

**Ministry of Water Resources,
Agriculture and Processing Industry
of the Kyrgyz Republic
Water Resources Service**

**«Climate Resilient Water Services Project
(CRWSP)»**

Contract: CRWSP/CS/C.3.3/CQS/2

**Terms of References
to provide consulting services for project monitoring and evaluation**



Project Implementation Unit of the Water
Resources Service under the Ministry of
Water Resources, Agriculture and
Processing Industry of the Kyrgyz Republic
Bishkek 2024

CONTENT

1. PROJECT BACKGROUND	3
1.1. PROJECT DESCRIPTION	3
1.2. BENEFITS AND BENEFICIARIES OF THE PROJECT	5
2. ASSIGNMENT AND OBJECTIVES OF CONSULTING COMPANY	6
ASSIGNMENT OBJECTIVES	6
3. METHODOLOGICAL REQUIREMENTS FOR SURVEYS	7
a. Sampling structure.....	8
b. Sampling methodology.....	8
c. Sampling size	8
d. Random sampling.....	8
e. Questionnaire and variables	9
f. Data quality control	9
g. Computer entry.....	9
4. MAIN OBJECTIVES AND DELIVERABLES	9
A. Objective #1 (phase #1 – Initial phase) – Baseline study.....	10
B. Objective # 2 (during the life cycle - from the beginning of modernization works at 3 irrigation schemes).	11
C. Objective # 3 (annually) - Annual water user satisfaction surveys	12
D. Objective #4 (phase #2) – Mid-term study.....	13
E. Objective #5 (phase #3) – Impact assessment (Final assessment)	14
5. PAYMENT TIMELINE AND REPORTING:	14
6. QUALIFICATION REQUIREMENTS	16
a. Consultant expertise and required qualifications	17
b. Key and non-key staff	17
ANNEXES	19
ANNEX # 1: Results Framework (RF)	20

ABBREVIATIONS

CRWSP	Climate Resilient Water Services Project
DEM	Department of Environmental Monitoring
FA	Financing Agreement
FGD	Focus Group Discussion
FM	Financial Management
I&D	Irrigation and Drainage
IDA	International Development Association
ISF	Irrigation Service Fee
IWRM	Integrated Water Resource Management
KE	Key Experts
M&E	Monitoring and Evaluation
MNRETS	Ministry of Natural Resources, Ecology and Technical Supervision
MWRAPI	Ministry of Water Resources, Agriculture and Processing Industry
MWRU	The Main Water Resources Units
NKE	Non-Key Expert
O&M	Operations and Maintenance
PAD	Project Appraisal Document
PDO	Project Development Objective
PIA	Project Implementing Agency
PIU	Project Implementation Unit
POM	Project Operations Manual
RF	Results Framework
RWMU	Rayon water resources management unit
ToRs	Terms of reference
WASH	Water, Sanitation and Hygiene
WRS	Water Resource Service
WSS	Water Supply and Sanitation
WUA	Water User Association

1. PROJECT BACKGROUND

The Climate Resilient Water Services Project (CRWSP) was approved in April 2022 and then became effective in October 2022. It will be implemented in the Issyk-Kul, Batken, Jalal-Abad and Osh oblasts of the Kyrgyz Republic. The Project is funded by the International Development Association (IDA or the Bank) in accordance with the Financing Agreement (FA), the Project Appraisal Document (PAD) and other IDA procedures and regulations

Project implementation is guided by the Project Operational Manual. The Water Resources Service (WRS) under the Ministry of Water Resources, Agriculture and Processing Industry (MWRAPI) and the State Institution “Development of Drinking Water Supply and Wastewater Disposal” (DDWSWD) under the Water Resources Service share overall responsibility for Project implementation. Each implementing entity will take the lead on Project elements under their respective institutional mandate and capacity. Each agency plays a leading role in implementing of the Project elements within its authority and capabilities. Each agency receives support through the Project Implementation Unit (PIU), which is assigned to perform the Project management function.

The Project Development Objective

The Project Development Objective (PDO) is to:

- (i) Increase access to climate-resilient water services in selected river basins,
- (ii) Strengthen institutional capacities for climate-resilient water management at the local and national levels.

