



National Water Resource Management (NWRM) Project in Tajikistan

Contract no. 81068776 (B Mandate)

CONDUCTING MID-TERM REVIEW OF NWRM PROJECT PHASE 2



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List of Abbreviations

ACTED	Agency for Technical Cooperation and Development
ALRI	Agency on Land Reclamation and Irrigation under the Gov of Tajikistan
BWO	Basin Water Organization
CBO	Community Based Organisation
CoES	Committee of Emergency Situation and Civil Defense
CoEP	Committee of Environmental Protection under the GoT
DAC	Development Assistance Committee
DRM	Disaster Risk Management
DRR	Disaster Risk Reduction
DF	Dehkan Farms
Giprovodkhoz	Tajikistan Irrigation Design Institute
GIZ-INS	Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH, International Services
GoT	Government of Tajikistan
HELVETAS	HELVETAS Swiss Intercooperation
INRM	Integrated Natural Resources Management
IWRM	Integrated Water Resources Management
MEWR	Ministry of Energy and Water Resources
MTR	The mid-term review
NEWC	National Energy and Water Council
NPD	National Policy Dialogue
NPMNP	National Pasture Management Networking Platform
NWRM- 2	National Water Resource Management Phase 2 (present project)
NWRMP	National Water Resource Management Plan
OECD	Organization for Economic Cooperation and Development
OSCE	Organization for Security and Co-operation in Europe
RBC	River Basin Council
RBM	River Basin Management
RBMP	River Basin Management Plan
RBO	River Basin Organisation
REACT	Rapid Emergency Assessment and Coordination Team
SBD	Syr Darya Basin Dialogue
SDG	Sustainable Development Goal
SCO	Swiss Cooperation Office
SDC	Swiss Agency for Development and Cooperation
TSD	Tajik Syr Darya
UNDP	United Nations Development Programme
UN NDRMP	Natural Disaster Risk Management Program
WB	World Bank
WG	Working Group
WIS	Water Information System
WUA	Water Users Association

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Executive summary

This report presents the results of Mid-term Review of NWRM project, phase 2 in Tajikistan. The purposes of the evaluation included conduction of the Review as of the end of 2020; development of recommendations on how to best achieve all project objectives in the remaining time of Phase 2, and specific recommendations on the NWRM Project Exit Strategy including a potential third phase; and assisting in developing the NWRM Project Exit Strategy.

The evaluation was done during April – May 2021 in form of desktop study, and interviews with more than 80 stakeholders. The overall performance of NWRM Project Phase 2 as of the end of 2020 was reviewed through suggested thematic Criteria of relevance, effectiveness, efficiency, sustainability as well as gender and social equity, and impact.

The results of the evaluation showed that the NWRM project is considered a flagman project in the water sector in Tajikistan as far as it is:

- fully relevant to the IWRM strategy, the Water Sector Reform Programme 2016-2025, the National Water Management Strategy, SDGs as supported the by-laws development and implementation of the new Water Code;
- effective in assisting the Government of Tajikistan. The stakeholders highly assessed project implementation strategy (most because of implementation at different levels in parallel). The only outcome which is considered as less effective is Syr Darya Water Informational System, which at present lacks monitoring data;
- efficient in terms of compliance with international and national standards and established partnerships and use of local capacity;
- it initiated the connection between the IWRM application and the improvement of the livelihoods of the people, which will be further strengthened with the implementation of the first Tajik Syr Darya Basin Plan;
- most of the Project results (especially regarding IWRM at the national level) are sustainable. The sustainability of the newly established Tajik Syr Darya River Basin Organization needs to be increased, especially its financial capacity; River Basin Councils need to be established based on the adopted legislation with the relevant budgeting assured;
- the project is very successful in the implementation of gender and social equity because of the involvement of the females in the RBO team and direct cooperation with the Association “Woman and Society” as well as ensuring of non-discriminatory approach towards the participants of the project consultations and workshops on water-efficient technologies.

Key recommendations for the potential third phase of the NWRM project include further support of the Water Sector Reform including the development of the new bylaws, reorganization of state water monitoring, further development of the national WIS, further development and implementation of the Tajik Syr Darya Basin Management Plan and continuation of the activities on increased water-efficient and rehabilitation of the irrigation infrastructure.

1. Introduction

As stated in the Terms of Reference (Annex 1), Phase 2 (Dec. 2018 - Nov. 2022) of the SDC funded NWRM Project, implemented by the Consortium of Helvetas, GIZ-Ins, and ACTED, aims at improving the livelihoods of rural communities in the Tajik Syr Darya Basin through integrated water resources management. Following the project's implementation strategy the NWRM Project Phase 2 is implemented at all levels of the water sector focusing on the development of the national policy and legal framework, the implementation of the policy and legal framework at the basin, sub-basin levels, and working with irrigation agencies and WUAs, as well as providing practical trainings to farmers at a plot level on water-efficient irrigation technologies.

The NWRM Project is implemented within the framework of the Tajikistan Water Sector Reform that is based on the concept of basin management and IWRM. The reform is implemented according to the Water Sector Reform Programme 2016-2025 adopted by the GoT in December 2015, and the NWRM Project has assisted MEWR in its implementation in the Tajik Syr Darya Basin. Significant progress in the reform implementation was achieved in 2020 with the adoption of the new Water Code and the creation of River Basin Organizations.

After two years of implementation of the NWRM Project Phase 2, the Project has made progress towards all its objectives. The results of the Mid-term Evaluation of the NWRM-2 Project will be a basis for developing the project's exit strategy to ensure the sustainability of integrated water resources management in the Tajik Syr Darya Basin, and its positive impact on rural livelihoods.

The overall objective of the consultancy is to evaluate the mid-term progress of implementation of NWRM Project Phase 2 objectives and to draw lessons that can improve the sustainability of achieved results. The specific objectives are the following:

- Conduct the Mid-term Review of NWRM Project Phase 2 as of the end of 2020;
- Based on the results of the Mid-term Review, develop recommendations on how to best achieve all project objectives in the remaining time of Phase 2, and specific recommendations on the NWRM Project Exit Strategy including a potential third phase;
- Assist in developing the NWRM Project Exit Strategy.

2. Background of the intervention

Tajikistan is a landlocked country located in south-eastern Central Asia with around 9.7 million inhabitants (2021¹). Tajikistan's agriculture sector contributes to 22.6 percent of the country's GDP while employing 45.7 percent of the population (2021²). As such, improving the country's agricultural productivity will play an important role in advancing overall economic growth, reducing poverty, and improving food security

The **Water Sector Reform** is part of the bigger Agrarian Reform already initiated in 2007 to increase agriculture productivity. In December 2015, the Government of Tajikistan (GoT) adopted the Water Sector Reform Programme 2016-2025 with the overall goal of water security as the precondition for achieving food

¹ <https://www.worldometers.info/world-population/tajikistan-population/>

² <https://www.usaid.gov/tajikistan/agriculture-and-food-security>

security. This was going to be achieved by applying the principles of Integrated Water Resources Management (IWRM) with a shift of water management from administrative units to hydrographical basins. **The Ministry of Energy and Water Resources (MEWR)** was designated by the Government of Tajikistan as the reform coordinator. The Water Sector Reform refers not only to the MEWR and the basin institutions, but also to all water uses such as for drinking water, irrigation, industry, recreations, and the environment. The largest water user in Tajikistan is irrigation using more than 90% of the country's water resources. Considering the prognosis of water stress followed by water scarcity under a high population growth and climate change scenarios, and the large share of available water resources used by irrigation, the issue of increased efficiency of water use in irrigation is one of the priority water issues. The irrigation water use efficiency is also important from the view of growing water needs in other sectors like drinking water, industry, and the needs of the environment. In irrigation, **the Agency of Land Reclamation and Irrigation (ALRI)** subordinated directly to the Government of the Republic of Tajikistan is a central executive body responsible for the land reclamation and management of irrigation infrastructure. The Oblast and District Departments of ALRI are responsible for the irrigation operation and maintenance and delivery of water to the Water User Associations.

According to the Water Sector Reform Programme 2016-2025, the following **five river basins** are defined as water management units: Syr Darya Basin (where SDC provides its assistance); Zaravshon Basin, Vakhsh Basin; Kafarnihon Basin; and Pianj Basin.

According to the Water Sector Reform Programme in each basin and selected sub-basins, the foreseen basin institutions, **the River Basin Organizations (RBO)**, and **the River Basin Councils (RBC)** will be responsible for integrated water resources management. The RBOs are the water resources management executive bodies implementing the state water policy in their basins, being subordinated to MEWR. In 2020 the new Water Code was adopted allowing the adoption of a resolution of the Government of the Republic of Tajikistan on the River Basin Organizations, and finally, the RBOs were created in all five basins in Tajikistan in June 2020. The created RBOs started operating without the state budget financing and in the first months, the operations of the Tajik Syr Darya River Basin Organization were supported by the NWRM Project.

The adopted new Water Code is the basis not only for the creation of RBOs but also for the creation of **River Basin Councils (RBC)**, the development and adoption of **River Basin Management Plans (RBMP)**, and the operation of **Water Information System**. In line with the new Water Code, the GoT adopted the resolution on the RBCs and the resolution on the RBMPs in December 2020. In this way, the River Basin Councils can be created, and the RBMPs can be adopted in 2021.

Although the **Tajik Syr Darya Basin Management Plan** is not yet adopted, the NWRM Project already started the facilitation of integration of local development plans with the basin management plan that will help in further IWRM implementation. **The newly created Tajik Syr Darya River Basin Organization**, with the assistance of the NWRM Project, started their activities from dialogues with sub-basin water users and stakeholders, including the local authorities. Its overall objective was to introduce and establish contacts with the water users and stakeholders as a basis for future cooperation on water management.

Log frame performance indicators matrix for 2020 is attached as Annex 8.2.

3. Methodology of the evaluation

The mid-term review (MTR) must provide evidence-based information that is credible, reliable, and useful. It is done according to [OECD DAC Guidelines and Reference Series. Quality Standards for Development Evaluation](#) and [DAC criteria for evaluating development assistance](#).

The overall performance of NWRM Project Phase 2 as of the end of 2020 is reviewed through:

- suggested in the Terms of Reference thematic Criteria of **relevance, effectiveness, efficiency, and sustainability**
- as well as Criteria of **impact** as presented in the DAC criteria for evaluating development assistance and **gender and social equity**.

The review answers the questions provided in the expert's ToR as well as additional comments of an interviewee.

A critical external view on the achieved progress and its sustainability is ensured in MTR. This is done using the different methods described below.

a) Desktop study

The MTR expert has reviewed all relevant sources of information including documents prepared during the Project's implementation phase as well as the Project Document.

List of the studied documents:

- NWRM Project Phase 2 Project Document including log frame, flowchart, stakeholder assessment, and project area map
- Project Progress Reports for 2019 and 2020
- Log frame performance indicators matrix 2019 and 2020.

b) In-depth interviews and group discussions

Stakeholder involvement included in-depth interviews (in case of the meeting person to person) and group discussions (in case of few stakeholders) with the following groups of stakeholders:

- Financing and Implementing agencies of the project: Swiss Agency for Development and Cooperation (SDC), HELVETAS (Consortium leader), NWRMP office in Khujand, ACTED and GIZ partners;
- National agencies that play a major role in the water sector:
 - o Ministry of Energy and Water Resources (MEWR);
 - o Agency for Land Reclamation and Irrigation (ALRI);
- Basin agencies:
 - o Zarafshon and Tajik Syr Darya RBOs;
 - o Syr Darya Basin Water Economy Organization of ICWC;
- Local agencies implementing practical implementation measures:
 - o Executive Body of State Power in Sughd oblast;
 - o Regional Office of ALRI in Sughd oblast;
 - o Committee of Environmental Protection in Sughd oblast;
 - o WUAs Obi Ravoni Kalacha, Bobojon Gafurov district, B Ahmadaliav, Spitamen district and Gallakor-2014 J. Rasulov;

- Bobojon Gafurov district department of ALRI;
- Basin Women Forum (Secretariat);
- Aksu WS dialogue;
- Sugd province Pasture Trust
- NWRM partner organizations such as NCC “SAROB” (partner on water efficiency), Tajikgiprowodkhoz (Tajikistan Irrigation Design Institute) (partner on irrigation issues);
- Partner projects affiliated with Project: WB Fergana Valley Water Resources Management Project; EU Irrigation Rehabilitation and Improvement of Management Project, ADB Panj River Water resources management Project; International Secretariat of Water – Rural Water Supply Project of SDC in Sugd Oblast;
- Farmers in Sugd Oblast and participants of the pilot projects such as (DRR mitigation site – flood protection of irrigation channel and demo-plot – conservation agriculture on the slopes, etc.).

For the details, please see the **Mission Programme and list of consulted stakeholders** (19 – 28 April 2021) (Annex 3).

c) *Evaluation Question Matrix and Questionnaire*

Evaluation Question Matrix (Annex 4) provides a qualitative rating for criteria on the Relevance, Effectiveness, Efficiency, Sustainability, and Gender and social equity used to evaluate the overall NWRM Phase 2 performance as of the end of 2020. Table 1 presented the qualitative rating scale.

Table 1. Qualitative rating scale

To High Extend	Satisfactory	Moderately	Poor
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It is worth mentioning that Criteria of Impact is evaluated based on the answers to the following questions mentioned in the [DAC criteria for evaluating development assistance](#):

- What has happened as a result of the program or project?
- What real difference has the activity made to the beneficiaries?
- How many people have been affected?

The questionnaire (Annex 8.5) is based on the questions stated in the Terms of Reference. It is developed in the form of open-end questions to capture the thematic fields requested for the assessment process by also allowing the interviewee to further elaborate potential ideas. If during the interview or discussion other additional questions arise, they get included in the review. Such an approach allows for the self-reflection of NWRM partners regarding the implementation of Water Sector Reform.

In total, more than 80 persons were interviewed (see Annex 8.3). Based on prevailing answers the evaluation question matrix was completed.

4. Findings

The overall performance of NWRM Project Phase 2 as of the end of 2020 was reviewed through suggested thematic Criteria of relevance, effectiveness, efficiency, sustainability as well as gender and social equity, and impact. The review answered the questions provided in the expert’s ToR.

4.1 Relevance

According to the ToR, the Relevance of the NWRM project was evaluated as exhibited in Table 2. Assessment of the criteria varies between “high extent” and “satisfactory”.

Table 2. Results of the assessment of the relevance criteria

	Relevance Criteria	High Extent	Satisfactory	Moderately	Poor
1	To IWRM strategy	Fully relevant			
2	In comparison to the projects in other basins	Fully relevant			
3	To actual national legislation		Relevant		
4	To the Water Sector Reform Programme 2016-2025, the National Water Management Strategy, SDGs	Fully relevant			
5	To needs of target beneficiaries		Relevant		

The implementation strategy of the NWRM Project Phase 2 is based on the operationalization of IWRM and its cross-scale implementation strategy: the development of the IWRM enabling policy and legal framework (national level), the basin institutions and management tools (basin level), and the watershed management and irrigation water use efficiency (local /community level).

The implementation strategy of the Project remains fully relevant, as it is focused on the implementation of the long-term **Water Sector Reform Programme 2016-2025** in Tajik Syr Darya Basin similar to other projects funded by other donors (e. g. ADB, EU), in particular, implemented for the Zarafshon, Kafernighon, and Pyanj river basins.

