

A Source of Peace - Transboundary Water Management in Central Asia

Rehabilitation of the Tortgul dam safety system

Context

The Tortgul water reservoir is located in Batken Oblast (administrative district), 12 kilometres west of Batken city. It has a full storage capacity in amount of 90 million cubic meters of water and supplies 9,000 hectares of irrigated land with water. The Podvodyashi canal feeds the reservoir by diverting water from the transboundary Isfara river, which originates in Kyrgyzstan and flows into the territories of Tajikistan and Uzbekistan.

Originally, the reservoir was designed to provide irrigation water solely to Kyrgyzstan in accordance with existing water allocation agreements. In recent years Tajikistan has also requested to draw on Tortgul's water supply in April and May, when the Isfara's water flow is low. During these two months Tajik farmers abstract about eight million cubic metres of irrigation water, which is delivered to Tajik territory through the western dam outlet.

The Tortgul reservoir was commissioned in 1971 and is now in urgent need of renovation. The dam safety observation system relies on steel pipe boreholes equipped with piezometric devices that haven't worked for several years. Consequently, there is a significant risk of uncontrolled flooding.

Project name	Transboundary Water Management in Central Asia
Commissioned by	German Federal Foreign Office (Auswärtiges Amt)
Project region	Batken district of Batken Oblast, Kyrgyzstan
Partners	Batken Rayon Department of Water Resources at the Ministry of Agriculture and Melioration of the Kyrgyz Republic
Duration	May 2013 – December 2014

Objective

The main project objective is to increase the safety of Tortgul dam and the reliability of its monitoring system. The reservoir provides sustainable water supply to surrounding irrigated lands, securing the income base of local farmers. Improving the dam safety system will also reduce flood risks for those living downstream.

Measures

Firstly, the project will carry out a detailed technical assessment of dam safety. Based on this assessment, priorities for updating the existing dam safety monitoring system will be identified. The project will restore the piezometric network by creating new boreholes and providing equipment.

In parallel to these infrastructure upgrades, staff in the Batken-based water management bodies will be given training on how to properly operate the rehabilitated system.



The tower outlet at Tortgul eastern dam.

Expected results

Currently detailed assessment and design works are under way. The piezometric network will be restored by creating up to 100 boreholes inserted with water level measuring instruments and replacing hydro-mechanical equipment. In addition, four flat gates on tower outlets will be replaced.

As the final result, the rehabilitated Torgtul dam safety system will improve living conditions for the local farmers: they will have sustainable water supply for irrigation and, consequently, for making income; the security will be improved with regard to the reduced flood risks.

All project activities are closely coordinated with other initiatives of the Transboundary Water Management in Central Asia programme.



Location of Torgtul Dam.

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