Water supply services include water supply and sanitation (WSS) services and irrigation and drainage (I&D) services. The Project will improve the coverage and quality of WSS and I&D services in selected basins. At the national level, the Project will enhance the institutional capacity for climate resilient water management. Regarding the PDO’s first part – “climate resilient water services”, are defined as water services that achieve the coverage and quality standards despite possible climate risks (droughts, heat and extreme heat, urban floods and sewage spills, floods and mudflows). As for the PDO’s second part – “climate resilient water management”, is defined as the ability of water sector institutions, at the local and national levels, to prepare for and recover from shocks associated with climate risks.

1.1. Project Description

The Project includes the following components and subcomponents:

- 1) *Component 1: Infrastructure Investments and Service Improvements;*
 - Subcomponent 1.1. Water supply and sanitation infrastructure;
 - Subcomponent 1.2. Improvement of irrigation and drainage services.
- 2) *Component 2: Institutional Strengthening for Service Delivery, Water Resources Management and Dam Safety;*
 - Subcomponent 2.1 Institutional strengthening to provide water supply and sanitation services;
 - Subcomponent 2.2 Institutional strengthening to provide irrigation services;
 - Subcomponent 2.3 Water and soil quality monitoring system;
 - Subcomponent 2.4 Dam management.
- 3) *Component 3: Project management, monitoring and evaluation, and professional development;*
- 4) *Component 4: Contingent Emergency Response Component.*

Component 1: Infrastructure Investments and Service Improvements.

This Component finances civil works, procurement of goods and equipment, and related services aimed to reduce climate change risks to supply drinking water and sanitation services, improve irrigation and drainage services delivery including increasing water use efficiency.

Subcomponent 1.1: Water supply and sanitation infrastructure.

This subcomponent covers investments to improve climate resilience of drinking water and sanitation services, as well as to improve the capacity of wastewater treatment. This subcomponent will finance (re)construction of water supply infrastructure (wells, ponds, water intake structures, disinfection plants and energy efficient pumps operating on renewable energy resources), water delivery networks, wastewater treatment systems (structures/facilities/structures for collection, transportation, treatment and disposal of sewage), supply and installation of electrical and mechanical equipment for these facilities/structures.

Subcomponent 1.2: Improvement of irrigation and drainage services.

This subcomponent covers modernization of the three existing irrigation and drainage systems (Kara-Unkur in Djalal-Abad Oblast, Shakhimardan in Batken Oblast, and Kurshab-Sai in Osh Oblast) located in the river basin Karadarya-Syrdarya-Amurdarya, and covering total irrigated area of 24,763 ha. The Project will finance modernization of two irrigation headworks, irrigation and drainage network of 255.68 km length, and related hydrotechnical structures.

At the farm level, the Project will promote adoption of climate-smart irrigation practices and resource use through:

- ✓ improved water resources management practices;
- ✓ deep ripping;
- ✓ laser land leveling.

➤ Kara-Unkur Sai Irrigation and Drainage system in Djalal-Abad Oblast

Kara-Unkur Sai which is not a transboundary river but is the main source for irrigation in the area. Water abstracted from Kara-Unkur Sai is conveyed to the fields via Levaya Vetka and Pravaya Vetka main canals. Within the scope of the Project, Levaya Vetka system having an irrigated area of 8,225 ha located in the Bazarkorgon rayon to the northwest of Djalal-Abad City will be rehabilitated.

➤ Shakhimardan Sai Irrigation and Drainage system in Batken Oblast

Shakhimardan Sai, a transboundary river is a tributary of the Syr Darya River and is the main source for irrigation in the area. Water abstracted from Shakhimardan Sai is conveyed to the fields via the main canal named after Nugazyev. Within the scope of the Project, the system having an irrigated area of 4,435 ha located in the Kadamzhay rayon which is 105 km far from Batken City will be rehabilitated.

➤ Kurshab Sai Irrigation and Drainage system in Osh oblast

Kurshab Sai, a transboundary river flowing into Andijan Reservoir is a tributary of the Kara Darya River and is the main source for irrigation in the area. Water abstracted from Kurshab Sai is conveyed to the fields of the Otuz-Adyr and Kochkor-Ata irrigation systems irrigation system on the left and right banks of Kurshab Sai respectively. Within the scope of the Project, one scheme having a total irrigated area of 12,163 ha located in the Kara-Suu (Otuz-Adyr scheme) will be rehabilitated.