The project puts a special focus on the development of the Tajik Syr Darya Basin Plan. Following the development of basin planning methodology, the Project assisted MEWR in developing the Resolution on the Rules of Development, Approval and Implementation of Basin Management Plan adopted by GoT on December 31st, 2020, and draft “Methodological Instructions on Development and Adoptions of Basin Plans for Management of Water Resources” and successfully implemented it. The methodology and the draft Syr Darya Basin Plan were recognized by MEWR as a good relevant example for other basins in Tajikistan.

The project fully complies with the objectives of **the Water Sector Reforms of Tajikistan**. The Project has actively participated in the activities of the Water Sector Reform Coordination Council and provided expert support within the Water Sector Support Unit from the beginning of the Project till June 2020. The MEWR continues to count on support from the Project already in the newly created Support Secretariat, which will start working shortly.

The NWRM Project Phase 2 significantly contributed to the development of the legal and regulatory framework in line with the IWRM concept providing many sub-laws of the newly adopted Water Code, including

- The Resolution on the creation of RBOs was adopted on March 30th, 2020;
- The Resolution on the Rules of development approval and Implementation of Basin Management Plan was adopted on December 31st, 2020 (mentioned above);
- The Resolution on Creation of River Basin Councils was adopted on December 31st, 2020;
- The draft Government of Tajikistan Resolutions “On National Water Council under the Government of the Republic of Tajikistan”, “Charter of the National Water Council” and “Composition of the National Water Council”.

The main national partners count on further support in the sectoral legal framework harmonization.

Both **target beneficiaries** (MEWR and ALRI) have confirmed the relevance of the project activities to the Project’s ToR and their expectations at the national, basin, and community levels.

4.2 Effectiveness

The Effectiveness of NWRM Project Phase 2 was carefully studied as presented in Table 3. Assessment of the criteria varies between “satisfactory” and “high extent”. Only the assessment of WIS is considered “less effective”.

Table 3. Results of the assessment of the effectiveness criteria

	Effectiveness Criteria	High Extent	Satisfactory	Moderately	Poor
1	Assisting Government of Tajikistan		Effective		
2	Outcomes and Outputs objectives		Effective		
3	Water Information System (WIS)			Less effective	
4	Risk management	Very effective			
5	Project implementation strategy	Very effective			
6	IWRM elements coverage		Covered		
7	Disaster Risk Reduction (DRR) mainstreaming and climate change adaptation	Fully considered			
8	CSPM application	Fully applied			
9	Transboundary cooperation with UZ and KG		Addressed		

As a result of conducted interviews, discussions with project partners and beneficiaries, and local business partners, as well as analysis of project reports, it can be concluded that the project activities are quite effective. There is **remarkable assistance of NWRM Project Phase 2 for GoT** to effectively implement water sector reforms both on national and regional levels as confirmed by governmental authorities. This is confirmed in the Log frame (Annex 8.2) in the description of Output 1 and Output 2.

The project has been effective in achieving **the overall objective, expected outcomes, and outputs**. As presented in the Log frame 2020 (Annex 8.2), for the first two years (50% of the project duration) the Outputs have been fulfilled to more than 50% which classifies the NWRM project as a successful undertaking. Here one should take into account that the project is still ongoing and some results are on the way to be achieved.

The Syr Darya Basin Water Information System (WIS) is a modern and mandatory water management tool and its availability will undoubtedly strengthen the recently created Syr Darya RBO. Its effectiveness will also depend on the possibility not only to upload the data but also to access the data by the National WIS by the RBO staff. Syr Darya WIS provides transparency of water use as well as leads to more equitable distribution and sharing of water. Nevertheless, the National WIS does not include Hydromet data directly, but through development partners (donors). Although significant progress was achieved in the development of geospatial and tabular data there are still some elements missing (e.g. water balance, surface and groundwater quality). Another issue is that the water monitoring systems need rehabilitation and development as many hydrological stations do not function. In general, the current national WIS is not completed and it is planned to do its significant revision and adjustment.

The implementation risks were managed effectively. Mainly they are related to the COVID pandemic forced the Project to adapt its activities to the situation and apply online communication more often. COVID also affected the delivery time of two pump units for the Digami -1 pumping station but did not affect the efficiency of water use and application of water-efficient technologies related to their use.

The Project's implementation strategy assumes that activities on IWRM should execute on all levels, from community to the national one can consider as effective. The Project effectively covers all the aspects of integrated water resources management in the Syr Darya river basin although the main focus is on irrigation (food security, job in rural area) as the largest water user. More attention should be paid to the integration of rural drinking water supply (e.g., with SDC COWASS project) as well as other driving forces – recreation, fish farming, hydropower, and water supply for industry and communal sector.

The ProDoc of the Project does not provide for any research on climate change in the Syr Darya river basin. However, NWRM Project Phase 2 supports **the consideration of climate change**, in particular, within the implementation of DRR Isfana and Aksu sub-basins Management Plans and in strengthening the capacity of selected stakeholders to adapt water management in the face of climate change. The Project has effectively implemented several measures from sub-basins management plans to demonstrate the benefits of adapted and easily replicable IWRM practices. They focus on livelihoods' improvement to reduce water-related disaster risks and minimize losses in the conditions of climate change: rain-fed lands cultivation, reforestation, pasture rehabilitation.

Through **Conflict Sensitive Project Management (CSPM)**, the Project ensures that its activities do not unintentionally cause or exacerbate tensions, conflicts, or other problems. The project team is aware of existing and potential conflicts and recognizes the different identities of stakeholders' groups. In particular, Project effectively facilitates the coordination between sectors taking into account their different interests in water use; assists the Syr Darya RBO in the coordination of basin management activities.

Concerning **the transboundary cooperation**, the effectiveness of several Project activities at the local level largely depends on the quantity and use of water resources in the upstream country – Kyrgyzstan. However, the tension on the Tajik – Kyrgyz border does not allow implement planned joint activities aiming at confidence building too. An example of effective cooperation with another neighboring country is Uzbekistan, where the Project activities are related to the rehabilitation of pastures through the Disaster Risk Reduction initiatives.

4.3 Efficiency

In terms of the Efficiency criterion presented in Table 4, the NWRM Project Phase 2 is fully in line with the international and national norms and standards requested for the realization of an integrated water resources management concept. Assessment of the criteria varies between “high extent” and “satisfactory”.

Table 4. Results of the assessment of the efficiency criteria

	Efficiency Criteria	High Extent	Satisfactory	Moderately	Poor
1	International and national standards	Fully in line			
2	Partnership	Very good			
3	Local capacity usage	Highly used			
4	Cooperation with other projects, incl. SDC WSS Project		Good		

The Project partnership looks strong and implementing parties have an extensive and positive experience of work both in the region and river basin and IWRM. The cooperation with external local service providers such as a cooperative of individual agricultural experts SAROB and Tajikistan Irrigation Design Institute (e. g. on efficient irrigation methods, energy efficiency promotion application) makes Project results on ground level (farmers, communities, WUA) visible, efficient and sustainable.

The project highly used **local organizations' capacity**. The involvement of local experts in some project activities was very beneficial, for example for national legislation development and interministerial coordination. Governmental project partners ensured project results efficiency and sustainability.

The partnership of the NWRM Project Phase 2 with **other projects**, primarily those dealing with similar activities in other river basins of the country (for example, the ADB project on the Pyanj river) is successful and effective in terms of coordination in the development of the legislative framework and the support newly created implementing institution - RBOs. SDC COWASS project, aimed at the development of drinking water supply infrastructure in rural areas in the Syr Darya river basin, takes an active part in the development of the Syr Darya basin plan and participates in the working group on water quality and sanitation under the Syr Darya RBO. The project's activities related to drinking water supply in rural areas for 110,000 people should be aggregated into the Syr Darya basin plan. Another good example is cooperation with the USAID-funded Smart Waters Project in joint development of the Isfana Watershed Management Plan.

4.4 Impact

According to the [DAC criteria for evaluating development assistance](#), the Project impact means the positive and negative changes produced by a development intervention, directly or indirectly, intended or unintended. This involves the main impacts and effects resulting from the activity on the local social, economic, environmental, and other development indicators.

As recommended the Consultant searched for the answers to the following questions:

- What has happened as a result of the program or project?
- What real difference has the activity made to the beneficiaries?
- How many people have been affected?

The overall goal of the project is to improve the livelihoods of the rural population in the Tajik Syr Darya Basin through IWRM. This goal is considered to be partly archived. According to the Log Frame (2020), **69% of the respondents confirmed that the IWRM has improved** the situation of their sector regarding meeting the sector's current and future water needs.

In general, the assessment of IWRM implementation for the rural livelihoods has shown significant potential progress in terms of IWRM institutions (such as RBO and RBC) and their new management tools (such as RBMPs). In the short term, water safe irrigation technologies piloted in the frame of assistance to farmers and WUAs showed a significant positive impact on improving the livelihood of the rural population. Implementation of measures from RBMPs will ensure progress at the livelihood level. But further assistance is needed to strengthen IWRM processes, like improvement of surface and groundwater monitoring and RBMP implementation.

The progress in IWRM implementation was done at the national level with the adoption of the new Water Code and relevant by-laws as well as at the basin level (with development of the draft TSD Basin Plan and establishment of TSD RBO). The platform for the future TSD RBC was established through the Syr Darya Basin Dialogues supported by the project.

At the sub-basin and watershed level, a lot of practical activities were done to support farmers in water-efficient technologies and more productive crops. These activities were replicated and therefore affecting more people. However, the link between IWRM and livelihoods is still just at the initial stage as the RBMPs are not implemented yet. No national funds are allocated for these to make a real change in the life of the people. More efforts namely further trainings on water efficiency and productivity introduction and

continuation of the involvement of the farmers into IWRM are needed at the sub-basin and watershed levels.

The real difference made to the beneficiaries include:

- At the national level: updated Water Code is implemented through by-laws, and the relevant organizations (RBOs) are established;
- At the basin level of Tajik Syr Darya: the Tajik Syr Darya RBO is established; several measures out of the Tajik Syr Daria Basin Water Plan are implemented;
- At the level of watersheds: or the two watersheds (Aksu and Isfana) DRR Watershed Management Plans are developed and partly implemented; Aksu Watershed Dialogue and Isfana Small Basin Council are established;
- At the level of individual water users: water users (including females) got the opportunity to be heard at the level TSD Plan development and implementation through TSD Basin Dialogue; farmers started to apply more widely water efficiency schemes, which helped them to grow larger harvests.

In the long run, Water Sector Reform will impact the whole population of Tajikistan in terms of more sustainable and efficient use of water resources. Taking into account, that most of the population is rural and makes living based on irrigated agriculture and often fills shortages of irrigation water, improvements in irrigation technologies will increase the water productivity and harvests which will positively affect their well-being. Improved WUE will ensure equitable sharing of the existing water resources and water productivity - better harvests using less water as well. As far as this reform is just started, it does not have a significant impact on the livelihoods of the people yet. However, taking into account the legal and institutional reforms implemented by GoT with support of the Project, one can expect this impact to be positive and long-term. The first results can be assessed with the assessment of the implementation of the Tajik Syr Darya Basin Plan.

So far more than 2 thousand farmers got trained on water-efficient technologies and engaged in replication activities. One can consider this impact as sustainable as practical replication took place. The harvests comparing with 2018 have grown, which can be partly attributed to the application of water-efficient technologies. 41% of questioned farmers confirmed that their irrigated agriculture output from the 2019 irrigation season increased significantly and met their family livelihoods needs. However, to have a real impact on the rural livelihoods, more capacity-building activities should be done on the regular basis (not only using the technical assistance funds) as well as water-saving incentives introduced.

4.5 Sustainability

According to the stakeholders' assessment and desktop study, assessment of the criteria varies between "satisfactory" and "moderately" (see Table 5).

Table 5. Results of the assessment of the sustainability criteria

	Sustainability Criteria	High Extent	Satisfactory	Moderately	Poor
1	Project's environment		Sustainable		
2	IWRM at the national level		Sustainable		
3	IWRM at the basin, sub-basin, and watershed level			Less sustainable	
4	River Basin Organisations (RBO)			Less sustainable	
5	River Basin Councils (RBC)			Less sustainable	
6	Benefits extend of the project	Highly sustainable			
7	Technical solutions quality		Sustainable		

The project environment remains mostly sustainable. The main national partners of the NWRM Project Phase 2 (MEWR) and (ALRI) remain the same in 2020. However, it has to be mentioned that the position of the First Deputy Minister of Energy and Water Resources was vacant through the whole 2020 year. In this situation, the cooperation with MEWR was established at the level of the Head of Department. The limitations associated with the COVID pandemic certainly affected the Project's activities in 2020. Most of the meetings were held online, some were postponed. Equipment supplies (pump for Digamy Pumping Station) were also delayed. However, it was generally agreed that all this did not lead to any serious impact on the sustainability of the Project.

The adoption of the new Water Code by the Parliament of the Republic of Tajikistan in 2020 that is based on the concept of basin management and **IWRM is an important milestone in the implementation of the Water Sector Reform**. NWRM Project Phase 2 significantly contributed to the development of many bylaws of the Water Code. The harmonization of sectoral legal frameworks with the new Water Code and the basin management and IWRM concepts is continued. MEWR and ALRI demonstrate their political commitment and intend to update the Charters to the basin management and IWRM concept.

Capacity-building measures conducted permanently on different items of basin management and IWRM as well as institutional development of the Syr Darya RBO contributed to the sustainability of the process of IWRM on basin and sub-basin levels. However, its sustainability assessment is considered “moderately” because the Basin Plan is not adopted and implemented yet. Considering that the central and local budgets do not provide sufficient funds the issue of financing implementation of RBMP is another critical factor of IWRM sustainability. The absence of adequate investments from the GoT, private, external sources into it, financial stability, sustainable cost recovery diminishes the sustainability at the basin level.

For **the two watersheds (Aksu and Isfana)** DRR Watershed Management Plans are developed in line with the Syr Darya Basin Water Plan structure and partly implemented. For example, 67% of the planned measures in the Aksu river basin were implemented during 2018-2019. Set up of the Aksu Watershed Management Working Group to develop and oversee the implementation of the Aksu Watershed Management plan is one of the pilots implemented in the frame of the NWRM project. Based on the successful piloting the project supported replication of the model in the neighboring Isfana watershed in

cooperation with CAREC under the USAID-funded Smare Waters Project. The developed Watershed Management Plans comprise a wide range of issues related to water including DRR and provide a good basis for the implementation of Integrated Water Resources Management.

So far, there is no clear policy for regulating the activities of the watershed management platforms nor the implementation of the developed respective watershed management plans. There is a need for further efforts to be invested in ensuring the sustainability of the watershed management mechanisms introduced by the project. This might include capacity building and institutionalization of the watershed management platforms created. Various options of legal registration to be explored to ensure the legitimacy of the working groups so that it provides opportunities for independent fundraising to implement the measures from the watershed management plans.

The established Syr Darya RBO is considered moderately sustainable. The facts positively contributing to its sustainability include:

- there is a legal background for its operation. With the support of the project “The Resolution on the creation of RBOs” was drafted and adopted on March 30th, 2020. Charter of RBO and the Job Descriptions were developed as well.
- staff is involved in trainings on various aspects of basin management and IWRM;
- the relevant infrastructure was provided by the project (renovated premises, office equipment).

