UZBEKISTAN - TURKMENISTAN: TRANSBOUNDARY DEMONSTRATION PROJECT “Tuyamuyun Hydroelectric Complex”

Objective

to promote water-energy-food security by tackling the growing sedimentation at Ruslovoe reservoir, one of four water reservoirs at Tuyamuyun Hydroelectric Complex (THC).

Implemented by:
National and international consultants

Beneficiaries:
Local population, private sector, governance of Dashoguz Velayat of Turkmenistan and the Republic of Karakalpakstan and Khorezm Region of Uzbekistan, municipalities

Implementation period:
January 2021 – December 2022

Location:
Lepab Velayat, Turkmenistan (middle llow of Amy Darya River)

Supported by:
European Union project “Nexus Dialogue in Central Asia” and “Laboratory of Innovative Solutions for the Water Sector of Central Asia” (CAWEP)

THC provides water resources to Uzbekistan and Turkmenistan, but the run-of-the-river Ruslovoe reservoir has sediments for 70% and no longer discharges water.

By business-as-usual scenario, the growth of sedimentation would reach its maximum point by 2040s and threat the WEF security for over 5 million people in both countries.

Activities to be implemented:

- Task 1: Estimate the current sedimentation rate at Ruslovoe Reservoir and develop a sedimentation forecast for the next 50 years.
- Task 2: Develop technical recommendations to clean and recycle the sediments.
- Task 3: Develop cost-benefit analyses on recommended technical solutions.
- Task 4: Integrate international experience on cleaning and recycling of the sediments.
- Task 5: Develop an investment proposal on the sediment cleaning or recycling.

Importance of THC for WEF security:

- Electric power generation in Uzbekistan (450 million kWh per year)
- Provides water to 779,300 ha in Uzbekistan and 425,000 ha of irrigated lands in Turkmenistan

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