Component 2: Institutional Strengthening for Service Delivery, Water Resources Management and Dam Safety.

This Component will finance the supply and installation of equipment and services to promote innovation, and best practices in water management, based on climate resilience and low carbon

technologies. The activities under this Component are grouped into the following four subcomponents:

Subcomponent 2.1: Institutional strengthening to provide water supply and sanitation services;

Subcomponent 2.2: Institutional strengthening to provide irrigation services;

Subcomponent 2.3: Water and soil quality monitoring system;

Subcomponent 2.4: Dam management.

Component 3: Project Management, Monitoring and Evaluation (M&E) and Professional Development.

This component finances the necessary staffing, consultants, professional development and operating expenses for the Project Implementing Agency (PIA) to enable the PIU to perform its project implementation responsibilities. The responsibilities include project management, coordination, procurement and financial management, monitoring and evaluation, management and supervision of compliance with social and environmental protective standards, communications and outreach campaign.

Component 4: Contingent Emergency Response Component.

Ensuring immediate response to an acceptable crisis or emergency as needed. This Component is for ensuring immediate response to an acceptable crisis or emergency, as needed. It allows the Cabinet of Ministers to request the World Bank to reclassify and reallocate unused funding from other Project components to cover the cost of unforeseen emergency response and rehabilitation.

1.2. Benefits and beneficiaries of the Project

The direct quantitative economic benefits of the Project come from the two types of capital investments supported by the Project:

- (a) Investments in drinking water and sanitation. These investments will lead to enhanced welfare of beneficiaries by reducing coping costs (time saved from water collection, reduced need for purchasing drinking water and boiling the drinking water to improve its quality).
- (b) Investments in irrigation and drainage (I&D). The benefits will accrue from increased yields and productivity, mitigation of climate change effects, and avoided losses of agricultural production.

The direct beneficiaries are rural and peri-urban communities in the target areas. These comprise farmers, low-income households, women and youth.

The direct beneficiaries from (re)construction activities to improve I&D service delivery will be the farmers cropping on adjacent lands to Kurshab (12,136 ha, number of farmers 7,464), Kara Ungur (8,225 ha, number of farmers 6,771) and Shakimardan (4,435 ha, number of farmers 3,958) to irrigation systems.

The activities supported under Component 2 target central and decentralized state agencies managing water resources and delivering water services. The staff in these state agencies are expected to benefit from increase in technical and operational capacity to carry out their mandates, improved equipment and improved and more accessible data to support user-centered, and timely decision-making related to water resources and hydro-climatic risks. At the national level, the main beneficiaries are the WRS, DDWSS and Department of Environmental Monitoring (DEM)

At the local level, the beneficiaries are Batken, Djalalabad and Osh Main Water Resources Units (MWMU/OVK), Kadamjai, Bazar-Korgon, Kara-Suu Rayon's Water Management Units (RWMU/RVK), Papan Reservoir Authority, Environmental Monitoring Laboratory of Osh-Jalalabad Territorial Protection Directorate.

2. ASSIGNMENT AND OBJECTIVES OF CONSULTING COMPANY

Assignment objectives

The assignment of these consulting services (Service) is to provide support to the PIU (Client) in implementation of an automated control and monitoring system for the Project, the implementation of its activities for science-based, independent monitoring and evaluation of the CRWSP effectiveness, including conducting baseline, mid-term studies and impact assessment (final evaluation) of the Project, including the annual consumer/water user satisfaction surveys, which will consist of quantitative and qualitative information, and compare the situation with/without the Project.