RBO sustainability should be strengthened very shortly. The RBO will take over coordinating implementation of RBPM once it's adopted.

The financing, especially regarding the salaries of experts of RBO is very low (the average salary is twice less compared with an official average salary in the country) and it creates a risk that they can leave the RBO. The salary is calculated for all budgetary organizations and depends on the minimum wage in the country. Nevertheless, MEWR has found an opportunity (through revision of the internal budget) to increase salaries by 15% from April 2021 and expects an additional 20% during the year. However, even such an increase in wages is insufficient, and therefore it is necessary to provide for other opportunities for financial sustainability RBO. First of all, it is necessary to amend the charters that enable RBO to earn independently by providing certain types of services. It would be very useful to develop a list of possible paid services that do not conflict with the functional responsibilities of RBO and do not overlap with the activities of ALRI, CoEP. RBO could also be contracted for some types of work implemented by technical assistance projects in the form of mini-grants.

Another problem that has an impact on the sustainability of the functioning of RBO is associated with the tasks to be performed. The function of the coordinator body of other executive authorities and organizations related to Syr Darya river basin management is important but not sufficient. In addition, to be the responsible body for the implementation of RBMP and its updating, it is necessary to be appointed for the implementation of some measures from the Plan as soon as possible.

The adopted new Water Code is the basis not only for the establishment of RBOs but also for the establishment of **River Basin Councils** (RBCs). The relevant resolution was adopted by GoT in December 2020. At present, Tajik Syr Darya RBC is not established, but there is a sustainable background for it in a form of the Syr Darya Basin Dialogue members, established in 2014, representing the voice of basin water users and stakeholders, supported by the Project. They were empowered to approve the final draft of Syr Darya RBMP.

A factor that can negatively affect the sustainability of RBC is the lack of a source of funding for its meetings (although it is not significant funds) and it will need external (e.g., from RBO) financial assistance as an RBC is not a legal entity with its budget. It seems important to successfully hold the first constituent meeting

of the RBC, which will take into account the representation of local authorities, regional executive structures, and water users representing different sectors, as well as public organizations and researchers.

Both the organizations, RBOs, and RBCs are new and will need more time to get the needed experience. The left time of NWRM Project Phase 2 is not sufficient for achieving fully sustainable operations of RBO and RBC in Tajik Syr Darya Basin. In the case of Phase 3, it is needed to continue the external assistance to the new basin organizations.

Benefits beyond the project include replication and scaling up of IWRM at a local level (farms, WUAs), sub-basin level through the replication of Aksu Watershed Management Plan in Isfana river basin and Syr Darya basin level (River Basin Plan). The NWRM Project Phase 2 created partnership with Tajik Agrarian University regarding the establishment of the IWRM cluster. In turn, University will organize training of Syr Darya RBO staff and assist in conducting IWRM monitoring in the river basin. Close cooperation and partnership with local authorities have resulted in the set up of State Forest reservation that significantly increased the project’s outreach with watershed conservation and rehabilitation activities, set up of district Pasture commissions to foster pasture management at the district level and not only in the project’s target area and to set up seed multiplication farm for newly introduced crops effective in pasture rehabilitation.

The Project’s technical solutions are adjusted to the local capacities to cover the costs of operation and maintenance. Within the development of a feasibility study on the modernization of the Aksu irrigation scheme financial feasibility and environmental standards requirements were provided. The project also focuses on the promotion of market-oriented approaches in water resources and irrigation management.

4.6 Gender and social equity

The stakeholders highly assessed the gender equity opportunities provided by the project (see Table 6). The project supports female participation in the project activities, especially at the local level.

Table 6. Results of the assessment of the gender and social equity criteria

	Gender and social equity	High Extent	Satisfactory	Moderately	Poor
1	Gender aspects	Fully integrated			
2	Benefits distribution		Equally distributed		

The NWRM project acts in the frame of the **Gender Strategy** of the Government of Tajikistan. One of the indicators of gender equity is women's participation, including in decision-making, as part of the downward accountability cycle including a public hearing, public review, and public audit. It is worth mentioning that the RBO team includes 4 females (out of 10 members). Out of the management team of the RBO (8 people), 3 are females.

Participation of females is limited sometimes because of objective reasons. For example, there are only a few females among the students of the hydromeliorative faculty of the Tajik agrarian university. In addition, as the study showed, the females are often passive in the process of decision-making because of insufficient education, cultural traditions (lack of confidence, fear to express her opinion, etc.), and lack of coordination (lack of one female platform in IWRM for better involvement).

Since 2017, to create better conditions for women's participation and voice in water management in the Tajik part of the Syr Darya River Basin, **the Association "Woman and Society"** has been involved as a

local partner. The NWRM project actively cooperates with this Association on the activation of women in the decision-making process in the water sector. To achieve its goals, the NWRM project supported the idea from the association "Woman and Society" to create a platform to activate women in the decision-making process in water management. Since 2019, the Basin Women's Forum platform within the Syr Darya Basin Dialogue has been in operation. The Basin Women's Forum platform promotes "Roles and perspectives of women in IWRM" in the Tajik part of the Syr Darya River Basin. Three forums have been held since the beginning of the second Phase of the NWRM project. Within the Forums a strategic plan of the forum for 2021-2023 and the action plan have been developed, as well as gender research among stakeholders.

The project involved this association in the monitoring of fulfilled commitments per a cooperation agreement under the project pilot activities on rehabilitation of the Digmay-1 pumping station and rehabilitation of electrical cables of the Khojabakirgan Canal Automation.

Social equity was assured through the active involvement of WUA members in consultation processes, sub-basin dialogues (220 participants), and workshops on water efficiency technologies (almost 2 thousand people trained). This way, people at the local level could benefit from the project knowledge sharing.

5. Conclusions

Based on the desktop study and the interviews with stakeholders, the NWRM project is considered a flagman project in the water sector in Tajikistan. The stakeholders provided the following assessment of the Project under the 6 criteria:

- **Relevance:**
 - o Fully relevant to the IWRM strategy and the Water Sector Reform Programme 2016-2025, the National Water Management Strategy, SDGs;
 - o Relevant to actual national legislation and needs of target beneficiaries.

- **Effectiveness:**
 - o Effective assistance to the Government of Tajikistan; effective outcomes, outputs, and objectives of the Project;
 - o WIS is assessed as less effective;
 - o Very effective risk management and project implementation strategy (most because of implementation at different levels in parallel);
 - o Disaster Risk Reduction (DRR) mainstreaming and climate change adaptation and CSPM application is fully applied;
 - o Transboundary cooperation with UZ and KG is addressed within the existing limits.

- **Efficiency:**
 - o The project is considered fully in line with international and national standards;
 - o Partnerships established are considered good and local capacity is highly used;
 - o Cooperation with other projects is considered good.

- **Impact:**
 - o The project has supported the IWRM application and at present, there is an initial connection between the IWRM application and the improvement of the livelihoods of the people. However, this is a long process and the implementation of the first Tajic Syr Darya Basin Plan is expected to have a larger direct impact on the livelihoods of the people mainly due to the implementation of water-efficient technologies, better water quality, etc.

- **Sustainability:**
 - o Project's environment, IWRM at the national level, and quality of the technical solutions of the project are considered sustainable;
 - o RBO established as well as preparations to RBC establishment are considered less sustainable;
 - o benefits extend of the project are considered as highly sustainable;

- **Gender and social equity:**
 - o Gender aspects are considered fully integrated;
 - o Benefits equally distributed.

The project implementation was highly assessed at different levels: national, basin, sub-basin, and community. Moreover, there are practical positive effects from its implementation for people's livelihoods in the field of water efficiency, better harvests, and deeper involvement in IWRM.

6. Lessons learnt – good practices

The following key lessons learned should be reflected:

- Donors coordinated support (both technical and financial) stipulate Water Sector Reform and IWRM if done in close cooperation with the Government of Tajikistan.
- Water sector reforms need adequate financing from the GoT to be sustainably implemented (in addition to legal and institutional aspects). This especially concerns the RBOs and RBC financing as well as funds to implement the basin management plans;
- As mentioned in the Progress report 2020, reorganization of irrigation as the largest water user is important not only for the irrigation sector but also for the Water Sector Reform. The reorganization from District Departments of ALRI into the Irrigation Schemes Management Agencies not only put the new agencies in the direction of more efficient use of water but also will bring the irrigation sector institutional setup into the framework of basin management.

As the NWRM- 2 project is considered a successful one, there are many good practices to be shared and replicated:

- Preparation of the draft legal acts in close cooperation and at the request of the beneficiary. Such an approach led to the fact that a high percentage of the developed draft laws and by-laws were adopted by the Government of Tajikistan;
- The project implementation at different levels: national, basin, sub-basin, and community ones allowed to involve a wide range of stakeholders and increase ownership of the project and its sustainability;
- Institutional activities of the project aimed at the establishment and making operational TSD RBO ensured sustainability in the development, further update, and implementation of the TSD Basin plan (as there is an organization responsible for those tasks). Institutional capacity building is one of the keys to the success of this project and it should be further promoted and replicated;
- Implementation of the several measures from the TSD Plan was a very good strategy to show the benefits of the Plan implementation to local people and to get local support and interest in the further development of the Plan;
- Involvement of the local experts, organizations, opinion leaders, female organizations as it was done in the frame of this Project also significantly contributed to its ownership, positive assessment, and replicability.

7. Recommendations

The specific recommendations presented below relate to the potential third phase of the NWRM Project and Project Exit Strategy are based on the results of the Mid-term Review, first of all on the assessment of sustainability.

The recommendations on how to best achieve all project objectives in the remaining time of Phase 2 are presented in Annex 8.6.

Outcome 1: Relevant institutions apply basin management and IWRM legal and regulatory framework and implement the water reforms decided at the national level

- Noting that many laws and government decrees were adopted last year aimed at implementing the basin principle of water resources management and IWRM concept, in the coming years it will be necessary to continue developing **new by-laws**.

The program of measures of the River Basin Management Plan should be based on an objective assessment of the ecological and chemical status of water bodies. In turn, their status assessment should be based on reliable data from monitoring of quantity and quality of both surface and groundwater. One of the tasks for the near future should be the development of a Resolution of GoT on the procedure for the **implementation of state monitoring of waters**. The process of preparing this document will take a long time since it will require rethinking and then revising the role of state institutions - subjects of water monitoring. In parallel with the preparation of this Resolution, it is necessary to develop a plan for financing water monitoring (including the purchase of expensive analytical equipment) and training. It is also necessary to provide the development of a methodology for assessing the chemical and ecological status of waters (classification), taking into account the basin specificity of Tajik rivers.

In addition, it is necessary to develop several normative documents (guidance) on the practice of implementing various elements of the RBMP, e. g. on preliminary risk assessment on achievement of RBMP objectives, economic analysis.

- Taking into account the limited resources and capacities of the MEWR, various development partners/projects support it in the form of creating various structures such as coordinating units, secretariat. This practice is used in many developing countries dealing with water sector reform. However, the process of **support** cannot be endless, and therefore agreement must be reached between MEWR and development partners/projects on **specific deadlines**.
- The creation of **the national WIS** has certainly been progress in recent years. In terms of Tajik Syr Darya basin WIS, the sustainability of the system functioning depends on revising and further development of the National WIS. Although significant progress was achieved in the development of geospatial and tabular data there are still some elements missing, especially regarding the basin water accounting. The basis of WIS is water monitoring and one of the key issues is to ensure the transfer of data from all state authorities responsible for water monitoring, especially Hydromet into the system. The type and amount of data and, accordingly, the effectiveness of WIS directly depend on how state water monitoring will be reorganized and implementing.

- The transition to the basin principle of water resources management requires training and retraining not only of the existing RBO personnel but also of the students of the respective universities and colleges. It seems expedient to use the experience of highly qualified experts of the Project in the form of **holding open lectures and field trainings for students**, for example, of the hydromeliorative faculty of the Tajik agrarian university. Such practice, in addition to the knowledge gained, will also increase interest in the profession of water manager.

Outcome 2: The Tajik Syr Darya Basin and sub-basin institutions manage water resources in line with IWRM principles

- At the basin level, the most important tasks are strengthening the **sustainability** and ensuring of more independent operation of Tajik Syr Darya RBO and RBC.
- It is necessary very soon to resolve the issue of **financing the newly created Tajik Syr Darya RBO**, namely, increasing the salaries of employees at least to the level of the average salary in the country. MEWR is taking actions aimed at increasing salaries already in 2021, it is also necessary to provide for the possibility of additional income through the provision of paid services. From the point of view of ensuring financial sustainability, it seems expedient to determine the timing of achieving certain levels of RBO's employee income by MEWR. Project support should further focus on building the capacity of staff of RBO and technical assistance mainly.
- RBO must also be financially secured by the state to ensure the holding of the different meetings, first of all, the meetings of **the River Basin Council**. Although the costs of holding meetings are relatively small, they should be included in the RBO's annual budget.
- After the approval of the **Tajik Syr Darya RBMP**, the RBO should fully take the functions of the competent authority for the implementation of RBMP and coordination of other institutions and organizations, and monitor the progress. The present Plan covers the period 2020-2025, therefore, no later than 2023, it is necessary to start preparing a new version of the Plan (updating the existing one). Taking into account, that the main type of water use in the basin is irrigation, and irrigation structures have a clear hydrographic referencing, it is beneficial to develop a new version (for the period from 2026) of the Tajik Syr Darya RBMP based on the plans for its subbasins. In this case, Syr Darya RBMP will consist of several **sub-basin plans**, prepared using the same structure as well as a meta plan for the whole Syr Darya as a compilation out of the sub-basin plans. 23 watersheds of tributaries of the first order of Syr Darya should be united into several water management units – subbasins, taking into account the current irrigation infrastructure and existing management system. The delineation of the management subbasin units and their border can be approved by the specific order of MEWR. Developed within NWRM-2 the Aksu and Isfana watershed management plans as well as local development processes should be taken into account when developing sub-basins management plans.
- It is recommended to legalize stakeholders' groups, established in Tajik Syr Darya basin (Aksu watershed management working group, Isfana small river basin council) and assign a legal status to them. In the same way, stakeholder groups in other sub-basins should be registered. Representatives of these groups from all sub-basins should become members of the Syr Darya River Basin Council.
- Management based on the RBMP requires a reform of the existing state water monitoring system. It is necessary not only to restore the non-functioning manual hydrological stations but also to expand

their network and carry out their automation. Water quality monitoring needs to be fundamentally revised as well. As a preliminary option, the following can be proposed for the next years:

Water quantity

At present, in the Syr Darya basin, there are only 3 hydrological stations at the Syr Darya itself, and the fourth – at tributary Isfara does not operate and should be reconstructed. Thus, there is no verified information about the volume of water, formed by tributaries of Syr Darya, including important for purpose of irrigation left side tributaries – Aksu, Khojabakirgan, Isfana, Isfara. Hydrological measurements at these tributaries are not conducted in Kyrgyzstan as well, where the most of run-off is formed. **The establishment of the network of up to 5 automatic hydrometeorological stations** at the tributaries directly downstream the state border will allow obtaining confident information about water levels and discharges, its temperature as well as precipitation online and to use it in operational as well as strategic decision-making. Maintenance of the stations as well as collection and hydrological data processing could be within the scope of work for the RBO.

