

# Early Warnings for All Initiative

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HUMANITARIAN CONNECTIVITY CHARTER PAKISTAN WORKSHOP 2024.  
11 Dec 2024

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# International Telecommunication Union (ITU)

Our mission is to connect the world



United Nations Specialized Agency  
for Telecommunications &  
Information and Communication  
Technologies (ICTs)

**3** Sectors

Standardization

Radiocommunication

Development

**194**

Member  
States

**900**

Companies, universities,  
and international and  
regional organizations.

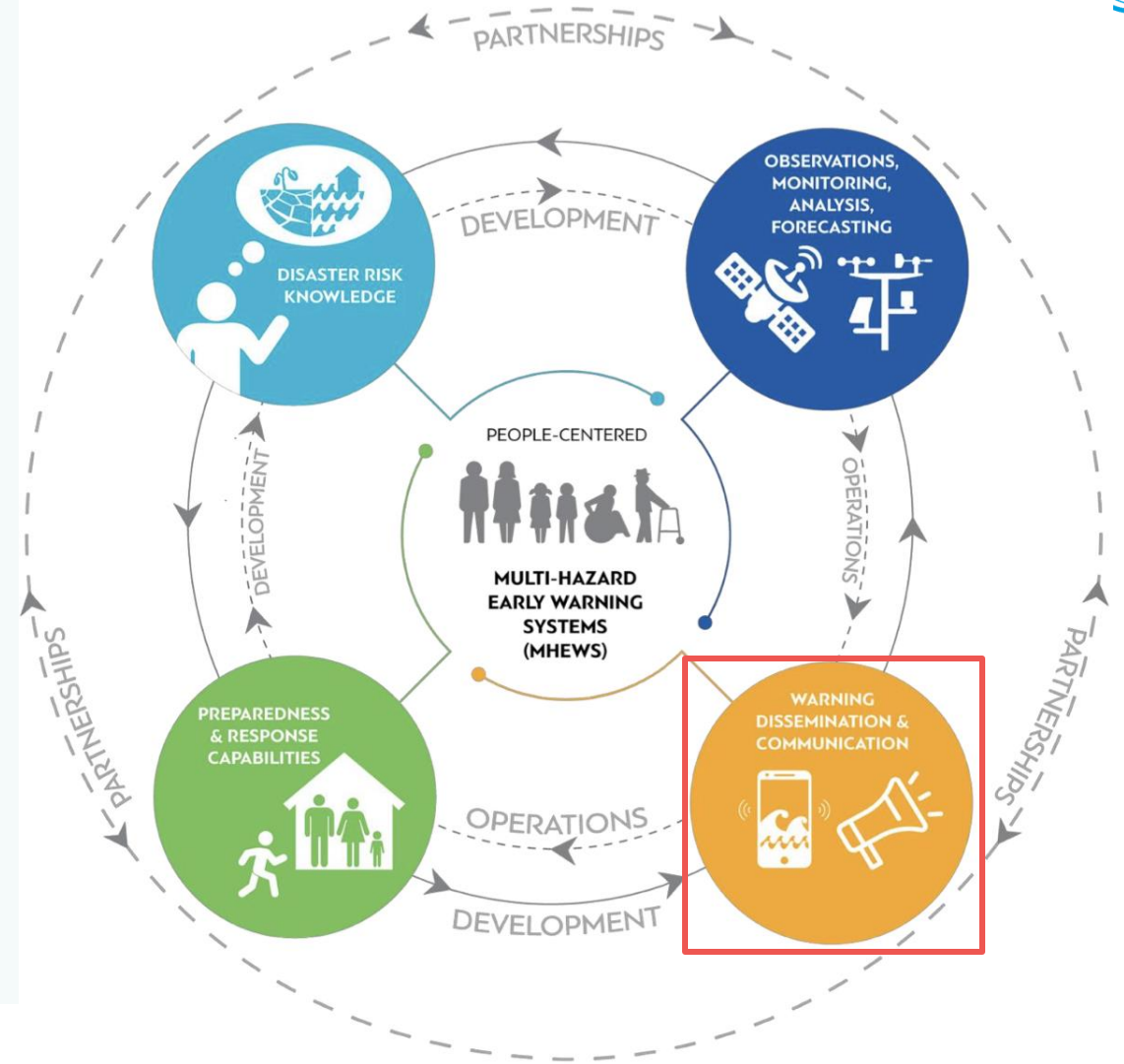
Rich network of experts  
in the global ICT  
ecosystem

