



Interreg

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FLOODGUARD

European Regional Development Fund



"Integrated actions for joint coordination and response to reduce the risk of floods in the transboundary area", financed under the INTEREG V-A Greece-Bulgaria 2014-2020 Programme"

SUMMARY

Project FLOODGUARD "Integrated actions for joint coordination and responsiveness to flood risks in the Cross-Border area", funded by Interreg VA "Greece-Bulgaria 2014-2020" Cooperation Programme", co-funded by the European Regional Development Fund and national funds of Greece and Bulgaria

This summary aims to present synthesized information from a series of documents, part of the projects "Integrated actions for joint coordination and response to reduce the risk of floods in the transboundary area", financed under the INTEREG V-A Greece-Bulgaria 2014-2020 Programme implemented by the Basin Directorate "West Aegean Region". The documents are aimed at specifying, testing and analyzing the regulatory framework, the guiding principles and approaches for the distribution of responsibilities, interaction and coordination between the institutions engaged in flood risk management activities in the cross-border area with the Republic of Greece and opportunities for their improvement.

The documents that the summary examines are the following:

- *Analysis of the legislation in the Republic of Bulgaria for prevention, preparedness and response. Analysis of the current situation*
- *Strategy for the interrelationship between prevention and response for flood protection of institutions from the Bulgarian side on Bulgarian territory*
- *Detailed studies for the development of a road map for the coordination of Bulgarian actions*
- *Road map for the responsibilities, interrelationships and communications between the Bulgarian institutions*
- *Road map for the coordination of the Bulgarian actions in the stages of the FRMP*

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ANALYSIS OF PREVENTION, PREPAREDNESS AND RESPONSE LEGISLATION IN THE REPUBLIC
OF BULGARIA.
ANALYSIS OF THE CURRENT SITUATION

Prepared: April 30, 2020

AIM: The report analyzes the existing legal framework and current activities carried out by the responsible institutions in the Republic of Bulgaria regarding flood risk management. The purpose of the report is to outline the main problem areas identified in the work of the various institutions engaged in flood risk management activities and to propose adequate solutions for taking measures to optimize inter-institutional interaction.

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1. Analysis and evaluation of the existing regulations and sub-normative documents in the Republic of Bulgaria, which ensure flood risk management activities and proposals for future steps



In the Republic of Bulgaria, there are numerous legal acts that regulate the functions and responsibilities of institutions in relation to flood risk management, but two key **legislative documents stand out among them** - **Water Law** and **Disaster Protection Law**, which provide the framework and regulate the protection from the harmful effects of water, specifically from floods, following the main European principles

According to the Water Act, the protection from the harmful effects of water, incl. flood protection is operational and permanent.

The law stipulates that all activities for the protection of the population in the event of danger or the occurrence of a disaster are to be carried out by the **Unified Rescue System (URS)**, which includes units of: ministries and agencies, municipalities, commercial companies and sole traders, centers for emergency medical assistance, other medical and health facilities, non-profit legal entities, including voluntary units and the armed forces.


The main components of the system are the Directorate General "Fire Safety and Protection of the Population" of the Ministry of Internal Affairs (coordinator of the system), the regional directorates of the Ministry of Internal Affairs, the Bulgarian Red Cross and the centers for emergency medical assistance.


The responsibilities of the following institutions for providing operational and permanent protection were examined in detail:

- **Council of Ministers**
 - Disaster Risk Reduction Council
 - Interdepartmental Commission for Recovery and Support
 - Water Coordination Council
- **Ministry of Environment and Waters (MoEW) in the person of the Minister of Environment and Waters**
 - High Advisory Council on Waters to the Ministry of Environment and Waters
- **Main Directorate "Fire Safety and Protection of the Population"**
- **Bulgarian Red Cross (BRC)**
- **The National Association of Volunteers in the Republic of Bulgaria**
- **Basin Directorates (DB)**
- **Mayors of municipalities**
- **District governors**
- **Other ministries and departments**
 - The Minister of Regional Development and Public Works

- The Minister of Agriculture, Food and Forestry
- "Irrigation Systems" Ltd.
- Minister of Energy
- The Chairman of the State Agency for Metrological and Technical Supervision (SAMTS)
- State enterprise "Management of dams"
- The Environment Executive Agency
- The Forestry Executive Agency
- Regional environmental and water inspections
- **Other legal and natural persons relevant to flood risk assessment and management**
 - Water users – permit holders
 - Owner or person operating object- source of pollution permits
 - Owner of a dam, hydraulic or protective facility

Findings

 There is a large number of legal acts regulating the duties and competencies in flood risk management of multiple responsible institutions at the national, basin, regional and local levels. To a great extent, this makes it difficult for the institutions working at the territorial level (district and municipal), which are faced with the challenge of knowing and complying with the regulations on flood risk management. Considering the fact that these same institutions have imputed duties in a number of other areas, the mission seems difficult to achieve, often impossible.

 There are frequent amendments and additions to the regulatory framework, as well as the adoption of new strategic documents after 2010, which set the direction for changes and reforms in the field of flood risk management

National strategy for management and development of the water sector in the Republic of Bulgaria (2012) - introduces the principle that each facility and infrastructure in the water sector should have a **clearly defined owner**, who alone or by outsourcing to external entities is responsible for their maintenance.

With the amendments to the Water Act in 2013, the Minister of Regional Development and Public Works maintains **the specialized maps, registers and information systems** related to water management systems and facilities - not yet developed

Amendments to the Water Act in 2013 - changed operational protection - carried out in accordance with the emergency plans under Art. 138a and with the disaster protection plans under Art. 9 of the Disaster Protection Act. the emergency plans of the water management systems and facilities and of the sites under Art. 131, para. 1 are prepared by their owners or users in accordance with Art. 35 of the Disaster Protection Act

And the changes in the Water Act in 2015 : additions related to the obligations of dam owners, including when they are municipal;

A Water Coordination Council is being established

The activities to maintain the conductivity of the riverbeds within the boundaries of the urbanized territories are carried out by the mayors and are also financed by the Interdepartmental Commission for Restoration and Assistance under the Council of Ministers,

Amendments to the Disaster Risk Reduction Act in 2016 – regional and municipal Disaster Risk Reduction Councils are being created

The National Disaster Management Plan - The NDMP defines the commitments regarding prevention, preparedness, response and recovery, as well as the objectives and actions to improve risk management.

The other significant change is that **the NDMP is being integrated into the "Floods" part with flood risk management plans.**

In June 2018, the Amended Act of the Water Act (WA) was adopted - Classification on the dams by scale and degree of danger, **redirection of funds** to repairs and maintenance of objects, the serviceable technical condition of which is essential for the safety of the population. Changes related to the preparation of emergency plans, **a classification of dams by degree of potential danger** is introduced

is being made **in the composition of the commissions** for annual surveys

The right of the owners is granted to declare to the chairman of SAMTS their desire **to proceed with the liquidation and/or decommissioning of the dam walls and their facilities**

is provided **for the decommissioning or liquidation of dams and their facilities.**

The State Enterprise "Management of Dams" is established to the Ministry of Economy



Gaps are still identified in the current regulatory framework of the Republic of Bulgaria regarding flood risk management, regardless of the frequent updates in the regulatory framework in recent years.

Lack of spatial planning policy in flood risk management

There are gaps in the insurance policy in flood risk management.

There is a lack of methodology to identify potentially suitable plots of land on which green infrastructure can be built


No Ordinance has been developed on the content, conditions and procedure for the creation and maintenance of specialized water management maps, registers and information system according to Art. 178, para. 2 of WA. The competent authority for the registration is the Minister of Regional Development and Public Works;


There are no developed common indicators and standards (unified national system) for a set of data concerning human, material and economic losses from floods

No specific methodologies have been developed to address climate change risks in flood risk management;

Lack of mapping of climate change risks;


The spatial planning law lacks specific references to disasters caused by climate change.

 The review of the regulatory framework on flood risk management in force in the Republic of Bulgaria demonstrates that the institutionalization of flood risk management is not only available, but also very clearly laid down in the Water Act and the Disaster Protection Act. The latter describes the existence of a Unified Rescue System. The specific responsibilities for prevention, response and recovery activities of each state, regional and municipal structure, as well as voluntary formations, legal entities and individuals are established and implemented in actions at all levels.


 The regulatory framework for flood risk management in force in the Republic of Bulgaria does not clearly describe the competences of the institutions in relation to:


Prevention : preventing damage caused by floods by avoiding the construction of houses and industrial buildings in current and future flood areas; by adapting future development to flood risk; by promoting appropriate land use, agriculture and forestry practices;


Preparedness : informing the population about flood risks and what to do in the event of a flood.