The Consultant should measure and monitor the following physical, agricultural, economic and social aspects to determine the impact of the project, including but not limited to:

- Changes in the efficiency of water use, delivery efficiency of surface water at different levels of the system, off-farm and secondary canals and water control structures;
- Changes in the area provided with improved irrigation services;
- Changes in energy efficiency of pumps (if any);
- The type of crop (~ food commodity type) in the project area; If the type of crop changes under improved irrigation and drainage services, monitor the original and new types of crops and their production pre- and post- new/improved irrigation and drainage and reasons for the changes.
- The changes in crop production (~ amount of food commodity) and productivity due to improved irrigation and drainage services;
- The impact on farming systems, cropping patterns, cropping intensities, cropped area, crop yields (weighted average by the planted area), and shifts towards to other less-water intensive crops;
- Changes in the area that produces non-cotton/non-wheat crops;
- Number of farmers (disaggregated by gender) that adopted new improved practices in sustainable agriculture and improved water resource management under the project;
- Involvement of women in WUAs and farming activities;
- Role of women in decision-making in WUAs;
- Project impact on gross and net farm incomes of the farmers;
- Project impact on operation and maintenance of the irrigation system;
- Changes in performance of WUAs, covering institutional, financial and technical aspects;
- Estimation of the economic project benefits to the farmers, government, and other stakeholders;
- Estimation of overall economic rate of return, on a “before and after” as well as “with and without project” bases.

In order to achieve the objectives of this assignment, the Consultant shall carry out the following activities:

Objective #1 (Phase #1) - Baseline: The baseline study will measure the baseline values of Project deliverables and impact indicators, and an individual/household/farmer characteristic at the Project start, including the role of women in the WUAs. The baseline survey will be conducted on a sample of potential beneficiaries from the eligible population. The baseline data will provide information on beneficiaries and comparison groups before the Project is implemented and are important for measuring pre-intervention outcomes, and establish benchmark information for selected indicators. The baseline data analysis will also be used to assess the effectiveness of Project implementation that is to assess the achievement of the CRWSP indicators and the main objective of the Project.

Objective # 2 (during the life cycle - from the beginning of modernization works at 3 irrigation schemes) - Communication support within the project. Launching information work

within the project before the modernization works start. A large-scale information campaign, involving a separate Public Awareness Specialist as part of a hired consulting company for full information support of project activities during the contract period with technical and consulting support from the PIU, will be conducted in targeted subprojects of the southern region to cover all stakeholders: state organizations, local self-government bodies, population, public and other parties affected by this project in accordance with the Stakeholder Engagement Plan.

Objective #3 (annually) – the annual consumer satisfaction survey(s) will measure levels of satisfaction with irrigation water delivery services in target areas, and citizen¹, engagement/involvement processes, and also measure related to Project deliverables in selected subprojects after start of the Project. The survey should use various means of communication.

Objective #4 (Phase #2) – Mid-term: The survey will measure and revise mid-term values of the Project deliverables and impact indicators for the same indicators and beneficiaries used for the baseline, in order to compare mid-term with baseline data. Mid-term data provide early evidence of progress towards objectives set forth, allowing to assess of whether or not the Project will achieve its targets and objectives. The mid-term study should be conducted on the same sample of beneficiaries as the baseline. At the mid-term study, the Consultant identifies the main problems/risks, and also prepares recommendations for improving the implementation of the Project.

Objective #5 (Phase #3) - Impact Assessment (final assessment): The survey will measure the final deliverables and impact indicators of the Project against the same indicators used for the baseline and mid-term surveys. The final survey will be conducted on selected beneficiaries (target/experimental group) and non-beneficiaries (comparison group)². The impact assessment measures the attributable changes in deliverables and impact levels caused by the Project interventions, and the extent to which the Project has achieved its objectives.

In order to complete the main objectives above, the Consultant needs to collect, through surveys, information related to the Project activities regarding the indicators of deliverables and the impact of the Project:

- Install an advanced automatic control and monitoring system for the PIU CRWSP staff and Project Beneficiaries, based on the Results Framework (in Annex 1).
- Collect data on the values of performance indicators to establish baseline (basic) indicators and evaluate the effectiveness and achievements of the Project;
- Provide an analysis of the data collected for use in the process of monitoring and evaluation of the Project, indicating the identified risks, problems and achievements of the Project;
- Identify significant lessons learned and prepare recommendations for the Client to apply to future projects.
- Prepare presentations based on the results of each study and present them at round tables/seminars to discuss the assessment results with all stakeholders as agreed with the Client.