# UN Early Warnings for All Initiative

In March 2022, the UN set a new target to ensure that everyone on Earth should be protected by early warning systems by 2027.

“A very ambitious target”

ITU is the lead of Pillar 3 on *“Warning dissemination and communication”*



# EW4All Return on Investment

- The World Bank has estimated that universal access to early warning systems would lead to **annual global reductions in asset losses of \$13 billion**. In addition, socioeconomic conditions would be improved by reducing wellbeing losses by up to \$22 billion per year, resulting in total avoided annual losses of \$35 billion.
- The WFP-led Emergency Telecommunications Cluster undertook a study to quantify the cost-benefit returns in emergency telecommunications preparedness in 2022-2023. The findings demonstrated **that for every one US dollar of invested resources, there is a monetary return of almost three times the value of original investments** made (for assessed countries).
- The Global Commission on Adaptation found that just 24 hours warning of a coming storm or heat wave can **reduce the potential damage by 30 percent**, and an investment of \$800 million in early warning systems in developing countries could prevent losses ranging from \$3 to \$16 billion annually, resulting in higher returns on investment than any other climate adaptation measure, with benefit/cost ratios of at least ten.



# 4 Outcomes of Pillar 3: Warning Dissemination and Communication

## Outcome 1: Governance

All countries have agreed on functions, roles and responsibilities for each actor in the warning dissemination process and this is defined through government policy

## Outcome 2: Infrastructure networks and services

Last-mile communication - All countries have multichannel dissemination and communication alerting to ensure the warnings reach those at risk.

## Outcome 3: Inclusion and people-centered approach

Strengthened and expanded alert dissemination and feedback channels reaching all people with actionable information.

## Outcome 4: Quality and trust

All countries have the capability for effective, authoritative emergency alerting that leverages the Common Alerting Protocol (CAP), suitable for all media and all hazards.

# Multi-channel Approach for Warning Dissemination and Communication

- In warning dissemination and communication, a **multi-channel approach** increases the effectiveness of an alert and help address the diversity of communities at risk.
- Digital transformation is bringing huge opportunities in strengthen this pillar and allows us to reach more people through information and communication technologies (ICTs) --such as sending alerts to the phone.



