and Public Works
- Ministry of Education and Science
- Executive Forest Agency, Ministry of Agriculture and Food
- National Institute of Geophysics Geodesy and Geography — Bulgarian Academy of Science
- Bulgarian Academy of Science — Centre for National Security and Defence
- Bulgarian Academy of Science — National Institute of Meteorology and Hydrology
- Hail Suppression Agency
- Chemical Technological and Metallurgy University
- G. Rakovski Military Academy
- University of National and World Economy
- Road Infrastructure Agency, Ministry of Regional Development and Public Works
- Bulgartransgas Ltd
- CEZ-Razpredelenie
- CEZ-Bulgaria
- Kozloduy nuclear power plant
- Chair of the National Association of Volunteers
- Pernik Municipality
- Geo-protection — Pernik
- Bulgarian Insurance Association
- Fire Safety and Civil Protection Faculty of the Academy of the Ministry of Interior
- Professional Training Centre of the Directorate-General for Fire Safety and Civil Protection
- Regional Directorate for Fire Safety and Civil Protection in Dobrich
- Governor of Dobrich province
- Regional Headquarters for Disaster Protection Organisation of Dobrich province and Sofia city
- Mayors of Dobrich and Sofia
- Municipal Headquarters for Disaster Protection Organisation of Dobrich municipality

Annex III List of documentation

The following documentation was used to prepare for the review:

Nr	Type of document	Title	Version
1	Legislation	Ministry of Interior Act	20 Feb 2015
2	Legislation	Disaster Protection Act	27 Jun 2014
3	Legislation	Water Act	20 Feb 2015
4	Legislation	Environmental Protection Act	28 Nov 2014
5	Legislation	Forestry Act	28 Nov 2014
6	Legislation	Spatial Development Act	19 Dec 2014
7	Legislation	Act on the safe use of nuclear energy	2 Aug 2013
8	Legislation	Regulation on the terms and rules for the operation of national early warning and alert systems for the executive authorities and the population in the event of disasters and an aerial threat	22 July 2014
9	Legislation	Regulation on the terms, procedures and bodies to perform disaster risk analysis, assessment and mapping	31 Jan 2014
10	Legislation	Regulation on procedure, method and competent authorities for identification of critical infrastructures and their sites and risk assessment	26 Feb 2013
11	Legislation	Regulation on the procedure for identification and designation of European critical infrastructures in Republic of Bulgaria and the measures for their protection	26 Feb 2013
12	Legislation	Regulation on the terms and conditions for conducting evacuation and displacement	20 Dec 2012
13	Legislation	Regulation on the procedure for construction, maintenance and use of means of collective protection	19 Feb 2013

14	Legislation	Regulation on the procedure for establishing and organising the activity of voluntary units to prevent or manage disasters, fires and emergency situations and elimination of their consequences	5 Sept 2014
15	Legislation	Regulation on the terms for collection, storage, renewal, maintenance, provision and stockpiling of personal protective equipment	19 Feb 2013
15	Legislation	Instruction № 8121z-955 of 8 December 2014 on the terms and requirements for implementation of search and rescue operations	16 Dec 2014
16	Legislation	Regulation on emergency planning and emergency preparedness in the event of nuclear and radiological emergencies	29 Nov 2011
17	Legislation	Instruction № 8121z-915 of 1 December 2014 on terms and conditions for operational protection in the event of floods	1 Dec 2014
18	Strategy	National disaster risk reduction strategy — Summary	2014 – 2020
19	Programme	National programme for disaster protection	2014-2018
20	Progress report	Bulgaria: National progress report on the implementation of the Hyogo Framework for Action (2011-2013)	28 Jan 2013
21	Progress report	Bulgaria: National progress report on the implementation of the Hyogo Framework for Action (2013-2015)	6 March 2015
22	Presentation	Training centre Montana 2014	2014
23	Guideline	Guidelines — peer review	Vs 1.1 — Mar 2015
24	Guideline	General peer review framework	Vs 1.1 — Mar 2015
25	Report	Desk research Bulgaria peer review	Vs 0.1 — April 2015

Annex IV General peer review framework

Peer reviews are conducted using standard frameworks that guide the peers in:

- collecting information;
- analysing the disaster risk management structure in the country under review and the way it implements its policies.

The standard frameworks consist of objectives, requirements and indicators for different disaster risk management areas. Example questions included in the frameworks can be used to guide the peer review team in the preparatory phase and during the mission. The teams can devise further questions during their review.