Water quality

There is no grounded information about the chemical status of waters in the Syr Darya river basin at present. Monitoring, conducted by the Committee of the Environmental Protection and its department – sector of Hydrometeorology covers basic hydrochemical parameters only (e.g., mineralization, main ions). Monitoring of heavy metals, organic pollutants, including priority ones is not conducted on regular basis. However, a basic review of the driving forces/activities in the upstream countries (tailings, mining industry, intensive agriculture, etc.), as well as a significant number of wastewater discharge outlets in the Tajik part of the basin (more than 1300 official water users) and lack of proper control of the use of pesticides and herbicides allows concluding about the high potential risks related to water quality.

Also, it's recommended to **conduct screening of samples** of water, bottom sediments, and fish to identify basin-specific and priority pollutants (including heavy metals) as well as gradually include hydrobiological and hydromorphological parameters into the programme of monitoring aiming to determinate ecological status/potential of water bodies of the basin.

Ground waters

It is necessary to start **rehabilitation of groundwater monitoring** to obtain confident data on their quantity (volume of water reserves) and quality as well as to conduct an inventory of monitoring wells, to restore abandoned and closed ones, to develop a proposal about the network enlargement, and to conduct drilling and maintenance of monitoring wells.

- Although this activity is already being implemented by the NWRM – 2 Project, it is necessary to continue further **support ALRI in the reorganization** of the irrigation system management in part of shifting from administrative management principle to management based on irrigation systems. Experience of reorganization in other river basins showed that one of the key issues, namely economic analysis for its reorganization feasibility remains unsolved and therefore weakens sustainability of the newly established structures. The current irrigation management by the district Departments of ALRI follows the administrative borders that in some cases split irrigated systems that cross districts' borders. In such cases, no one agency has information on the efficiency of the whole irrigation system. Besides organizational and legal activities, it is necessary to conduct a financial and legal analysis of the feasibility of uniting district water management units (in particular, the debts release procedure) by hydrographic principles.

- According to the data from open sources in Kyrgyzstan, in the upper reaches of the Khojabakirgan (Kosu-Baglan) river, it is planned **to construct a water reservoir**. Its construction and further operation will for sure have an impact on the river run-off as well as on its seasonal distribution downstream- in the territory of Tajikistan. In connection with this, it is recommended to conduct an assessment of potential risks and impact of the planned infrastructure project at the irrigation system of Aksu -Isfana – Tomchasay – Khojabakirgan – Arkasay.

Outcome 3: Farmers, irrigation agencies, and Water User Associations use water resources efficiently and sustainably

- Taking into account that the overall goal of the NWRM Project will remain the same – to improve livelihoods of the rural population in Tajik Syr Darya basin through IWRM – there is a need **to continue activities on increased water efficiency** in irrigation and on reduction of water-related disasters at farms, WUAs and at whole irrigation system levels. Following the river basin approach, the Project area should be extended to the whole Tajik Syr Darya river basin. If the application of water efficiency activities is territorially limited, then activities associated with the reduction of water-related disasters are relevant for the major part of the river basin only.
- One of the activities associated with the use of water resources in the Syr Darya river basin is **fish farming**. Of course, the contribution of fisheries to the local economy is incomparably less than agriculture; nevertheless, it seems useful to consider the possibility to include the activity on increasing the efficiency of fisheries in the Project.
- The measures focusing on **rehabilitation of irrigation infrastructure** for improvement of irrigation efficiency including equipment purchasing are highly demanded at the local level given the lack of necessary funding for the irrigation sector, as well as the high wear of structures and equipment. Of course, the question of including such activities into the Project depends on the project budget, but in any case, relatively inexpensive activities can be recommended, for example, support of ALRI in establishing a non-cash billing payment system and equipping the office for Aksu-Khojabakirgan-Samgar irrigation system management.
- To increase public awareness in the problems of protection, rational use of Syr Darya and its tributaries, and taking into account the successful practices in other river basins in many countries (e.g., Danube, Dnieper) it is proposed to initiate and provide support in the **celebration of the Syr Darya Day**. This public awareness event is focused mainly on the young generation (a key target group). The agenda of the event can include different practical actions aimed at rational water use and river conservation, different competitions, festival, etc. The participation of representatives from Uzbekistan and Kyrgyzstan will also help build confidence.

8. Annexes

8.1 Terms of Reference for the Mid-term review

Terms of references

Contract no. 81068776 (B Mandate)

Mid-term Review of NWRM project, phase 2

CONDUCTING MID-TERM REVIEW OF NWRM PROJECT PHASE 2

Project/mandate name/country: National Water Resource Management (NWRM) Project in Tajikistan

Employer:

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Contract duration

From: April 1st, 2021

To: July 31st, 2021

In total:

Up to 20 working days

The Branch of Association HELVETAS Swiss Intercooperation in Tajikistan is a development organization anchored in Switzerland. Present in Tajikistan since 2009, we work together with our Partners to improve people's livelihoods in a sustainable manner and support Government in realization of National Development Strategy 2030, sectoral reforms, development programs towards the achievement of Sustainable Development Goals. Our focus is on Water Resource Management and Rural Access; Basic Education and Vocational Skills Development; Agriculture and Nutrition; Governance, Conflict Transformation & Mitigation and Development and Natural Resource Management, Climate Change and Disaster Risk Management. We work in 33 partner countries in Asia, Latin America and Western Europe.

1. Background

The Phase 2 (Dec. 2018-Nov. 2022) of the SDC funded NWRM Project, implemented by the Consortium of Helvetas, GIZ-Ins, and ACTED, aims at improving the livelihoods of rural communities in the Tajik Syrdarya Basin through integrated water resources management. In accordance with the project's implementation strategy the NWRM Project Phase 2 is implemented at all levels of the water sector focusing on the development of the national policy and legal framework, the implementation of the policy and legal framework at basin, sub-basin and watershed level, and working with irrigation agencies and WUAs, as well as providing practical trainings to farmers at a plot level on water efficient irrigation technologies.

The NWRM Project is implemented within the framework of the Tajikistan Water Sector Reform that is based on the concept of basin management and IWRM. The reform is implemented according to the Water Sector Reform Programme 2016-2025 adopted by the GoT in December 2015, and the NWRM Project has assisted MEWR in its implementation in the Tajik Syrdarya Basin. Significant progress in the reform implementation was achieved in 2020 with the adoption of new Water Code and the creation of River Basin Organizations.

After two years of implementation of the NWRM Project Phase 2, the Project has made progress towards all its objectives. Like in each phase, the mid-term progress in implementation of NWRM Project is evaluated and serves as a basis for revising the project's planned activities until the end of the phase, here Phase 2. At the same time the results of the Mid-term Evaluation of NWRM Project will be a basis for developing the project's exit strategy to ensure sustainability of integrated water resources management in the Tajik Syrdarya Basin, and its positive impact on rural livelihoods.

2. Objective(s) of the Consultancy

The overall objective of the consultancy is to evaluate the mid-term progress of implementation of NWRM Project Phase 2 objectives and to draw lessons that can improve the sustainability of achieved results. The specific objectives are the following:

- Conduct the Mid-term Review of NWRM Project Phase 2 as of the end of 2020;
- Based on the results of the Mid-term Review, develop recommendations on how to best achieve all project objectives in the remaining time of Phase 2, and specific recommendations on the NWRM Project Exit Strategy including a potential third phase;
- Assist in developing the NWRM Project Exit Strategy.

3. Main Tasks and Activities of the Consultant

The main Tasks and Activities of the Consultant are the following

Task 1: Conduct the Mid-term Review of NWRM Project Phase 2

The Expert will conduct and lead the Mid-term Review of NWRM Project Phase 2 as of the end of 2020 according to the review criteria of relevance, effectiveness, efficiency, and sustainability. The review should answer, but is not limited to, the following questions:

Relevance:

- How relevant is the project and its implementation strategy regarding the project's impact objective and national development strategies, specifically the integrated water resources management in the Tajik Syrdarya Basin, and its positive impact on the livelihoods of the basin rural population?
- How relevant is the project and its implementation strategy compared to the projects implemented in other basins in Tajikistan?
- Are the planned outcomes and outputs objectives and their respective indicators still relevant from the view of the project impact objective and the latest legislative developments (including the water sector reform)?
- How relevant is the project and its activities regarding the Water Sector Reform Programme 2016-2025, the National Water Management Strategy, the Sustainable Development Goals?
- Are the project and its activities addressing the needs of target beneficiaries at the national, basin, sub-basin, watershed, WUA, canal and plot levels?
- What recommendations on the relevance can be drawn for the end of Phase 2, and for the potential third phase of the project and other similar projects?

Effectiveness:

- Is the project effective in assisting the GoT in implementing the Water Sector Reform?
- How effective is the project in achieving the expected impact, outcomes and output objectives?
- How effective is the project specifically with regards to the development of the Water Information System, and implementation of basin management and IWRM at all levels?
- How effectively are risks managed and mitigated?
- What lessons can be drawn regarding effectiveness for other similar projects in the future?
- How effective is the project's implementation strategy?
- How effectively does the project cover all the elements of the integrated water resources management and river basin management?
- To what extent the DRR mainstreaming and climate change adaptation were considered?
- To what extent CSPM was effectively applied?
- To what extent the issues of transboundary water management with KG and UZ in terms of water quality and quantity were addressed by the project?
- To what extent the gender aspects were integrated at design and at implementation level? To what extent were women integrated in the decision-making mechanism and to what extent were their specific concerns considered?
- How equally were distributed the benefits of the project? Are there people in the project area who did not benefit from the project and if yes, why?
- What recommendations on the effectiveness can be drawn for the end of Phase 2 and for the potential third phase of the project?

Efficiency:

- Was the project implemented efficiently, in-line with international and national norms and standards?
- What is missing in terms of IWRM policy and legal framework and how the situation could be improved?
- What is the efficiency of the project partnership arrangements?
- Did the project efficiently utilize local capacity in implementation and efficiently utilize local capacity in implementation?
- What lessons can be drawn regarding efficiency for other similar projects in the future?
- What are the links with other programmes (complementarities or synergies)? What are the links with the new SDC WSS Project in Sugd?
- What are the recommendations for optimization until the end of the project phase?
- What recommendations on the efficiency can be drawn for the end of Phase 2 and for the potential third phase of the project?

Sustainability:

- How conducive is the environment for the sustainability of the project? If the environment is not conducive what recommendations can be drawn?
- How sustainable is and will be, by the end of NWRM Project Phase 2, the process of integrated water resources management at national level?
- How sustainable is and will be, by the end of NWRM Project Phase 2, the integrated water resources management at the basin, sub-basin, and watershed level?
- How sustainable are, and will be, by the end of project the operations of the RBO?
- How sustainable are, and will be, by the end of project the operations of the RBC?
- To which extent the benefits of the project will continue, within or outside the project domain, after it has come to an end?
- To what extent is the quality of the technical solutions adequate and sustainable?
- What recommendations on the sustainability can be drawn for the end of Phase 2?
- What recommendations can be drawn for the potential third phase of the project in terms of its objectives, components, main outcomes and outputs?

Based on the result of the Mid-term Review, the Expert will provide recommendations on the NWRM Project Exit Strategy to ensure sustainability of integrated water resources management in the Tajik Syrdarya basin and its positive impact on rural livelihoods. The recommendations on sustainability of achieved results should refer to all levels of the project's interventions, especially the basin, sub-basin, watershed and irrigation system management levels. In addition, the recommendations should refer to upscaling integrated water resources management to transboundary cooperation.

Task 2: Assist in developing the Exit Strategy of NWRM Project.

Following the conducted Mid-term review of NWRM Project the Expert will assist the Expert on the NWRM Exit Strategy in developing the strategy in line with the recommendations from the Mid-term review.

Task 3: Conduct a roundtable on the NWRM Project Mid-term Review and the Exit Strategy

The Expert together with the Expert on NWRM Exit Strategy will conduct a roundtable meeting (or webinar) for the national partners of NWRM Project (representatives of MEWR and ALRI) and SDC to present the main findings of the Mid-term Review of NWRM Project Phase 2 and the NWRM Exit Strategy.

4. Expected results and deliverables

Result 1. The expected result of Task 1 is the conducted NWRM Project Mid-term Review. Deliverable 1 will be a report (up to twenty pages) presenting the findings of the Mid-term Review of NWRM Project Phase 2 as of the end of 2020. The Deadline is May 30th, 2021.

Result 2. The expected result of Task 2 is the provided assistance in developing the NWRM Project Exit Strategy. Deliverable 2 (jointly with the Exit Strategy Expert) will be the NWRM Project Exit Strategy. The Deadline for Deliverable 2 is May 30th, 2021.

Result 3. The expected result of Task 3 is the conducted roundtable meeting (eventually in a form of webinar) to present the results of the NWRM Mid-term Review and the recommendations on the NWRM Project Exit Strategy. Deliverable 3 will be Minutes of the conducted roundtable. The Deadline is June 15th, 2021.

5. Working Methodology

The Expert has leading role in implementation of his tasks and the tasks of the Expert on the NWRM Project Exit Strategy. It means that the Expert has the authority to take final decisions regarding the tasks. It is expected that the Expert will conduct the Mid-term Review Mission in Tajikistan and will work very closely with the Expert on the NWRM Project Exit Strategy. At the same time, the Expert will coordinate his work with the NWRM PM and the NWRM Backstopper. The working language of the consultancy is English and Russian. The reports need to be provided in both languages.

6. Time Frame of the consultancy

The consultancy time frame is April 1st – July 31st, 2021. The Expert shall work a maximum of six working days (each eight hours) per week. The Expert shall be allowed two days for international travel (round trip) for a mission in Tajikistan. The consultancy is for up to 20 working days including mission working days, travel days and home office working days.

8. Programme/Mission Schedule

The Consultant must provide the NWRM Project Manager and the Backstopper with the Mid-Term Review methodological concept and the Mission Programme at least two weeks in advance before the mission in Tajikistan. The Mid-Term Review methodological concept should include a list of needed information that need to be provided by the NWRM Project at the beginning of the mission.

9. Logistics

Logistical support will be provided by HSI Zurich Head Office and Dushanbe Office.

10. Reporting

The Expert will report to the NWRM Project Manager and cc to the NWRM Backstopper.