3. METHODOLOGICAL REQUIREMENTS FOR SURVEYS

The Project intends to conduct baseline, mid-term and impact assessment studies and annual consumer satisfaction surveys (about four during the Project years 2-5) to obtain a quantitative and

¹ Citizen engagement will include: (a) joint planning and monitoring of the development and implementation of irrigation service improvements through WUAs to better understand a user constraints; (b) establishing a digital platform for the Project that will enable real-time monitoring with community participation and reporting on an action(s) taken; (c) organizing regular meetings/consultations with the public and focus group discussions with service providers and implementing organizations that will inform about an action(s) taken, and where an action(s) taken, based on the results of previous surveys and participatory analysis, will be disseminated and discussed, and monitoring; (d) establishing a functional grievance mechanism fully integrated into the Project; and (e) conduct annual Client satisfaction surveys in each subproject to monitor (i) access to Project information and awareness of decisions made, (ii) satisfaction of beneficiaries with the opportunity to provide feedback and participate in dialogue; and (iii) satisfaction with the response of the implementing organizations to a feedback(s) provided.

² Comparison Group of non-Project Beneficiaries who can give an objective assessment as a third party (e.g. WUA farmers).

qualitative data that will enable to monitor and evaluate the Project deliverables. The scope of services required under these ToRs include the collection of data at the following levels: individual; household; WUAs; farmers. The set of indicators to be collected will be based on Project's Results framework and will include other key indicators to determine the impact of the project. The surveys will follow a quasi-experimental approach (with both a treatment and control group), while annual consumer satisfaction surveys will follow a selective approach (in WUAs where work and other project activities are conducted), and mainly using an online tool during each research Phase. The Consultant shall demonstrate to the Client the methodological requirements a research/study, and shall include the following:

a. Sampling structure³

To ensure a representativeness of sample, various factors need to be considered, based on good understanding of the main objectives of the Project. It should clearly define which different groups are targeted by each of the Project activities, and how beneficiaries may overlap. It is also necessary to take into account the objectives of the Project in relation to participation of specific groups, such as women and youth. All these aspects should be appropriately highlighted in the sample for this assignment at the stage:

- 1) Baseline survey: The Client will provide the Consultant with Project data and secondary data to compile a list of potential beneficiaries to facilitate sampling of the appropriate population at the facilities/structures of modernization of 3 irrigation systems (the (re)construction locations).
- 2) Mid-term and Impact evaluation: The Client will provide the Consultant with a sampling structure including the list of Project beneficiaries, and the baseline sampling structure (and mid-term, if impact).

b. Sampling methodology

Consultant will provide a recommended sampling method after preparing a sampling design to be used for a survey/questioning. A sampling should include a comparison group, under the Project beneficiaries.

It is important to note that the same sampling, under the Project beneficiaries, should be used for baseline, mid-term and impact assessments in order to prepare a qualitative study based on the reliable data. It is required that the Consultant maintain accurate register of households selected in both the target/experimental and comparative groups for further use at 3 irrigation schemes.

To facilitate a sampling design within the eligible population, a list of potential beneficiaries can be made at the location(s). Enumerators will collect basic information from each household in the enumeration area, taking on average no more than 5 minutes per household to assess a household eligibility, basic demographic and (re)contact information. A household sampling will then be made based on the list. An initial identification and selection of enumeration areas may also be required, for instance, the preliminary list could be done only on the primary cluster (if clusters are defined in the sampling design).

c. Sampling size

Consultant should suggest the ways to calculate a sampling size: using a statistical formula (i.e. calculation formula) or the Rule of Thumb.

d. Random sampling.

A random sampling refers to a sampling methodology in which all members of the population have an equal chance to be a part of sampling, and it uses random selection to select a sampling

³ The sampling structure is the list of all measure units applied for the desired population, from which random samplings of units are selected to design a survey sampling(s).

within the desired population. The sample should consider Project specifics, related to the Project area and beneficiaries.

e. Questionnaire and variables

The survey questionnaire should be developed by the Consultant, and should integrate the Project Results Framework indicators presented in Annex 1 of the ToRs. It might be reorganized and revised, but the outcome-related questions should remain the same, when relevant to a particular group or stage of the Project, and should not be rephrased. The Questionnaire forms must be agreed with the Client.

f. Data quality control

As data is collected and entered into a storage mechanism, checking for errors and data quality is an important step and sufficient time should be found to review the data and assure its quality.

