

Quarterly Newsletter

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NORTH ARAL SEA DEVELOPMENT



Photo credit: Edda Schlager

Preparation of North Aral Sea Development and Revitalization Project

Despite many years of efforts to revitalize the Aral Sea and restore biodiversity around it, a lot remains to be done to improve the environmental situation in the area.

CAWEP is financing a feasibility study and environmental and social impact assessment for the proposed

North Aral Sea Development and Revitalization Project. The project will help restore wetlands and reduce the impacts of windblown salt and dust from the seabed. While improving water resources and environmental management, the proposed project would also create conditions for enhancing local livelihoods and provide services and opportunities for the local communities in the Aral Sea and Syr Darya basin in Kazakhstan.

On October 3, 2022, in Shymkent, Kazakhstan, representatives of the Water Resources Committee, Kyzylorda oblast authorities, the World Bank, and the consulting company Yekom discussed the progress of the feasibility study. The study is a detailed multi-criteria analysis of the key options for further raising the level of the North Aral Sea, including a water balance assessment, hydrological assessment, impact of upstream dams, as well as environmental, economic and social assessments in line with the Bank's environmental and social requirements.

The study has modeled and compared one-level sea, two-level sea, and no-project options for regulating the level of the North Aral Sea. These options were reviewed by the Water Resources Committee on May 27, 2022 and by the Aral-Syr Darya Basin Council on August 5, 2022. The feasibility study is expected to be completed and submitted to the government in early 2023.



INNOVATIVE TOOL



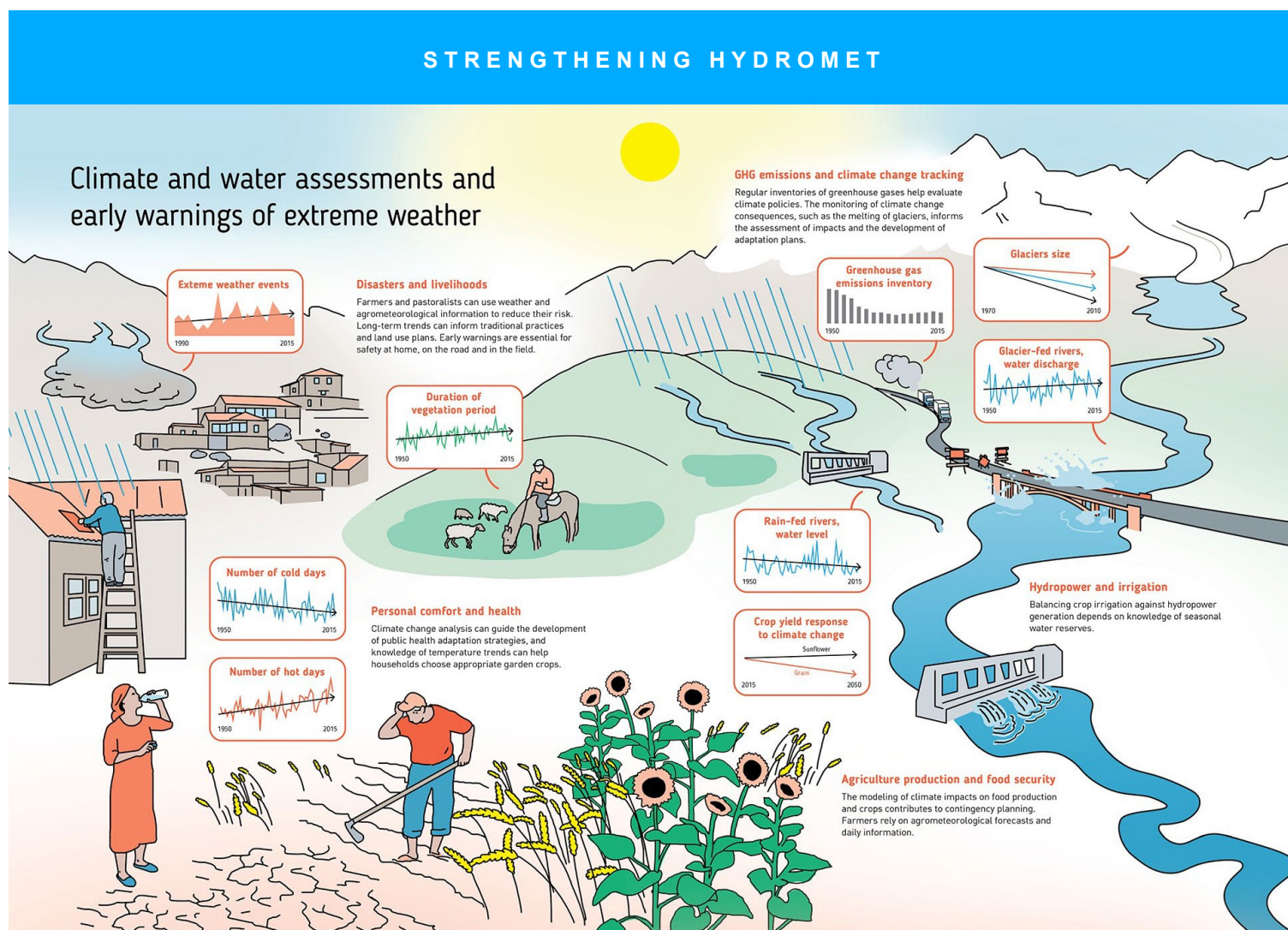
Innovative Tool for Weather Forecasting in Central Asia