 The normative framework in the Republic of Bulgaria regulates the coordination of activities related to flood risk management carried out at the national, regional and local level, but does not regulate the coordination and interaction between the competent bodies at the basin level

- At the basin level, there is no body that has assigned the role of coordinating flood risk management activities.

 In the current regulatory framework of the Republic of Bulgaria, there is no legal obligation, nor is any institution charged with the responsibility of developing and maintaining a unified flood information system.

 There is no legal mechanism for settling the issues related to the financing of activities for the prevention and liquidation of the negative consequences of floods.

 There is a lack of a clearly written legal mechanism of the regulated interactions, commitments and responsibilities of the institutions in cases where synchronized actions are required.

 There has been significant progress in the regulatory framework in the decentralization of actions and responsibilities at the municipal and regional level regarding the response as an element of the FRM. On the other elements of the FRM, progress is uneven.

Conclusion

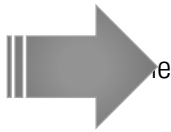
In conclusion, it can be summarized that, in general, the gaps and problems in the current legislation of the Republic of Bulgaria, related to the need to develop and/or update by-laws, do not represent a serious problem that would prevent the performance of the official duties of the institutions responsible for flood risk management, but limit their capabilities.

Recommendations

9 (nine) main recommendations (future development steps) have been formulated as follows:

- **land use plans** be developed, promoting sustainable practices aimed at retenting water use. In the same, specific land use rules should be integrated, which limit or prohibit certain activities in flood-prone territories. These activities should be addressed to relevant responsible institutions.
- A possible option to solve the problem with **insurance** is to create **a new public body (institution)** to collect small amounts as commissions. Private insurance companies to be obliged to collect an additional fee on insurance contracts for extraordinary risks and to transfer it every month to this specially created public body
- In order to provide more spillway space, flood risk management plans should take into account, where possible, the **maintenance and/or restoration of floodplains**, as well as **measures to prevent and reduce harm to human health, environment, cultural heritage and economic activity**.
- It is of particular importance that **all institutions, especially municipalities, become actively involved** in the process of updating the FRMP.
- **to ensure clear budgeting** in the annual plans for FRM, as well as in the FRMP of planned actions.
- **Regulatory** should be **updated** additionally, when climate-related risks are identified for the entire country;
- In connection with the change of the Ministry of Interior Act, it is necessary **to update the by-laws regarding the operational protection during floods**, carried out by the employees of the DG "Fire Safety and Population Protection" /FSPP/ - Ministry of Internal Affairs, which will contribute to detailing the responsibilities of the institution;
- It is necessary **to specify the regulations regarding prevention and preparedness**.
- It is necessary to take real actions to **move to a comprehensive framework of the FRM**, which considers all the elements of the FRM in order to achieve decentralization of the actions and responsibilities for preparedness and protection towards the municipal and district level. However, it should be carefully assessed whether all territorial structures are able to take on more responsibilities, or whether this would still be a significant or impossible challenge for some.

2. Analysis of the current situation



The purpose of the analysis includes identification of the target groups of responsible institutions, the scope of the project, review and assessment of their institutional capacity and analysis of the degree of coordination and coherence with other institutions for the implementation of their assigned flood risk management functions. The analysis of the institutional capacity of the various structures aims to assess the situation and identify possible gaps, deficiencies and inconsistencies in the existing capacity in the field of flood risk management, as well as to propose ways and mechanisms to overcome them.

A total of 25 institutions have been identified within the scope of the project, of which:

- **Two institutions at the national level** - DG "FSPP" and NIMH;
- **Four institutions at the regional level** – Blagoevgrad District Administration and Smolyan District Administration; Regional Office FSPP- Blagoevgrad and Regional Office FSPP-Smolyan;
- **Two institutions at basin level** – EARBD and WARBD
- **17 institutions at the local level**, of which:
 - 14 municipalities in the territorial scope of Blagoevgrad region (Municipality of Bansko; Municipality of Belitsa; Municipality of Blagoevgrad; Municipality of Gotse Delchev; Municipality of Garmen; Municipality of Kresna; Municipality of Petrich; Municipality of Razlog; Municipality of Sandanski; Municipality of Satovcha; Municipality of Simitli; Municipality of Strumyani; Municipality of Hadjidimovo; Municipality of Yakoruda)
 - 3 municipalities in the territorial scope of the Smolyan region (Dospat Municipality; Velingrad Municipality and Sarnitsa Municipality)

Characteristics and functions of the target groups responsible institutions for flood risk management

DG "FSPP" is the main body responsible for FRM, incl. floods at the national level, and the tasks performed by it are of an operational nature. Flood risk management responsibilities are in the areas of preparedness and response.

The basin directorates ("East Aegean Region" and West Aegean Region)-The tasks performed by the two institutions are of a strategic and operational nature. Their assigned duties are mainly in the areas of prevention, protection and preparedness, while some functions are also identified in the area of reaction

(related to the creation and functioning of the Operational Unit).

District administrations - The district governors bear the main responsibility for the implementation of measures from FRMP, for protection in the event of disasters, including floods, at the district level. In general, the district governor's responsibilities include activities in all phases of FRM (prevention, protection, preparedness and response), not just emergency planning and emergency response. The tasks performed by both institutions are of an operational nature.

Municipal administrations- The mayors of the municipalities carry out the policy related to the activities of operation, construction, reconstruction and modernization of water management systems and facilities - municipal property, with the priority being the implementation of the programs of measures included in the FRMP, as well as disaster protection activities, including floods, at the municipal level. In general, the Mayor's responsibilities include activities in all phases of FRM (prevention, protection, preparedness and response). The tasks performed by the municipalities are of an operational nature.

Analysis of personnel, material, technical and information security of the target groups of institutions engaged in flood risk management

The analysis was carried out on the basis of the completed questionnaires, the review of the information from the websites of the institutions

	DG "FSPP"	Basin directorates	Municipalities
Personnel	Of all the institutions, only for DG "FSPP" at the moment the personnel security, incl. and the qualifications of the employees are at the appropriate level	For the 2 BDs (EARBD and WARBD) there is partial staffing, and significant problems and weaknesses are outlined	Satisfactory level. In general, they do not have a sufficient number of personnel with the necessary qualifications.
Internal organization of work	A fully effective internal organization regulated by regulations, rules, instructions and orders, rules and procedures that are strictly enforced.	No mixing and duplication of functions is found. The functions of development of program documents, information provision, control, coordination with external institutions in	In some municipal administrations there is a problem with unclear roles and responsibilities of individual officials. In the course of the research, sufficient

		the field of flood risk management are clearly outlined and ensured in vertical and horizontal terms.	information is not available, but there are prerequisites to conclude that the internal organization of the work is at a satisfactory level regarding the functions and tasks of flood risk management that the municipal administrations perform.
Material and technical assurance	At a good level. The need to provide personal protective equipment for first-responding employees of the DGFSP provision of annual funds for maintenance and repair of the available equipment and its replacement when the operational resource expires has been identified.	At a good level.	It's not at a good level.
Information security	There are no difficulties in the information provision of flood risk management activities.	Deployed heterogeneous software. And ongoing network and system administration is done. Built information systems for the acquisition, processing, storage and distribution of data and information, which serve the	Satisfactory level

	<p>activities directly related to the administration of data from the monitoring of underground and surface water, filling of the geographic database, etc. For EARBD, it is necessary to renew the licenses of specialized GIS software – ESRI ArcGIS. There is a need to update and supplement the GIS.</p>	
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Coordination and coherence of actions between institutions interaction between institutions involved in flood risk management

The interaction between the institutions performing functions and responsibilities for protection against the harmful effects of water within the scope of the project is generally at a good level.

As **satisfactory** the interaction with the following institutions- "Irrigation Systems" Ltd. is evaluated; State enterprise "Management and management of dams"; SAMTS and the Interdepartmental Commission for Recovery and Assistance (ICRA) under the Council of Ministers. As **unsatisfactory** interaction with the Bulgarian Red Cross and insurance companies and organizations has been defined.

The main problems and areas that need improvement are mainly related to the provision of information, the harmonization of the information systems of the various institutions, as well as the publication of the information on the websites of the relevant institutions.

There is a need to strengthen coordination and communication between the individual structural units operating at all levels of flood risk management. It is necessary that the functions of coordination and communication be more clearly regulated in the interdepartmental acts.

As a problem poor coordination of information flows with part of the institutions (mainly municipalities) was identified. In the course of the research, it was found that it is impossible to summarize the information about the databases that are maintained by each institution and to analyze its scope and application, with the aim of making it available to other institutions as well.

It was also not clarified to a sufficient extent the question of what legal requirements the databases are collected and maintained, in what scope and where they are used. Based on the data from the completed questionnaires, it is not possible to assess whether there are problems with duplication of information, non-


maintenance or formal maintenance of such information.