The following strategies should be used:

- Double data entry.
- Spot checking.
- Sort data to find missing data, outliers, high, or low values.
- Use automation, such as drop-down menus.
- Format a database to accept only numbers.
- Review data for anomalies.
- Discuss data discrepancies and/or findings the staff responsible.

Data-quality checks can be implemented while collecting the data rather than ex-post as in the case of paper-based surveys by using electronic devices for the data collection.

g. Computer entry

Consultant shall use electronic devices to enter a geo-referenced database to prepare an analysis, and report for each Study Phase. Consultant should explain how the evaluation, interpretation and presentation of deliverables are done.

• Report

After the surveys/questionnaires and quality control, the analysis of the results should be presented in the form of a detailed report with quantitative data. A report summarizes the conclusions emerging from the analysis and includes the following elements:

- description of the methodology used;
- questionnaire form (agreed by the Client);
- list of surveyed villages/communities/households and beneficiaries;
- survey database (electronic format);
- the results of the survey (electronic format);
- analysis and interpretation of the survey/questionnaire results (detailed analysis with statistical significance and summarized tables for each indicator);
- updated Results Framework (at least at the outcome levels) from the survey/questionnaire analysis;
- conclusions and recommendations.

While preparing a report, the Consultant will closely coordinate with the Client and Project stakeholders, and submit a Survey(s) Database to the Client. The Qualitative data should be presented in a separate chapter. The key activities, to be completed within each of the task steps, are presented and specified in details in the next section.

4. MAIN OBJECTIVES AND DELIVERABLES

GENERAL REQUIREMENTS

Consultant will work in close coordination with the immediate experts of implementing agencies, and under supervision of the Client in developing and supervising of all phases of data collection, and follow-up analysis of the datasets.

Consultant should deliver **all the materials in e-format**. Reports prepared under the 4 tasks must be submitted in e-format (on a USB-drive), and in printed form (3 copies) in Kyrgyz, Russian and English in MS Word, PDF format.

The expected tasks of the Consultant shall be performed in accordance with a mutually agreed timeline. The Final deliverables should be submitted according to the agreed timeline, and within the limits of contract duration. Any other results are subject to discussion between the Client and the Consultant.

Deliverables are subject to agreement by the Client, and preliminary versions should therefore be submitted by the Consultant in time allowing for comments to be shared and, if required, amendments/changes to be introduced by a Consultant in due time.

A. Objective #1 (phase #1 – Initial phase) – Baseline study

1) The initial stage includes the initial desk review of materials and data related to the Project activities: financial agreement, PAD, POM, project reports well as reports from the WRS, WUA support units, RVKs, Water Information System (including remote sensing), and other documents (statistics, yield, productivity, irrigation service fees, etc.) to complete the assignment, which will help provide additional evidence and determine progress after project completion.. The Client must provide all the necessary materials and access to the structures/facilities to perform this task by the Consultant.

2) Based on the results of the documents reviewed, the Consultant should determine the number of provisional beneficiaries, based on a sampling methodology (and non-beneficiaries) who will be subsequently interviewed, which will allow the Consultant to elaborate on a panel study.

3) Based on the results of identification of provisional beneficiaries, the Consultant shall provide basic data related to specifics of the territory and population residing by the beneficiaries; list of considered administrative/geographical units (regions, municipalities and communities, etc.) with the resident population, prevalence of poverty, production (agricultural) orientation of farms, etc.

4) After studying the data on provisional beneficiaries, the Consultant will prepare and agree with the Client a list of potential beneficiaries.

5) Implement or purchase the top-notch automatic control and monitoring system for project management - PMIS⁴ for use by the Client's staff (minimum license for 10 Client's users during a period of execution of the contract by the Consultant). This automated M&E system should include:

- a) Web application for monitoring the entire life cycle of the Project.
- b) Project planning tools with integrated resource and fund management.
- c) Tracking the progress of the Project.
- d) Visualize physical progress with real-time field data and photographs.
- e) Project progress on graphic design or other system tools.
- f) Generating Report in MS Excel and PDF format.

⁴ PMIS (Project Management Information Systems)

6) The Consultant will educate the Client's employees on the use of this system, will also provide support, and advise the Client's employees while using the system, prepare a User Manual.

7) An automated remote control and monitoring system should be in Russian and English.

