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Reducing Risks Together: Bridging Disaster Resilience and Climate Adaptation Strategies

Workshop report at the European Civil Protection Forum 2024



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MYRIAD-EU and CLIMAAX: “Reducing Risks Together: Bridging Disaster Resilience and Climate Adaptation Strategies” workshop

Highlights

- **MYRIAD-EU:** presented a harmonised framework for multi-hazard, multi-sector risk management. Conducted pilot studies across five diverse European regions to develop comprehensive risk assessment pathways.
- **CLIMAAX:** highlighted its climate risk assessment toolbox and pilot projects aimed at aligning disaster risk reduction strategies with climate adaptation. Emphasised local and regional resilience building.
- **Workshop discussions:** underscored the need for improved climate risk scenarios, early warning systems, and cross-sectoral coordination to enhance disaster resilience.

Participants identified the:

- **Challenges:** securing funding, improving cross-border cooperation, and better integrating climate adaptation into disaster response strategies.
- **Need for a focus on the local level:** making climate risk information accessible at the local level and empowering local regions in conducting climate risk assessments and creating action plans. Adopting a consistent methodology will be crucial for maintaining the standard and reliability of these assessments.
- **Importance of raising awareness:** increasing awareness of climate-related risks and the corresponding actions needed across all levels—ranging from individuals to policymakers (spanning local, regional, national, and supra-national domains)—will influence education systems and public procurement practices.
- **Need for mobilising resources:** mobilising various resources (financial, human, physical assets) to effectively safeguard the entire crisis response chain.

Insights from the workshop will inform future EU Disaster Resilience Goals (DRGs) implementation, aiming to bridge gaps between policy, practice, and scientific research in disaster risk management.

Context

The 8th edition of the European Civil Protection Forum took place on 4-5 June 2024 in Brussels, Belgium.

Organised biennially by the Directorate-General for European Civil Protection and Humanitarian Aid Operations (DG ECHO), the forum gathered around 1,500 participants working in disaster risk management. Attendees included government representatives,

civil protection authorities at various levels, first responders, EU institutions, the scientific community, and the private sector.

At this year's forum, the Horizon projects [MYRIAD-EU](#) and [CLIMAAX](#) joined forces and organised a workshop on 5 June. The workshop aimed to explore potential synergies between disaster risk reduction and climate change adaptation. It focused on integrating multi-hazard and multi-risk assessments, adaptation strategies, and nature-based solutions to enhance the implementation of the European Union Disaster Resilience Goals (DRGs). The goal was to identify the scientific insights needed by policymakers and practitioners for informed decision-making.

Approximately 50 participants attended the hour-and-a-half-long workshop. Among them were policymakers from DG ECHO and DG RTD, researchers from Università di Trento and Politecnico di Torino, and practitioners from the Red Cross, the Chilean national Disaster Risk Prevention and Response Service, and the International Organisation for Migration.

The workshop was divided into two parts. The first section featured short presentations on the EU DRGs, MYRIAD-EU, and CLIMAAX Horizon Europe projects. These presentations provided essential background information to stimulate discussion.

In the second part, participants engaged in small group discussions focused on one of the five DRGs: anticipation, preparation, alert, response, and security. Each group addressed predefined questions to evaluate current connections and brainstorm new ideas. During these discussions, participants connected and shared their knowledge of disaster risk resilience, incorporating insights from MYRIAD-EU and CLIMAAX. As a result, outcomes from this workshop will complement stakeholder consultations in pilot regions from the MYRIAD-EU and CLIMAAX projects.

The European Civil Protection Mechanism

In recent years, the EU has faced a series of unprecedented challenges, such as the COVID-19 pandemic and the return of war on the continent with Russia's invasion of Ukraine.

Additionally, the effects of climate change are becoming increasingly evident, with severe floods, droughts, and wildfires threatening people, the environment, and our economies.

To address these disasters and risks and limit their impacts, the 27 EU member states and 10 additional participating states can rely on the [Union Civil Protection Mechanism \(UCPM\)](#). This mechanism, often referred to as the European Civil Protection Mechanism, was established in October 2001 to strengthen cooperation between EU countries and participating states in civil protection, prevention, preparedness, and response to disasters. The mechanism allows countries facing disasters to request emergency assistance by combining resources from participating nations. Beyond the primary need to collaborate efficiently in reaction to the surge of crises and disasters, the UCPM has gradually expanded over the past couple of decades to boost prevention and preparedness for future disasters.

Presentations

Disaster Risk Resilience Goals - Laura Indriliunaite, Policy Coordinator, DG ECHO - European Commission

In May 2021, revisions to the UCPM legislation enabled the integration of disaster resilience goals developed by the European Commission's Directorate-General for European Civil Protection and Humanitarian Aid Operations (DG ECHO), in collaboration with Member States and Participating States.