Date:

Signature:

8.2 Log-frame of intervention (2020)

Hierarchy of objectives Strategy of Intervention	Key Indicators	Baseline	Status as of December 31 st , 2020	Source of verification
Impact (Overall Goal)	Impact Indicators			
Improved livelihoods of rural population in the Tajik Syr Darya Basin through integrated water resources management.	<ul style="list-style-type: none"> % of interviewed Tajik Syr Darya Basin stakeholders¹ confirming that the integrated water resources management improved the situation of their sector regarding meeting the sector current and future water needs. <p>Target: More than 75% of the interviewed Tajik Syr Darya Basin stakeholders² confirm that the integrated water resources management improved their situation regarding meeting the sector current and future water needs.</p> <ul style="list-style-type: none"> % + # (Tones) of increased irrigated agriculture crop production of rice, cotton, potatoes, onion and apricots in the Project area. <p>Target: In average 10% increase of the crop production of rice, cotton, potatoes, onion and apricots.</p>	<p>Baseline: The baseline questionnaire on IWRM was conducted during the SBD meetings on July 10th and November 29th, 2019 and in 2020 due to pandemic it was carried out via phone. According to the conducted questionnaires in 2020 69% of the interviewed basin stakeholders confirmed that the IWRM improved the situation of their sector regarding meeting the sector current and future water needs.</p> <p>Baseline: The baseline crop harvesting of rice, cotton, potatoes, onion and apricots is from 2018 vegetatiomm season.</p> <p>Crop production in 2018:</p> <p>1. Rice:</p> <ul style="list-style-type: none"> 12.997 ton – B.Gafurov; 5.436 ton – J.Rasulov; 7.062 ton – Spitamen. <p>Total: 25.495 ton</p>	<p>Status: In 2020 the IWRM questionnaire was conducted via phone call interviews in May and in June. According to the questionnaire's results 69% of the interviewed confirmed that the IWRM improved the situation of their sector regarding meeting the sector current and future water needs.</p> <p>Status: The crop harvesting of rice, cotton, potatoes, onion and apricots in 2020 vegetatiomm season.</p> <p>Crop production in 2020:</p> <p>1. Rice:</p> <ul style="list-style-type: none"> 15.132,6 ton – B.Gafurov; 7.549 ton – J.Rasulov; 8.852,3 ton – Spitamen. <p>Total: 31.533,9 ton (24% increased from 2018)</p>	<p>Source of verification: The results of questionnaires.</p> <p>Source of verification: Reports of the Unit of Economics and Monitoring of the Department of Agriculture of Sughd Oblast.</p>

¹ The Tajik Syr Darya Basin stakeholders are defined as the main sectors/ water users (including the basin environment) and they are the following: Urban Water Utilities, Rural Drinking Water Committees, Oblast and Rayon Department of ALRI, SUGD Oblast Committee of Environment, Industry including Fisheries and Recreational Facilities, SUGD Oblast and Local Administration.

² It is assumed that there will be conducted at least twenty structured interviews of Tajik Syr Darya Basin stakeholders, meaning fifteen stakeholders will represent 75%.

Hierarchy of objectives Strategy of Intervention	Key Indicators	Baseline	Status as of December 31 st , 2020	Source of verification
Impact (Overall Goal)	Impact Indicators			
		<p>2. Cotton:</p> <ul style="list-style-type: none"> ▪ 16.190 ton – B.Gafurov; ▪ 11.550 ton – J.Rasulov; ▪ 11.284 ton – Spitamen. <p>Total: 39.024 ton</p> <p>3. Potato:</p> <ul style="list-style-type: none"> ▪ 6.674 ton – B.Gafurov; ▪ 1.919 ton – J.Rasulov; ▪ 3.004 ton – Spitamen. <p>Total: 11.597 ton</p> <p>4. Onion:</p> <ul style="list-style-type: none"> ▪ 54.525 ton – B.Gafurov; ▪ 18.041 ton – J.Rasulov; ▪ 8.647 ton – Spitamen. <p>Total: 81.213 ton</p> <p>5. Apricot:</p> <ul style="list-style-type: none"> ▪ 12.505 ton – B.Gafurov; ▪ 459 ton – J.Rasulov; ▪ 501 ton – Spitamen. <p>Total: 13.465 ton</p>	<p>2. Cotton:</p> <ul style="list-style-type: none"> ▪ 18.906 ton – B.Gafurov; ▪ 12.377 ton – J.Rasulov; ▪ 13.454,9 ton – Spitamen. <p>Total: 44.737,9 ton (15% increased from 2018)</p> <p>3. Potato:</p> <ul style="list-style-type: none"> ▪ 9.808,5 ton – B.Gafurov; ▪ 7527,7 ton – J.Rasulov; ▪ 5.437,5 ton – Spitamen. <p>Total: 12.050 ton (1,9% increased from 2018)</p> <p>4. Onion:</p> <ul style="list-style-type: none"> ▪ 48.219,6 ton – B.Gafurov; ▪ 16.166 ton – J.Rasulov; ▪ 6.460,3 ton – Spitamen. <p>Total: 70.845,9 ton (12,7% decreased from 2018)³</p> <p>5. Apricot:</p> <ul style="list-style-type: none"> ▪ 22.511,3 ton – B.Gafurov; ▪ 560,4 ton – J.Rasulov; ▪ 480,3 ton – Spitamen. <p>Total: 23.552 ton (75% increased from 2018)</p>	

³ Decrease the harvest (onion) based on decreased agricultural area

Hierarchy of objectives Strategy of Intervention	Key Indicators	Baseline	Status as of December 31 st , 2020	Source of verification
Impact (Overall Goal)	Impact Indicators			
	<ul style="list-style-type: none"> % + # of farmers (F/M) in the Project area stating that their irrigated agriculture output (income from sold crop production and crops used for own needs) increased significantly meaning that it meets their family livelihoods needs, including education and health services. <p>Target: More than 50% of farmers confirming that that their irrigated agriculture output increased significantly meaning that it meets their family livelihoods needs, including education and health services.</p>	<p>Baseline for family livelihoods including education and health services: 42% of questioned farmers confirmed that their irrigated agriculture output from 2018 vegetationn sason increased significantly and met their family livelihoods needs, including education and health services.</p>	<p>Status of family livelihoods including education and health services: 41% of questioned farmers confirmed that their irrigated agriculture output from 2019 irrigation season increased significantly and met their family livelihoods needs, including education and health services.</p> <p>The results of questionnaire of farmers for 2020 vegetation season will be available at the end of June 2021.</p>	<p>Source of verification: Analytical reports and Questionnaires from randomly selected farmers from the project irrigation area.</p>
Outcomes	Outcome Indicators			
<p>Outcome 1: Relevant institutions apply basin management and IWRM legal and regulatory framework and implement the water reforms decided at national level.</p>	<ul style="list-style-type: none"> # of water-related policies, laws, strategies and plans adopted at the national level by relevant institutions⁴ in line with the basin management and IWRM principles; <p>Target: The adopted National Water Management Strategy, the Water Code, a resolution on basin institutions (RBO and RBC), a resolution on the WIS. It means that the target value is 5.</p>	<p>Baseline: The Water Sector Reform Programme adopted by GoT in December 2015.</p>	<p>Status:</p> <ol style="list-style-type: none"> 1) The Drinking Water Law was adopted by the GoT on July 19th, 2019; 2) The Water Users Association Law was adopted by the GoT on January 2, 2020. 3) The new Water Code was adopted by the Parliament of RT on 2nd April 2020; 4) The Resolution on the creation of RBOs was adopted on March 30th, 2020. 5) The Resolution on the Rules of development approval and Implementation of Basin Management Plan was adopted on December 31st, 2020 	<p>Source of verification: Adopted legal documents.</p>

⁴ The relevant institutions are the Parliament, the Government, and the line ministries, central committees and agencies.

Hierarchy of objectives Strategy of Intervention	Key Indicators	Baseline	Status as of December 31 st , 2020	Source of verification
Impact (Overall Goal)	Impact Indicators			
	<ul style="list-style-type: none"> # of line Ministries, Committees and Central Agencies adjusting their sectorial legal and regulatory framework to the basin management and IWRM principles. Target: The target is that at least the energy sector, the sector of drinking water, irrigation sector, and the sector of environment protection will adjust their sectorial legal and regulatory framework to the basin management and IWRM principles. In this situation the target value is 4. # of officially established River Basin Organisations and River Basin Councils financed from the central budget. Target: The target is that there will be at least four River Basin Organisations and River Basin Councils officially established and financed from the central budget. In this situation the target value is 4/4. 	<p>Baseline: The basin management and IWRM legal framework was not in place at the end of 2018.</p> <p>Baseline: As of 2019 the RBOs were not established and they were functioning in form of working groups. The RBCs were also not yet established, and they were functioning as Basin Dialogues.</p>	<p>6) The Resolution on Creation of River Basin Councils was adopted on December 31st 2020 The status is the six adopted laws.</p> <p>Status: As the new Water Code, based on the basin and IWRM concepts, was adopted in April 2020. The sectorial legal and regulatory frameworks are not yet adjusted. The discussion on reorganization process of ALRI in line with the Water Sector Reform has started with the development of concept of reorganization of ALRI in Tajik Syrdarya Basin.</p> <p>Status: The GoT adopted a resolution on the RBOs in March 2020, and in June 2020 the four RBOs were registered, including the Tajik Syrdarya RBO. The RBOs are expected to be financed from the central budget starting from September 2020.</p>	<p>Source of verification: The Official legal documents.</p> <p>Source of verification: Official legal registration documents.</p>
Outcome 2: The Tajik Syr Darya Basin and sub-basin institutions manage water resources in line with IWRM principles.	<ul style="list-style-type: none"> # of implemented priority ⁵initiatives of Tajik Syr Darya Basin Water Plan. Target: The planned target are three implemented priority initiatives of the Tajik Syr Darya Basin Water Plan by 2022, and the target value is 3. 	Baseline: The Tajik Syrdarya Basin Management Plan 2020-2030 was elaborated in 2019 and sent to MEWR for consultation and adoption. The RBMP includes 33 planned measures/ projects, no one project was implemented in 2019.	<p>Status:</p> <p>1) The rehabilitation works of Digmay-1 Pump station were finished and officially handed over to the Rayonvodhoz in June , 2020.</p> <p>2) The rehabilitation of electrical cables of Khojabakirgan canal is under completion (90%).</p>	Source of verification: The Project documents, the contract with Cadaster Ltd and the signed contract on Digmay-1 rehabilitation works.

⁵ The priority initiatives of Tajik Syr Darya Basin Water Plan are the most important and urgent planned measures as defined by the RBO WG and the Tajik Basin Planning Experts.

Hierarchy of objectives Strategy of Intervention	Key Indicators	Baseline	Status as of December 31 st , 2020	Source of verification
Impact (Overall Goal)	Impact Indicators			
	<ul style="list-style-type: none"> % + # of financial contribution of national partners to the implementation of Tajik Syrdarya Basin Water Plan priority initiatives. <p>Target: The target is that the Tajik financial contribution will be not less than 50% of total funds used for implementation of the Tajik Basin Water Plan priority initiatives.</p>	<p>Baseline: The Tajik Syrdarya Basin Management Plan was elaborated in 2019 but not adopted and implemented.</p>	<p>3) The feasibility studies for the five priority projects of Tajik Syrdarya RBMP were contracted to Cadaster Ltd and Tajik-Giprovodhoz Research Institute. The FSs will be the basis to attract external financing for the projects implementation.</p> <p>Two out of target three priority projects are implemented (66% of target).</p> <p>Status: Two priority projects, the rehabilitation of Digmay Pumping Station and rehabilitation of electrical cables of KB canal were implemented by the Project. ALRI contributed to the projects implementation through installation of electrical boards for the two new pumps in Digmay Pumping Station, and installation of lighting lamp in one picket of KB canal.</p>	<p>Source of verification: The Project's documents</p>
<p>Outcome 3: Farmers, irrigation agencies and Water User Associations use water resources efficiently and sustainably.</p>	<ul style="list-style-type: none"> % of increased irrigation water use efficiency in the targeted farms, WUAs, and in the whole Project area that is Aksu - Isfana-Tomchasay – Khojabakirgan - Arkasay Irrigation System. <p>Target: The target for water use efficiency is set as the following: - 60% in average on-farm water efficiency;</p>	<p>On-farm water efficiency baseline: in average 40% in 2018.</p> <p>WUAs water efficiency baseline: in average 60% in 2018</p>	<p>Status: The result of monitoring of 8 demo plots shows 28% of water saving and 88% water efficiency on demo-plot level in 2019.⁶</p> <p>The result of monitoring of 11 demo plots shows 31% of water saving and 89% water efficiency on demo-plot level in 2020.</p> <p>The information for 2021 will be updated in December.</p> <p>Status of WUAs water efficiency: in 2019 in average the WUAs water efficiency was 59%.</p>	<p>Source of verification: On-farm monitoring reports, 2019.</p> <p>Source of verification: The report on results of WUAs' questionnaire, 2019.</p> <p>Source of verification: official reports of</p>

⁶ The data on the plot water efficiency is based on the demo plots.

Hierarchy of objectives Strategy of Intervention	Key Indicators	Baseline	Status as of December 31 st , 2020	Source of verification
Impact (Overall Goal)	Impact Indicators			
	<p>- 70% in average WUAs water efficiency; - 65% in average irrigation system water efficiency;</p> <ul style="list-style-type: none"> • % + # of farmers confirming that their WUA management is effective and transparent. <p>Target: The target is not less than 75% of farmers confirm that the WUA management is effective and transparent;</p> <ul style="list-style-type: none"> • % + # of WUAs confirming that irrigation management by irrigation agencies is effective and transparent. <p>Target: The target is not less than 75% of WUAs in the Project area confirm that the irrigation management is effective and transparent.</p>	<p>Irrigation system water efficiency baseline: in average 60% in 2018.</p> <p>Baseline: 52% of interviewed farmers confirmed that the WUAs management is effective and transparent according to the questionnaire conducted in 2019.</p> <p>Baseline: 73% of interviewed WUAs confirmed that the irrigation management is effective and transparent in 2019.</p>	<p>The information for 2021 will be updated in December.</p> <p>Status of irrigation system water efficiency: in average the irrigation system efficiency was 74% in 2019. According to the districts the water efficiency ratio is the following: B.Gafurov (project zone) – 52.1%; J.Rasuov – 71%; Spitamen – 88.1%; KB CMO – 82.7%.</p> <p>Status: The results of next questionnaire will be available in June 2021.</p> <p>Status: The results of next questionnaire will be available in June 2021.</p>	<p>irrigation agencies (Rayvodkhoz).</p> <p>Source of verification: The report on results of farmers' questionnaire, 2019.</p> <p>Source of verification: The report on results of WUAs' questionnaire, 2019.</p>

Outputs		Output Indicators	Status as of December 31 st , 2020	Source of Verification
Output 1	Developed water related policy and legal framework at national level in line with the basin management and IWRM principles.	<ul style="list-style-type: none"> # of provided expertise to the development of water-related policies, laws, strategies and plans enabling implementation of the basin management and IWRM principles (Target: 8). 	<p>Status:</p> <p>(1) Provided comments on draft Resolution of the Government of the Republic of Tajikistan “On Procedures for Development, Approval and Implementation of Basin Plans for Water Resources Management” in April.</p> <p>(2) Provided comments on draft “Rules for Elaboration, Approval and Implementation of Basin Plans for Water Resources Management”.</p> <p>(3) Provided comments on draft “Methodological Instructions on Development and Adoptions of Basin Plans for Management of Water Resources”.</p> <p>(4) Provided comments on the draft Government of Tajikistan Resolutions “On National Water Council under the Government of the Republic of Tajikistan”, “Charter of the National Water Council” and “Composition of the National Water Council”.</p> <p>(5) Provided comments on the draft Law of the Republic of Tajikistan “On Land Reclamation and Irrigation”.</p> <p>(6) Provided comments on the draft Government of Tajikistan Resolution “On Approving the Procedures for Establishment and Operation of the River Basin Councils”.</p> <p>(7) Draft Concept on reorganization of ALRI in TSDB.</p> <p>(8) Recommendation on strengthening the role of TSDB RBOs and RBMPs as mechanisms for practical implementation of IWRM.</p> <p>(9) Concept Note on WIS was provided to MEWR in October 2020</p>	<p>Source of verification: Documents with the provided comments.</p>
Output 2	Effectively coordinated implementation of Water Sector Reform at national level.	<ul style="list-style-type: none"> # of coordination meetings per year and average number of organizations represented at one coordination meeting on the Water Sector Reform (Target: 2/10). # of Water Sector Reform strategic implementation issues agreed and solved across 	<p>Status: Four Coordination Council Meetings were conducted in 2019. The first CCM was conducted on 27/02/2019. The second CCM was conducted on 08/05/2019. The third was conducted on 30/08/2019/ and the fourth was conducted on 22/11/2019. Representatives of about 20 organizations attended the meetings.</p> <p>In 2020 one Coordination Council Meeting was conducted (05/03/2020). Representatives of about 20 organizations attended the meeting.</p> <p>Status: In 2019 The RBO WG and RBC Regulations agreed and endorsed by MEWR. (2) The Methodology of Linear Basin Scheme developed and adopted at the Coordination Council Meeting and endorsed by MEWR.</p>	<p>Source of Verification: The List of Participants, The Minutes of CCMs.</p> <p>Source of verification: Developed documents.</p>