The essential policy components under review are the objectives and, to a lesser extent, the requirements. Review questions should therefore relate closely to the objectives, particularly those where the preliminary information received was not sufficiently clear or showed gaps. The indicators cover a wide area of policies, tools and methodologies and can be used by peers to help them identify:

- examples of good practice;
- areas for improvement;
- possible gaps.

The indicators do not represent a 'checklist' against which the country should be formally assessed.

No	Key Indicators
Overall objective review: An integrated, cross-sectoral and multi-hazard approach to disaster risk management (DRM) that has strong prevention and preparedness elements in place and that functions at national, regional and local level	
Objective 1: Integrated approach to DRM: Ensure that disaster risk management (DRM) is a national, regional and local priority with a strong institutional basis for implementation	
Example questions: - Have legislative and/or regulatory provisions been made for managing disaster risk? What regulatory framework is in place? - What lessons have been learned from past disasters and how do they feed back into legal and regulatory frameworks? - How are (inter)national practices and experiences used in developing and evaluating the country's DRM policies? - What is the role and responsibility of the national level on DRM? - What is the role and responsibility of the regional level on DRM? - What is the role and responsibility of the local level on DRM? - How are stakeholders and neighbouring countries involved in early warning systems? - What procedures for cooperation and information exchange with neighbouring countries are in place? - In which EU projects on DRM are national, regional or local authorities involved?	
1.1 National policy and legal framework for DRM exists	
1.1.1	Strategy: A security and safety policy strategy based on international disaster reduction and civil protection guidelines (UN, EU, OECD, etc.) has been adopted by parliament or the government
1.1.2	Platform for DRR: • a national DRM authority is clearly designated; • a multi-sectoral platform for disaster risk reduction has been established and is functioning with a division of tasks at national, regional and local levels and clear areas of responsibilities

1.1.3	National DRM legislation: Legislation on DRM in force at national level. The legislation stipulates the obligations at national, regional, local levels and sets out the terms of cooperation and coordination between different state authorities and sectors. The legislation is based on multi-sectoral and inter-disciplinary, public, private and civil society participation principles
1.1.4	Cooperation: DRM is developed in cooperation with the relevant stakeholders such as scientific communities (including social, health, economic and environmental sciences), practitioners and businesses, people at risk and policy-makers. Traditional and local knowledge complement scientific knowledge in the development and implementation of policies, plans and programmes
1.1.5	Implementation: National plans are implemented to address short-, medium- and long-term disaster risk management goals. The plans have targets, indicators and timeframes
1.1.6	Evaluation: A mechanism is in place that monitors, periodically assesses, ensures compliance and publicly reports on all public and private stakeholders' progress on national plans and policies
1.1.7	(International) lessons learned: Lessons learned from accidents at home or abroad, changed risks and changes in international agreements are quickly reflected in the internal legal space
1.2 Responsibilities and capacities for DRM are decentralised to regional level	
1.2.1	**Regional responsibilities:** Regional-level DRM areas of responsibility have been established
1.2.2	**Regional disaster risk reduction platform:** A platform for disaster risk reduction for planning and implementation of DRM activities has been set up at the regional level
1.2.3	**Cooperation:** Regional disaster risk management is developed in cooperation with the relevant stakeholders
1.2.4	**Implementation:** Regional plans are implemented to address short-, medium- and long-term disaster risk management goals. The plans have targets, indicators and timeframes
1.2.5	**Evaluation:** A mechanism is in place that monitors, periodically assesses, ensures compliance and publicly reports on all public and private stakeholders' progress on regional plans and policies
1.3 Responsibilities and capacities for DRM are decentralised to local level	
1.3.1	**Local responsibilities:** Local level DRM areas of responsibility have been established
1.3.2	**Local disaster risk reduction platform:** A platform for disaster risk reduction for planning and implementation of DRM activities has been set up at the local level
1.3.3	**Cooperation:** Local disaster risk management is developed in cooperation with the relevant stakeholders
1.3.4	**Implementation:** Local plans are implemented to address short-, medium- and long-term disaster risks management goals. The plans have targets, indicators and timeframes
1.3.5	**Evaluation:** A mechanism is in place that monitors, periodically assesses, ensures compliance and publicly reports on progress on all public and private stakeholders' local plans and policies
1.4 International cooperation takes place in the field of risk management, early discovery and warning. Best practices and scientific achievements of different countries are implemented	
1.4.1	**Scientific developments:** Academia and research entities: • focus on the evolving nature of risk and scenarios in the medium and long term; • increase research for local application and support action by local communities and authorities; • support the interface between policy and science for effective decision-making
1.4.2	**Statistical data:** Statistical data assisting in risk assessment and monitoring is used and applicable in early warning. Statistical databases have been developed
1.4.3	**Regional cooperation:** Regional cross-border cooperation and cooperation between countries are in place to monitor risks and assess cross-border impacts. Mutual information exchange and cooperation on early warnings are in place

