Early Warning System Programming and Investment Opportunities in

UZBEKISTAN

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Policies and strategies that prioritize Early Warning System and Climate Information Services in Uzbekistan

Climate Risks & Vulnerability
Uzbekistan faces increased climate-induced hazards—floods, mudflows, landslides, avalanches, and hydrological drought—that threaten lives, infrastructure, and food security. Nearly the entire population (~34 million) is exposed to climate risks.

Strategic Shift to Proactivity
In response, the government is shifting from reactive disaster response to proactive risk management—aligned with both the Sendai Framework for Disaster Risk Reduction and its Nationally Determined Contributions under the Paris Agreement

GCF-UNDP Supported MHEWS Project (2021–2027)
Funded by the Green Climate Fund (US$9.9 million grant plus US$30.6 million in co-financing), implemented by UNDP and the Ministry of Emergency Situations, targeting improved climate resilience across all regions.

Strategic Roadmap for Early Warning Services and Achievements to date

Strategic Roadmap for Early Warning Services

A structured, multi-tiered modernization plan:

Short-term (2 years) – Urgent enhancements to equipment and capacity.

Intermediate (5 years) – Expanded services tailored for disaster risk management, agriculture, water management.

Long-term (10 years) – Establishment of advanced forecasting, modeling, and fit-for-purpose services

Achievements to date (as of August 2024):

Installation of 25 automated weather stations, 10 photoelectric meteorological stations, and 47 water-measurement devices across seven regions.

Training of 450 specialists in forecasting technologies.

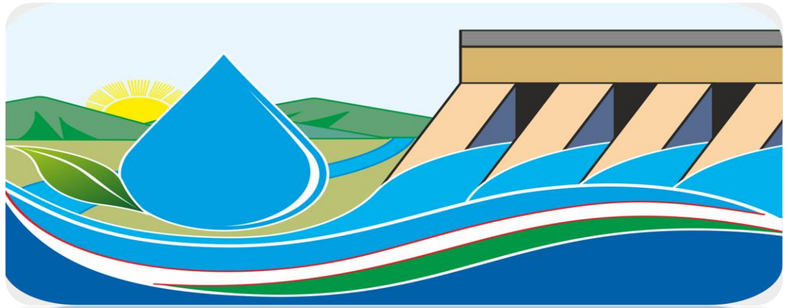
Establishing six Territorial Operational Management Centres to manage multi-hazard risks.

Community outreach: over 850 rural residents trained in disaster preparedness; 3,000 participants in evacuation drills

Climate Information Services in Uzbekistan

Sector	Institutional Arrangement Climate Service Delivery	Challenges	Lessons Learned
Disaster risk reduction & water (national early warning)	Impact-based multi-hazard early warning system (MHEWS) led by the Ministry of Emergency Situations and Uzhydromet with Green Climate Fund/UNDP (focus: floods, mudflows, landslides, avalanches, hydrological drought in the Ferghana Valley	In Aug 2025 the country also adopted its first national standard (O‘zMSt 520:2025) for warning and public information systems—important for interoperability and last-mile delivery.	Observation network & data gapsSparse/aging stations constrain localized products; pilots had to add micro-stations to reach farm-level scales.Lesson: expand automatic stations and ensure open, routine data sharing across agencies.
Agriculture (agro-climate advisories)	Uzhydromet already issues regular agrometeorological bulletins by region. In addition, a UNDP project in the Ferghana Valley installed 24 micro-climate stations and delivered localized farmer advisories (weather + pest/disease guidance) via Telegram groups, demonstrating yield/quality benefits for pilot farmers.	A new Adaptation Fund project (2025–2030, IFAD) will scale this into a national Climate Services System (CSS) with a web portal + mobile app and crop-specific advisories.	Pilots showed confusion when multiple agencies pushed parallel advisories (e.g., PPQA micro-stations vs. Uzhydromet products), risking contradictory messages and loss of user trust.Lesson: establish/operationalize the NFCS and technical standards so roles, data exchange, and validation are clear.

Uzbekistan's Climate Information and Early Warning System priorities articulated in ADB's Country Program Strategy (CPS) and programming pipeline/projects in Uzbekistan



ADB CPS Priority/ Strategic Objective	ADB Programming Pipeline/ Projects
Climate resilience, water security, disaster risk reduction and strengthening hydrometeorological / early-warning capabilities	1. L4207, 0842-0843-UZB: Climate Adaptive Water Resources Management in the Aral Sea Basin Sector Project 2. Resilient Amu Darya River Basin Sector Development Program (58028-002)

Uzbekistan’s Potential Climate Information and Early Warning System sectoral investments planned to be developed with ADB

Project Area / Map

Indicative Project/ Investment Title	Timeframe	Sectors Involved	Implementing Agency
Resilient Amu Darya River Basin Sector Development Program (58028-002)	2026-2029	Water Resources Management, Agriculture, Ecology, Economy and Finance, Investments	Ministry of Water Resources of the Republic of Uzbekistan

Measures and reforms for sustainability of the identified Climate Information and Early Warning System investments in Uzbekistan

Indicative Project/ Investment Title	Institutional Arrangement	Policy Reform	Budget Reform
Resilient Amu Darya River Basin Sector Development Program (58028-002)	Development and operationalization of an integrated climate information and early warning system, incorporating drought and frost forecasting for climate-resilient water resources management; flood forecasting and warning services in mountainous regions to strengthen disaster risk reduction; and deployment of climate-informed decision-support tools for irrigation planning and agricultural water allocation	1. Uzbekistan is decisively upgrading its multi-hazard early warning systems with international support and a clear roadmap in place.	1. Public-Private Partnerships & Supportive Infrastructure 2. Massive Investment Momentum

THANK YOU FOR YOUR ATTENTION AND TIME!

Country: Uzbekistan

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