Outputs		Output Indicators	Status as of December 31 st , 2020	Source of Verification
		<i>national and basins institutions (Target: 8)</i> ⁷ .	In 2020 (1) The Methodological instructions on development and adoption of basin plans for management of water resources is updated based on new adopted Water code and comments received from all development partners and International experts and is handed over to MEWR for further action. 2) Draft Resolutions of the Government of the Republic of Tajikistan "On Procedures for Development, Approval and Implementation of Basin Plans for Water Resources Management" and draft "Rules for Elaboration, Approval and Implementation of Basin Plans for Water Resources Management" and 3) Regulations of the National Water Council under the Government of the Republic of Tajikistan is elaborated and revised based on comments received from and development partners, International consultant and relevant agencies and is handed over to the MEWR for further action. By request of MEWR three more Resolutions were developed and agreed at the Coordination Meeting at the MEWR: 1) Draft Resolution of the Government of the Republic of Tajikistan "On the List of Water Management Facilities of Special Strategic Significance, 2) Draft Resolutions of the Government of the RT "On Procedure for use of groundwater not classified as drinking or curative waters" and "On the procedure for classifying waterways as navigable and the Rules for their operation" and 3) Draft Resolutions of the Government of the Republic of Tajikistan "On the Procedure of Maintenance of the National Water Information System and the State Water Cadastre" In total nine strategic implementation issues were agreed and solved across national and basin institutions.	
Output 3	The TSD Basin Water Information System integrated with the National Water Information System.	<ul style="list-style-type: none"> <i># of GIS Basin Maps and # of thematic Basin Database Sets provided by the Tajikistan Syr Darya Basin Water Information System to the National Water Information System (Target: 10/10).</i> 	<p>Status⁸: In 2019, 23 ArcGIS layers (data-sets) out of 75 of the National Water System were elaborated and handed over with tabular data to MEWR.</p> <p>In the first quarter 2020, 40 thematic maps of TSDB were elaborated and handed over to MEWR.</p> <p>As of 1st September 42 Excel forms were prepared as an input to the Basin WIS, which were shared with the RBO and MEWR.</p>	<p>Source of verification: Documentation confirming the handed over of geospatial and tabular data to MEWR.</p>

⁷ Water Sector Reforms strategic implementation issues are issues equally important for all basins.

⁸ The achievement of this Indicator depends on the development of the WIS. The WIS developed under the assistance of the WB is still in testing phase. The result of technical meeting on the WIS in June 2020 recommended further work and improvements.

Outputs		Output Indicators	Status as of December 31 st , 2020	Source of Verification
Output 4	The Tajik Syr Darya RBO is officially established and operates in line with basin management and IWRM principles.	<ul style="list-style-type: none"> • # of TSD RBO employees financed by the Tajik State Budget (Target: 5). • # of Basin Water Plan initiatives developed in coordination with the TSD Basin stakeholders in the form of project proposals ready for funding and implementation (Target: 3). • # of local transboundary water cooperation trust building activities implemented with coordination done by the TSD RBO and number of TJ and KG participants involved (M/F) (Target: 4/200). 	<p>Status: The TSD RBO was officially established by the Government Resolution on the creation of RBOs adopted on 30th of March, 2020. The eight appointed TSD RBO employees will be financed by the Tajik GoT starting from September 2020.</p> <p>Status: In 2019 five priority measures of TSD RBMP were selected to develop project design estimation ready for funding and implementation. In December 2019 CADASTER Ltd and TajikGiprovodkhoz were contracted to implement selected five feasibility studies. The first feasibility study on changing the Mokhpari pumping irrigation to gravity system was implemented in June 2020. Feasibility study on Daganasai and Zarinrud reservoirs modernization was finalised in August. Draft FS for Isfana was prepared, and currently is being finalized by the project national and international experts. Other 2 feasibility studies Samgar and Khojabakirgan canals are planned to be developed until the end of the year.</p> <p>Status⁹: Due to the Pandemic the planned activities were not implemented as planned. On October-November 2020 five sub-basin dialogues and 2 River days actions were successfully conducted with 220 participants (2210M/10F)</p>	<p>Source of Verification: Governmental decree.</p> <p>Source of verification: The Feasibility Study reports.</p> <p>Source of Verification: The Project's documentation.</p>

⁹ The planned local transboundary water cooperation trust building activities are in risk to be implemented as planned (because of COVID pandemic) as conducting the activities in form of online activities is not effective.

Outputs		Output Indicators	Status as of December 31 st , 2020	Source of Verification
Output 5	The Tajik Syr Darya River Basin Council is officially established and effectively represents the basin water users and other stakeholders.	<ul style="list-style-type: none"> % + # of basin water users and stakeholders assessing that TSD RBC represents their voice on integrated basin water resources management (Target: 75%)¹⁰ % + # of women being members of the RBC (Target: At least 30%) % + # of women members of RBC assessing that the RBC takes into consideration the voice of women in integrated management of the basin water resources (Target: 75%) 	<p>Status: 49 % of interviewed basin water users confirmed that TSD Basin Dialogue is a platform that represents the voice of basin water users and stakeholders on IWRM (questionnaire from May and June 2020).</p> <p>Status: According to the list of participants in average 30% women participate at SBD meetings.</p> <p>Status: 95 % of interviewed women confirms that the voice of women is considered in IWRM (questionnaire from May and June 2020).</p>	<p>Source of Verification: Report on the conducted questionnaire.</p> <p>Source of Verification: Minutes of SBD meetings and list of participants</p> <p>Source of verification: Report on the questionnaire.</p>
Output 6	The Basin Water Monitoring System provides the required data on water quality and quantity to the Basin Water Information System.	<ul style="list-style-type: none"> # of water monitoring data sets entered into the Basin Water Information System (Target: 4).¹¹ 	<p>Status¹²: In November 2020 draft Concept Note on Strengthening of Water Resources Monitoring System in TSDB and Mechanisms for Improvement of Data Exchange was prepared, which includes specific recommendations on expanding the surface and groundwater monitoring network and improvement of data exchange mechanisms.</p> <p>As reported under Output 3, forty two Excel forms were prepared with water data as an input to the Basin WIS, which were shared with the RBO and MEWR.</p>	<p>Source of verification: 1) Reports on Monitoring of surface and groundwater. 2) Workshop documents (agenda, list of participants, summary. 3) Reports on Surface and Groundwater Monitoring. Report on strengthening water resources monitoring system.</p>
Output 7	The Aksu-Isfana-Tomchasay-Khojabakirgan-Arkasay	<ul style="list-style-type: none"> Degree¹³ of development of the Pilot Aksu-Isfana-Tomchasay-Khojabakirgan-Arkasay Irrigation System Management 	<p>Status: The irrigation systems delineation study was completed in Khojabakirgan and Aksu, next the WUAs delineation wasd one for the whole Tajik Syrdarya Basin. The inventory of Aksu irrigation system was successfully completed followed by the inventory of the irrigation</p>	<p>Source of Verification: The Project's documents, GIS data plus maps, handover notes, signed contract for inventory of irrigation infrastructure in Aksu, protocol of the</p>

¹⁰ The members of the Tajik SD Basin Dialogue represent the basin water users and stakeholders.

¹¹ One data set refers to one river or ground water zone, and includes data on water quality and quantity.

¹² As the WIS is still in testing phase the status of this indicator is marked as in process.

¹³ Degree of development of the Irrigation Scheme Management: 1) The irrigation scheme is delineated and agreed with all irrigation users, 2) The irrigation scheme performance monitoring and reporting system is designed and operational, 3) The plan of reorganizing the current Rayon Departments of ALRI to the Irrigation Scheme Agency is developed and agreed by all irrigation users, 4) The reorganization of District Departments of ALRI into the Irrigation Scheme Management Agency is in process, and 5) The Irrigation Scheme Management Agency is created and operational.

Outputs	Output Indicators	Status as of December 31 st , 2020	Source of Verification
	<p>Irrigation System Management is created and operational.</p>	<p>(Target: The reorganization of District Departments of ALRI into the Irrigation System Management Agency started and is in process)</p> <p>• % of water use fee collection in the Project area (Target: 90%)</p>	<p>meeting with WG, the concept on reorganisation of irrigation agencies in Tajik Syrdarya Basin.</p> <p>Source of Verification: The Rayonvodhozes reports in 2019 and 2020.</p>
Output 8	<p>The consolidated Aksu DRR Watershed Management Plan is replicated effectively in Isfana Watershed including DRR transboundary dialogue at local level.</p>	<p>• <i>Consolidated Aksu DRR Watershed Management Plan and developed Isfana DRR Watershed Management Plan</i> (Target: Two DRR Watershed Management Plans). + # of people benefiting</p> <p>Status: The Aksu Watershed Management Plan was revised by the Aksu WSD for the period of 2021-2030 in line with Isfara/Isfana WSM Plans and complies with the planning horizons of other planning documents.</p> <p>Monitoring of measures executed in 2018-2019 was completed by Aksu WSD members. Report on monitoring results was developed and finalized (67% of Aksu WSMP measures executed). Collection of data for Mid-term evaluation of Aksu WSM plan was completed including the technical assessment part. The report with findings and recommendations developed and finalized. 39 793 people living in the Aksu WS (Tajik part) are covered by the Aksu WSMP measures. Isfana watershed assessment report is developed including hydrological, pasture management, soil/forest management, conservation agriculture issues.</p> <p>The Isfana Watershed Management Plan was developed in cooperation with CAREC. 111 600 people living in the Tajik part of the Isfana WS are covered by the Isfana WSMP.</p>	<p>Source of verification: The Aksu and Isfana Watershed Management Plans, monitoring report, mid-term evaluation report, end line-report, the Project documents.</p>

Outputs	Output Indicators	Status as of December 31 st , 2020	Source of Verification
	<ul style="list-style-type: none"> # of local governments and Community Based Organisations (CBOs) in Aksu and Isfana watersheds that adapted, modernized and/or established their disaster risk reduction and management systems in line with the Sendai framework and in line with the DRR Watershed Mngt Plans. (Target: 19 in Aksu, 10 in Isfana) # of transboundary DRR activities implemented and number of involved members of Community Based Organisations (TJ/KG; M/F) (Target: 9 in Aksu (160 members, 145M/15F) and 2 in Isfana (40 members, 35M/5F); one joint cross border meeting of the KG Ministry of Emergency Situation and TJ Committee of Emergency Situation. 	<p>Status: In Aksu watershed, local governments and CBOs incorporated planned IWRM measures of 2018-2019 into their local development plans (2 Districts, 3 Jamoats, and 14 CBOs) establishing their DRR and DRM systems in line with the Sendai framework. INRM measures of 2021-2025 of Aksu and Isfana Watershed Management Plans were officially submitted to district local governments by the respective state agencies.).</p> <p>Status in Aksu watershed: 5 transboundary cross-visits were organized between pasture users, Forestry staff and CBOs members of Tajikistan and Kyrgyzstan participating 107 members (91M/16F) covering 66.9% of members (of them 85% - male, 15%-female) targeted in Aksu WS.</p> <p>Status in Isfana watershed: 1 cross-visit was carried out between Sughd Pasture Trust and Scientific-research Institute of Samarkand city (Uzbekistan) with participation of 9 male covering 22.5% of targeted (100% - male) in Isfana WS.</p> <p>In April 2019, the project supported the visit of the Tajik CoES delegation for the First joint meeting of the boards of rescue agencies of Kyrgyzstan, Tajikistan and Uzbekistan was organized in Bishkek city of Kyrgyzstan sponsored by the German Red Cross.</p>	<p>Source of verification: Districts, Jamoats, and CBOs Plans.</p> <p>Source of Verification: Minutes, list of participants, photos</p>

Outputs		Output Indicators	Status as of December 31 st , 2020	Source of Verification
Output 9	Water use efficient irrigation methods at farm and WUA level increase irrigation efficiency.	<ul style="list-style-type: none"> % + # of farmers and representatives of WUAs (M/F) with the strengthened capacity in water saving practices and technologies (Target: 4,000). Adoption rate of water use efficient irrigation methods by the targeted farmers, in the selected WUAs, and in the whole Aksu-Isfana-Tomchasay-Khojabakirgan-Arkasay Irrigation System (Target: 30%)¹⁴. 	<p>Status: The 34 trainings for farmers on water efficient technologies completed and the number of trained farmers is 799 (344 M, 455 F). The 6 practical trainings on drip irrigation completed and the number of trained farmers is 131 (87 M, 44F). Total trained farmers – 930 farmers (431M, 499F) in 2019.</p> <p>In 2020 there were 50 trainings and field visits conducted for farmers on water efficient technologies and the number of trained farmers is 981 (388M, 593F). Total trained farmers – 1911 farmers (819M, 1092F)</p> <p>Status: The adoption rate of water efficient irrigation technologies by the trained farmers in the selected WUAs baseline was 35.7% and in the end of 2019 was 56.4%. In the beginning of 2020 is 58% and the result at the end of 2020 short furrow is 33.35% and short furrow/fertigation is 17.14%.</p> <p>The adoption rate of water efficient technologies in the whole Aksu-Isfana-Tomchasay-Khojabakirgan-Arkasay Irrigation System was 29% in 2020, will be updated at the end of June, 2021.</p>	<p>Source of Verification: Training reports. List of participants</p> <p>Source of Verification: Data base of trained farmers in 2019 and 2020.</p> <p>Analytical report. Questionnaire of WUAs (2019).</p>
Output 10	Rehabilitated irrigation infrastructure improves irrigation efficiency.	<ul style="list-style-type: none"> # of priority irrigation infrastructure rehabilitation projects implemented (Target: 2); 	<p>Status: Two priority irrigation infrastructure rehabilitation projects are contracted, and the rehabilitation works in Digmay-1 PS are finished and officially handed over to operational institutions in June 2020.</p> <p>The rehabilitation works at 5 pickets (out of 6) on KB canal are completed and handed over to operational institutions in June 2020 and the rehabilitation works on picket #100 are also completed and handed over to operational institutions in December 2020.</p>	<p>Source of verification: The signed contracts, signed acceptance acts and engineering documentation.</p>

¹⁴ The adoption rate of the water saving irrigation technologies is calculated as a ratio of trained farmers who adopted the water efficient technologies to the target number of farmers to be trained. In the case of WUAs and AITKA the water saving technologies adoption ratio is calculated as number of hectares of agriculture-irrigated land applying the water saving technologies to the total number of hectares of agriculture irrigated land.