Conclusions

The institutional capacity of the institutions as a whole is not at the required level. The only exception is DG "FSPP"

The coordination between the institutions is still not at a high level and there is insufficiently high efficiency of the joint actions for prevention and liquidation of the consequences of the harmful effects of water.


Recommendations

 Competences of the individual institutions are clearly outlined in the by-laws that regulate their organization and, more specifically, the responsibilities in the field of protection against the harmful effects of water. For this purpose, the changes that have occurred in recent years in the Water Act and the Disaster Protection Act should also be reflected in the relevant zoning regulations of the administrations related to the topic of flood risk and protection, thereby settling missing or unclearly differentiated functions in the area under consideration. The Organizational Regulations for the activity, structure, organization of work and numerical composition of the basin councils issued by the Minister of Environment and Water should be updated (Official Gazette No. 25 of March 18, 2003);


 It is necessary that the commitments of the municipalities in the management of FRM be properly organized and secured through:

- assignment of functions to the structural units in the municipal administration in the organizational regulations for the organization and activity of the municipal administration
- assigning duties and responsibilities under the FRM to the staff in their job descriptions;
- provision of personnel with appropriate quantitative and qualitative characteristics
- availability of the material, technical and information security for the implementation of the functions
- Clear regulation of the ways and forms of interaction with other institutions related to flood risk management, especially to the preparation and implementation of strategic documents- FRMP.
- It is recommended to periodically improve the qualifications of experts, expanding the circle of participating employees and looking for different forms of training and improving knowledge and skills.
- Search for additional opportunities for resource provision through participation in projects under

various programs financed with European funds;

 In order to solve the problems with the staffing of the database, the following should be done:

- In the long term, based on a precise analysis of the volume of activity carried out in the database, consider the **possibility of redefining the number of full-time staff of the database** in favor of the specialized administration at the expense of the general administration;
- the development of **measures at the national and ministry level** to stimulate the training and **development of personnel** for the needs of the basin directorates
- A possible solution is **the improvement of the overall system for raising qualifications at the level of the coordinating authority (MoEW).**
- Another possibility is the preparation and application with **projects to improve the administrative capacity under the Operational Program "Good Governance 2014-2020 d."**
- Another possibility is for the DB to prepare a proposal **to the Ministry of Education and Culture for priority areas of training for obtaining knowledge and expertise**
- In view of the regulatory restrictions, the basin directorate should, in the short and medium term, look for other **forms of providing the necessary personnel**, such as internship programs, attracting external experts-individuals, in connection with implemented projects with European funding, such opportunities provide the Ministry of Councils Decree 119/2014
- Possibility of **additional payment of employees from the staff**

 In order to ensure a good interaction between the institutions, it is necessary to undertake the following:

- Ensuring prior coordination of positions between institutions on specific issues;
- Preparation of common proposals and common positions on substantive issues related to flood risk management;
- Coordination of positions and preparation of common decisions with representatives of all institutions with competencies in flood risk management.
- It is expedient for the institutions at the territorial level to organize regular meetings with each other, at which to specify the possibilities and operational contact persons in case of a need for a quick reaction and/or joint activity of the institutions;
- Detailed familiarization of the employees of all responsible institutions with the powers and obligations that they and other responsible institutions have
- Regular and timely provision of feedback between the various institutions,
- In its capacity as a competent authority, each institution should strictly fulfill its commitment to follow up the implementation of the measures of FRMP, especially those for the protection of the population and critical infrastructure

- Creation of the coordination mechanism for interaction when working at the territorial level and implementation of monitoring of its implementation.
- Do not allow delay in acting by institutions pending official correspondence, especially in cases of flooding
- Each institution should prepare an instruction outlining the distribution of roles and actions of the responsible specialists
- Systematic conducting of monitoring of the implementation of the Programs of measures of FRMP
- Greater autonomy in risk assessment procedures, respecting the principle of good communication, coordination and cooperation with other institutions directly involved in protection from the harmful effects of water;
- Priority implementation of the commitment of departmental state bodies to provide financial support with funds from the state budget for the measures from FRMP, as long-term planning is undertaken for this commitment, and not relying mainly on projects.

STRATEGY FOR THE RELATIONSHIP BETWEEN PREVENTION AND RESPONSE FOR FLOOD PROTECTION OF
BULGARIAN INSTITUTIONS ON BULGARIAN TERRITORY

Prepared: April 30, 2020

Aim: The main goal of the development is to determine the main strategic priorities for improving the interaction and efficiency in the work between the individual responsible institutions, to identify specific measures and actions to improve the overall coordination and cooperation between the various institutions having a role in flood risk management and increasing its effectiveness at the national, regional, municipal and local level.

Emphasis is placed on improving flood risk management mechanisms, ensuring changes to existing planning legislation and flood mitigation actions.

Content:

1. Introduction
2. Conclusions of the current state analysis
3. SWOT analysis
4. Strategic objectives and priorities in the interaction of the responsible institutions to reduce the risk of floods. setting goals and priorities
5. Elaboration of alternatives (actions and measures) in achieving the formulated objectives
6. Financial sources
7. Alternative choice
8. Development of a mechanism for monitoring and control of implementation
9. Conclusion
10. Annex

The strategy enables the coordinated solution of the problems with the perspective of developing the administrative capacity for flood risk management in the long term.



Conclusions from the analysis of national legislation

Analysis of the institutional capacity of the responsible institutions

Conclusions from the review of international experience

Conclusions from the analysis of national legislation

- ✓ A large number of legal acts
- ✓ Frequent changes and additions to the regulations
- ✓ There are gaps in the current regulations
- ✓ The institutionalization of flood risk management is very clearly enshrined in the Water Act and the Disaster Protection Act. The latter describes the existence of a Unified Rescue System. The specific responsibilities for prevention, response and recovery activities of each state, regional and municipal structure, as well as voluntary formations, legal entities and individuals are established and implemented in actions at all levels.
- ✓ The competences of the institutions in terms of prevention and preparedness are not clearly defined
- ✓ The regulatory framework in the Republic of Bulgaria does not regulate the coordination and interaction between the competent bodies at the basin level.
- ✓ No single institution has been charged with the responsibility of developing and maintaining a unified flood information system.
- ✓ There is no legal mechanism for settling the issues related to the financing of activities for the prevention and liquidation of the negative consequences of floods. There is a lack of a clearly written legal mechanism of the regulated interactions, commitments and responsibilities of the institutions in cases where synchronized actions are required;
- ✓ There has been significant progress in the regulatory framework in the decentralization of actions and responsibilities at the municipal and regional level regarding the response as an element of the FRM. On the other elements of the FRM, progress is uneven;

Analysis of the institutional capacity of the responsible institutions

- ✓ The institutional capacity of the institutions as a whole is not at the required level. The only exception is DG "FSPP".
- ✓ In relation to the two DBs (WARBD and EARBD), strengths and weaknesses are found. Strengths - the highly qualified staff of the directorate, good information provision (and good interaction with most external institutions, good organization of work and effective mobilization of available resources. Weaknesses: insufficient quantitative assurance with staff whose numbers and structure do not fully correspond to the growing volume, the lack of specialists with engineering education, complexity and urgency of the tasks; low pay; lack of specialized training and insufficient

systematicity in raising qualifications as part of career development; limited opportunities for growth in a position.

- ✓ In municipal administrations, the problems regarding institutional capacity are the most serious. The level of provision with personnel is satisfactory, the level of material, technical and informational provision is insufficient. No strong points to be found. Weaknesses are ignorance of the specifics of the obligations in relation to the FRM, poor knowledge and ignorance of changes in the legal framework also creates prerequisites for ineffective implementation of flood risk management responsibilities.
- ✓ The coordination between the institutions is still not at a high level and there is insufficiently high efficiency of the joint actions for prevention and liquidation of the consequences of the harmful effects of water.
- ✓ There are difficulties in the work of the responsible institutions caused by:
 - ✓ the lack of regulated interactions, commitments and responsibilities of institutions in joint actions.
 - ✓ there is no mechanism to regulate the obligation and manner of providing information related to flood risk management.
- ✓ Insufficient awareness of the employees about the powers and the specific role that the other institutions have.
- ✓ Inadequate assessment and sometimes downplaying of responsibilities.
- ✓ Inability of employees in state institutions to prioritize responsibilities.
- ✓ The lack of feedback from a given institution leads to inadequate reactions by other institutions.
- ✓ The absence/shortage of material and personnel resources makes the work process cumbersome and poses serious challenges to the officials responsible for acting. This leads to tension between institutions when problems arise.
- ✓ The lack of financial security and the shortage of personnel often prove to be an insurmountable obstacle for the effective performance of the institutions' duties.

