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Main achievements of the IRDP/TRIGGER project, contributing to the further development of the water sector in Tajikistan

Mr. Goretzky Wulf-Hendrik, GIZ Project Director

Joint meeting of the Working Group on Integrated Water Resources Management and Coordination Working Group on the Implementation of the Water Sector Reform Program of the Republic of Tajikistan, April 19, 2024

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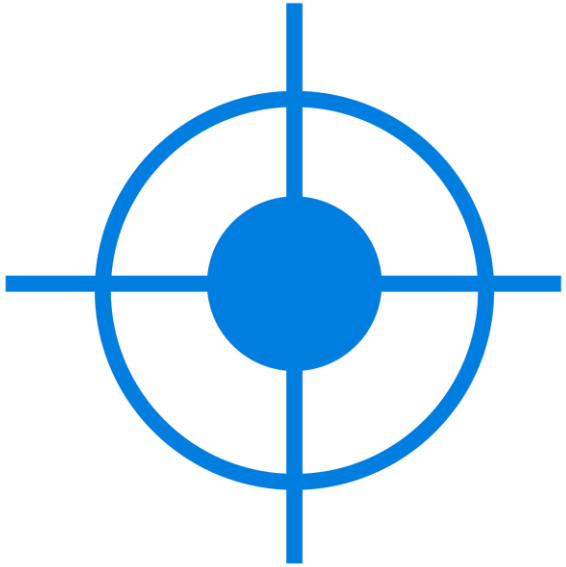
The IRDP/TRIGGER's “Water Output” provides technical support to the **Ministry of Energy and Water Resources** at the basin (Zarafshon Basin zone) and national levels.

Such technical support comprises **technical advisory services**, **capacity building, and training measures and supports to improve small-scale farmers’ access and use of irrigation water**.

Objectives:

- Improve the enabling environment and build the capacity of national, regional, district and local stakeholders to elaborate development plans with a focus on **Integrated Water Resources Management.**
- Improve **Water Security** and climate resilience to unlock agricultural potential.



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The Water Output of the IRDP/TRIGGER has structured its work processes into **four Work Packages**

Work Package 1 - "Water Governance":

- Zarafshan River Basin Management Plan formulation;
- Organizational developments in the basin for RBO, RBC and stakeholders.

Work Package 2 - "Information and Knowledge Management":

- Arrangements for the National Water Information System (NWIS).
- Hydrological modelling, snow and glacier monitoring activities in the Zarafshan River Basin by the Future Water Consortia.

Work Package 3 - "Capacity Development":

- Development and conduction of the "8 modules" training program for water sector specialists in collaboration with Kazakh-German University (DKU).
- Support the "IWRM Cluster" at Tajik Agrarian University (TAU).

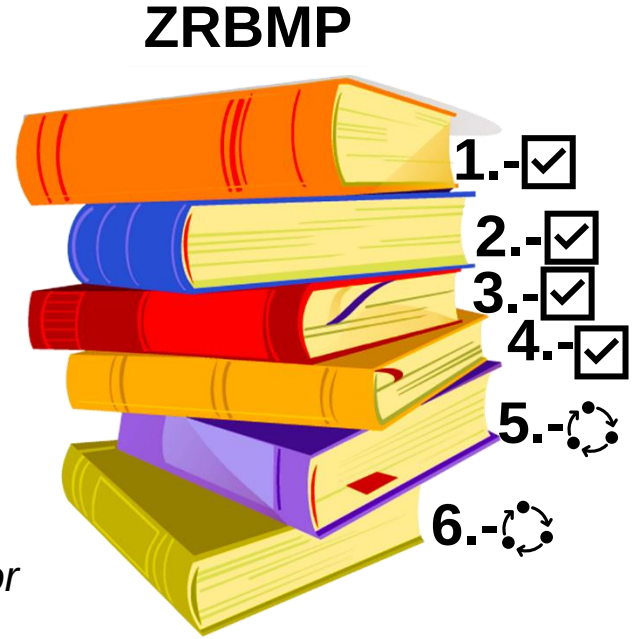
Work Package 4 - "Water-resilient Food Systems":

- Trainings for small-scale farmers in the Zarafshan River Basin.
- Investments in irrigation technologies and pilot projects for small-scale farmers in the basin.

