According to scientists, climate change is significantly accelerating the melting of glaciers in Central Asia, and if the current degradation rate persists, most of the region's glaciers may disappear by the end of this century, because of which the peak river flooding will shift from July-August to April-May, while a severe water shortage during the vegetation season will become the norm. Besides, accelerated melting of glaciers will lead to overflowing of moraine-dammed lakes and weakening of soils. Thus, any sensible earthquake can undermine the stability of dams, barrages, or a moraine body, and provoke a mudflow.

Realizing the importance of the prompt relay of cross-border emergency warnings between Central Asian countries, the Center for Emergency Situations and Disaster Risk Reduction (*hereinafter – the CESDRR*), with the technical support of I2NIK LLP, developed a prototype for the integration of national early warning systems of Central Asian countries.

This prototype was demonstrated during the Regional Forum Meeting of the Heads of Emergency Authorities of Central Asian Countries in Tashkent in 2021 (*hereinafter – the Regional Forum*), and CESDRR's corresponding proposal to create a Central Asian Early Warning System was supported by the Heads of Emergency Authorities of Central Asian countries. Thus, the CESDRR received a mandate to promote the project idea of creating the "Regional Early Warning and Mutual Information System for Threatened and Occurred Emergencies."

To provide expert and technical advice on the creation of the Regional Early Warning System, the CESDRR proposed to establish a Technical Taskforce (*hereinafter – the TT*) consisting of delegated Central Asian experts, as a result, this initiative was also supported by the Heads of Emergency Authorities of the Central Asian countries.

With the support of UNDRR, UNDP, and GIZ, the first TT meeting was held in September 2023 in Almaty, during which the idea was born to draft a collective appeal from the Heads of Emergency Authorities of the Central Asian countries to the UN management to support the Regional Initiative for the creation of the Central Asian Early Warning System, and include its development in the implementation of the Global Initiative "Early Warnings for All".

During the next Regional Forum, held on November 10, 2023, in Almaty, the Heads of Emergency Authorities supported the initiative and signed **an Appeal to UN Secretary-General António Guterres** on creating the Regional Early Warning System. Subsequently, this appeal was sent to the UN Headquarters in New York through diplomatic channels with the support of the Ministry of Foreign Affairs of Kazakhstan.

The CESDRR is actively promoting the project idea to create the Regional Early Warning System, announcing it at all available platforms and meetings, sending it to partners for consideration as a global project for cooperation.

This year, the CESDRR's Project Proposal became a finalist in the competition of digital projects of the Eurasian Development Bank (EDB). Although the Project did not win, the EDB noted its relevance and proposed to consider the existing EAEU Integrated Information System to implement it.

In 2024, the CESDRR began implementing a two-year project with the German Corporation for International Cooperation (GIZ) "Climate Risk Management in Central Asia" to develop a technical solution for the creation of a Regional Early Warning System for Hydrological Risks. Thus, the implementation of the GIZ project will become the basis for further integration into it

of existing monitoring systems for threats of geophysical, geological, atmospheric, anthropogenic, and other origins in Central Asian countries and the actual creation of the Central Asian Early Warning System for multiple disasters.

Based on the outcomes of working meetings with partners, the OSCE Office in Astana expressed its interest and intention in collaboration with the OSCE Office in Bishkek to take further measures to promote the Project to create the Regional Early Warning System for Emergencies for Kazakhstan and Kyrgyzstan using existing regional OSCE programs and mechanisms.

Moreover, on June 19, 2024, the CESDRR was visited by a delegation from the Directorate-General for European Civil Protection and Humanitarian Aid Operations (DG ECHO), when DG ECHO representatives informed that the project idea is considered as one of the directions for a pilot project planned for implementation in Central Asia with the support of the European Commission.

Also, during the second TT meeting (*May 16, 2024, online*), a representative of the UNDP Office for Central Asia presented the results of research by an international expert in early warning, Mr. Vasko Popovski to draft a Regional Report on Mapping Early Warning Systems in Central Asian Countries. As a result of the research, the following issues of concern were identified: *fragmentation of early warning processes and their insufficient integration into the risk management system, lack of financial and technological support for early warning systems, as well as the need to integrate these systems into national development strategies and policies*.

The international expert proposed the following measures to address technical, regulatory, and institutional shortcomings:

- *Build the necessary capacity and provide resources for integrated early warning systems, as well as adequate funding;*
- *Promote digitalization and automation of early warning processes;*
- *Integrate new communication channels and services to disseminate warnings;*
- *Promote #EW 4 All initiative in Central Asia.*

Thus, the measures proposed by the international expert to improve national early warning systems in Central Asia are fully consistent with the principles and initiatives promoted by the CESDRR.

Also, the representative of the UNDP Office for Central Asia confirmed their readiness to assist in promoting the CESDRR's project idea by hiring an international expert to develop a detailed Concept note for the creation of the Regional Early Warning System based on the research conducted. This document will be key to attracting funding from donors for the Project implementation.

The first step in the practical Project implementation to create the Regional Early Warning System will be the development of the detailed Terms of Reference reflecting the step-by-step Project implementation (*system architecture, integration approaches, equipment, software, data management, security etc.)* and its coordination with the TT members.

Currently, creating and developing early warning systems as a key tool for resilience and disaster preparedness is on the agenda of almost all international events in the field of disaster risk reduction and adaptation to climate change.

In general, the initiative to create the Regional Early Warning System is in line with the Action Plan to cover the whole world by early warning systems by 2027 announced by UN Secretary-General António Guterres during the Global Climate Change Conference in Egypt in 2022, and is also fully consistent with the Global Target 7 of the Sendai Framework for Disaster Risk Reduction 2015-2030 in terms of significantly increasing the accessibility and access of the

population to early warning systems for various disasters and information on disaster risks and their assessments by 2030.

# Measures to promote the project idea of creating the Regional Early Warning System



Working meeting with the
UN Resident Coordinator in Kazakhstan
Ms. Michaela Friberg-Storey

Meeting with the
DG ECHO Director for the Central Asia
Mr. Andreas Papaconstantinou

Participation in the competition of digital projects
of the Eurasian Development Bank

Meeting with the
Special Representative of the UN Secretary-General
Mr. Kamal Kishore

Working meetings with representatives of the OSCE
Offices in Astana and Bishkek

Meeting with the Head of GIZ Project
"Climate Risk Management in Central Asia"
Mr. Sergey Makarov