

# Terms of Reference of the Technical Expert Group on Mobile Early Warning Systems (EW4All-TEG mobile)

As of May 2025

# Background

The Sustainable Development Goals, the Paris Agreement, and the Sendai Framework for Disaster Risk Reduction identify strengthened multi-hazard early warning systems (MHEWS) as a critical component of climate adaptation, building resilience to disasters and crises and, by extension, contributing to sustainable development.

MHEWS are key elements of disaster risk reduction, loss and damage, as well as climate change adaptation, as they help reduce, avoid, and better manage the impacts of hazardous events. MHEWS are a proven tool for countries to protect and mitigate losses and potentially grow development gains in the face of climate change. However, half of the world is still not covered by early warning systems (EWS).

The United Nations (UN) Secretary General announced the <u>Early Warnings for All</u> (EW4All) initiative, which was launched at the 27th Conference of the Parties to the United Nations Framework Convention on Climate Change (COP27) in November 2022. The initiative sets an ambitious plan to ensure that everyone on Earth is protected by an early warning system. Led by the World Meteorological Organization (WMO), and the UN Office for Disaster Risk Reduction (UNDRR), the initiative is supported by the International Telecommunication Union (ITU), and the International Federation of the Red Cross and Red Crescent Societies (IFRC), as well as many other partnering organizations.

The initiative's <u>Action Plan</u> puts the ITU as the lead agency for Pillar 3 'Warning Dissemination and Communication' – a critical component of EWS that ensures alerts reach the people at risk in time to take action. In its lead role for Pillar 3, ITU works closely with partners, including IFRC, to ensure that warnings reach everyone at risk by creating the enabling environment and technical capabilities for multi-channel dissemination and communication alerting. This entails four priority areas:

- Strengthening **governance** to ensure all countries have clear functions, roles and responsibilities for warning dissemination and communication.
- Supporting **infrastructure networks and services** to enable last-mile communication.
- Following an **inclusive and people-centered approach** to provide actionable guidance to those at risk and providing feedback mechanisms.
- Enabling **quality and trust** of alerts by leveraging the <u>Common Alerting Protocol</u> (CAP) for consistent, reliable multi-hazard, multi-channel alert dissemination.

ITU promotes a multi-channel approach that sends alerts through different communication channels, including (but not limited to) radio, television, social media, sirens, mobile phones, and satellite. ITU endorses an inclusive, people-centered approach that uses existing community-based infrastructures and locally led feedback mechanisms to ensure messages are understandable and actionable.

Today, digital growth presents new opportunities to reach billions of people faster and more effectively, whether before, during, or after disasters. According to ITU's <u>Facts and Figures 2024</u>, 95 per cent of the world's population has access to mobile broadband networks and 80 per cent of the population owns a mobile phone. This makes mobile networks an incredibly powerful communication channel to alert populations about an imminent hazard. The EW4All <u>Action Plan</u> calls for the promotion and implementation of geo-located mobile-based EWS using cell broadcast and/or location-based SMS, a critical element for 'warning dissemination and communication'. By 2024, only about 45 (mainly developed) countries in the world had implemented a mobile early warning system.

The ITU is currently assisting countries in establishing multi-channel warning dissemination systems, with an emphasis on mobile EWS, to enhance last-mile communication and improve resilience.

# Objectives

To this end, ITU, as the lead of Pillar 3, is establishing a Technical Expert Group for countries implementing and using mobile EWS using digital networks —a Microsoft Teams-based network to share experiences and build expertise in setting up and enhancing public EWS.

The key objectives of the Expert Network are to:

- Enhance collaboration & knowledge sharing among members on priority issues identified by members to accelerate or improve the implementation of mobile EWS globally in line with the EW4All objectives,
- Support the peer review of processes and documents, such as regulatory texts, tender documents, and use cases on public warning systems (PWS) implementations
- Identify good practices that can be shared within but also outside this group, including at EW4All events and publications

#### Structures

The Technical Expert Group on Mobile Early Warning Systems will be guided by the needs of and requests from countries/members. It will cover a wide area of topics, including but not limited to technical discussions, regulation, stakeholder engagement, communication, and financing.

Specific topics expected to be covered by the Expert Group include:

- Public warning systems (PWS) architecture and regulation
- Cell-broadcast (CB) implementation
- o Multi-channel deployment
- Satellite adaptation
- o Standardization, including, for example, for handset and chip manufacturers
- Awareness raising and communication to communities

### Composition

The group will consist of national technical experts

- a) willing to share their countries' experiences in setting up and maintaining warning systems capable of reaching populations at risk; and
- b) wishing to improve national systems and are seeking guidance on specific topics.

Interested national experts should be familiar with and/or responsible for (or supporting) the implementation of their countries' national public warning system. To keep the group manageable and focused, it should include only one member per country, ideally the project manager or technical officer in charge of the implementation of the PWS. The group will exclude commercial experts from private companies. All discussions should be treated as confidential.

# Working Methods

The Expert Group will provide a common space and a restricted online platform for sharing experiences and documents, including studies, regulatory texts, tender documents, and use cases on public warning systems implementations. The exchanges can include information on public-private partnerships, stakeholder engagements, pricing, technical innovations, and other information to help guide those countries that are in the process of developing or improving their national system. It could also help identify national experts who can share their experiences at Pillar 3 related national and international events and workshops, to increase awareness about PWS, and share challenges and solutions. The group will gather and articulate collective needs to support the implementation of a multi-channel approach. It will be hosted by ITU and supported by ITU and the European Emergency Number Association (EENA).

At first the Expert Group is expected to conduct monthly virtual meetings with agendas defined by members. Work will be conducted mostly virtually, with ITU/BDT serving as the Secretariat of the Expert Network.

#### About ITU

The International Telecommunication Union (ITU) is the United Nations agency for digital technologies, driving innovation for people and the planet with 194 Member States and a membership of over 1,000 companies, universities, civil society, and international and regional organizations. Established in 1865, ITU coordinates the global use of the radio spectrum and satellite orbits, establishes international technology standards, drives universal connectivity and digital services, and is helping to make sure everyone benefits from sustainable digital transformation, including the most remote communities. From artificial intelligence (AI) to quantum, from satellites and submarine cables to advanced mobile and wireless broadband networks, ITU is committed to connecting the world and beyond.

As the lead of the <u>Early Warnings for All (EW4All) Initiative's Pillar 3</u>, on *Warning Dissemination and Communication*, ITU highlights opportunities that digital networks and services offer to reach more people at risk. ITU promotes a multi-channel approach, with alerts being sent over different communication channels such as radio, television, social media, sirens, mobile networks, and satellite broadcast systems. The incredible growth of mobile networks and services provide unprecedented opportunities to use mobile early warning systems to reach people at risk. ITU works closely with partners and stakeholders from across both the public and private sectors, and brings together key stakeholders to build more resilient, effective early warning systems. Learn more: <u>www.itu.int</u>.

#### About EENA

The European Emergency Number Association (EENA) constantly works towards improving emergency response in Europe and beyond. EENA believes that many different channels—including but not limited to people's phones, sirens, social media, TVs & radios, emails, variable message signs—must be considered to maximize the chances of disseminating information to as many people as possible. Since the early 2000s, EENA has been advocating for the EU to mandate public alerting on phones, including by supporting a Written Declaration on the matter in 2008.

More about EENA's work in Public Warning here