Zarafshan River Basin Management Plan (ZRBMP) formulation in accordance with "Methodological guidelines for the development of basin plans for water resources management", approved by Order of the Ministry of Energy and Water Resources of the Republic of Tajikistan No. 34 dated 14.06.2023:

6 ZRBMP Books:

1. **"General Characteristics of the River Basin"** – *Draft.*
2. **"Ecological Assessment and Key Water Problems"** – *Draft.*
3. **"Target Indicators"** – *Draft.*
4. **"Water Management Balances and Balances of Pollutants"** – *Draft.*
5. **"Water Abstraction Limits and Limits of Wastewater Discharges"** – Draft.
6. **"Program of Measures"** - *Under development with **application of WEFE Nexus approach** for ranking and prioritization of measures.*



Work Package 2 – Information and Knowledge Management

Work Package 2 facilitates evidence-based decision-making and integrated water resource management by **supporting the development of the National Water Information System (NWIS)** and conducting **hydrological modelling and monitoring of snow and glaciers** in the Zarafshon River Basin:

- Support of the NWIS in the completion of **State Water Cadastre** and **Geoportal** applications and development of an application for calculation of **Water Management Balances** – *State Water Cadastre and Geoportal apps developed and are being filed with related "water data".*

- **Build capacity** initiatives to improve the skills of MEWR and RBOs, focusing on Zarafshon RBO and other related public institutions in **information technologies and GIS applications** – about 20 unique participants were trained through the *training program in 2022-2023 (the task will be continued in 2024).*

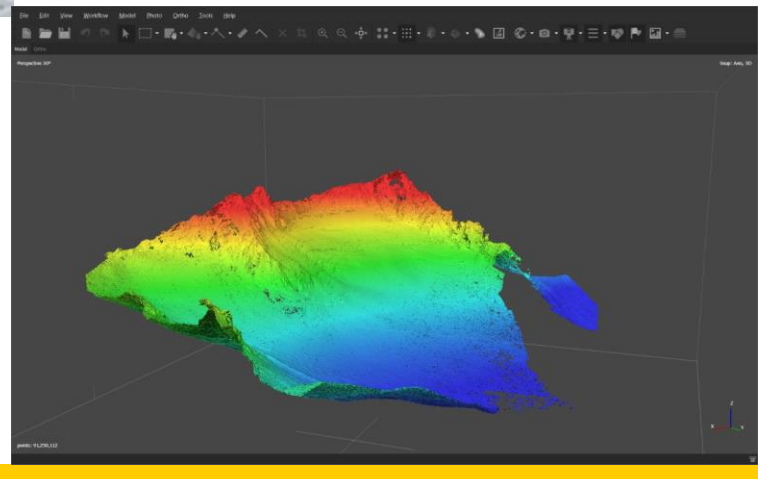
Work Package 2 – Information and Knowledge Management

Glacio-hydrological and water allocation modelling in the **Zarafshon River Basin** in Tajikistan with a focus on drone technologies:

- Development and application of **Spatial Processes in Hydrology (SPHY)** and **Water Evaluation and Planning (WEAP)** models to **ensure water-security** with the compresence training program for water sector specialists – *SHPY and WEAP models developed and are being used for RBMP formulation, training program ends in May 2024.*

- Training on **Drone technologies** for seasonal snow and glacier monitoring at GGP Glacier- In 2023, 15 participants were trained to use the UAV “eVee X” *(the task will be continued in 2024).*

Launch of UAV “eBee X” at GGP glacier in 2023



GGP glacier model 2023

Work Package 3 – Capacity Development

- Development of **eight training modules and training program** for water sector specialists, including training for trainers (ToT), aligned with Tajikistan's current water sector priorities – *ToT program starts on April 19, 2024, from rhetoric and didactic trainings for future trainers (soft skills).*
- Enable **necessary conditions** for the creation of a sustainable functioning of the **IWRM Cluster at Tajik Agrarian University (TAU),** able to run a blended training and Educational Program – *Cluster renovation, purchase of furniture and training equipment.*
- Strengthen the **IWRM Cluster at TAU** with the development and implementation of **short-term and mid-term strategy** with a road map – *Strategy developed.*

Eight training modules:

1. *Integrated Water Resources Management* - ☑
2. *Water-Energy-Food-Ecosystems Nexus* - ☑
3. *Improvement of irrigated agriculture* - 🔄
4. *International and national water law* - 🔄
5. *Regional water cooperation on transboundary rivers and water diplomacy* - ☑
6. *Adaptation to climate change in the context of water management, including ecosystem-based adaptation* - ☑
7. *Water allocation and hydrological modelling* - 🔄
8. *Safety of hydraulic structures* - 🔄

- Conducting a series of capacity development activities among all relevant authorities on the **application of the WEFE Nexus approach** at the national and basin levels – *5 WEFE Nexus trainings conducted with interactive simulation (Nexus Game).*

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Work Package 4 – Water-resilient food systems

Work Package 4 aims to improve **access to irrigation water** for small-scale farmers, their adaptive capacity and resilience against climate change and increase their water productivity through **water efficiency** and disaster risk preparedness **in the Zarafshon river basin** :

- Assessment and prioritization of irrigation systems based on economic feasibility and **water efficiency studies** - *Irrigation study in the basin with water productivity is developed.*
- **Implementation of modern water technologies** to improve access and efficiency in small-scale farming in the Zarafshon River Basin - Four plots are completed in Sarazm, Shurnova Bolo, Rarz, and Oburdon settlements, and one *plot is under construction in Sangiston (these works will be continued).*
- **Training and capacity-building for farmers** to operate water technologies effectively and sustainably - 50 small-scale farmers have been *trained (the task will be continued).*

Sarazm demo-plot

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