8) All data on the results of study at all phases of the assignment must be entered into the automated system by the Consultant, so that the Client's employees can track and trace the study data. The Consultant is responsible for the accuracy of the data.

9) The Consultant will collect and analyze secondary data from other sources, such as focus groups or interested authorities.

10) The Consultant will develop a detailed work plan and timeline of activities for conducting a baseline, mid-term and impact assessment of the Project, conducting the annual surveys.

11) The Consultant will develop and agree with the Client forms of questionnaire(s) based on the PAD and Results Framework (RF), develop and agree with the Client a sampling scheme, objects of a pilot sampling of beneficiaries.

12) The Consultant will conduct a pilot field study and, based on the results' analysis of the pilot study, the Consultant will revise the questionnaire, and make adjustments. After revising the questionnaire, the Consultant will agree with the Client on the final version of questionnaire, and a sampling structure.

13) The Consultant will conduct quantitative data collection at the appropriate analysis level (individual/household/farmer, WUA, MWMU/RWMU, reservoir management), and the qualitative data collection (focus group discussion/semi-structured in-depth interviews, etc.).

14) Based on the collected quantitative and qualitative data, the Consultant will prepare an analytical report with practical recommendations based on the results of study. The Consultant will introduce a brief summary of the baseline study.

15) The Consultant will prepare materials for presentation of the results of the baseline assessment, and introduce it at a round table/seminar to discuss the results of assessment with all stakeholders as agreed with the Client.

16) Duration of the baseline study is 4 (four) months.

B. Objective # 2 (during the life cycle - from the beginning of modernization works at 3 irrigation schemes).

Information and interaction with stakeholders will be carried out in 3 irrigation schemes of the project. To accomplish this task, the following work should be done:

1) Development and coordination of the project communication strategy with the PIU in accordance with the project's goals and objectives, taking into account all project activities and components as well as the Water Resources Service's Water Policy;

2) Implementation of the project communication strategy. This strategy should address a wide range of issues, such as integrated water resources management, improving the management of water resources at various levels, implementing key Water Code principles at the state, basin, and system levels, adapting to climate change, and ensuring that the project complies with social, gender, and environmental requirements, as well as the Stakeholder Engagement Plan.

3) Development and implementation of annual media plans for CRWSP, specifying project objectives, communication channels until the end of project implementation;

4) Developing key messages to promote the project on various channels such as the project website (<https://www.crwsp.kg/>), social media (Facebook – <https://www.facebook.com/NWRMP.CRWSP>);

5) Information support of all Project activities, including coverage in social and mass media, in the state and official languages;

6) Ensuring that beneficiaries, partners, stakeholders are well informed about the activities of the project in general and activities of the project components in particular through the national and regional mass media, information portals and social networks, and other communication means;

7) Dissemination of information on project activities only after agreement and approval by the project management (PIU);

8) Creation of infographic multimedia and video materials (short movies) to raise public awareness of the project in Kyrgyz, Russian and English languages;

9) Development and dissemination of printed project information materials⁵ (such as information stands, suggestion boxes, booklets, brochures, posters, fact sheets, calendars, articles, and others, including design) press tours for media representatives to project sites and other events as required in accordance with the approved Project Stakeholder Engagement Plan;

10) Work closely with the PIU team in organizing, implementing and publicizing project activities at the local level;

11) Organization and implementation of media campaigns under the project;

12) Preparing reports on communication activities and overall project results;

13) Increasing the recognition of the project by attracting “live” new subscribers and increasing views of project publications in social media;

14) Submission of materials (articles, audio-video stories and other materials) to the PIU for publication on the projects' social page (Facebook), updating the project website with information.

C. Objective # 3 (annually) - Annual water user satisfaction surveys

The annual survey will be conducted on the area covered by 3 irrigation schemes and should focus on the following groups of WUAs and water users:

- group 1 who will receive only institutional support under the Project;
- group 2 who will receive institutional support and will benefit from modernization works on off-farm systems under the Project.

For each WUA, the survey is expected to cover about 2.5% - 5% of water user' households. The satisfaction survey of water users/beneficiaries will be conducted after the vegetation season, approximately in September-October of each year, during the 2-5 years of the Project.