# Integrating Common Alerting Protocol (ITU-T X. 1303)

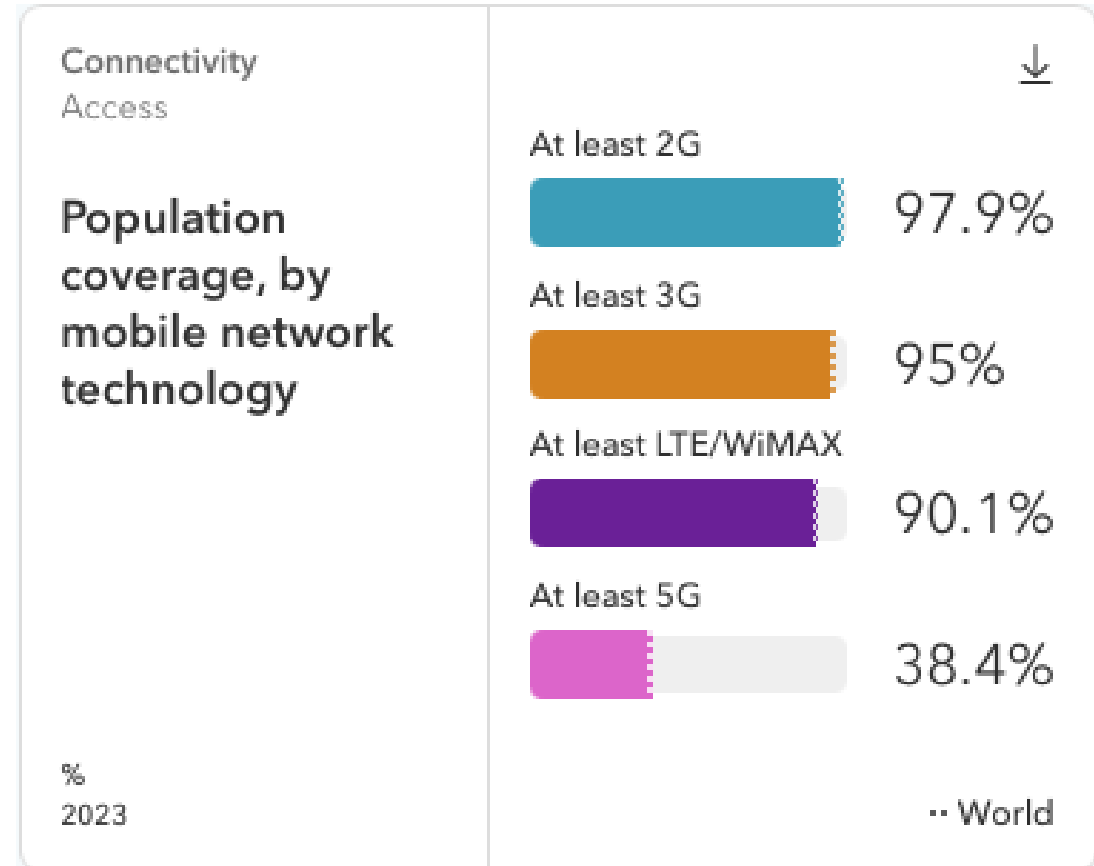


- International standard format for emergency alerting to ensure the interoperability and consistency of alerts via different communication networks.
- Integrating CAP into Multi-Hazard Early Warning Systems
- Local agreement of the CAP specificities and the feedback between Authorities and Mobile Network Operators before implementation (negotiation)



# 97.9% of the world population is covered by mobile network

...making mobile network an effective channel to reach people!