Conclusions from the review of international experience

From the analysis of the foreign experience for Bulgaria, it can be applied after the necessary legislative changes:

- ✓ Practice from foreign experience in flood risk management and spatial planning
- ✓ Practice from foreign experience in flood risk insurance

	Strengths	Weaknesses
Internal factors	<ul style="list-style-type: none"> • Presence of well-established state institutions at the central and basin level with traditions in the field of flood risk management; • A model of moderate centralization is normatively regulated; • All institutions that should be included in the process of improving communication and interaction between prevention and response have been identified; • Some of the institutions have good administrative capacity; • Motivation of the existing administrative capacity for development; • Activity on the part of the institutions for conducting a transparent policy. 	<ul style="list-style-type: none"> • A large number of legal acts regulating the duties and competences in flood risk management of multiple responsible institutions at the national, basin, regional and local level; • Misunderstanding of official duties and powers, as a result of insufficient administrative experience; • Gaps in knowledge and application of flood risk management regulations; • Insufficient technical and material resources to fulfill the legal obligations of prevention and response; • Weak communication and coordination with other institutions. • Insufficient financial assurance of flood risk management activities; • Low degree of interaction between the scientific community, administration and political leadership • Insufficient degree of connectivity between individual subsystems and structures involved in flood risk management activities; • Insufficiently well-trained personnel and low technological culture in central and local government structures;
	Opportunities	Threats
External factors	<ul style="list-style-type: none"> • Availability of diverse funding sources (operational programs and other international programs and funding schemes) related to flood risk management; • Availability of opportunities to exchange experience and share good practices in the field of flood risk management, both at the prevention and protection stages; • Availability of opportunities for the participation of scientific circles and NGOs, as well as NATO structures in the Republic of Bulgaria; • Using the capabilities of the Center for Aerospace Observation, through up-to-date satellite data. 	<ul style="list-style-type: none"> • Insufficient activity and interest of officials at the various levels responsible for the flood risk management process participating in the various councils and meetings; • Insufficient experience due to unclear understanding of the role and importance of each institution in the process; • Lack of specific methodologies to address climate change risks in flood risk management; • Absence of a prescribed legal procedure for reporting the relationship between the priorities defined in the FRMP and the allocation of financial resources; • Insufficient financial resources to implement prevention and response activities/measures; • Potential possibility of destabilization of the overall socio-economic situation in the country given the protests at the moment of the COVID19.

Objective 1. Improving the efficiency of institutions in the implementation of flood risk management activities at all levels;

- ✓ Priority 1. Creation of organizational and normative prerequisites for improving coordination between individual institutions;
- ✓ Priority 2. Establish an institutional framework to ensure redistribution of functions and concentration of key functions in a few key “players” with responsibility for integrated flood risk management
- ✓ Priority 3. Increase the capacity of all actors in flood risk management

Measures –to create new structures to change the existing subordination in the sector.

Objective 2. Increase institutional (professional, organizational and technical) capacity for flood risk management in all institutions and at all administrative levels of government.

- ✓ Development of the qualifications of personnel engaged in flood risk management;
- ✓ Providing the necessary technical means to carry out flood risk management activities.

Measures- improving the pay of employees in the field of flood risk management and attracting engineering personnel.

Objective 3. Achieving effective coordination and interaction between the responsible institutions to reduce the risk of floods at the prevention stage;

- ✓ Cooperation and partnership with ministries, departments and other central and territorial bodies of the executive power, maintaining information registers and databases, with the aim of automating the exchange of information between institutions and using administrative sources
- ✓ Active partnership and cooperation between bodies engaged in flood risk management activities.

Measures- introducing the use of fast channels for communication through Facebook and Viber groups.

Objective 4. Achieving coherence in the implementation of policies for sustainable development, adaptation to climate change and flood risk reduction,

Strengthening the partnership with the scientific community to conduct specialized research for the purposes of developing, monitoring and evaluating policies and programs of **adaptation to climate change;**

Measures- attracting and using the experience of scientific circles and NGOs.

Objective 5. Creation of a single information platform for information exchange and supporting management decision-making.

- ✓ Expanding the use of administrative registers and information systems for statistical purposes:
- ✓ Expanding the use of data from administrative sources.
- ✓ Implementation of combined data collection methods.
- ✓ Participation of all institutions in the preparation and discussion of changes in legislative acts in the field of flood risk management
- ✓ Participation in strategic committees and working groups to develop common policies and tools related to the further development of the URS.

Measures- using NATO's experience through its structures Bulgaria and the available platforms.

Achieving the goals can be achieved after setting specific priorities in the work of each institution, considering that the activities related to flood risk management are one of many for each administration. The same requires prioritization as a result of understanding and evaluating the importance of the problem. When the roles of each participant are clear, so will the responsibilities.

Measures

The measures that can be used to achieve the goals of the identified priorities are:

- ✓ legislative changes in the regulations of the BD and the Municipal Administrations;
- ✓ Ensuring continuity and preventing loss of expertise and past experience;
- ✓ Ensuring effective coherence, consistency and continuity of responsible structures;
- ✓ overcoming the formalism in preparing the documents and plans of the responsible institutions;
- ✓ provision of financial resources necessary to fulfill the regulated legal obligations for each responsible party;
- ✓ trainings - internal and, if possible, participation in thematic meetings and seminars, as well as preventive exercises and trainings on disaster protection - both at the national, regional and municipal level.

Development of alternatives (sequence of actions and measures) to achieve the stated objectives

steps for a good interaction :

- Ensuring prior coordination of positions between institutions on specific issues.
- Drafting common proposals and common positions on substantive issues related to flood risk management.
- Coordination of positions and preparation of common decisions with representatives of all institutions with competencies in flood risk management.
- Organizing regular meetings
- Detailed familiarization of the employees of all responsible institutions with their powers and duties that they have in the risk management work of and with those of other responsible institutions
- feedback between different institutions, fast communication (telephone, electronic)
- Strict follow-up of the implementation of the measures by FRMP,
- Do not allow any delay in taking action by the institutions pending official correspondence.
- Preparation of an instruction outlining the distribution of roles and actions of the responsible specialists
- Systematic monitoring
- Greater autonomy for flood risk management officials
- Priority implementation of the commitment of departmental state bodies to provide financial support with funds from the state budget for the measures from the FRMP

Here, the feedback link reaction- prevention and the need to improve the interaction process should be brought out.

Alternatives/ sequence of actions to achieve the objectives set in the Strategy

- Updating of the by-laws for a certain part of the administrations, such as zoning regulations, etc.
- Building administrative capacity through a clear understanding of the tasks and responsibilities of each administration and the employees involved in the process at each level.
- Exchange of information between the parties involved by maintaining information in a common database.
- Attracting participants from academia and non-governmental organizations, including mobile operators and insurance companies.
- Improving the effect of district-level meetings and basin councils by changing the concept of holding them by introducing a rotational principle for presenting specifics of the activities related to the flood risk management process.
- Designation of persons who, upon receiving information about the risk of floods, on the principle of an operational unit, to coordinate actions between institutions
- Improving the awareness and preparedness of the population.

Time frame: 6 years

- ☞ State budget
- ☞ Municipal budgets
- ☞ Enterprise for the Management of Environmental Protection Activities (EMEPA)
- ☞ The Interdepartmental Commission for Recovery and Assistance to the Council of Ministers
- ☞ Operational Program "Environment" 2021-2027 (Ref. Version 1 of the Program)
- ☞ Territorial cooperation programs
- ☞ Solidarity Fund

Alternative choice

1

Coordination and cooperation between the various institutions having a role in flood risk management at the stage of prevention and response while preserving the existing realities;

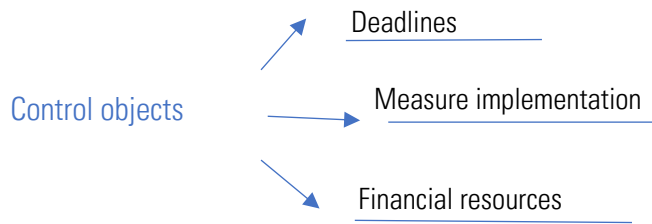
2

Coordination and cooperation between the different institutions having a role in flood risk management at the prevention and response stage by partially improving the functions and roles, or strengthening the capacity of only part of the individual institutions, or only in relation to one of the stages of risk management from floods;

3

Coordination and cooperation between the various institutions having a role in flood risk management at the prevention and response stage while strengthening the functions and roles of each of the individual institutions.

The selected alternative seeks, through a smooth transition and decision-making based on the evaluation and monitoring of actions already taken, to solve the identified problems. The planned actions in the short and medium term are clearly and precisely regulated, with a view to achieving sustainability of inter-institutional coordination and interaction in the flood risk management process. The philosophy of changes over time implies the implementation of the formulated actions, the implementation of a periodic assessment of the achieved progress and the prospects for development in the time frame until 2030, and, if necessary, corrective actions will be taken to improve the results and achieve the set goals.