Objective 2 — Achieving a high level of protection against disasters: risk assessment. Assess (identify, evaluate and monitor) disaster risks at local, regional and (inter)national levels	
Example questions: Risk assessment - Is an up-to-date risk assessment available? Which main risks are identified in the risk assessment? - How was the risk assessment developed: — who was involved? — what methodology was used? — how are stakeholders involved in developing the risk assessment? - How are the results of the risk assessment implemented? - How and with whom are the outcomes of risk assessments shared? Capability assessment - What administrative management capabilities to carry out and update risk assessments are available? - What technical management capabilities to carry out and update risk assessments are available? - What financial management capabilities to carry out and update risk assessments are available?	
A coherent system of national, regional, local, cross-border and sectoral risk assessments is in place and is used to provide a good understanding of the risks in the reviewed (member) state	
2.1.1	**Framework:** The risk assessment fits within an overall framework
2.1.2	**Risk assessment:** Up-to-date, multi-hazard risk assessments based on a unitary methodology are available on different levels of government and in different sectors and are linked to climate change adaptation strategies/plans
2.1.3	**Involvement of relevant networks:** National risk assessments should aim at making the relevant actors reach a common understanding of the risk assessment methodology, the risks faced and their relative priority [same requirements for regional, local and sectoral risk assessments]
2.1.4	**Risk assessment methodology:** A shared understanding is reached on both the range of risks considered relevant and the levels of severity for which preparedness planning would be judged appropriate
2.1.5	**Risk identification:** The national risk assessment is based on a sound risk identification: the finding, recognising and describing of risks
2.1.6	**Risk analysis:** For every risk and risk scenario identified in the previous risk identification stage, the risk analysis process carries out a detailed (and if possible quantitative) estimation of the probability of its occurrence and the severity of the potential impacts
2.1.7	**Risk evaluation:** The results of the risk analysis are compared with risk criteria to determine whether the risk and/or its magnitude is acceptable or tolerable
2.1.8	**Coherent system:** The system for risk assessments shows coherence between the different levels of government and between different sectors
2.2 Following the drafting of the national risk assessment and maps, the involved authorities should seek to connect in an appropriate way with the ensuing process of risk management	
2.2.1	**Capability assessment:** The risk assessment is followed by a capacity analysis and capability planning
2.2.2	**Recommendations:** The risk assessment results in specific recommendations for related policy fields (if relevant)
2.2.3	**Implementation:** the implementation of the recommendations is ensured; relevant stakeholders are involved
2.3 The drafting and outcome of (national) risk assessments are transparent and accountable to stakeholders and the general public (with exception of sensitive information)	
2.3.1	**Risk communication:** Potential risk scenarios are published to inform the population
2.3.2	**Consultation stakeholders:** Draft risk assessments should be widely consulted with stakeholders and interested parties, including central and regional levels of government and specialised departments

