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“ENHANCING FLOOD SAFETY IN EUROPE”

HUNGARIAN PRESIDENCY CIVIL PROTECTION WORKSHOP

Budapest, 8th – 10th July, 2024

BACKGROUND DOCUMENT



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1. Background

Civil protection authorities in the European continent are increasingly facing the challenge of a surge in the number of severe weather-related incidents due to global climate change. According to the *European Climate Risk Assessment*¹, Europe is facing more severe heat waves, prolonged droughts, and intensified precipitation, among other things, due to rising average temperatures. These climate risks will lead to more disasters, including droughts and floods. A background paper published by DG ECHO on 'Progress on preventing and managing disaster risk in Europe,'² estimates that the average annual cost of floods in the European Union exceeds € 5 billion. In addition to the material damage, floods caused by extreme weather events have claimed hundreds of lives on the European continent (e.g. Germany and Benelux countries - 2021, Slovenia - 2023, Italy - 2023, Storm 'Daniel' in Greece, Bulgaria and Türkiye - 2023) and tens of thousands of lives worldwide (e.g. Pakistan - 2022, Libya - 2023). Furthermore, flooding events have required the evacuation countless people in flooded areas.

According to the findings of the report on the implementation of Article 6³ of the UCPM legislation, floods is the disaster risk that is most commonly identified by UCPM Member States and Participating States. Despite this, flood protection has not been on the agenda as a priority for Member States in the Council Working Group on Civil Protection (PROCIV) since the Dutch Presidency in 2016, even though the vast majority of Member States have identified flooding as a priority risk in their national risk assessments.

It should be recalled that Directive 2007/60/EC on the assessment and management of flood risk, aims at reducing the adverse consequences of floods, requires EU Member States to carry out preliminary flood risk assessments, to prepare flood hazard and risk maps, and to prepare and implement flood risk management plans every 6 years. The flood risk management plans shall address all aspects of flood risk management focusing on prevention, protection, preparedness, including flood forecasts and early warning systems. Implementation is coordinated at the level of the river basins, which involves cooperation across borders. 17 years of implementation of the Floods Directive provide an important base to build upon the discussions of the workshop.

The challenges of the past years - management of the COVID pandemic, Russian war of aggression against Ukraine, the Gaza conflict, or even the EU-level management of forest fires– required immediate response actions by the Member and Participating States and by the EU, meaning that progress on the EU-level safety challenge of flood risk management appears to have become a lesser priority. With the development of the *Union disaster resilience goals*⁴ there is a stronger emphasis on the need to be more resilient to the impacts of the climate change related disasters and to be better prepared to act before disasters strike.

¹ COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS
Managing climate risks - protecting people and prosperity

² Ref. Ares(2024)2827325 – 17/04/2024 – (DG ECHO) Background paper to Item 5: Progress on preventing and managing disaster risk in Europe

³ REPORT FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND THE COUNCIL on progress on implementation of article 6 of the Union Civil Protection Mechanism (Decision No 1313/2013/EU) Preventing and managing disaster risk in Europe. Link [EUR-Lex - 52024DC0130 - EN - EUR-Lex \(europa.eu\)](#)

⁴ COMMISSION RECOMMENDATION of 8th February 2023 on Union Disaster Resilience Goals



In the context of an exchange of experiences on forest fires and floods in Italy, Slovenia, and Greece in 2023⁵, Commissioner Janez Lenarčič stated that response capacities of single Member States are gradually overwhelmed following the ‘new normal’ climate situation. As a result, Civil Protection needs to be strengthened both at national and European level.

Hungary decided in 2022 to bring the issue of flood management to prominence during its EU Council Presidency in the second half of 2024. Indeed, recent events have confirmed that the subject could not be more topical. Over the next six months, with the active involvement of experts from UCPM Member and Participating States, we will seek to identify new policy directions to make Europe a safer, more flood resilient place for all its citizens.

2. Objectives of the workshop

The short-term objectives are to conduct a workshop on ‘Enhancing flood safety in Europe’ (hereinafter: the Workshop) to launch a first discussion on the topic; as well as to provide an appropriate basis for all future PROCIV meetings dealing with the subject, in order to aid discussion when making technical decisions.

The medium and long-term objectives are to achieve a more effective and efficient implementation of the policy objectives of both the water sector and the coordinating bodies involved in disaster management (civil protection), as well as all bodies involved in water damage protection. Other objectives include launching innovations to improve disaster risk management and meteorological-hydrological forecasting systems; to build more flood-resilient societies; to further develop flood protection from an ecological perspective; to raise risk awareness; to strengthen rescue capabilities; to explore the use of artificial intelligence (AI); and to filter out misleading content (fake news) that hampers successful flood management. By making these changes and putting the holistic approach into practice, the safety of EU citizens, the improvement of their quality of life, the protection of their financial assets, the smooth functioning of economic operators, and the competitiveness of the European Union can be enhanced.

The outcomes of the Workshop will provide inspiration for possible future Council conclusions.