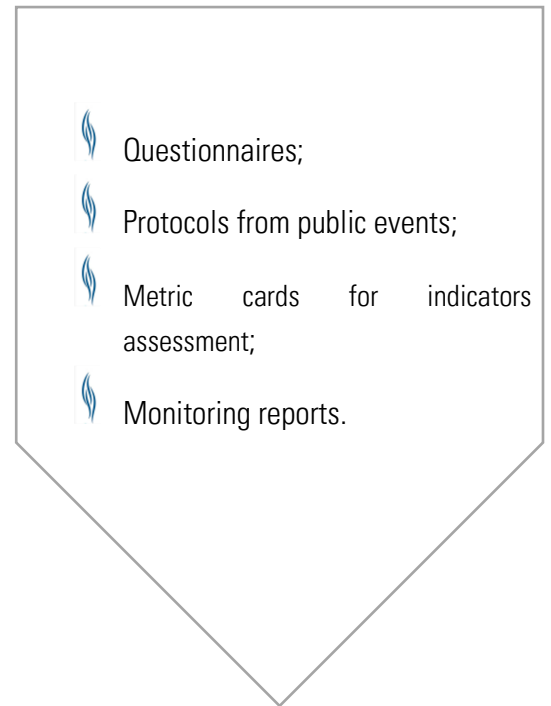
Reports content:

- ✓ Basic provisions for the performed work;
- ✓ The progress achieved in the implementation of objectives and priorities;
- ✓ The problems encountered and the measure taken;
Forecast of the expected implementation of the objectives and priorities in the Strategy testing period

Indicators:

- ☞ Number of regulatory amendments;
- ☞ Number of meetings held;
- ☞ Number of conducted trainings;

Monitoring mechanism



Assessment of the implementation of the Strategic Objectives

- ☞ Quick assessment
- ☞ Internal experts – Indicators matrix
- ☞ External experts – audit of the implementation and assessments of indicators (benchmarking).

Conclusion

The proposed Strategy sets the basis/framework for establishing and improving the interrelationships between Bulgarian institutions in the process of prevention and response for flood protection. The development of the Draft Strategy will ensure coordinated problem-solving with a view to developing administrative capacity for long-term flood risk management.

DETAILED STUDIES FOR THE DEVELOPMENT OF A ROADMAP FOR THE COORDINATION OF BULGARIAN ACTIONS

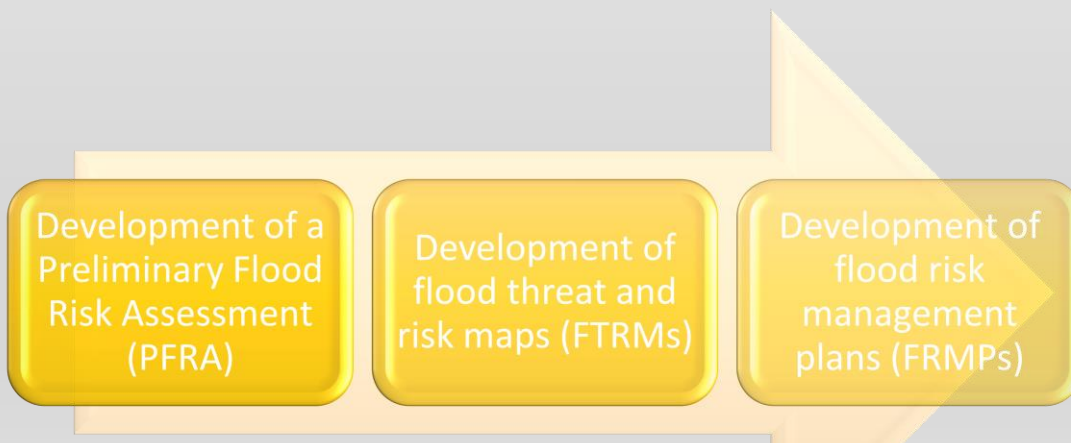
Prepared: June 9th, 2023

Features: The implementation of detailed studies for the development of a road map for the coordination of Bulgarian actions is related to the implementation of in-depth studies of the Preliminary Flood Risk Assessment (PFRA) and the Flood Risk Management Plan (FRMP).

Content:

Introduction

1. Methodology used in the development of PFRA for the second cycle
2. Approaches to flood threat and risk analyzes of the previous cycle
3. Analysis of the collected information about past floods that occurred in the previous period
4. Information security necessary for flood threat and risk
5. Evaluation of the EC to the reports for each of the stages of application of the Directive.
6. Conclusion



“Methodology for the preliminary assessment of flood risk from 2020” combining and updating the Methodology for the preliminary assessment of flood risk from 2011 and Criteria and methods for determining and classifying the risk and determining the areas with a significant potential flood risk (ASPRF) from 2013.

The need to update the methodology is related to the purpose of **improving the information base, expanding the scope and specifying the approaches and criteria for flood assessment and determination of the ASPFR**

The new methodology includes the following **requirements**:

- Review and update the criteria and **thresholds for assessing** significant past and potential future floods;
- **Updating of the ASPFR**
- Establish an approach to assess the impact of climate change on all flood types;
- Establishing an approach for assessing the threat of floods caused by intense rainfall (i.e., **flash floods**);
- Creation of **a concept/schema for structuring the information necessary for the implementation of PFRA.**

The theoretical rationale and approach to updating the methodology for the PFRA discusses in detail the competent authorities for assessing flood risk management together with their specific competences.

<ul style="list-style-type: none"> ✓ Council of Ministers ✓ Minister for Environment and Water ✓ State Enterprise "Management of Dams" ✓ High Water Advisory Council of the Ministry of Environment ✓ Water Coordination Council ✓ Executive Director of EEA ✓ Regional environmental and water inspectorates ✓ Minister for Agriculture, Forestry and Food ✓ Executive Forest Agency ✓ Minister for Regional Development and Public Works ✓ Executive Director of the Executive Agency for the Study and Maintenance of the Danube River ✓ Chairman of the State Agency for Metrological and Technical Supervision ✓ Minister for Energy ✓ Minister for the Economy 	<div style="background-color: #e67e22; color: white; padding: 5px; border-radius: 5px; display: inline-block;">National level</div>
<ul style="list-style-type: none"> ✓ Basin Directorates ✓ Directors of basin directorates 	<div style="background-color: #f1c40f; color: white; padding: 5px; border-radius: 5px; display: inline-block;">At basin level</div>
<ul style="list-style-type: none"> ✓ District Governors ✓ Mayors of municipalities 	<div style="background-color: #27ae60; color: white; padding: 5px; border-radius: 5px; display: inline-block;">District and municipal level</div>





- ✓ Water users - permit titles
- ✓ Owner or person operating a site - source of pollution
- ✓ Owner of a dam, hydraulic engineering or reservoir facility
- ✓ Agencies and research institutes with public funding and water users whose activities have a significant impact on water status

Legal and natural persons

Following the application of the methodology in the Preliminary Flood Risk Assessment of the West Aegean Basin Management Area (2022-2027), a **Content Analysis of the submitted questionnaires** was carried out, which shows the following:

- ✓ Completing detailed information on the effects of past floods that occurred up to 6 years back in time is a **time and resource consuming task due to the fact that it** is not archived in a dedicated database. In order to recover it, it is necessary to review many different documents and, in not a few cases, to consult various experts. This leads to the risk of incomplete completion of the survey, marking damages that are not supported by specific figures.
- ✓ Understanding of significant flooding is **subjective** and those completing the surveys are clearly not familiar with the criteria and thresholds set out in the 2020 Preliminary Flood Risk Assessment Methodology. This can sometimes lead to an underestimation of significant events in certain locations or an overestimation in others. The question is subjective and to eliminate this it is necessary to complete the information set out in the questionnaire for the description of past floods to the Preliminary Flood Risk Assessment Methodology 2020 in a timely manner.
- ✓ In more than 80% of the completed surveys, spatial extent information in a format for direct operation in a GIS environment (kmz, shp or other) **was not provided or was highly inaccurate**. An idea of the extent of the floodplain is obtained once the damage is located, which is a time-consuming process and sometimes not possible to do.

From the review we can point out that:

-  There is institutional and regulatory support for flood risk assessment;
-  According to the Theoretical Rationale and Approach, the update of the methodology for the FRA lacks coordination and a comprehensive understanding of flood risk.
-  The process of collecting data on past floods through surveys shows low activity of some responsible institutions and unsatisfactory capacity to work in a GIS environment
-  The need for standardized databases for different risk categories and coordinated

Approaches to flood hazard and risk analyses from the previous cycle.




