Meeting Report

Webinar for UN Country Teams on Multi-Hazard Early Warning Systems

21 November 2025, online (10:00-11:30 CET, Teams)

Background

As part of the IBC 2025 workplan, and in response to requests from UN Country Teams, strengthening regional understanding and practical support on Multi-Hazard Early Warning Systems (MHEWS) was identified as a priority area. Climate- and weather-related hazards are increasing in frequency, severity, and complexity across the region, heightening the need for integrated, people-centred early warning systems that translate global commitments into national and local preparedness.

The webinar was organized under the leadership of WMO and UNDRR, in collaboration with the other Early Warnings for All (EW4All) pillar leads—ITU and IFRC—and with contributions from UNESCO, UNICEF, UNEP and other IBC members.

Purpose and Objectives

The purpose of the webinar was to strengthen the capacity of UN Country Teams in Europe and Central Asia to support the development and implementation of Multi-Hazard Early Warning Systems within the framework of the Early Warnings for All initiative. Specifically, the webinar aimed to:

- Build a shared understanding of MHEWS concepts and the EW4All framework;
- Clarify the four EW4All pillars and their implications for UN country-level support;
- Identify key regional gaps, challenges, and opportunities in early warning system development;
- Showcase good practices and emerging solutions;
- Highlight financing mechanisms and pathways for scaling up early warning systems;
- Strengthen cross-agency collaboration and identify entry points for UNCT engagement.

Webinar Structure

The webinar combined expert presentations and a moderated panel discussion. It opened with welcoming and contextual remarks by the **IBC co-chair Arnold Kreilhuber (UNEP)** and was moderated by Sari Lappi (WMO). A joint presentation by Natalia Patricia Alonso Cano (UNDRR) and Kornélia Radics (WMO) introduced Multi-Hazard Early Warning Systems and the Early Warnings for All (EW4All) framework.

This was followed by a panel discussion featuring Carlie Labaria (UNDRR), Matthieu Kohl (WMO), Mira Markova (ITU), Maria Alcazar Castilla (IFRC), Bora Kim (UNEP), and Parvathy Ramaswamy, UN Resident Coordinator in Tajikistan. The session concluded with an interactive exchange with participants and closing reflections by the **IBC co-chair Magdalena Landry (UNESCO)** on key messages and next steps.

The agenda and panel discussion were informed by the results of a survey conducted among UN Country Teams, ensuring alignment with their priorities and levels of awareness.

Summary of Key Discussion Points

Regional gaps and needs in multi-hazard early warning systems

Speakers agreed that while many countries in Europe and Central Asia report having multi-hazard early warning systems, these systems are often incomplete or uneven across the four EW4All pillars. **Arnold Kreilhuber (UNEP)** noted that although coverage has improved, current systems are not keeping pace with the increasing frequency, severity and complexity of climate- and weather-related hazards, and that continued strengthening of both coverage and capacity is required.

From a disaster risk knowledge perspective, **Carlie Labaria (UNDRR)** highlighted that limited and inconsistent data on disaster losses, damages, exposure and vulnerability remains a major gap. She noted that not all countries in the region have functioning disaster loss tracking systems, which constrains the shift from hazard-based to impact-based forecasting and anticipatory action. She further observed that systematic after-event reviews of early warning system performance are rarely undertaken, limiting learning and improvement.

Technical and operational gaps were outlined by **Matthieu Kohl (WMO)**, who framed the challenges using the “three C’s”: capability, communication and coordination. He pointed to capability gaps across the observation and forecasting chain, including insufficient monitoring infrastructure, limited capacity to maintain and calibrate equipment, and difficulties in tailoring forecast products to national and local needs. He also emphasized governance and coordination issues, noting that in some countries meteorological services are not legally recognized as the authoritative source for warnings, and that formal alerting protocols and institutional linkages between warning issuance and response are weak or absent affecting effective warning communication.

From the warning dissemination perspective, **Mira Markova (ITU)** highlighted that countries are not fully leveraging existing digital connectivity. She noted that despite more than 95 per cent of the global population being covered by mobile networks, only a limited number of countries use mobile-based public alerting systems such as cell broadcast. She also pointed to over-reliance on single communication channels, unclear authorization processes for

issuing warnings, and institutional ambiguity, all of which can lead to delays, inconsistent messaging and reduced public trust.

