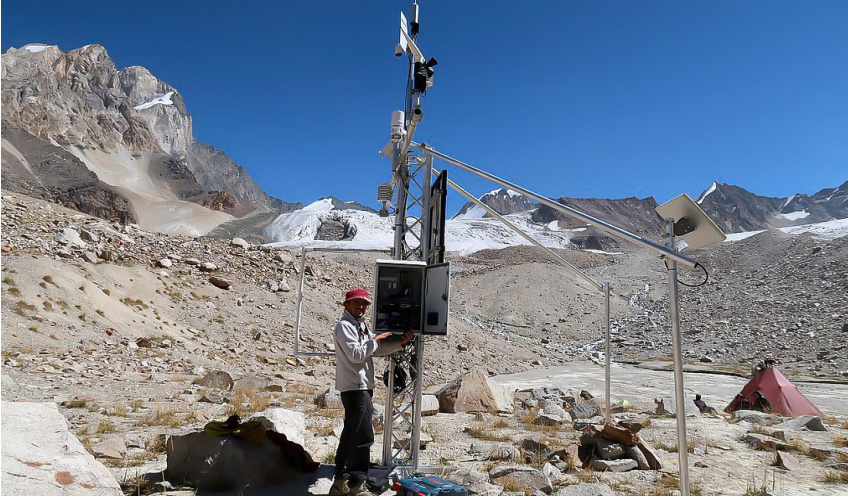




## Regional Water, Infrastructure and Climate Change

### CROMO-ADAPT



#### Rationale

In Central Asia, water release by snow and glaciers is fundamental in many watersheds to maintain sufficient runoff during dry summer months. Climate change will significantly influence water availability and likely increase the occurrence of natural hazards. This information is fundamental to anticipate further developments and plan adaptation measures. Hence, strategies to strengthen climate resilience through climate information services and adaptation measures must be based on sound climate observations. Currently, large gaps exist in the climate observing system in Central Asia, particularly in high mountain environments. The CROMO-ADAPT project will address this gap, strengthen cryospheric (incl. glaciers, snow and permafrost) monitoring systems in Central Asia, derive specific climate information services and conceptualize catalytic adaptation measures in the water and disaster risk reduction sectors in four selected watersheds in Kyrgyzstan and Tajikistan. The project strongly builds on Swiss expertise in monitoring and adaptation in mountain areas and contributes to the Swiss priority to strengthen integrated water management in Central Asia.

#### Objectives and activities

The overall goal of the project is to inform policy making, planning and implementation of adaptation measures in the water and risk management sectors in Central Asia, based on high quality cryospheric data, model predictions and long-term climate information services, in order to increase the resilience of the local population to climate change.

#### Country:

Central Asia (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan)

#### Duration:

2022 - 2025

#### Total Budget:

CHF 2'960'000

#### Partners:

Department of Glaciology at the Institute of Geography of Kazakhstan; National Hydro-Meteorological Services agencies in Tajikistan and Kyrgyzstan; Central Asian Institute for Applied Geoscience (CAIAG); Centre for Glacier Research of the Republic of Tajikistan; national and international academic institutions

#### Executing Agency:

University of Fribourg; Institute for Snow and Avalanche Research (SLF)

CROMO-ADAPT builds directly on previous projects CATCOS (2011-2016) and CICADA (2017-2020) led by the University of Fribourg in partnership with local institutions and research teams, during which a reliable and sustainable Glacier Monitoring Network covering several countries of Central Asia was re-established. The CROMO-ADAPT project now aims to expand the monitoring to other crucial cryospheric variables such as permafrost and snow to create an openly-accessible and high-quality database for cryospheric information in Central Asia.

### **The project will pursue the following outcomes and envisaged results**

- Locally managed and sustained cryospheric monitoring networks in Central Asia provide steady and reliable data to national, regional and global databases.
- National institutions in KG, TJ and KZ are able to provide user-oriented cryospheric climate information services to basin planning and disaster risk management authorities as a means to create awareness and inform policy and planning on medium- and long-term consequences of climate change.
- National and sub-national basin planning and disaster management authorities in KG and TJ are capacitated to plan adaptation measures and facilitate investment in the water and disaster risk reduction sectors that respond to long-term cryospheric changes in 4 catchments.

### **Target groups**

- The direct beneficiaries are i) national hydro-meteorological services through the expansion of their monitoring network and the development of specific climate information services; ii) the scientific community through development of individual and institutional capacity; iii) national policy makers, through support in planning and decision making on water resources management and disaster risk reduction.
- Indirect beneficiaries is the local population in basins that benefit from improved basin planning and disaster risk management and will increase resilience to climate change.

### **Key results achieved so far**

- State-of-the-art cryospheric monitoring systems are established in KG, KZ and TJ.
- Local scientists from KG, KZ, TJ and UZ (with a strong focus on women) are trained in data generation and processing.
- Climate information services for medium and long-term prediction of water availability and hazards are developed with local partners.
- Local implementing partners inform policy makers on climate impacts in the cryosphere through national and regional science-policy dialogues.
- Adaptation measures are conceptualized in four catchments in KG and TJ together with national partners (basin planning and disaster management authorities).

### **Contact:**

Embassy of Switzerland

Shota Rustaveli Street,  
Impasse 1, House 4  
Tashkent, Uzbekistan

Tel.: +998 78 120 54 54  
tashkent@eda.admin.ch  
www.eda.admin.ch/tashkent

*printed in May 2023*