In contrast to the approach adopted in the first run to model stationary hydraulic processes at time-fixed water quantities for each point in the computational domain, we move to the analysis of non-stationary ones characterized by corresponding high-wave hodographs. In this way, the nature of the phenomena and consequently the threat parameters will be reflected in a much more realistic way.

The update introduces new methods for assessing the threat of storm and flash floods, updates methods for assessing the threat of Black Sea flooding in coastal areas and methods for vulnerability and risk assessment. A new section has been added to the methodology, indicating the approach for the uncertainty assessment and the necessary sensitivity analysis activities for the flood threat assessment, valid for all flood sources. The proposed methods reflect the impact of climate change on the threat from different flood sources.

An up-to-date geodetic survey including orthophotogrammetric surveying of the terrain, geodetic measurement of detailed cross-sections of the river channels and of the engineering structures (bridges, culverts, sills and barriers, dikes, retaining walls, bank protection and all structures relevant to hydraulic conductivity) has been carried out for the identified ASPFR. Based on these data, a high-resolution (0.5 m) integrated digital terrain model (IDTM) has been prepared for each ASPFR. The primary DEMs were subjected to detailed analysis and, if necessary, further processing, resulting in the final DEMs that satisfy the quality criteria for hydraulic models. The flood hazard and risk mapping in the second FD application cycle, in contrast to the first one, is carried out taking into account the temporal variation of the events (non-stationary nature of high waters).

At present, the information available to reliably assess the threat and risk of flash floods is scarce. The number, location and type of hydrometric and rain gauge stations are insufficient for such an assessment. Very few of the hydrometric stations, and only recently, are equipped with automated recording devices. Recording rain gauges operate only in the lowlands and only during the warm part of the year.

The main conclusions that can be drawn after reviewing the approaches to flood hazard and risk analyses from the previous cycle are:

-  technologies and tools for flood risk analyses are being improved and refined. Models are being made more sophisticated by adding new variables and parameters, with the main aim of improving the accuracy of the final result. These trends imply a requirement to continuously upgrade existing monitoring and data collection processes.
-  The provision of data on these processes is a weak point for the country, and it is still difficult to set up a coherent system for collecting and structuring information that would unite the efforts of different institutions. Complicating this process without a good basis in Bulgaria would mean aggravating the problems of information provision.
-  Thus, in terms of coordination of Bulgarian actions, we can highlight as a key challenge in the roadmap the improvement of information security through an integrated approach, covering all institutions involved in the process and a lean system, synchronizing their actions and ensuring harmonized results with quality and resolution, meeting modern standards.

Analysis of information collected on past floods that occurred in the previous period.

A review of the information collected in the Preliminary Flood Risk Assessment for the Western Baikal Basin Management Area has been undertaken. The information collected and processed on past floods varies in format and content depending on the source. To summarize, literature sources, daily bulletins of the General Directorate of Fire Protection - Ministry of Interior, data on past floods based on information from municipalities, district administrations and the Interdepartmental Commission for Reconstruction and Assistance under the Council of Ministers were used.

In most cases, information is available on past floods:

- ✓ The number of residents affected;
- ✓ The number of affected IPPC industries; WWTPs; sewage systems and/or other sources of wastewater;
- ✓ The number of water protection areas affected under Article 119a of the Water Act;
- ✓ The extent of damage to residential buildings, industrial plants and/or infrastructure;
- ✓ The number of monuments affected, etc.
- ✓ Data on past floods 2001-2010 from the daily bulletins of the DG "FSCP" - Ministry of Interior
- ✓ Data on past floods based on information from municipalities, district administrations and the Interdepartmental Commission for Reconstruction and Assistance to the Council of Ministers.

Information was provided by the municipalities through questionnaires as follows:

- ✓ Questionnaires completed in 2011 with floods recorded in the past and
- ✓ Information on floods resulting from the heavy rains in M. December 2010.




Based on the information collected, an Assessment of the Consequences and Significance of Past Floods is made, and it goes through the different categories:

- ✓ Protected category "**HUMAN HEALTH**" For the assessment of the negative impact on the protected category "Human Health" in relation to past floods, the criterion used is primarily the number of inhabitants affected by the flood, with a threshold of 15 inhabitants and recommended by the Methodology.
- ✓ Protected category "**INDUSTRIAL ACTIVITY**" Economic damage is assessed using different criteria, but also in combination with the criterion of the number of inhabitants affected, in the same way as for the protected category "Human Health".

Establishing clearly defined and enforceable criteria for relevance is of utmost importance for the RIA, its reliability and credibility. Passing at least one of the defined thresholds for any of the protected categories defines a flood as significant.

Using the criteria, each of the recorded past floods was assessed. It is for this reason that the accuracy of the data with which the initial analyses were made is of such importance.

As the main problems in the data from previous floods, we can point out the following:

-  The sources of information are extremely heterogeneous, with different spatial and temporal coverage, and different data formats. The aggregation and homogenization of such information is extremely time consuming and prone to errors and gaps in the data;
-  The data do not allow delineation of the spatial extent of the flooding;
-  In most cases there is no information on flooded areas

Information provision required on flood hazard and risk.

The data that must be secured to make the flood risk assessment include:

- ✓ Digital Terrain Models (DTM), Digital Surface Models (DSM) and other topographic data;
- ✓ Investigation of rivers, canals and structures;
- ✓ Details of flood defenses, reservoirs and rules for their operation;
- ✓ Data from hydrometric stations;
- ✓ Data from rain gauge stations;
- ✓ Surface water drainage network and infrastructure (if required);
- ✓ Chronological history of floods.

The data required to support flood risk assessment and management is highly specialized, requiring detail and data available back in time. Specific technical and human resources are required for their acquisition and processing.

EC assessment of the reports on each of the stages of implementation of the Directive

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

- ✓ There is a well-established civil protection law that clearly defines the roles and responsibilities of the different components of the "Unified Rescue System" (URS).
- ✓ Bulgaria actively participates in EU civil protection cooperation, including technical working groups, exercises and training. In addition, there are a number of bilateral agreements with neighbouring countries.
- ✓ Bulgaria attaches great importance to 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 can serve as a model for collaboration with other non-governmental actors such as NGOs and businesses.

Key and most important recommendation and move towards an **Integrated Approach to Disaster Risk Management**. This includes:

- ✓ Apply an integrated and comprehensive (all hazards, all phases, all stakeholders) approach to disaster risk management, risk assessment and risk management planning.
- ✓ Develop a comprehensive roadmap for legislative change to ensure coherence across sectors.
- ✓ Promote stronger collaboration with all stakeholders through consultation in all phases of disaster risk management and improve capacity building at national, regional and local levels, e.g. by building regional and local platforms that complement the national platform.
- ✓ Allocation of funds for disaster risk management activities at national level through a coordinated approach
- ✓ Improve dialogue and information exchange on risk between public and private stakeholders and NGOs.
- ✓ Assessment of local needs and characteristics in risk management planning activities and provision of necessary resources at local level
- ✓ Establish and implement assessment, monitoring and lessons learned programs throughout the disaster risk management cycle.
- ✓ To make the overall system flexible enough to accommodate new developments arising from both local needs and global trends

In summary of the recommendations made, the first priority is to build an integrated approach to flood risk management that includes all hazards, all phases, all stakeholders, risk assessment and risk management planning, as well as actively involving local authorities and stakeholders from all sectors in the processes.

Conclusion

1. Information provision cannot meet the requirements of the Floods Directive

- ✓ There is a lack of data on past flooding - the available information cannot be used to categorise flooding by adverse effects, identify the significant ones and report them accordingly to the FD;
- ✓ Lack of information on the spatial extent of past flooding, inability to build a spatial database.
- ✓ There is scarce information on economic damage (primary, secondary and tertiary sectors); damage to protected areas and protected sites
- ✓ Lack/unavailability of sufficiently accurate climate data - Lack of measuring stations for certain areas and river basins - therefore, proxy data from stations in river basins with similar characteristics are provided

Major problems in data- not available; difficult to access, in format difficult to process; in different formats- difficult to harmonize, incomplete- poor accuracy. The data collection process is laborious and slow: main reasons are lack of structured information, easy to access; lack of standardization in the archives maintained even within the same structures; lack of digitization of data.

The coordination problems that lead to this:

- ✓ Lack of human resources with appropriate qualifications (GIS, programmers, engineers);
- ✓ lack of financial resources to attract suitably qualified staff;
- ✓ Lack of an integrated system that harmonizes, unifies and brings together information available from different institutions.