Accurate weather prediction is essential for agriculture, disaster risk reduction and water management, even more so due to climate change that is associated with increasingly frequent natural disasters. To explore improving the cost efficiency of weather forecasting in the region, CAWEP in collaboration with The German Weather Service (DWD), the World Bank and World Meteorological Organization (WMO) piloted [ICON-In-the-Cloud \(ICONIC\) Numerical Weather Prediction \(NWP\) on Commercial Cloud Services](#)

High resolution NWP is critical for improved forecasting of meteorological conditions, especially of extreme events. It delivers high resolution spatial and temporal information about potential intense precipitation, winds, temperatures and other atmospheric phenomena that can help to better forecast impending natural hazards. The ever-increasing accuracy of modern weather forecasting relies on NWP.

CAWEP, WMO and DWD collaborated to test the feasibility of running an operational NWP limited area model (LAM) on three major commercial cloud providers, which proved to be cost effective and reliable with the average internet bandwidth available in Central Asia.

Following the test, from October 12 to 14, 2022, IT and NWP experts from the Central Asian national hydrometeorological agencies, attended a training program to gain basic insights into the structure and functional scope of the [ICON model](#) and its operation. In practical training sessions, they ran the ICON model as a containerized application on a commercial cloud provider. Operationalization of a cloud-based approach to NWP is now being considered by some of the national hydrometeorological agencies.



Strengthening Hydromet and Early Warning Services in Uzbekistan

Effective hydromet services help communities and businesses reduce weather-related losses. It can reduce property damage, ensure public health and safety, and ensure continuity of public services and economic activity.

CAWEP, in partnership with other international organizations, has developed a [roadmap](#) to strengthen Uzbekistan's national hydromet and multi-hazard early warning systems and services to better meet the needs of government, communities, and the business sector.

The roadmap is based on a technical evaluation and assessment of the needs and capacity of Uzhydromet, the agency responsible for issuing meteorological and hydrological forecasts and warnings. The roadmap identifies the gaps and challenges in the production and delivery of weather, climate, and hydrological information services, and proposes a strategy for improving Uzhydromet's institutional capacity.



SAFETY OF HYDRAULIC STRUCTURES



Regional Workshop on the Safety of Hydraulic Structures

Dams, water outlets, tunnels, canals, pumping stations and other hydraulic structures are of vital importance for the economy of Central Asia. Since so many of these structures are located on transboundary rivers, regional cooperation over water is crucial not only for economic development but also for regional water security and stability.

CAWEP is collaborating with the International Water Assessment Center (IWAC) on the safety of hydraulic structures in the region. At the workshop in Almaty, Kazakhstan, held on November 30, 2022,

water experts from across Central Asia learned about the best global practices of hydraulic structures management, including risk assessment and management, support for the monitoring systems, early warning systems, and the use of information and communication technologies.

More than 60 participants, including experts, policy-makers, representatives of national services responsible for the safety of hydraulic structures, and regional river basin organizations from Kazakhstan, Kyrgyz Republic, Slovakia, Tajikistan, Turkmenistan, and Uzbekistan, as well as representatives of international organizations took part in the workshop. Continued regional collaboration on the safety of hydraulic structures contributes to the resilience of Central Asia in the face of climate and development challenges.



FORTHCOMING CAWEP EVENTS



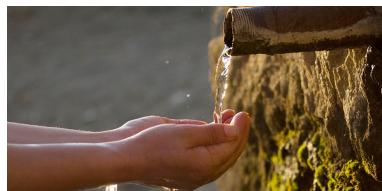
Towards Sustainable Water Services in Kazakhstan: Sector Financing and Tariff Design Workshop

Date TBC, Astana, Kazakhstan



Central Asia Energy Trade and Investment Forum

March 2-3, London, United Kingdom



Training on Groundwater Management in Central Asia

March 14-15, Tashkent, Uzbekistan



Study Tour for Central Asia Water Supply and Sanitation Experts to the Danube Region

May 2-6, Austria



The Central Asia Climate Change Conference: Water, Energy, Food, and Environmental Sustainability in the Context of Changing Climate

May 16-17, Dushanbe, Tajikistan



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CAWEP funds initiatives that improve water and energy management, strengthen national and regional institutions, and facilitate regional dialogue on water and energy security.

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