

# Climate Risk Management in Central Asia

## Context

Mountain glaciers in Central Asia are rapidly melting due to global warming and climate change. Following the latest reports, they will continue to shrink at least for several decades. According to the prognoses extreme precipitation is to increase in major mountainous regions, with potential natural disasters, like floods, landslides and lake outbursts in all scenarios of climate change. Ecosystem's integrity in general will be damaged and problems for water supply, energy production, agricultural and forestry production will occur. If the global warming continues to exceed 2°C every year East and West Central Asia would become even drier, particularly already in the middle of the 21st century.

Since climate risks do not respect national boundaries, their consequences affect multiple countries simultaneously. Therefore, governments of neighboring countries need to work together to address shared risks and coordinate their responses. This can also be an opportunity to build stronger regional partnership, share knowledge and experiences, and fostering joint efforts towards forging a climate-resilient trajectory.

## Our objective

Transboundary climate and disaster risk management in Central Asia is improved.

## Our measures

The project team and experts provide expertise to water basin organizations and stakeholders from selected water basin councils, national emergency and hydrometeorological institutions, regional center for disaster risk reduction. The objective is to enhance their capacity in tackling transboundary

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Commissioned by	German Federal Ministry for Economic Cooperation and Development (BMZ)
Project regions	Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan
Main partners	Kazakhstan: Ministry of Ecology and Natural Resources; Kyrgyzstan: Ministry of Natural Resources, Ecology and Technical Supervision; Tajikistan: Committee for Environmental Protection under the Government of the Republic of Tajikistan; Turkmenistan: Ministry of Environmental Protection; Uzbekistan: Ministry of Ecology, Environmental Protection and Climate Change; Center for Emergency Situations and Disaster Risk Reduction (CESDRR)
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water-related climate risks and strengthening preparedness to disasters. This includes the following:






- At the local level, the project involves conducting climate risk assessments at selected interstate small watersheds in Central Asian countries. This will be accomplished through an inclusive and participatory approach that actively engages local actors such as water basin organizations, watershed councils, and local self-governing institutions. Our team of experts provides support to environmental government institutions and local partner organizations, equipping them with the necessary knowledge and tools to develop local climate adaptation action plans. This enables them to be prepared for climate-induced hazards and collaborate in implementing disaster risk reduction measures within shared watersheds alongside neighboring communities. The implementation of climate science-based adaptation



L. to r.: Petrov Lake is the largest moraine glacial lake of the Tien Shan in terms of area and volume of water. It appeared 100 years ago as a result of melting of the Petrov glacier. Issyk-Kul region, Kyrgyzstan.

Map of Central Asia.

Pg 2: The warming stripes of Central Asia (period from 1901 to 2021) turn from mainly blue to mainly red in more recent years, illustrating the rise in average temperatures in that country.

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Source: <https://showyourstripes.info/s/asia/>, Professor Ed Hawkins (University of Reading)

measures is a collaborative effort by local communities, while local plans are continually updated through proper consultative processes.

- At the national level, we work with relevant government ministries and agencies responsible for water resources management, climate change adaptation and disaster risk reduction. The focus is on supporting these entities to develop and implement robust policies and plans related to water management and disaster risk reduction that are resilient to climate impacts.
- At the regional level, we facilitate knowledge exchange and coordination among the participating countries thereby promoting mutual learning and collaboration on climate change adaptation in shared watersheds. Furthermore, we support for the formulation of regional policies and strategies to promote climate-resilient water resources management and disaster risk reduction.

The project's support includes facilitation of high-level forums where stakeholders can discuss and negotiate strategies to address climate-induced hazards and disasters affecting multiple regions. These forums serve as platforms to cultivate robust regional cooperation, share experiences, and promote collaboration. Additionally, the project endeavors to encourage the active involvement of civil society and non-governmental organizations (NGOs) in climate risk management activities. Recognizing climate change as a global predicament necessitating coordinated action across sectors and regions, this approach assembles stakeholders from diverse backgrounds and regions. This convergence of perspectives aims to foster

deeper understanding, cooperation, and the development of region-specific strategies tailored to address unique challenges and needs. The involvement of civil society and NGOs will help to ensure that the voices of local communities and vulnerable groups are heard and that the formulated strategies adhere to principles of social and environmental justice.

## Expected results

As a result of the project support, local self-governing institutions, water basins organizations and councils in the selected watersheds will have local climate adaptation plans with identified and prioritized transboundary measures. Local communities will be enabled with early warning systems, which would help to jointly prepare and implement climate adaptation measures while fostering a shared resilience against climate induced hazards.

The respective ministries and organizations in all countries have made notable progress in establishing robust early warning systems for hydrological disasters. Modern tools and instruments help to analyze risks and develop approaches to address climate change consequences.

The regional dialogue platforms and forums are enriched with valuable experiences derived from the local levels, fostering comprehensive discussions on opportunities for transboundary collaboration. These platforms serve as crucial arenas for the development of international agreements, protocols, and guidelines that provide essential support for transboundary climate risk management.

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