Laura Indriliunaite, Policy Coordinator at the European Commission's DG ECHO, provided an overview of these disaster resilience goals and emphasised their added value for civil protection.

These goals focus on five key strategic areas of civil protection aimed at enhancing resilience to disasters at both EU and Member State levels. For each goal, Laura Indriliunaite highlighted key initiatives supporting their implementation:

- The first goal, “anticipate”, aims to improve the ability to identify and assess complex disaster risk information, facilitating better planning and disaster prevention. This effort includes the development of Europe-wide disaster scenarios to identify critical hazards with cross-border impacts on the EU.
- The second goal, “prepare”, seeks to enhance community preparedness for disaster risks through widespread training. By 2030, the objective is to ensure that 90% of the population is well-informed about risks in their region, significantly raising overall risk awareness and preparedness. This involves enhancing public access to disaster risk information and promoting the adoption of risk prevention measures. The pan-European awareness initiative ‘PrepareEU’ was established for this purpose, using a European risk communication hub and a collection of best practices to build a community of practitioners focused on risk communication.
- The third goal, “alert”, aims to improve early warning systems to increase their effectiveness and interoperability. Timely transmission of warning messages across different levels is crucial for effectively alerting authorities and the public. The EU's Emergency Response Coordination Centre is developing tools to provide technical support to Member States and enhance the effectiveness of early warning systems.
- The fourth goal, 'respond', aims to strengthen the EU's ability to respond to crises, including providing support to Member States under the UCPM. This includes expanding rescEU, which serves as a fully funded reserve of EU resources such as firefighting aircraft, medical evacuation capabilities, and supplies such as field hospitals. Enhancing the EU's crisis response capacity will bolster EU response assets and intervention teams.
- The fifth and final goal, “secure”, focuses on ensuring the operational continuity of civil protection systems during and after disasters. This involves conducting stress-tests to identify weaknesses, ensuring the continuity of emergency operation centres, improving coordination across sectors and borders, and enhancing communication

and information management. Post-response evaluations are also conducted to extract lessons and further fortify the system.

As Laura Indriliunaite emphasised, these goals are political objectives that require action from the disaster risk resilience community to be effectively implemented and to bring about meaningful change in enhancing the EU's resilience to disasters and crises.

MYRIAD-EU - Silvia Torresan, Co-director, Risk Assessment and Adaptation Strategies division, Centro Euro Mediterraneo Sui Cambiamenti Climatici (CMCC)

Professor Silvia Torresan, co-director of the Risk Assessment and Adaptation Strategies division at Centro Euro-Mediterraneo Sui Cambiamenti Climatici (CMCC), presented the MYRIAD-EU project and discussed its potential synergies with the Disaster Resilience Goals (DRGs) mentioned earlier. She also serves as the Veneto Pilot Lead and leads Work Package 3 within the project.

Professor Silvia Torresan described how MYRIAD-EU seeks to catalyse a paradigm shift in the assessment and management of risks. As natural hazards combine over time, triggering or amplifying each other, understanding and anticipating these interactions is crucial to prevent and mitigate disasters. The project brings together scientists from across Europe to investigate these interactions and develop a harmonised framework for multi-hazard, multi-sector, and systemic risk management. By the end of the project, policymakers, decision-makers, and practitioners will have the tools to develop proactive disaster risk management strategies. These strategies will evaluate trade-offs and synergies across different sectors, hazards, and scales.

MYRIAD-EU is conducting pilot studies in five distinct regions, each serving as a laboratory with unique geological and meteorological characteristics. Each pilot examines a variety of hazards and their interrelations, providing valuable insights for comprehensive risk assessment. One of these pilot regions is Veneto, which faces multiple hazards such as earthquakes in Verona, compound risks like pluvial floods, storm surges, and high tides in Venice, and storms causing widespread flooding across the region. Past crises have revealed deficiencies in early warning systems, underscoring the need for improved disaster risk management. MYRIAD-EU pilots aim to develop proactive risk management pathways in collaboration with local and regional authorities, the private sector, and civil society organisations, including cross-border collaborations.

To align with the EU's DRGs, Silvia Torresan illustrated how MYRIAD-EU's six-step framework for systemic multi-hazard and multi-risk assessment and management contributes directly to achieving the 'anticipate' goal.

Another example demonstrated how the MYRIAD-EU Multi-Risk Toolkit assesses overlapping exposure to risk in the Danube Pilot region, increasing risk awareness and preparedness among the population. MYRIAD-EU shares its findings through [policy and research briefs](#), toolkits and a wiki-style [Disaster Risk Gateway](#). This approach encourages engagement from disaster risk practitioners and supports the practical implementation of its recommendations.