2.4 Administrative, technical and financial capabilities to carry out and update risk assessments are available	
2.4.1	**Framework:** see indicator 1.1
2.4.2	**Coordination:** A risk management structure assigns clear responsibilities to all entities involved in the risk assessment so that overlaps or mismatches between responsibility and capability are avoided
2.4.3	**Expertise:** The experts carrying out the risk assessment have the powers and responsibilities to carry out the risk assessment and have received adequate training to do so
2.4.4	**Other stakeholders:** see indicator 2.1.2/2.3.2
2.4.5	**Information & communication:** see indicator 2.3.1
2.4.6	**Methodology:** see indicator 2.1.3
2.4.7	**Infrastructure:** The infrastructure and appropriate information are available to carry out the risk assessment
2.4.8	**Financing:** Financing includes the identification, estimation and reservation of funds required to carry out and update risk assessments
Objective 3 -Achieving a high level of protection against disasters: Risk management planning. Reduce the underlying risk factors through structural and non-structural measures to ensure the physical, economic, ecological, social, cultural resilience of people, communities, countries and their assets	
Example questions: Risk management planning - How are identified risks taken into account in policies and planning? - Which key development areas are relevant: health, education, agriculture, critical infrastructure, water, ecosystem management, housing, cultural heritage, public awareness, financial and risk transfer mechanisms? Identify for each relevant area how: - legislation is drawn up - standards and service providers are appointed - public-private partnerships are established. Are risk analyses available for each key development area? How are they integrated into processes of risk analyses? How are cross-border effects taken into account in the risk analyses? Capability assessment - What administrative management capabilities for risk management planning are available? - What technical management capabilities for risk management planning are available? - What financial management capabilities for risk management planning are available?	
3.1 Identified risks are taken into account in policies and planning	
3.1.1	**Risk management planning:** Risks are taken into consideration in planning to ensure more efficient calculation of dangers and risks, resulting in a safer living environment for the inhabitants
3.2 There is investment in resilience for key development areas such as: health, education, agriculture, critical infrastructure, water, ecosystem management, housing, cultural heritage, minorities, public awareness, financial and risk transfer mechanisms	
3.2.1	**Risk information:** Institutions in key development areas have the necessary information about risks and risk-related prescriptions and restrictions
3.2.2	**Innovation:** Invest in research, innovation and technology and promote a long-term multi-hazard approach and solution-driven research for disaster risk management. Strengthen public investments in critical facilities and physical infrastructure
3.2.3	**Key development areas:** There is a continued integrated focus on key development areas such as health, education, agriculture, critical infrastructure, water, ecosystem management, housing, cultural heritage, minorities, public awareness, financial and risk transfer mechanisms
3.2.4	**Continuity:** Legislation is in place to regulate the protection, continuous operation and recovery of the key development area
3.2.5	**Resilience and risk reduction:** Services and standards are in place for resilience and risk reduction for the key development area
3.2.6	**Service operators and providers:** Service operators and service providers in the key development area have been appointed

3.2.7	**Cooperation:** Involvement and cooperation with various public and private stakeholders is in place to ensure the resilience of the key development area
3.2.8	**Risk assessment methodology:** A risk assessment methodology is in place and plans for the continuous operation of the key development area have been drawn up
3.2.9	**Risk assessment:** Risks to the key development area are integrated into the process of risk assessment. Risks causing suspension of services, the likelihood of suspension and possible consequences are described in the risk analysis
3.2.10	**Risk scenarios:** Risk assessment scenarios are created where vulnerability of the key development area is evaluated and possible chain reactions are identified
3.2.11	**Cross-border effects:** Cross-border effects are taken into account in the risk analysis
3.3 Administrative, technical and financial capabilities for risk management planning are available	
3.3.1	**Leadership and coordination:** A risk management structure assigns clear responsibilities to all those involved in risk management planning so that overlaps or mismatches between responsibility and capability are avoided
3.3.2	**Expertise:** Methodologies for workforce planning are in place so that optimal staffing is ensured. The experts tasked to carry out the risk management planning have the necessary information and receive adequate training
3.3.3	**Methodology:** A methodology for carrying out risk assessments has been developed. Expected impacts of identified risks are assessed according to a methodology that is in place and risks are accordingly prioritised
3.3.4	**Other stakeholders:** Various public and private stakeholders cooperate with each other and are involved in risk management planning. Examples of such stakeholders are: disaster risk management agencies, health services, fire services, police forces, transportation/electricity/communication operators, voluntary organisations, citizens/volunteers, scientific experts, the armed forces and organisations in other Member States
3.3.5	**Information & communication:** Rules and procedures are in place that allow for information sharing, data sharing and communication with various stakeholders
3.3.6	**Equipment:** The part of the technical capacity assessment assesses whether the equipment necessary to plan prevention and preparedness measures is available
3.3.7	**Financing:** Financing comprises the overall identification, estimation and reservation of funds regarded as necessary to meet potential financial obligations resulting from the management of risks
Objective 4 — Strengthen disaster preparedness for effective response at all levels	
Example questions: Preparedness - How are emergency managing authorities prepared for an emergency? - How are stakeholders involved in emergency preparedness and response? - Which emergency preparedness plans are available? - How is internal information exchange between authorities and stakeholders managed? - Are (financial, staff, physical) resources ensured in times of crisis? - How is capacity building in preparedness organised (inter)nationally? - In what ways is the organisation prepared to render international assistance? - What procedures are followed when international assistance is received? - What kind of early warning systems are in place? Management capabilities - What administrative management capabilities for preparedness are available? - What technical management capabilities for preparedness are available? - What financial management capabilities for preparedness are available?	
4.1 Managing authorities for emergency resolution have been designated and cooperation between authorities in the resolution of emergencies is in place	
4.1.1	**Legal and institutional framework:** Areas of responsibilities among authorities and emergency managing authorities have been determined
4.1.2	**Responsibilities**: The responsible or lead agency for the planning of emergency preparedness and emergency response have been appointed and prepared
4.1.3	**Coordination:** a framework for coordination between authorities is in place
4.1.4	**Flexibility**: The country's management system and responders network are flexible