From a preparedness and response perspective, **Maria Alcazar Castilla (IFRC)** emphasized that early warnings frequently do not translate into timely action at community level. She highlighted gaps in local contingency planning, limited community capacity to act on warnings, and insufficient attention to vulnerable and marginalized groups, including children, older persons, persons with disabilities and displaced populations. Weak or outdated legal and institutional frameworks for anticipatory action were also identified as a constraint.

Good practices and practical solutions

Several speakers shared concrete examples of good practices to address these gaps. **Matthieu Kohl (WMO)** highlighted regional cooperation mechanisms and shared forecasting and advisory systems as effective, low-cost solutions for countries with limited national capacity. Drawing on the recent example of Armenia, he noted that tapping into existing regional systems such as the South-Eastern European Multi-Hazard Early Warning System enabled access to high-resolution data and advanced modelling "at no cost," requiring only a formal request, while preserving national ownership of warning issuance and allowing resources to be redirected toward strengthening other capacities, such as national visualization and forecasting operations.

Improving disaster risk knowledge through strengthened loss and damage tracking systems was highlighted by **Carlie Labaria (UNDRR)** as a priority good practice. She referred to emerging next-generation approaches that combine data standards, governance frameworks and capacity development to support impact-based forecasting, early action and systematic learning.

Effective warning dissemination was highlighted as an area with significant untapped potential. **Mira Markova (ITU)** emphasized the use of mobile-based public alerting systems, particularly cell broadcast, as a proven and inclusive tool to reach populations rapidly. She stressed the importance of multi-channel and redundant communication strategies, combining mobile alerts with traditional media, digital platforms and community-based mechanisms, as well as the need for clear institutional roles and consistent messaging to build and maintain public trust.

Community-based preparedness approaches were also highlighted as good practice. **Maria Alcazar Castilla (IFRC)** emphasized the role of Red Cross and Red Crescent National Societies as trusted local actors that can bridge institutions and communities, strengthen last-mile delivery, and support anticipatory action through scenario-based planning, simulations and early action protocols.

Financing opportunities

Financing options for early warning systems were outlined by **Bora Kim (UNEP)**, who highlighted the Climate Risk and Early Warning Systems (CREWS) initiative, the Systematic Observations Financing Facility (SOFF), and the Green Climate Fund (GCF). She noted that early warning systems are explicitly prioritized under the GCF's 2024–2027 Strategic Plan and that substantial resources have already been mobilized globally and in the region. At the same time, participants acknowledged that fragmented and short-term funding remains a challenge and that sustained investment across all four EW4All pillars is needed.

Role of EW4All and UN Country Teams

The joint presentation by **Natalia Patricia Alonso Cano (UNDRR)** and **Kornélia Radics (WMO)** provided a shared conceptual foundation for the discussion by clearly outlining the EW4All framework, its four pillars, and its phased implementation approach. Their presentation emphasized that EW4All is not a standalone programme, but a framework designed to align existing initiatives, strengthen coordination, and scale up national efforts in a coherent and people-centred manner. This framing helped participants situate the identified gaps and good practices within a common structure applicable across diverse country contexts.

Drawing on country experience of Tajikistan where EW4All is formally being implemented, **Parvathy Ramaswamy (UN Resident Coordinator, Tajikistan)** emphasized that EW4All works best when treated as a framework rather than a project. She highlighted the importance of embedding EW4All within existing national disaster risk reduction coordination mechanisms, conducting consultations beyond capital cities, and aligning early warning efforts with ongoing national initiatives. She also stressed the critical convening role of UN Country Teams, particularly in contexts where some EW4All pillar leads do not have a permanent country presence, and the need for stronger inter-pillar coordination at country level to ensure coherence, interoperability and sustained capacity development.

List of Annexes:

Annex 1: Webinar Agenda
Annex 2: Presentation
Annex 3: Link to the webpage https://uneuropecentralasia.org/en/events/webinar-un-country-teams-multi-hazard-early-warning-systems-0
Annex 4: Link to Webinar recording: IBC Webinar for UN Country Teams on Multi-Hazard Early Warning Systems | UNDRR