CLIMAAX - Daniel Sempere-Torres, Director, Centre of Applied Research in Hydrometeorology, Universitat Politècnica de Catalunya

Professor Daniel Sempere-Torres, director of the Centre of Applied Research in Hydrometeorology (CRAHI) at the Universitat Politècnica de Catalunya and co-coordinator of CLIMAAX, highlighted the importance of aligning disaster risk reduction with climate change risk assessment and adaptation. He emphasised that climate change amplifies current risks, which increases the severity of future threats, which is precisely what CLIMAAX aims to tackle.

The CLIMAAX project bridges the gap between the aspirations of local and regional public authorities to mitigate and adapt to climate change and the practical means to achieve these goals. Building upon existing risk assessment frameworks, methods, and tools, CLIMAAX promotes the use of datasets and service platforms to develop a methodological framework for climate risk assessment. The project aims to harmonise and consolidate best practices and community experiences in risk assessment through the development of a standardised framework and toolset. This effort is shaped by climate risk assessments conducted in five European pilot regions (CRAs). The CLIMAAX initiative improves accessibility and provides guidance through the [CRA Toolbox](#), which includes data, projections, and risk assessment algorithms tailored to facilitate the development of comprehensive regional climate multi-risk assessments.

Daniel Sempere-Torres highlighted the project's importance for civil protection authorities, encouraging them to consider how to align disaster risk reduction and climate adaptation strategies across different EU contexts. To ensure the project's effectiveness and deliver expected outcomes, future efforts will focus on downscaling to include local data and better integrate diverse geographical areas in the coming months. Professor Sempere-Torres announced the launch of the second [CLIMAAX Open Call](#) to the audience, starting from July 1st, 2024. This call aims to support third parties in conducting local studies and expanding geographical coverage for climate risk assessments.

Discussion and outcomes

The second part of the workshop featured 20 minutes of group discussions, based on the presentations and guiding questions provided on posters for each goal.

Each group's responses were recorded on dedicated paper posters. Key recommendations were shared via a Slido poll and presented by appointed rapporteurs.

Below are some key insights from the group discussions for each goal:

Anticipate

Participants emphasised the need for climate risk scenarios and accurate regional risk maps. Integrating climate adaptation into disaster risk management at regional, federal, and national levels is crucial. These scenarios could serve as training materials to improve policymakers' awareness and lead to public-private procurement plans adapted to climate risks. The discussion emphasised best practices observed in projects such as MYRIAD-EU and CLIMAAX, as well as the importance of enhanced global cooperation with nations that are already integrating climate change adaptation and disaster risk reduction efforts.

Prepare

Discussions stressed the importance of local-level risk assessments that are connected to action plans for reducing disaster risks. Research initiatives like CLIMAAX or MYRIAD-EU can support this. The challenge lies in adapting to local needs and engaging in multi-sector analyses. Education systems should be a primary platform for raising awareness and communicating the links between climate change adaptation and disaster risk reduction.

Alert

Education, awareness-raising, and communication were central to discussions. There is a need to enable climate adaptation assessment tools to feed into alert systems. Early-warning mechanisms, typically via SMS, should be inclusive of minorities and vulnerable groups. Suggestions included communicating in various languages for migrants and using appropriate means for children, elders, and disabled people, such as door-to-door information. Spatial alert systems like light or sound alarms could also help. These measures require sufficient financing for exploration and implementation.

Respond

Financing was identified as key for enhancing capacity and asset availability to respond to disasters. This requires funding, integration of contingency plans with adaptation plans, and the use of assessment and risk mapping tools. Increasing budgets, human resources, better training, and improving cross-border cooperation among member states are essential for rapid responses to transboundary events. Strengthening coordination among the EU, Member States, and UCPM participating states is crucial.

Secure

The entire response chain should be assessed and tested considering climate change adaptation needs. Ensuring the operational effectiveness of civil protection systems during and after a disaster requires a consistent methodology to assess the strength of crisis management systems and guarantee their resilience against rising disaster risks.

During the final discussion, participants noted that integrating synergies between climate change adaptation and disaster risk reduction was easier for the anticipate, prepare, and respond goals. However, synergies were harder to find for the respond and secure goals. This observation could guide future research and reflections.

Conclusion

Laura Indriliunaite and Philip Ward appreciated the valuable input and active participation of attendees in the workshop. The adoption and effective implementation of Disaster Risk Guidelines (DRGs) depend largely on future recommendations from DG ECHO and their acceptance among practitioners. By encouraging collaboration among communities and sharing knowledge and best practices, this workshop generated innovative ideas for strengthening disaster risk resilience and applying DRGs in conjunction with climate adaptation strategies.

A heartfelt thank you was extended to the speakers, facilitators, and participants for their significant contributions to the success of the workshop.



Want to know more?

- **MYRIAD-EU website:** www.myriadproject.eu
- **X:** @Myriad_EU
- **LinkedIn:** @MYRIAD-EU

- **CLIMAAX website:** <https://www.climaax.eu/>
- **X:** @climaax_EU
- **LinkedIn:** @CLIMAAX