Outputs		Output Indicators	Status as of December 31 st , 2020	Source of Verification
		<ul style="list-style-type: none"> + % of hectares of irrigated agriculture land benefiting from the implemented priority irrigation infrastructure rehabilitation projects (Target: 10,000 Ha); # of consultations between WUAs and Irrigation Agencies conducted in the project area (Target: 8)¹⁵. 	<p>Status: The preliminary estimation of irrigation area that will benefit from the implementation of the two above rehabilitation projects is about 12,000 Ha.</p> <p>Status: The first consultation meeting with WUAs and Rayonvodhozes was conducted on April 30th 2019 with participation of Sughd ALRI department, KB CMO, local partners and farmers. The second consultation meeting was conducted on May 23rd 2019.</p> <p>In 2020 the consultation meeting with WUAs and Rayonvodhozes was conducted on March 13th 2020 with participation of local partners and farmers. The next consultation meetings with WUAs, Rayonvodkhozes, local partners and farmers had been conducted in the following schedule:</p> <ul style="list-style-type: none"> Khojabakirgan main canal zone (B.Gafurov district) – November 17, 2020; Aksu irrigation zone (Spitamén district) - November 25, 2020; Digmay-1 PS zone (J.Rasulov district) – December 09, 2020. 	<p>Source of verification: The signed contracts, and engineering documentation</p> <p>Source of verification: The meetings' minutes. Report from the conducted meetings. List of participants</p>
Output 11	Implemented integrated DRR measures.	<ul style="list-style-type: none"> # + % of hectares of land benefiting from the Green Engineering Measures to stabilize soil degradation processes inclusive of DRR elements in Aksu and Isfana watersheds (Target: 550 ha in Aksu/50ha in Isfana); # + % of people (M/F) benefitting from locally implemented DRR measures (Target: 250 in Aksu (210M/40F) and 50 in Isfana (30M/20F)); 	<p>Status in Aksu watershed: Totally 1764ha (321% from the planned) - 191ha under replication, 73ha of demo plots and 1500ha under forest reservation benefitted in Aksu watershed: Replication:152ha by reforestation /agroforestry activities; 24ha by rain-fed lands restoration activities; 15ha of pastures were restored. Demo plots: 47ha of reforestation /agroforestry activities, 20ha of rain-fed lands and 6ha of pastures restored. In addition,1500ha of forest and pasture lands benefit from the established forest reservation in Devashtich district.</p> <p>Status in Isfana watershed: totally 71ha (142% from the planned) – 65ha under replication and 6ha of demo plots benefitted: Replication: 60ha by agroforestry, 5ha by rain-fed restoration. Demo plots: 3ha of agroforestry, 2ha of rain-fed lands and 1ha of pasture restored.</p>	<p>Source of verification: The Project monitoring reports</p>

¹⁵ Two consultations per year. One before and another after the vegetation period.

Outputs	Output Indicators	Status as of December 31 st , 2020	Source of Verification
	<ul style="list-style-type: none"> # + % of CBOs members (M/F) with improved DRR/DRM knowledge and skills (Target: 180 in Aksu (142M/38F) and 90 in Isfana (70M/20F)); # + % of gender sensitive business models introduced and operational with a positive impact on the environment (Target: 3). 	<p>Status in Aksu watershed: Totally 393 farmers (328M/65F) that are 157% of the planned (of them 84%-male, 16%-female). This includes 256 farmers (227M/29F) engaged into replication activities and 137 farmers running the demo plots (101M/36F) in Aksu WS benefitted from DRR measures.</p> <p>Status in Isfana watershed: totally 60 farmers (46M/14F) that are 120% of the planned (of them 77%-male, 23%-female). This includes 49 farmers (39M/10F) engaged into replication activities and 11 farmers running the demo plots (7M/4F).</p> <p>Status in Aksu watershed: 180 CBOs members (142M/38F), that are 100% of the planned, improved their skills on "Climate Change Adaptation, IWSM and INRM" and "Operational framework of CB-INRM for DRR and CCA" in Aksu Watershed.</p> <p>Status in Isfana watershed: 128 CBOs members (74M/54F) that are 142% of the planned improved their knowledge on "Climate Change Adaptation, IWSM and INRM", "Basics of search and rescue" and "Rendering first aid".</p> <p>Status: Public Private Partnership expert was contracted in May 2020. The field work on feasibility study was completed. The report with results of the study was developed and submitted.</p>	<p>Source of verification: Project records.</p> <p>Source of Verification: The Project documents.</p> <p>Source of Verification: Report of public private partnership expert, The Project documents.</p>

8.3 List of consulted stakeholders

Date	19 April, 2021
Time	14:00-16:00
Location	Dushanbe
Organization	Helvetas Swiss Intercooperation Tajikistan, NWRM -2 Project
Participants	Marian Szymanowicz, Sophie Nguyen, Khoa Man, Macej Rams

Date	19 April, 2021
Time	16:30-17:40
Location	Dushanbe
Organization	Swiss Agency for Development and Cooperation
Participants	Ruslan Sadykov, Marian Szymanowicz

Date	20 April, 2021
Time	10:40-14:40
Location	Ayni, Sogd viloyati
Organization	Basin Organization of river Zaravshon
Participants	Kiyomiddin Rizoyev, head; Afroz Azizov, deputy; experts – Khikmatullo Kuzhmurodov, Sherzod Nekov, Shavkat Salimov, Mehrangez Razokov

Time	17:20-19:40
Location	Khujand, Sogd viloyati
Organization	NWRM -2 Project office
Participants	Nodir Mukhitdinov, Zarina Ruzmatova, Rakhimchon Nazirzoda, Shokhida Tuliyeva, Nargiz Mirzakhanova

Date	21 April, 2021
Time	09:00-09:40
Location	Khujand, Sogd viloyati
Organization	Khukumat Sogd viloyati (Oblast Administration)
Participants	Zarif Naziri, Deputy Chairmen responsible on agriculture, Nodir Mukhitdinov

Time	09:50-11:00
Location	Khujand, Sogd viloyati
Organization	Basin organization of river Syrdaria
Participants	Adbunali Boboyev, head and experts Akhmedova, Abduloyev, Mirzabayeva, Umarikulov

Date	21 April, 2021
Time	11:00-12:00
Location	Khujand, Sogd viloyati
Organization	Sogd oblast Amelioration and irrigation department, ALRI
Participants	Aminzon Abdulzoda, head; Khajem Khojiev, deputy head

Date	21 April, 2021
Time	13:20-14:00
Location	Khujand, Sogd viloyati
Organization	Syrdaria basin water resources department
Participants	Yusufjon Ustoyev, head

Date	21 April, 2021
Time	14:00-15:00
Location	Khujand, Sogd viloyati
Organization	Women and Society Association, Women Basin Forum Secretariat
Participants	Nuiasara Bobokhanova, chair; Khayriniso Rasulova, coordinator; Iroda Bobotonova, NGO "Mir"; Orzu Ganiyeva, NGO "Nasl"

Date	21 April, 2021
Time	15:15-17:00
Location	Khujand, Sogd viloyati
Organization	NCC "Sarob"
Participants	Takhmina Saifulloeva, Orifzon Mansurov, Buned Sadiev, Takhmina Abdusalolezod, Manuchegr Sabirov

Date	21 April, 2021
Time	17:00-18:00
Location	Khujand, Sogd viloyati
Organization	Tajikgiprododkhoz
Participants	M. Islomov

Date	22 April, 2021
Time	09:15-10:10
Location	Bobojon Gafurov, Sogd viloyati
Organization	Bobojon Gafurov nokhiia (rayon) administration
Participants	Orifi Farukh, first deputy head; Abdumumin Lakimzoda, head of rayvodkhoz

Date	22 April, 2021
Time	11:00-12:00
Location	Ovchi- Kalacha jamoat, Bobojon Gafurov rayon, Sogd viloyati
Organization	WUA Ravoni Kalacha
Participants	Saijon Rakhmonberdiev, chair; Shopro Rakhmonberdieva, demo-farmer

Date	22 April, 2021
Time	14:00-14:40
Location	Sorband jamoat, Bobojon Gafurov rayon, Sogd viloyati
Organization	WUA B. Akhmadaliev
Participants	Shokhista Tursunmurdoeva, chair

Date	22 April, 2021
Time	15:30-16:30
Location	Jabbor Rasulov rayon, Sogd viloyati
Organization	WUA Gallakor -2014
Participants	Askar Begmatov, chair; Zanburparvar, mobilizator

Date	23 April, 2021
Time	09:00-10:00
Location	Khujand, Sogd viloyati
Organization	ACTED office
Participants	Ilhom Gulomjonov, Nargiz Mirzakhanova, Jamamshon Rokhbaroy, Ak-Su basin dialog chair

Date	23 April, 2021
Time	11:00-11:40
Location	Sogd viloyati
Organization	Pasture trust Sogd oblast
Participants	Chairman of pasture trust, local farmers

Date	23 April, 2021
Time	12:40-13:00
Location	Sogd viloyati
Organization	Demo project on flood protection of irrigation channel, Ak-Su river
Participants	Local citizens

Date	23 April, 2021
Time	15:00 – 16:40
Location	Khojand, Sogd viloyati
Organization	International Secretariat for Water, SDC COWASS Project on water supply and sanitation in Sogd oblast
Participants	Rahbar Homidova, Makhfirat Abdullaeva

Date	23 April, 2021
Time	17:00 – 18:15
Location	Khojand, Sogd viloyati
Organization	NWRM -2 Project office
Participants	Nodir Mukhitdinov, Rakhimchon Nazirzoda, Shokhida Tuliyeva, Nargiz Mirzaxanova, Ilhom Gulomjonov

Date	24 April, 2021
Time	09:30 – 10:20
Location	Khojand, Sogd viloyati
Organization	Department of control and water resources protection of Committee on Ecology in Sogd oblast
Participants	Ravshan Rajabaev, chair

Date	26 April, 2021
Time	09:00 – 11:30
Location	Dushanbe
Organization	SDC Coordination Unit for MEWR
Participants	Anatoliy Kholmatov

Date	26 April, 2021
Time	11:30 – 12:30
Location	Dushanbe
Organization	MEWR
Participants	Muslihhidin Khalikov

Time	13:30 – 14:50
Location	Dushanbe
Organization	Agency on Land Reclamation and Irrigation under the Government of Tajikistan
Participants	Sabur Jumazoda, deputy Chair; Shafoat Nazifov, head of department; Firuz Kurbanov, head of unit; Rahmankul Rahmatilloev, ALRI expert, Tajik agrarian university

Date	27 April, 2021
Time	09:30 – 11:00
Location	Dushanbe
Organization	State enterprise “Management Center for Fergana valley Water resources management”
Participants	Izzat Holog, Ahajon Ahrorov, Bozor Rakhmonov, Kimiie Samieva

Date	27 April, 2021
Time	11:10 – 12:20
Location	Dushanbe
Organization	GIZ
Participants	Umed Komilov, Katia Staudt, Khurshed Solekhaev

Date	27 April, 2021
Time	13:00 – 13:40
Location	Dushanbe
Organization	ADB Project “Water resources management in the Pyanj River Basin (PRB)”
Participants	Sulton Kurbonov

Date	27 April, 2021
Time	16:00 – 18:30
Location	Dushanbe
Organization	MEWR
Participants	Daler Abdurazzokzoda, head of department

Date	27 April, 2021
Time	13:00 – 15:10
Location	Dushanbe
Organization	Helvetas Swiss Intercooperation Tajikistan, NWRM -2 Project
Participants	Marian Szymanowicz, Sophie Nguyen Khoa Man, Macej Rams, Parinamo Kurbonalieva, Sulhiya Khaidarova

Time	15:30-17:30
Location	Dushanbe
Organization	Swiss Agency for Development and Cooperation
Participants	Richard Chenevard, Ruslan Sadykov, Marian Szymanowicz, Sulhiya Khaidarova

8.4 Evaluation Question Matrix

	Relevance Criteria	High Extent	Satisfactory	Moderately	Poor
1	To IWRM strategy	Fully relevant	Relevant	Partly relevant	Not relevant
2	In comparison to the projects in other basins	Fully relevant	Relevant	Partly relevant	Not relevant
3	To actual national legislation	Fully relevant	Relevant	Partly relevant	Not relevant
4	To the Water Sector Reform Programme 2016-2025, the National Water Management Strategy, SDGs	Fully relevant	Relevant	Partly relevant	Not relevant
5	To needs of target beneficiaries	Fully relevant	Relevant	Partly relevant	Not relevant
6	Recommendations	Open questions			

	Effectiveness Criteria	High Extent	Satisfactory	Moderately	Poor
1	Assisting Government of Tajikistan	Very effective	Effective	Partly effective	Not effective
2	Outcomes and Outputs objectives	Very effective	Effective	Partly effective	Not effective
3	Water Information System	Very effective	Effective	Partly effective	Not effective
4	Risk management	Very effective	Effective	Partly effective	Not effective
5	Lessons for future (other projects)	Open question			
6	Project implementation strategy	Very effective	Effective	Partly effective	Not effective
7	IWRM elements coverage (cross checking with #3)	Fully covered	Covered	Partly covered	Not covered
8	Disaster Risk Reduction (DRR) mainstreaming and climate change adaptation	Fully considered	Considered	Partly considered	Not considered
9	CSPM application	Fully applied	Applied	Partly applied	Not applied
10	Transboundary cooperation with UZ and KG	Fully addressed	Addressed	Partly addressed	Not addressed

	Efficiency Criteria	High Extent	Satisfactory	Moderately	Poor
1	International standards	Fully in line	In line	Partly in line	Not in line
2	Missing items of IWRM and legal framework and room for improvement	Open questions			
3	Partnership	Excellent	Good	Moderate	Poor
4	Local capacity usage	Highly used	Used	Partly used	Not used
5	Lessons for future (other projects)	Open question			
6	Cooperation with other projects, incl. SDC WSS Project	Excellent	Good	Moderate	Poor
7	Recommendations for optimization (to the end of the project)	Open questions			
8	Recommendations (third phase)	Open questions			

	Sustainability Criteria	High Extent	Satisfactory	Moderately	Poor
1	Project's environment	Highly sustainable	Sustainable	Partly sustainable	Not sustainable Recommendations
2	IWRM at national level	Highly sustainable	Sustainable	Partly sustainable	Not sustainable
3	IWRM at the basin, sub-basin, and watershed level	Highly sustainable	Sustainable	Partly sustainable	Not sustainable
4	River Basin Organisations (RBO)	Highly sustainable	Sustainable	Partly sustainable	Not sustainable
5	River Basin Councils (RBC)	Highly sustainable	Sustainable	Partly sustainable	Not sustainable
6	Benefits extend of the project	Highly sustainable	Sustainable	Partly sustainable	Not sustainable
7	Technical solutions quality	Highly sustainable	Sustainable	Partly sustainable	Not sustainable
8	Recommendations (to the end of the project)	Open questions			
9	Recommendations (third phase of the project)	Open questions			