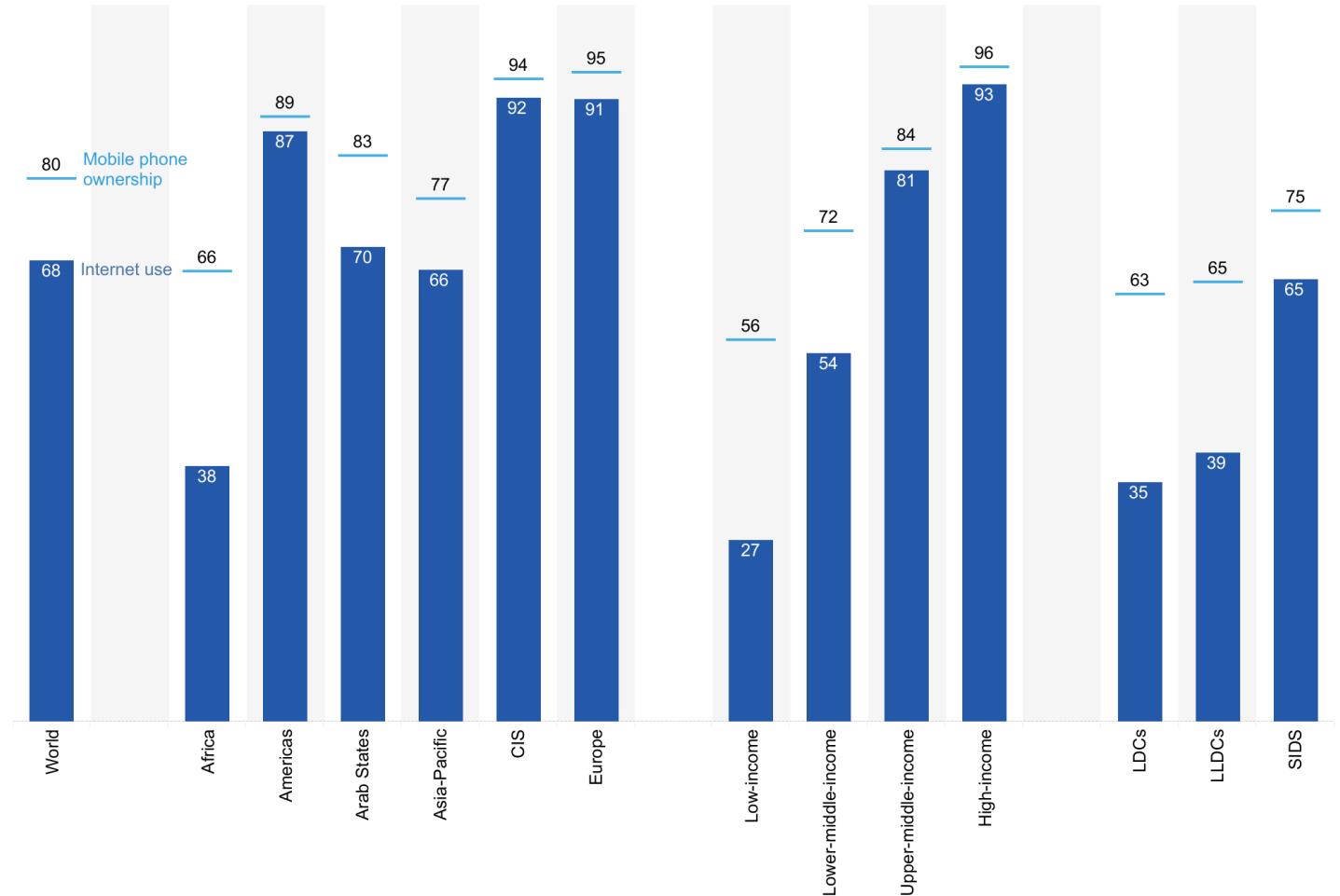


**97.9% of the world population is covered by mobile network**

**4 out of 5 people in the world own a mobile phone**

**...making mobile network an effective channel to reach people!**

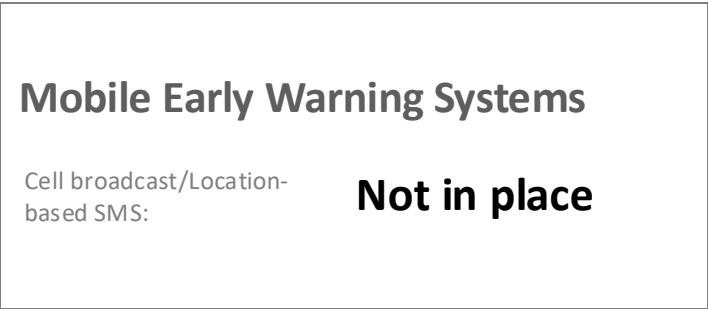
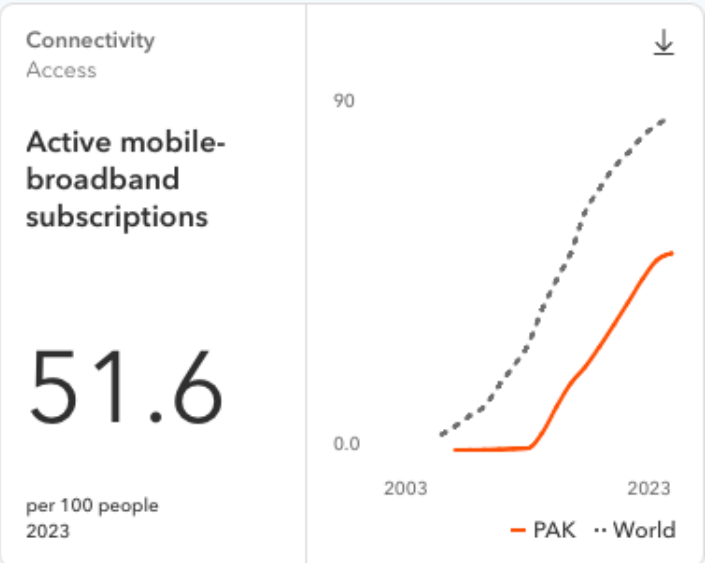
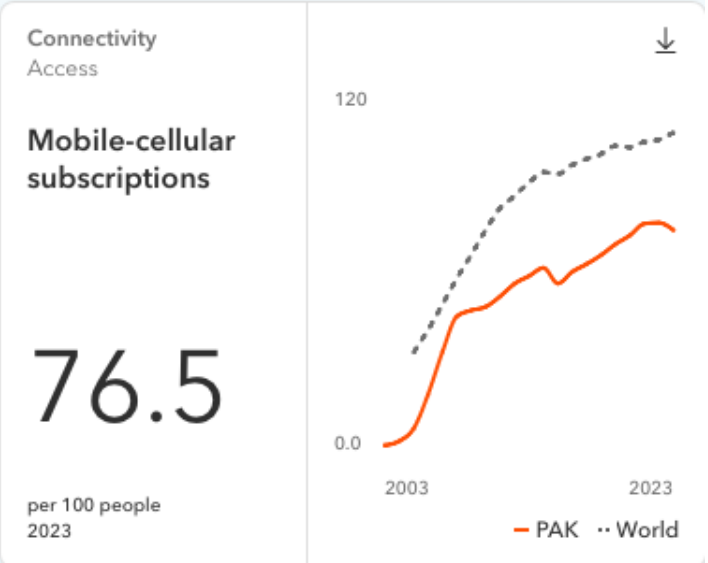
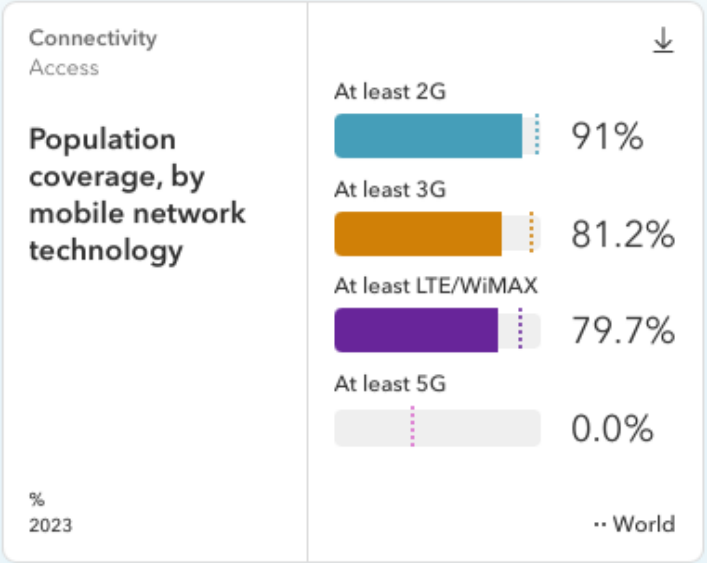
Percentage of individuals owning a mobile phone and using the Internet, 2024



**Note:** Mobile phone ownership refers to individuals aged 10 or older.

Source: ITU

# Coverage Statistics Pakistan



# Community Involvement and Trust

Making sure alerts are understandable and actionable

Effective early warning services are co-designed with the communities and have feedback mechanisms to help ensure **messages reach people through preferred and trusted communication channels, in actionable formats.**

The ITU is working together with the IFRC to involve communities in warning dissemination and message design, which is also closely linked to and will facilitate the work under pillar 4.