4.1.5	**Cooperation:** Involvement and cooperation with various public and private stakeholders are covered in legislation, emergency response plans and structures
4.2 Managing authorities for emergency resolution have been designated and cooperation between authorities in the resolution of emergencies is in place	
4.2.1	**Disaster planning**: Disaster preparedness and contingency plans and policies have been drawn up at all levels. They have a particular focus on preventing and responding to possible displacement and ensure the participation of all sectors and stakeholder groups in design and planning, including the most vulnerable groups
4.2.2	**Risk assessments and update**: The disaster preparedness and contingency plan and policies are based on the risk assessments and are periodically reviewed and updated
4.2.3	**Emergency capabilities**: The capabilities involved in resolving emergencies are analysed and proposals are made to solve gaps in capabilities. Capabilities have the flexibility to respond to different scenarios
4.2.4	**Emergency laws**: Legislation is in place to declare a state of emergency in the event of a natural disaster. Under the legislation, the constitutional rights of individuals can be restricted if necessary and there is provision for involving complementary resources (i.e. the private sector)
4.2.5	**Large-scale evacuation:** The legal basis and methodology are in place for a large-scale evacuation and the roles are determined
4.2.6	**Emergency plans**: National legislation ensures that emergency plans are in place to prevent and respond to major chemical accidents
4.2.7	**Flexibility**: The emergency managing authorities are prepared for situations where there is no 'owner of the emergency' and flexibility in the risk management system.
4.2.8	**Continuity:** Limits of operating conditions of strategic facilities are taken into account. Alternatives for strategic facilities are in place
4.2.9	**Emergencies abroad:** An emergency response plan and communication plan are in place for emergencies abroad and connect with the citizens of the affected country
4.2.10	**Stakeholders:** Principles have been laid down for cooperation with private and public stakeholders
4.2.11	**Military cooperation:** The legal basis is in place for the use of an army in peace time crises and for the planning and utilisation of military resources
4.3 Early warning systems are in place for all major hazards, with outreach to communities	
4.3.1	**Early warning system**: Hazard detection, monitoring and forecasting of risks inside the country is ensured (monitoring of storms, earthquakes, tsunamis, radiation)
4.3.2	**Dissemination:** An early warning communication system for abrupt effect risks is in place (EWS — notification system, SMS, mobile cell note, sirens). The system is planned around a scale of grades of alert and is standardised, comprehensive and recognisable for all. The system is continuously strengthened to the needs of users
4.3.3	**Emergency planning:** Emergency plans are activated based on notification from the early warning system
4.3.4	**Coordination:** Early warning systems are set up in coordination with (international) stakeholders from technical organisations and end-users
4.4 Capacity building is ensured through exercises, training, evaluation and implementation of lessons learned	
4.4.1	**Capacity building strategy**: Capacity building is organised according to a strategy and a plan for all relevant stakeholders and levels, focusing on: • training and exercises; • evaluations and the implementation of lessons learned; • updating the capacity building strategy
4.4.2	**Training and exercises:** Disaster preparedness training and exercises, including evacuation drills, are held regularly
4.4.3	**International training and exercises:** Participation in international training and exercises (EU, NATO EADRCC, regional, bilateral)
4.4.4	**Modules and experts:** Development of EU civil protection modules and expert capabilities take place according to the EU modules standard and INSARAG Guidelines