- ✓ Lack of a regulatory framework (new ordinance) to regulate the collection of disaster data (such an ordinance was previously available)

2. Synchronization and integrated approach

Need for synchronization of strategic, planning and spatial planning documents at local level (GSPs, MPs) with the FRMPs. Co-ordination of reporting timeframes and implementation of measures at different levels; There is a lack of co-ordination and overall understanding of flood risk- no alignment between different policies/sectors;

- ✓ Need for capacity building at national, district and municipal levels;
- ✓ There is a lack of awareness of all the negative consequences of the floods - both among the citizens and the government
- ✓ There is a lack of consideration of local needs and characteristics in risk management planning activities;
- ✓ Decisions are made at a local level for a specific problem, without addressing the long-term and catchment level
- ✓ The focus is mainly on disaster protection, preventive measures and risk reduction are neglected

3. Turn on

- ✓ Concretization of strategies, programmes and measures of different stakeholders with the wider involvement of local organizations;
- ✓ Integrating all stakeholders from the public sector as well as involving experts from NGOs and scientific organizations.
- ✓ Capacity building of stakeholders on flood risk, modern methods and approaches, access to open data, working with spatial information.

4. Funding

- ✓ Review of available funding mechanisms and sources (at national and EU level), defining the levels of responsibility of the state and the different bodies in terms of funding;
- ✓ Insufficient financial resources in district and municipal administrations aimed at prevention
Financial resources not sufficiently targeted and available in an emergency, complex procedures for obtaining resources
- ✓ The Basin Directorate cannot secure the measures of the strategy with funding, relying on projects alone does not produce good enough results, it is necessary to allocate targeted funds

5. Human Resources

- ✓ Low staffing of the responsible institutions, need for a clear division of responsibilities within and between institutions and optimization of processes
- ✓ Turnover of experts in the institutions and especially municipal administrations. For this reason, it is necessary to create conditions for effective transfer of experience and ensure continuity in the administration - introduction of internal rules and instructions for handover on leaving and dismissal
- ✓ The need for better pay in the sector to reduce turnover, attract skilled staff and improve the motivation of the experts involved.

The main findings and conclusions will be taken into account in the preparation of the roadmap for the coordination of Bulgarian actions in the phases of the FRMP.

ROADMAP FOR RESPONSIBILITIES, RELATIONSHIPS AND COMMUNICATIONS BETWEEN
BULGARIAN INSTITUTIONS

Prepared: 2021

Aim: Presents summarized table information

Measure	
Mechanism of action	
Activities to implement the measure	
Performance period	
A necessary resource	
Source of funding	
Indicators	
Responsible institutions	
Expected results	

Features: Presented by strategic objectives – priorities – actions

The summary is prepared following the structure of the strategic objectives, priorities and emphasizing the specific actions and the institutions responsible for their implementation

STRATEGIC OBJECTIVE 1: Increasing the effectiveness of institutions in the implementation of flood risk management activities at all levels

Priority 1.1. Creation of normative and organizational prerequisites for improving coordination between individual institutions

Specific activities:

- Identification of specific gaps in the legal and by-laws regarding the coordination between the institutions involved in the FRM
- Establishing the need to create and/or update specific guidelines or instructions
- Analysis and preparation of regulatory changes
- Creation of a working group with representatives of all institutions to update the general policies and tools on FRM
- Participation of all institutions in the preparation and discussion of legislative changes in the field of FRM

Institutions: Ministry of Education, Ministry of Education, Ministry of Education, Ministry of Health, SAMTS, SEMD, DG "FSPP", BD, District Administrations, Municipal Administrations, "IS" EAD, NIMH, Red Cross, Voluntary formations

Priority 1.2. Improved institutional framework ensuring clarity and specificity in flood risk management responsibilities.

- Delineation of the responsibilities under the FRM in the functional characteristics of the administrations
- Designation of a special unit in all administrations that have statutory powers under the FRM
- Creation of a pilot coordination mechanism for interaction at the territorial level
- Practical application of the interaction coordination mechanism
- Legal regulation of the financing of flood risk reduction activities at the prevention stage
- Legal regulation of land use in the context of flood risk management
- Legal and regulatory changes in relation to insurance in relation to flood risk management (responsible: Lead: CM, supporting: Insurance companies)
- Legal regulation of responsibility for developing and maintaining a unified information system for floods
- Entering the duties and responsibilities under the FRM in the job descriptions of the relevant employees
- Development of instructions outlining the distribution of roles and actions of the responsible specialists in the FRM
- Ensuring greater decision-making autonomy in flood risk assessment procedures

Responsible Institutions: Institutions involved in FRM

Priority 1.3. Active partnership and cooperation between bodies engaged in flood risk management activities

Specific activities:

- Creation of a mechanism regulating the obligations and the way of providing information related to flood risk management

- Monitoring and evaluation of actions taken to reduce flood risk

Responsible institutions: Leading: All institutions with legally regulated powers. Supporters: Institutions involved in FRM

STRATEGIC OBJECTIVE 2: Increase administrative / institutional capacity for flood risk management

Priority 2.1 Improving the coordination and structures of the administrations involved in the FRM at the district, basin and municipal level

Specific activities:

- Carrying out a unified and comprehensive analysis of the functions and activities of regional and municipal authorities
- administrations
- Preparation of a proposal for change as a result of the performed functional analysis
- Designation of a separate staff in the structure of the regional and municipal administrations, specialized in FRM
- Transforming basin councils to BD into bodies with clear rights and responsibilities for flood risk management (Lead institutions: BD)
- Conducting discussions, trainings and seminars (Leading institutions - The relevant administrative structure)

Leading institutions: DA, Municipal administrations. Supporters: Institutions involved in FRM

Priority 2.2 Development of the qualifications of personnel engaged in flood risk management

Specific activities:

- Analysis of the qualifications of the personnel employed by the FRM
- Analysis of the need to improve the expertise of key experts in the FRM
- Implementation of trainings to increase the expert capacity of employees in the administration
- Exchange of good practices between the institutions involved in the FRM policy
- Developed module for trainings for specific competences in the FRM (for example, trainings in reporting, implementation of the PoM of the FRM)
- Organization of annual training and information campaigns on FRM
- A training module has been developed on the updating of the regulatory framework in the area of floods
- Creating prerequisites for effective transfer of experience and ensuring continuity in the administration

Responsible institutions: Leading: All institutions with legally regulated powers. Supporters: The relevant administration, All institutions involved in FRM

STRATEGIC OBJECTIVE 3 Introduction of flood risk financial management policies

Priority 3.1 Improved understanding of the current allocation, use and funding needs for the FRM

Specific activities:

- Quantification of past flood damage and losses and overall budget needs;
- Overview of available funding mechanisms and sources (at national and EU level),
- determining the levels of responsibility of the state and the various bodies in terms of funding
- Assessment of flood coverage levels for state assets and for households (Leading institutions: Ministry of Finance, Supporting: Association of Bulgarian Insurers)
- Introduction of new instruments to finance flood risk reduction measures
- Introduction of the principle of grading investments by importance
- Review and study of the possibilities for the participation of municipalities in the Municipal Solidarity Fund
- Organization of additional training of the municipalities for the preparation of quality projects when applying for funding to the Interdepartmental Commission for Recovery and Assistance /ICRA/
- Reduction of the minimum mandatory term for issuing opinions on admissibility with the FRMPs when applying with financing projects
- Responsible institutions: Leaders: BD, CM, Association of Municipalities. Supporters: The relevant administration, Supporters: Institutions involved with the National Insurance Institute, interested parties, Association of Bulgarian Insurers, Associations of Municipalities

Priority 3.2 Coordinated financing of flood risk reduction activities

Specific actions:

- Project for the creation of a single coordinating body with powers and a coordinating function in relation to national investments for FRM (Responsible institution: Ministry of Interior)
- Creation of a mechanism to coordinate and stimulate flood risk reduction measures supported by the EU and the national budget
- Development of an investment program to guarantee the implementation of the PoM of the FRMP - the four databases
- Provision of a publicly accessible database for the implementation of various investments and projects in the field of FRM
- Deployment of public awareness campaigns on financial flood risk management

Responsible : Stakeholders

Priority 3.3 Strengthen investment planning for flood risk reduction

Specific activities:

- Prioritizing investments and planning according to identified needs
- Annual review and redistribution, if necessary, of investments for FMR at the prevention stage
- Prepared analysis of the planned and spent funds in the regional and municipal budgets for measures to reduce the risk of floods;
- Discussion of the possibilities for increasing the share of national funding for measures to reduce the risk of floods (at the prevention stage) (Responsible presenters - the relevant administration)

Responsible : Stakeholders

STRATEGIC OBJECTIVE 4 Achieving coherence in the implementation of sustainable development policies, insurance, adaptation to climate change and flood risk reduction

Priority 4.1 Strengthening the partnership with scientific communities to conduct specialized research for the purposes of developing, monitoring and evaluating policies and programs of adaptation to climate change

Stakeholders:

