



## Water Management and Climate Change

### Climate Resilient Integrated Water Resources Management in the Zarafshan River Basin in Uzbekistan



*Women farmers in Kattakurgan participating to pilot area for project*

Uzbekistan heavily depends on its neighbors for water supply, as only about 20% of water originates in the country. The growing water deficit – due to population growth and climate change – is a key factor that challenges Uzbekistan's development.

#### **Rationale**

With approximately 7.5 million people, the Zarafshan River Basin is the most densely populated area of Uzbekistan, with agriculture playing a strong role for household livelihood systems and for large scale production. With approximately 90% of the water being used for irrigated agriculture and in view of aggravating seasonal water shortages, improving agricultural water use efficiency is key to increase resilience of farmers to climate change. Moreover, water savings would improve access to water for other economic and social sectors. As different water components are under the responsibilities of various ministries, a multi-stakeholder, integrated water resources management approach is required to leverage these savings for an optimum benefit for the population of the Zarafshan River Basin. As most of the water consumed in the Uzbek part of the basin originates in Tajikistan, ICH20 includes a 'transboundary' component.

#### **Objectives and activities**

The overall goal of the project is to improve livelihoods of the population through mainstreaming climate change in integrated water resource management.

**Country:**  
Uzbekistan

**Duration (first phase):**  
2023 –2027

**Total Budget:**  
CHF 4,23 Mio.

**Partners:**  
Ministry of Natural Resources;  
Ministry of Water Resources;  
Ministry of Agriculture; Ministry of Mining Industry and Geology;  
Ministry of Construction and Housing and Communal Services;  
Agency for Hydrometeorological Service under the Ministry of Natural Resources

**Implementing Agency:**  
Caritas Switzerland (CACH) in consortium with the Regional Environmental Centre for Central Asia (CAREC).

**Partners:**  
hydrosolutions (HSOL) and Swiss national agency for hydrometeorology (MeteoSwiss).

Given the national priority on irrigation and water savings, the first phase focuses on water use efficiency in irrigated agriculture, to increase resilience of farmers to climate change. Water use efficiency gains shall be achieved by data-driven irrigation and management of water supply, closing data gaps in existing Water Information Systems and complementing national investments in water saving technologies.

A river basin council shall be created to assure the coordination across different sectors and setting priorities. This requires a firm understanding of the economic and social value of water in different uses for effective allocation and management. Knowledge gained, and approaches developed in the first phase shall be extended in following phases for broad uptake in the entire Zarafshan River basin and for integration into national policies and to feed into transboundary cooperation

### **Outcomes and envisaged results**

Outcome 1: Stakeholders within the ZRB implement an effective, climate-resilient and integrated management of water resources, based on enabling technology, systems and institutions.

Outcome 2: Water users (female/male) are empowered to benefit from actively engaging in an equitable and integrated water resource management in the ZRB.

Outcome 3: Policymakers institutionalize tools and approaches from iCH2O which supports the integration of climate-resilience and IWRM in multi-sectoral water-reforms, policies and action plans in Uzbekistan, and contributes to the transboundary as well as to the regional dialogue on water cooperation.

iCH2O builds synergies with related investments in Uzbekistan, especially with Swiss funded National Water Resource Management (NWRM) project. It does so through a people-centered approach which strengthens capacities of individuals as well as institutions for Integrated Water Resource Management, and which further boosts the efficiency gains from the adoption of water saving technologies (e.g., drip irrigation) that NWRM project promotes.

### **Target groups**

Farmers, water users and policy makers.

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*printed in July 2023*