



Strengthening Regional Disaster Resilience in the CAREC region through an Integrated Multi-Hazard Early Warning System

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Background and Rationale



1

CAREC region highly vulnerable to climate change

Climate shocks and natural hazards are set to increase in the future CAREC

2

Mountainous regions increasingly exposed to climate impacts

Glacial retreat, flash floods, glacial lake outburst floods (GLOFs), landslide and associated natural hazards

3

Significant life and economic losses

Thousands of casualties, more than \$1 trillion due to floods and \$370 billion due to droughts (2000-2024 EM DAT)

4

Different capacities and approaches to early warning systems

Lack of regional coordination and integration hinders transboundary early warning efforts and leaves the region vulnerable to natural hazards

5

Need for regional cooperation

On early warning, disaster risk reduction and preparedness, evidence-based adaptation and resilience

Proposed Intervention



Output

A **regional Multi-Hazard Early Warning System (MHEWS)** for a coordinated, and harmonized approach to climate change risk monitoring, data sharing, and early action in the CAREC region

Outcome

Increased preparedness and readiness of countries to anticipate, prepare for, and respond to climate-induced disaster events

Alignment

Proposed by the WGCC, aligned with countries' national adaptation priorities, SDG9 (infrastructure) and SDG13 (climate action)

CCAP

Action Area 1, Climate Risk, Preparedness, and Health, under output Preparedness and Climate-Smart Regional Investments Increased

Objectives

1

A regional platform where countries can **share information, knowledge, experiences and challenges** in developing their EWS

2

Improved regional coordination for EWS and disaster risk management in the region

3

Strengthened national and regional capacities to anticipate, prepare for, and respond to climate-induced disaster events

4

Enhanced resilience of vulnerable communities through increased awareness, early warning, and preparedness measures

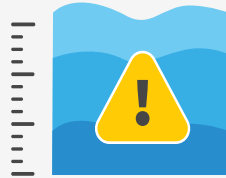
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Reduced life and economic losses, damage to infrastructure from natural hazards in the region, including CAREC corridors and sectors

Key Components

Regional Hazard Monitoring and Data Sharing

Knowledge and information sharing, common challenges and risks, cooperation on monitoring and data collection



Capacity Building and Institutional Strengthening

Hydromet and relevant agencies on climate and disaster risk and EWS management

Regional database, selected indicators, common protocols, communication channels

Centralized hub for monitoring and disseminating EW information



Enhance local-level resilience to heat risk, build heatwave preparedness integrated in community-based early warning mechanisms and plans

Health and Climate Change Integration

Linkages and Synergies

UN Early Warning for All (EW4All) initiative launched at COP27 calling for every person on Earth to be protected by early warning systems by 2027

Systematic Observations Financing Facility (SOFF) one of the pillars of EW4All for funding weather and climate observation infrastructure improvement in LDCs, SIDS and MICs

Central Asia Flood Early Warning System (CAFEWS) by World Bank, GFDRR, WMO, others on hydromet service delivery in the region (CAHMP completed, regional roadmap being developed)

ADB's TA Increasing Investments in EWS to Strengthen Climate and Disaster Resilience (incl. Kazakhstan, Kyrgyz Republic, Mongolia, Tajikistan and Uzbekistan)

Enhancing Multi-Hazard Early Warning System in Uzbekistan (GCF financed), and **Tajikistan** (proposal under development)

ADB and WB collaboration on EW for projects in Tajikistan, the Kyrgyz Republic and Uzbekistan

ADB's project for Building a **Climate Change Early Warning System for the Aged in the People's Republic of China (PRC)**, to develop a EWS to warn the vulnerable about heat risk

Coordination with **CAREC Health Working Group for strengthening climate risk awareness and heatwave preparedness of health authorities** and integration of heat risk in MHEWS

Conclusions

The proposed initiative is wide and includes: (i) a regional platform for information collection and sharing, including exploring the establishment of a centralized hub, (ii) increasing regional coordination on EWS, (iii) capacity strengthening and (iv) building preparedness and plans for heatwaves.

Key points for discussion among WGCC members:

- **Objectives and next steps:** what to pragmatically include in the initiative and where to start?
- **Easy wins and challenges**
- **Level and depth of regional cooperation** e.g., extent of data sharing and indicators, establishing standard protocols, linking up national EWS for warning dissemination, communication channels, etc.
- **Interest on potential centralized regional hub** for monitoring and dissemination of EW information in the region



Thank you for your attention