# Satellite Direct-to-handset Alert Dissemination

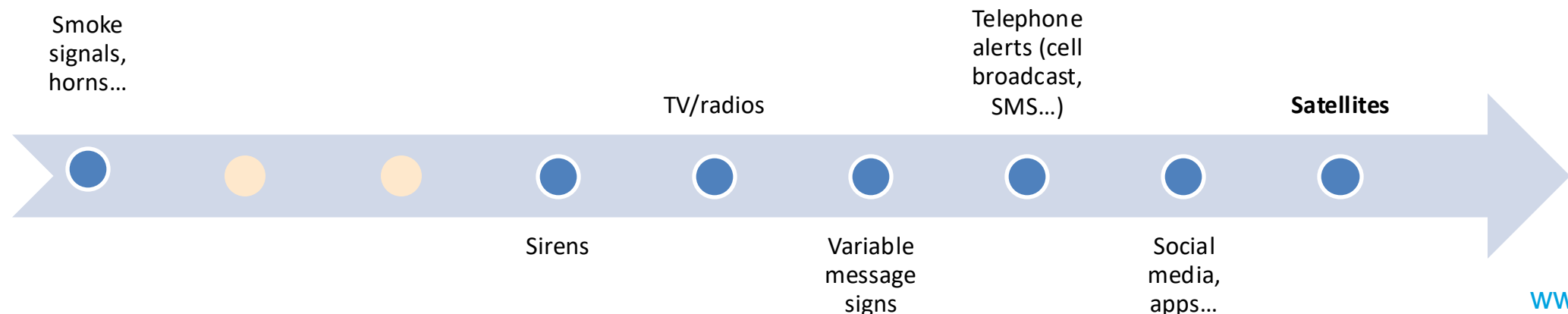
- Work closely with satellite industry to look into direct-to-handset solution.
- Complementarity between the alert by satellite and the alert via CB and/or LB-SMS
- Global coverage – including for communities in remote areas without connection.
- Ensure people at risk could be alerted even when the connectivity is down/affected by disasters
- The Case of Europe: Galileo's Emergency Warning Satellite Service

## Satellite Industry Commitment to EW4All



"Satellites provide coverage to 99% of the world's geography and plays a critical life-saving role in emergency messaging in all environments and geographies and is also able to provide reliable service in disaster situations that might render other technologies and communication mediums inoperable. The satellite industry has longstanding experience in emergency messaging and will be an essential component of any truly global emergency warning and messaging system. We are committed to the ambition of the Early Warnings for All Initiative for everyone to be protected by 2027.

Under the leadership of GSOA, the satellite industry is committed to do its best efforts to supporting the ambitious goal of the EW4all initiative. This includes identifying opportunities and addressing challenges in the area of direct-to-handset. Through cross-sector collaboration and sharing of expertise and best practices, we will make progress in helping protect everyone. GSOA, in collaboration with key satellite partners, will work to assess and, as appropriate, address, the remaining challenges for the adoption of these life-saving technological solutions and applications. This could include reaching out to relevant stakeholders outside the satellite industry, including device manufacturers and standardization bodies, terrestrial service providers and other relevant trade associations. "



# Enabling environment for EWS

**Policies, laws and rules are key to emergency telecommunications. They are the foundation to:**

- Define roles and responsibilities of all stakeholders involved.
- Determine the framework for coordination mechanisms, communication channels and operating procedures
- Identify decision-makers and decision-making structures withing relevant agencies
- Establish a formal basis for achieving the goals and priorities of the institutions.



# Mobile early warning systems – alerting people via mobile networks

## Using mobile networks and services for early warning

**Thank you!**