4.5 Rapid and effective notification mechanism for international assistance and rendering assistance is in place	
4.5.1	**International assistance:** National plans provide for situations in which international assistance would be required
4.5.2	**Regional coordination:** Coordinated regional approaches, regional policies and operational mechanisms are in place. These make use of best technology and innovation and may include the use of business facilities and services and military assets upon request
4.5.3	**International planning:** Plans and communication systems to prepare for and ensure rapid and effective disaster response in situations that exceed national coping capacities are in place at regional level
4.5.4	**Contact point:** A unified 24/7 contact point for relaying international requests for assistance is in place
4.5.5	**International organisations:** Cooperation and exchange of information with EU ERCC and NATO EADRCC take place
4.5.6	**Legal basis:** Legal basis and standard procedures are in place for providing and receiving international assistance
4.5.7	**Host nation support:** A host nation support concept has been devised according to EU and NATO CEP Guidelines
4.6 Administrative, technical and financial capabilities for preparedness measures are available	
4.6.1	**Strategy/policy/methodology:** The national or sub-national bodies have developed approaches to carry out risk prevention and preparedness measures. Expected impacts of planned prevention and preparedness measures on risk reduction are assessed and measures accordingly prioritised and adapted
4.6.2	**Leadership and coordination:** A risk management structure assigns clear responsibilities to all those involved in the risk management planning so that overlaps, gaps or mismatches between responsibility and capability are avoided
4.6.3	**Expertise:** Methodologies for workforce planning are in place so that optimal staffing is ensured. Staff performance management tools are in place, which include regular reviews of training and development needs
4.6.4	**Involving partners:** A response network is in place that can mobilise all required capacities across a variety of partners
4.6.5	**Procedures:** Procedures contributing to the reduction of risk are laid down in the implementation of prevention and preparedness measures
4.6.6	**Information and communication:** National or sub-national bodies ensure that they have rules and procedures in place that allow for information sharing, data sharing and communication with relevant stakeholders, including citizens, at any time during the implementation of prevention and preparedness measures
4.6.7	**Infrastructure including IT:** The infrastructure in place (such as roads, buildings, dams, rails, bridges, satellites, tubes, cables, hospitals, shelter facilities, early warning systems etc.) that is regarded as relevant for the mitigation of identified risks, fulfils certain security, safety or performance standards
4.6.8	**Equipment and supplies:** Checks are done to assess whether equipment fulfils the required standards necessary to implement prevention and preparedness measures
4.6.9	**Technical expertise:** The skills available and the methodologies developed for implementing prevention and preparedness measures are safeguarded, be it through documentation or sharing and learning
4.6.10	**Financing of implementation measures:** The financial means to finance the response to likely emergency situations as identified in the risk assessment and planning are available and can be quickly accessed

Objective 5 — Use knowledge, innovation and education to build a culture of safety and resilience at all levels	
Example questions: - How is the population prepared for emergencies? - How is crisis communication conducted? - Provide examples of DRM training for different target groups	
5.1 A country-wide public awareness strategy exists to stimulate a culture of disaster resilience, with outreach to urban and rural communities. Relevant information on disasters is available at all levels to all stakeholders	
5.1.1	**Education and awareness strategy:** A strategy to strengthen public education and awareness of risk information and knowledge is in place. The strategy includes objectives, responsibilities, activities, target groups and implementation of the risk communication organisation
5.1.2	**Database:** Reports of emergencies are compiled using a single methodology within the country. A cases database is in place and is available to the public
5.1.3	**Communication:** Legislation is in place on informing public about risks and crisis management plans
5.1.4	**Message:** Information for the public on risks, crisis management plans and the expected behaviour in the event of emergencies is easy to understand and accessible for all. The information takes account of language, cultural and social factors
5.1.5	**Innovation:** A dialogue with academia and research entities focuses on the evolving nature of technologies, with the aim of increasing resilience. Research for local application and support action by local communities and authorities, and support the interface between policy and science for effective decision-making
5.1.6	**Awareness:** The population has a clear vision of first response and is aware of the behaviour to be adopted in the event of different types of emergencies. The population is aware of the environment they live in and their private duty and public contribution to reduce vulnerability
5.2 A rapid and effective modern technology-based crisis communication system is in place	
5.2.1	**Role of the media:** Dialogue with the population is carried out through the media, including social media. The media are a reliable partner and have an active role in raising public awareness, in relaying alert notifications and information on the emergency and in supporting and mobilising volunteers
5.2.2	**Training of the media:** New approaches and methods will be developed for the objective of media and public relations following disasters. Representatives of the media and newscasters are trained
5.3 School curricula, education material and relevant training include DRM and recovery concepts and practices	
5.3.1	**Strategy capacity building:** A strategy to build capacity is in place. The strategy targets specific categories of public servants, communities and volunteers to ensure consistent use of risk assessments and the implementation of disaster-risk-related policies and plans
5.3.2	**Training programme:** Disaster risk management training programmes have been established for different target groups such as spatial planners, officials of local authorities, crisis managers and volunteers
5.3.3	**School curricula:** Risk management and emergency preparedness instructions and programmes have been drawn up for schools and higher education institutions