- Attracting and using the experience of scientific communities and NGOs in flood risk forecasting
- Using SYNERGIE180 to collect, manage and display data for monitoring and forecasting (Responsible institution: NIMH)
- Development and implementation of programs for scientific research and development in the field of FRM (Responsible institutions: Scientific institutes and units)
- Mechanism for consolidation and use of data and information developed by academic institutions (Responsible institutions: Academic community)
- Assigning the implementation of scientific/analytical tasks to provide the necessary information on specific issues related to the FRM
- Using satellite estimates of precipitation
- Using other meteorological satellite information, the EU's Copernicus

Priority 4.2 Use of insurance options

Specific activities:

- Increasing insurance culture
- Organization of educational campaigns at the initiative of insurance companies or state institutions.
- Explaining the benefits of using long term insurance contracts
- Introduction of compulsory insurance in case of identified flood risk
- Establishing a partnership with government institutions in flood risk insurance
- Development of joint insurance programs
- Publication of information on the insurance of public and municipal properties and assets
- To explore opportunities for extended flood risk insurance coverage
- Improvement of insurance products for municipal and public property
- Additional voluntary insurance schemes with subsidized compensation for various types of risk
- Specific insurance in the event of a drought

Responsible institutions: Leaders: IC, respective administrative structures, CM Supporting: Institutions involved in the FRM, Municipalities, DA, Institutions with powers

Priority 4.3 Implementation of policies for sustainable development

Specific activities:

- Revised land use or regulatory plans that include current and projected threats.
- Updating the land use type and standards
- Identifying and informing the public of areas for which protection against the impacts of climate change is impossible or too expensive
- Discussion of the need for regulation mandating the provision of climate and threat information to the buyer in real estate markets.

Responsible Institutions: Leading: Institutions with legally regulated powers; Supporting: Institutions involved in FRM

STRATEGIC OBJECTIVE 5 : Improved integrated flood risk management

Priority 5.1 A sustainable flood risk management data system

- Overview of the currently maintained databases for FRM from the various administrative sources (Responsible institutions: Leading: Institutions with legally regulated powers; Supporting: Institutions involved in FRM)
- Determination of the necessary scope and structure of databases for FRM
- A draft of a unified electronic register with information on the types of floods, the measures taken and the necessary resources has been prepared
- Allocation of responsibilities and the role of the institutions in collecting data and exchanging information on FRM
- Ensuring the institutional arrangement of the data system for flood risk management (Responsible institutions: Lead: Ministries of Resources; Supporting: Institutions engaged in FRM)
- Establishing relevant procedures for the FRM data system
- Linking the FRM data system to outreach and sharing activities
- Ensuring authorized access to information in the unified electronic register
- Implementation of combined data collection methods

Priority 5.2 Effective functioning of cooperation and information exchange mechanisms

- Concrete actions: Establishing a practice of sharing concerns and drawing up common agreed positions on FRM
- Introduction of the use of the fast channels for communication through Facebook and Viber groups (Responsible institutions: Leading: Institutions with legally regulated powers; Supporting: Institutions involved in FRM)
- Organization of working meetings with the representatives of the FRM institutions
- Preparation of presentations by the individual institutions in order to present the supported databases and the form of publication of the same.
- Access to information from the Aerospace Surveillance Center provided
- Analysis of mechanisms for feedback between institutions with a view to increasing its efficiency, sustainability and credibility.
- Introduction of a practice for regular and timely provision of feedback between the institutions involved in the FRM
- Analysis of the way of working with the media by the responsible institutions (Responsible institutions: Leading: Institutions with legally regulated powers; Supporting: Institutions involved in the FRM)
- Introduction to the details of the FRM of media and journalists with a high media rating

ROADMAP FOR COORDINATION OF BULGARIAN ACTIONS IN FRMPs STAGES

Prepared: 2023

Aim: Presents summarized information in tabular form for:

Measure	
Mechanism of action	
Activities to implement the measure	
Performance period	
A necessary resource	
Source of funding	
Indicators	
Responsible institutions	
Expected results	

Features: Presented by strategic objectives- priorities- activities

The summary is prepared following the structure of the strategic objectives, priorities and emphasizing the specific actions and the institutions responsible for their implementation

Stage 1: Preliminary Flood Risk Assessment (PFRA)

STRATEGIC OBJECTIVE No. 1: Increase the effectiveness of institutions in implementing flood risk management activities at all levels

Priority 1.1. Support the development of sustainable regional and national policy in establishing and ensuring a sound legal and institutional framework for disaster risk reduction.

Specific activities:

- Improving understanding of flood risk
- Diagnosing gaps in laws and regulations related to coordination between institutions involved in flood risk management
- Updating general policies and necessary tools on flood risk management
- Determine the appropriate institutional arrangements for the risk data systems used to be sustainable in the long term

Institutions: Ministry of Environment and Water, the Ministry of Agriculture, Foods and Forests

Priority 1.2. Provide an adequate information base for the preparation of the PFRA

Specific activities:

- An organization for the regular collection of information on past floods with a clearly defined structure in its entirety and by designated responsible persons
- Joint inter-institutional work to create a national database of standing water bodies and hydraulic structures with data on their current hydraulic status.
- Access to data for General Development Plans, creation of a unified system for access to the General Development Plans of municipalities
- Establishment of a unified information system with data supporting the process of FRM in the three stages
- Regulatory framework for the information base

Responsible institutions: Ministry of Environment and Waters, Ministry of Agriculture, DG 'Fire and Rescue', State Forests, District Administrations, Municipal Administrations, IS Ltd., NIMH, Red Cross, Voluntary groups

STAGE 1: MAPS OF FLOOD-PRONE AND FLOOD-RISK AREAS

STRATEGIC OBJECTIVE No. 2: Increase the effectiveness of the implementation of the Flood Hazard and Risk Mapping

Priority 2.1 Improving procedures and coordination between institutions

Specific activities:

- Describing the new responsibilities of the administrators who have upgraded their qualifications in flood risk management
- Entering the duties and responsibilities in the job descriptions of the staff concerned
- Analyzing the functions and activities of district and municipal administrations and highlighting coordination problems
- Transformation, if necessary, of bodies with clear rights and responsibilities for flood risk management
- Establish regular channels for consultation and procedures on legal, strategic/policy, operational and technical issues
- Holding discussions, trainings and seminars

Leading institutions: municipal administrations, BOD. Institutions involved in FRM

STAGE: FLOOD RISK MANAGEMENT PLAN

STAGE: FLOOD RISK MANAGEMENT PLAN

STRATEGIC OBJECTIVE 3: INCREASE THE EFFECTIVENESS OF FLOOD RISK MANAGEMENT PLAN PREPARATION

Priority 3.1. Improve cooperation between institutions with responsibilities for flood risk management

Specific activities:

- Application of appropriate mechanisms regulating the obligations and the way of providing information.

Responsible institutions: Institutions involved in DRM.

Priority 3.2 Improving the skills of staff involved in the FRM process

Specific actions:

- Analysis of employee qualifications
- Analysis of the need to improve expertise
- Implementation of trainings to increase the expert capacity of the administrative staff
- Exchange of good practices between institutions involved in FRM policy
- Different training modules developed for specific competences in FRM
- Clear procedures for communicating information in the event of staff turnover

Responsible: BD, MoEW, Institutions involved in FRM

Priority 3.3 Improve the material, technical and information provision for flood risk management activities

Specific activities:

- Analyzing and prioritizing the need for technical tools, equipment and facilities

Responsible: Stakeholders

Priority 3.4 Increase understanding and allocation of funding needs for flood risk management

Specific activities:

- Quantify past flood damages and losses and overall budget needs;
- Overview of available funding mechanisms and sources (national and EU level),
- Increasing administrative capacity in preparing quality projects when applying for funding to the MCMC and other funding mechanisms and sources

Responsible: Institutions involved in FRM

Priority 3.5 Coordinated funding for flood risk reduction activities, facilitation of sizing and multi-purpose investments with multiple risk reduction benefits.

Specific activities:

- Updating national and EU funds.
- Provision of technical assistance. Capacity building of stakeholders.
- Develop a system for information sharing and monitoring of risk reduction investments
- Establish a mechanism to coordinate and incentivize risk reduction measures
- Development of an investment programme to ensure the implementation of the FRMP PoM

Responsible: all stakeholders

Priority 3.6 Strengthen investment planning for flood risk reduction

Specific activities:

- Prioritize investments and plan according to identified needs. Develop a concept for improved data sharing and integration of fragmented systems, standard operating procedures and the multi-hazard early warning platform.
- Improved monitoring and alerting mechanisms through improved data sharing, maintenance and storage capacity.
- Improve data sharing protocols with national and international organizations to increase the benefits of regional cooperation.
- Conduct a technical assessment to improve the geographical and temporal resolution of forecasts and warnings
- Conduct studies to explore the feasibility of using advanced information and community technology and new dissemination tools

Responsible: all stakeholders