3. Preparing the workshop

The National Directorate General for Disaster Management of the Ministry of the Interior (hereinafter referred to as MoI NDGDM), issued a preliminary orientation questionnaire earlier in 2024 with the involvement of experts from the National Water Directorate General and HungaroMet Hungarian Meteorological Service Nonprofit Ltd. This questionnaire had two core objectives: to help shape the workshop and launch the Hungarian Presidency.

The MoI NDGDM forwarded the orientation questionnaire to the Member States - the delegates of the PROCIV working group - and the responses received showed that the areas set out in the questionnaire were generally supported by the Member States. The orientation questionnaire included a comprehensive set of topical flooding issues covering a wide range of areas, in particular:

⁵ Ref. Ares(2024)807107 – 02/02/2024 – (DG ECHO) UCPM Lessons Learnt Programme Meeting on wildfires and floods in 2023 – 30 November-1 December 2023, Rome, Italy



- (a) enhancing resilience to the consequences of climate change,
- (b) the design of flood protection taking into account ecological aspects,
- (c) further development of monitoring and detection systems for flood forecasting,
- (d) the potential for the use of artificial intelligence,
- (e) strengthening the management of flash floods in smaller watercourses,
- (f) the development of societal risk awareness and preparedness,
- (g) the need to increase flood response capacities and the potential of flood rescEU capabilities; and
- (h) addressing disinformation that threaten the management of events.

In a second stage, the MoI NDGDM is building on these results and has prepared a second detailed questionnaire to be sent to the Member States and Participating States with the invitation to the workshop. The answers will be processed by the organisers and their thematic evaluation will be prepared together with the session chairs for the Workshop, where they will be reviewed and discussed by the experts during the session meetings.

4. Workshop structure

A plenary session will take place on 9 July 2024 from 09:30 to 12:30, with presentations by experts from the European Commission DG ECHO and invited Member States (Hungary, Slovenia, Poland), highlighting the recent floods and the experience of the incident management. The plenary session will provide an opportunity for discussions in the subsequent break-out sessions, which will run until 16:30, where experts will be able to take a more detailed look at current issues in flood safety in Europe.

Session I, foreseen to be chaired by the Netherlands, will focus on 'Forecasting', Session II, chaired by Hungary, on 'Flood Protection' and Session III, chaired by Italy, on 'Rescue'. The experts within the Sessions will review the current issues, process the experience of best practices and the results of the questionnaires completed by the Member and Participating States on the subject and use it to formulate recommendations. The sessions will start with a thematic presentation on the European Flood Awareness System (EFAS), followed by interventions by Hungary and France. Following the closure of the sessions, a flood rescue demonstration exercise will take place.

On the second day of the Workshop, 10 July 2024, from 09:15 to 10:15, the break-out sessions will continue, summarising the results of the previous day's sessions. The plenary session, starting at 10:30, will provide an opportunity to summarise the recommendations and best practices of the three sessions and to draw conclusions from them.

5. Break-out session meetings

Each break-out session is moderated by a chair (Netherlands, Hungary, Italy), supported by a vice-chair (Hungary, Germany) and a kick-off lecturer (ECHO, Hungary, France). The chair is responsible for chairing the session meetings, coordinating their activities in light of the objectives set, and presenting their results and conclusions during the second day plenary session.



a) Break-out session I - Forecasting

Objective:

Climate change can be detected in multiple ways. This includes not only changes in precipitation averages, but also the intensity and frequency of edge values. Increased precipitation has recently caused significant flooding of major watercourses across Europe, while short periods of intense precipitation have also brought to the fore the problem of flash floods from smaller watercourses. Floods are becoming more frequent due to climate change, increasing the vulnerability and exposure of societies. These phenomena require both adaptation and mitigation measures. The timely provision of meteorological and hydrological forecasts and real-time monitoring of floods can save the lives of citizens and help prevent or mitigate damage to both the natural and built environment.

The aim of this break-out session is to bring together experts from the Member States and Participating States delegated to the Workshop to analyse and discuss the replies to the questionnaire in a process of reflection and to formulate technical proposals.

Questions/issues to be discussed:

WHO? Which sectors, bodies, organisations, and sections of society are concerned?

How are responsibilities divided in terms of planning, preparation, and implementation phases?

Could the topic involve a country outside the Member States of the European Union?

WHAT? What is the objective to be achieved?

Where can the objective be placed on the time scale for implementation?

HOW? By what means and how can the objective be achieved?

Does it require support at EU or national level (institutional or budgetary)?

IMPACT? What will the impact be on the European Union, the Member States, the sectors concerned, the citizens?