	Gender and social equity	High Extent	Satisfactory	Moderately	Poor
1	Gender aspects	Fully integrated	Integrated	Partly integrated	Not integrated
2	Benefits distribution	Very equally distributed	Equally distributed	Partly equally distributed	Not equally distributed
3	Recommendations	Open questions			

8.5 Questionnaire

Name of the respondent: _____

Position: _____

Date and time: _____

Relevance:

1. How relevant is the project and its implementation strategy regarding the project's impact objective and national development strategies, specifically the integrated water resources management in the Tajik Syrdarya Basin, and its positive impact on the livelihoods of the basin rural population?

fully relevant relevant partly relevant not relevant

2. How relevant is the project and its implementation strategy compared to the projects implemented in other basins in Tajikistan?

fully relevant relevant partly relevant not relevant

3. Are the planned outcomes and outputs objectives and their respective indicators still relevant from the view of the project impact objective and the latest legislative developments (including the water sector reform)?

fully relevant relevant partly relevant not relevant

5. How relevant is the project and its activities regarding the Water Sector Reform Programme 2016-2025, the National Water Management Strategy, the Sustainable Development Goals?

fully relevant relevant partly relevant not relevant

6. Are the project and its activities addressing the needs of target beneficiaries at the national, basin, sub-basin, watershed, WUA, canal and plot levels?

fully relevant relevant partly relevant not relevant

7. What recommendations on the relevance can be drawn for the end of Phase 2, and for the potential third phase of the project and other similar projects

8. Is the project effective in assisting the Government of Tajikistan (GoT) in implementing the Water Sector Reform?

very effective effective partly effective not effective

9. How effective is the project in achieving the expected impact, outcomes and output objectives?

very effective effective partly effective not effective

10. How effective is the project specifically with regards to the development of the Water Information System, and implementation of basin management and IWRM at all levels?

very effective effective partly effective not effective

11. How effectively are risks managed and mitigated?

very effectively effectively partly effectively not effectively

12. What lessons can be drawn regarding effectiveness for other similar projects in the future?

Effectiveness

13. How effective is the project's implementation strategy?

very effective effective partly effective not effective

14. How effectively does the project cover all the elements of the integrated water resources management and river basin management?

very effectively effectively partly effectively not effectively

15. To what extent the Disaster Risk Reduction (DRR) mainstreaming and climate change adaptation were considered?

fully considered considered partly considered not considered

16. To what extent CSPM was effectively applied?

fully applied applied partly applied not applied

17. To what extent the issues of transboundary water management with KG and UZ in terms of water quality and quantity were addressed by the project?

fully addressed addressed partly addressed not addressed

Gender and social equity

18. To what extent the gender aspects were integrated at design and at implementation level?
To what extent were women integrated in the decision-making mechanism and to what extent were their specific concerns considered?

fully integrated integrated partly integrated not integrated

- 8 How equally were distributed the benefits of the project? Are there people in the project area who did not benefit from the project and if yes, why?

very distributed equally distributed partly equally distributed not equally distributed

- 9 What recommendations on the effectiveness can be drawn for the end of Phase 2 and for the potential third phase of the project?

Efficiency

- 10 Was the project implemented efficiently, in-line with international and national norms and standards?

fully in line In line partly in line not in line

- 11 What is missing in terms of IWRM policy and legal framework and how the situation could be improved?

- 12 What is the efficiency of the project partnership arrangements?

excellent good moderate poor

- 13 Did the project efficiently utilize local capacity in implementation and efficiently utilize local capacity in implementation?

highly efficiently efficiently partly efficiently not efficiently

- 14 What lessons can be drawn regarding efficiency for other similar projects in the future?

- 15 What are the links with other programmes (complementarities or synergies)? What are the links with the new SDC WSS Project in Sugd?

excellent good moderate poor

- 16 What are the recommendations for optimization until the end of the project phase?

- 17 What recommendations on the efficiency can be drawn for the end of Phase 2 and for the potential third phase of the project?

Sustainability

18 How conducive is the environment for the sustainability of the project? If the environment is not conducive what recommendations can be drawn?

highly sustainable sustainable partly sustainable not sustainable

19 How sustainable is and will be, by the end of NWRM Project Phase 2, the process of integrated water resources management at national level?

highly sustainable sustainable partly sustainable not sustainable

20 How sustainable is and will be, by the end of NWRM Project Phase 2, the integrated water resources management at the basin, sub-basin, and watershed level?

highly sustainable sustainable partly sustainable not sustainable

21 How sustainable are, and will be, by the end of project the operations of the River basin organization (RBO)?

highly sustainable sustainable partly sustainable not sustainable

22 How sustainable are, and will be, by the end of project the operations of the River basin council (RBC)?

highly sustainable sustainable partly sustainable not sustainable

- 23 To which extent the benefits of the project will continue, within or outside the project domain, after it has come to an end?

highly sustainable sustainable partly sustainable not sustainable

- 24 To what extent is the quality of the technical solutions adequate and sustainable?

highly sustainable sustainable partly sustainable not sustainable

- 25 What recommendations on the sustainability can be drawn for the end of Phase 2?

- 26 What recommendations can be drawn for the potential third phase of the project in terms of its objectives, components, main outcomes and outputs?

8.6 Recommendations for the remaining time of Phase 2

Outcome 1: Relevant institutions apply basin management and IWRM legal and regulatory framework and implement the water reforms decided at the national level

Output 1: Developed water-related policy and legal framework at the national level in line with the basin management and IWRM principles

1.1. To make amendments to the RBO Charter to allow them to provide paid services and works for the increase of financial sustainability.

Priority	High	Middle	Low
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1.2 NWRM -2 has provided support to MEWR in the development of by-laws, related to the implementation of the new Water Code, adopted in 2020. This was considered a very effective one in the development of the legal base of the IWRM in Tajikistan. It is important to continue such a work by the most priority directions of the water sector.

Priority	High	Middle	Low
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Output 2: Effectively coordinated implementation of Water Sector Reform at the national level

2.1. The Water Sector Support Secretariat will be established (including 7 experts) under MEWR with the support of EU project RDP-2 (Rural development program). Their main tasks will be to provide support to the MEWR in the implementation of the water sector reforms in the country. Taking into account positive and jointly beneficial effects from the operation of a similar organization (Water Sector Support Unit) in 2019-2020, it is proposed to continue the further expert support by means providing additional experts into the Secretariat. Terms of reference, profiles, and a number of experts to be provided should be agreed upon with MEWR in coordination with the EU RDP-2 project.

Priority	High	Middle	Low
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Output 3: The TSD Basin Water Information System integrated with the National Water Information System

3.1. For TSD RBO it is important to establish an informational-analytical website about water resources and IWRM. To consider the possibility to place some information on water resources (e.g., hydrological data, water quality) in open access for the stakeholders (e.g., students and farmers) there.

Priority	High	Middle	Low
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3.2 For Tajik Syr Darya RBO it is important to ensure not only the possibility to upload the data into the National WIS but also the access and importing the data concerning its basin.

Priority	High	Middle	Low
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Outcome 2: The Tajik Syr Darya Basin and sub-basin institutions manage water resources in line with IWRM principles

Output 4: The Tajik Syr Darya RBO is officially established and operates in line with basin management and IWRM principles

4.1. To develop an indicative list of services and works (e. g. providing/development maps and attribute data from basin WIS), provided at the paid basis taking into account the competencies of other water-related organizations as well as legal requirements.

Priority	High	Middle	Low
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4.2. To conduct the relevant training of RBO staff on paid services provision, including financial aspects; fundraising; project proposal/application writing.

Priority	High	Middle	Low
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4.3. To develop, promote, and administrate the TSD RBO web-site

Priority	High	Middle	Low
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4.4. Development of the mechanism (order) of the provision of mini-grants for TSD RBO for implementation of works directly related to the Project activities (especially in the part of the implementation of the activities at the local level).

Priority	High	Middle	Low
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4.5. Conduction of trainings on different aspects of the Basin Water Plan for the RBO staff and main stakeholders regularly.

Priority	High	Middle	Low
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4.6. At present, Syr Daria Basin Water Plan was prepared in the frame of the Basin Dialogue before the RBO establishment. The Plan was also prepared before the adoption of the Resolution on the Rules of development approval and Implementation of Basin Management. Therefore, there are some gaps and discrepancies of the current Plan to the adopted structure. Nevertheless, according to the decision of the Government, Syr Daria Basin Water Plan will be adopted during 2021. So, it is proposed to consider the current version of the Plan as the first draft (version V.0).

Syr Darya RBO in parallel to the implementation of the current version of the Plan is advised to update it to complete in the time of the Plan operation (preferably by 2024 to have sufficient time for the interministerial concordance procedure):

- To put the current Plan in line with the adopted structure;
- To develop chapters, which could not be elaborated earlier (e.g., water management balance, other types of water use, besides irrigation and assessment of their impact at waters; ecological and chemical status assessment for waters);
- To complete the list of the Programme of measures, in particular taking into account relevant measures of other technical assistance projects (it is important, taking into account that the amount of project investments is significant comparing with funding of

local and national programs), e.g., activities related to the drinking water supply, SDC COWASS project.

Priority	High	Middle	Low
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- 4.7. To conduct trainings for the staff of TSD RBO on cooperation with sectoral partners in the Syr Darya basin: ALRI, WUA, water drinking supply, and wastewater treatment plants, CoES, industry, fishery, recreation, and tourism.

Priority	High	Middle	Low
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Output 5: The Tajik Syr Darya River Basin Council is officially established and effectively represents the basin water users and other stakeholders

- 5.1. To provide support in the preparation and conduction of the first kick-off and further meetings of the River Basin Council. To assist in the preparation of its agenda and to ensure participation of the wide range of stakeholders, representative of the main types of activities in the river basin (besides irrigation, to include drinking and industrial water supply, fishery, energy production, etc.). It is also important to ensure gender equity taking into account stated indicators, representative participation of NGOs, scientific organizations, and representatives of the different districts of the river basins. Facilitate the development of the Basin Women's Forum platform and continue to hold this forum on an ongoing basis and before the RBC meeting.

Priority	High	Middle	Low
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- 5.2 To assist in the identification of the topics for RBC meetings, selection of the relevant participants – observes (in addition to the regular RBC members).

Priority	High	Middle	Low
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Output 6: The Basin Water Monitoring System provides the required data on water quality and quantity to the Basin Water Information System

- 6.1. To develop a concept of water monitoring in the river basin. The concept should include both technical issues as well as legislative and institutional ones. One of the mandatory elements of the concept should be the restoration of hydrological posts, in particular on the river Isfara. More details regarding state water monitoring can be find in the Chapter 7 Recommendations.

Priority	High	Middle	Low
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Output 7: The Aksu-Isfana-Tomchasay-Khojabakirgan-Arkasay Irrigation System Management is created and operational

- 7.1. To support ALRI in the reorganization of the irrigation system management in part of shifting from administrative management principle to management based on irrigation systems. Experience of reorganization in other river basins showed that one of the key issues, namely economic analysis for its reorganization feasibility remains unsolved and therefore weakens sustainability of the newly established structures. The current irrigation management by the district Departments of ALRI follows the administrative borders that in some cases split irrigated systems that cross districts' borders. In such cases, no one agency has information on the efficiency of the whole irrigation system. The district Departments of ALRI do not have tools to monitor the efficiency and they focus more on inputs and activities than on the results. In the frame of this component, besides

organizational and legal activities, it is necessary to conduct a financial and legal analysis of the feasibility of uniting district water management units (in particular, debts release procedure) by hydrographic principles located in Aksu Khojabakirgan irrigation systems.

It's suggested to continue the reorganization also in the Project 3rd phase too.

Priority	High	Middle	Low
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7.2 Finalizing/updating the concept for reorganization and reorganization plan agreed with ALRI.

Priority	High	Middle	Low
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7.3 Introduction non-cash payment for water fee for implementing a billing system in the Aksu irrigation system.

Priority	High	Middle	Low
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7.4 Elaboration of Khojabakirgan irrigation management information system through replication of Aksu structure of irrigation database

Priority	High	Middle	Low
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Output 8: The consolidated Aksu DRR Watershed Management Plan is replicated effectively in Isfana Watershed including DRR transboundary dialogue at the local level

8.1. Advocate for the legitimacy of the Small River Basin councils and respective WSM Plans

- a. Integration with Syr Darya river basin plan
- b. Develop a model/approach for the development of sub-basin/watershed management plan and integration with basin planning for MEWR's approval/adoption

Priority	High	Middle	Low
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8.2 Develop a model/approach for Integration of WSM plans with the local development mechanisms (district, municipal, community, and sectoral plans)

Priority	High	Middle	Low
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8.3 Promote cross border cooperation between sectorial stakeholders (pasture, forest, DRM authorities, etc.) as a part of Aksu and Isfana WSM Plans

Priority	High	Middle	Low
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Outcome 3: Farmers, irrigation agencies, and Water User Associations use water resources efficiently and sustainably

Output 9: Water use efficient irrigation methods at farm and WUA level increase irrigation efficiency

9.1. Promotion of water efficient use and capacity building:

- to replicate further successful activities, implemented jointly with SAROB, aimed at the promotion of water-efficient technologies at Dehkan farms and farmers' level;
- to conduct on-job trainings and demonstrational fields about how to increase the amount of harvest, productivity, water-efficient technologies of irrigation, how to select highly profitable agricultural cultures;
- to support activities aimed at capacity building of specialists in the field of irrigation (e. g. educational courses of SAROB cooperative).

Priority	High	Middle	Low
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9.2. Finalizing the concept for WUA enlargement and handing it over to ALRI

Priority	High	Middle	Low
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9.3. To conduct a special study at pilot areas to collect information about the application of pesticides and herbicides. The objectives of the study are inventory of chemicals used, development of recommendations for application, reduction of pollution of surface and ground waters.

Priority	High	Middle	Low
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Output 10: Rehabilitated irrigation infrastructure improves irrigation efficiency

10.1. To ensure the sustainability of the SUE "Zudamal" which was established within Phase 1 of the NWRM Project following recommendations of a planned assessment of Zudamal operation.

Priority	High	Middle	Low
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Output 11: Implemented integrated DRR measures

11.1. Clean up of the Syr Darya river beds from higher water plants

This proposal comes from Sogd Oblast Department of the Committee of Environmental protection under the GoT. Overgrowing of the riparian part of the Syr Darya riverbed in summer within Khujand city causes local inundation of the floodplain inhabited, water stagnation, and at the end of water quality deterioration. The following actions are further required: additional research on this topic and development of the options how to solve them, implementation of practical measures, assessment of efficiency and sustainability measures. It is necessary to consider the involvement of the local people in these works.

Priority	High	Middle	Low
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11.2 Capitalization and dissemination of best practices:

- Development of practical guides for natural resources users on successfully introduced adapted measures
- Development of unified WSM methodology/approach in Tajikistan context

Priority	High	Middle	Low
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11.3. Provide support to Aksu and Isfana small RBCs to become a key coordinating platform for effective coordination and cooperation between watershed stakeholders:

- Facilitate the implementation of watershed management plan measures
- Provide technical support for the implementation of the pasture law

Priority	High	Middle	Low
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