In Session I, MS/PS experts will address, inter alia, the following main topics in relation to the flood safety aspects of forecasting:

- Direct and indirect impacts of climate change, national security issues;
- Relevant effects of climate and meteorological conditions on flooding, their temporal and spatial distribution, and their extreme effects;
- Strengthening the role of meteorological and hydrological services, ensuring their continued funding, further development of forecasting systems;
- Further development of monitoring and detection systems for flood forecasting, ensuring data availability, linking forecasting systems;
- Cross-border cooperation between meteorological and hydrological services, coordination of their activities, establishment of joint flood early warning systems;
- Establishment and further development of flash flood forecasting systems and promotion of their operation;
- The use of artificial intelligence (AI) by competent authorities, the need to assess, analyse, prevent and manage different risks in the management of floods;



- Availability of infrastructure and human resources for the use of artificial intelligence (AI) by competent authorities and the need for financial resources for the infrastructural integration of such technology.

b) Break-out session II - Flood protection

Objective:

The impact of climate change has made hydrological hazards more extreme and unpredictable, affecting flood protection. Extreme weather events also contribute to rising flood levels, increasing the risk and danger of flooding on the upstream side. In order to mitigate the effects of climate change, it is necessary to respond dynamically in terms of flood protection investments, taking into account ecological aspects and water management options.

The aim of this session is to bring together experts from the Member States and Participating States delegated to the Workshop to analyse and discuss the replies to the questionnaire, and to formulate technical proposals, in the context of a joint reflection process.

Questions/issues to be discussed

WHO? Which sectors, bodies, organisations, and sections of society are concerned?

How are responsibilities divided in terms of planning, preparation, and implementation phases?

Could the topic involve a country outside the Member States of the European Union?

WHAT? What is the objective to be achieved?

Where can the objective be placed on the time scale for implementation?

HOW? By what means and how can the objective be achieved?

Does it require support at EU or national level (institutional or budgetary)?

IMPACT? What will be the impact on the European Union, the Member States, the sectors concerned, the citizens?

In Session II, MS/PS experts will address, inter alia, the following main topics in relation to the flood safety aspects of flood protection:

- Improving flood protection by also taking into account ecological aspects and drought risk management, increasing water efficiency, enhancing competitiveness and applying innovative solutions;
- Cross-border, transboundary cooperation on flood protection, including non-EU Member States, and cooperation between civil protection and disaster and flood risk management organisations;
- Focusing on flash floods from smaller watercourses;
- Coordinating and harmonising different resilience objectives across national policies, ensuring cross-border cooperation and enhancing cooperation between institutions and systems involved in water management and society;
- The impact of a flood event on the functioning of public health systems of a Member State;
- Examination of the disaster resilience goals and measures implemented under them;
- Developing an EU-wide disaster scenario focusing on flooding;
- Member States' implementation of measures to ensure resilient, innovative supply chains built through various investments;



- Securing sufficient financial resources for increased flood risk resilience;
- Specific, targeted measures to increase preparedness of vulnerable groups, with particular attention to isolated persons, persons with reduced mobility, and persons requiring medical assistance;
- Developing training on flood protection knowledge across Member States and providing the public with appropriate information, increasing their preparedness and risk awareness;
- Training of authorities responsible for flood prevention and management at national and/or transnational level, and continuous improvement of their preparedness level.

c) Break-out session III - Rescue

Objective:

Recent floods caused by extreme weather events have claimed many lives. Increasing emphasis must therefore be placed on preparing the population, providing them with the appropriate information, developing the capacities of the bodies and organisations involved in rescue, taking timely action to protect the population (evacuation of vulnerable populations) and rescuing people trapped in flooded areas.

The aim of the session is to allow the experts from the Member States and Participating States delegated to the Workshop to analyse and discuss, in the context of a joint reflection, the replies to the questionnaire and to formulate, by consensus, technical proposals.

Questions/issues to be discussed

WHO? Which sectors, bodies, organisations, and sections of society are concerned?

How are responsibilities divided in terms of planning, preparation, and implementation phases?

Could the topic involve a country outside the Member States of the European Union?

WHAT? What is the objective to be achieved?

Where can the objective be placed on the time scale for implementation?

HOW? By what means and how can the objective be achieved?

Does it require support at EU or national level (institutional or budgetary)?

IMPACT? What will be the impact on the European Union, the Member States, the sectors concerned, the citizens?

In Section III, MS/PS experts will address, among others, the following main topics in relation to the rescue/response aspects of flood safety:

- Regular exchange of experience between MS/PS in order to coordinate and target the development of rescue capabilities;
- Cooperation between organisations involved in rescue and various scientific institutes, and economic operators;
- The opportunity to develop national or EU capacities, including experience from the private sector;
- Establishment of a flood rescEU capability, including the provision of supplies to accommodate temporarily displaced populations;
- Risks of flood evacuation options, taking into account vulnerable groups, geography and the impact of floods on public health;



- IT support for authorities involved in flood protection, in particular with regard to evacuation, and the provision of financial resources for infrastructure development in this area;
- Increased exchange of lessons learnt of those involved in incident management, particularly those in the private sector, who are involved in the production and marketing of equipment and devices for rescue;
- Prevention of fake news related to flood event management and the need for filtering systems to prevent misinformation on response;
- The possibility of working with the Commission to promote the filtering out of fake news by developing reference scenarios, action lines, and a common response;
- Targeted warning of citizens in the event of flooding, with territorial delimitation, using various digital methods.

6. Follow-up

A report will be drafted by the Presidency after the workshop to summarise the main outcomes and ideas that emerged. It will be shared with the workshop participants for comments.