To conduct the annual survey of beneficiaries, the Consultant will perform the following work:

1) Develop and agree on the questionnaire with the Client, conduct a pilot field study and, based on the analysis of results of a pilot study, the Consultant will revise the questionnaire and make adjustments/modifications.

2) Conduct a survey of WUAs. The survey will interview, at least, three representatives from each WUA, including one a WUA council member, and two WUA representatives. The key issues for discussion will focus on:

- Command area, source of irrigation water and number of water users, indicating the proportion of women;
- WUA meeting, number of WUA meetings, and meetings with zonal representatives;

⁵ The PIU will print the information materials developed by the PIU company at the expense of the project. The budget of the SEP, section 6, subsection 6.5, table 11 includes funds for printing the above materials.

- Irrigation Service Fee (ISF) and fee rate;
- WUA budget, costs (by expense category) and water distribution plan;
- Quality of irrigation service and irrigated area;
- Water management procedures and seasonal water distribution plan.
- Repair and maintenance of on-farm irrigation and drainage (I&D) network;
- Training and support services provided under the Project;
- Disagreements between WUA management and RWMU/RVK.

3) Conduct a survey of water users. Two approaches will be applied to survey water users:

- a formal survey using a structured questionnaire to collect a range of quantitative information;
- Joint assessment of a village water user assessment is applied using focus group discussions (FGDs) to further collect a qualitative information, and discuss a range of issues and bottlenecks related to I&D, crop productivity, ISF, WUA management, operation and maintenance (O&M) plans for on-farm irrigation drainage networks, and training/support services, water user interaction indicators.

4) Based on the conducted surveys of WUAs and water users, the Consultant will prepare 4 annual reports on satisfaction of water users, satisfaction with citizen engagement process, and clean datasets, and submit to the Client.

5) The Consultant will submit to the Client with 4 brief summaries of the conducted water user satisfaction surveys, related to irrigation water delivery services, and citizen engagement process about the Project.

D. Objective #4 (phase #2) – Mid-term study

While preparing the mid-term study, the Consultant will also apply the sampling methodology. (For details, see the previous section on methodological requirements), and perform the following activities:

1) The Consultant will review and agree with the Client an acceptable methodology, tools, sampling for the mid-term survey, with consideration of the relevant phase implementation under the Project.

2) The Consultant will conduct a quantitative data collection at the appropriate level of analysis (individual/household/farmer, WUA, MWMU/RWMU, reservoir management) and a qualitative data collection (focus group discussions/semi-structured in-depth interviews, etc.).

3) Based on the collected quantitative and qualitative data, the Consultant will prepare an analytical report with practical recommendations, based on the results of a study, indicating the identified risks, problems and achievements under the Project. The Consultant will submit a brief summary of the mid-term survey.

4) The Consultant will identify the mid-term values of the Project results and outcome indicators using the same indicators used for the baseline study in order to compare the mid-term and baseline data. The Consultant will prepare a brief report on indicators, which will highlight whether the Project has achieved the mid-term indicators, if not, how they can be achieved, and recommendations what must be implemented under the Project.

5) The consultant will prepare an analytical report on the mid-term study; it will include an analysis and comparison of data from various sources (statistical data, reports of the WRS, the WUS Support Units, the RVKs, etc.) with the findings of the baseline study.

6) The Consultant will prepare the materials to introduce the results of mid-term study and present it at a round table/seminar to discuss the results of assessment with all stakeholders, in agreement with the Client.

7) Duration of the mid-term study - 4 (four) months.

E. Objective #5 (phase #3) – Impact assessment (Final assessment)

Purpose of the final impact assessment, conducted under this Terms of Reference, is to collect data on the impact under the Project activities. To conduct the Project impact assessment, the Consultant will perform the following works, but not limited to the following activities:

1) Based on the results of surveys (baseline, mid-term), the Consultant will review and agree with the Client on an acceptable methodology, tools, sample of the Project impact assessment (final assessment), with consideration of the final stage of the Project.

2) The Consultant will conduct a quantitative data collection at the appropriate level of analysis (individual/household/farmer, WUA, MWMU/RWMU, reservoir management) and a qualitative data collection (focus group discussions/semi-structured in-depth interviews, etc.).

3) Based on the collected quantitative and qualitative data, the Consultant will prepare an analytical report with practical recommendations, based on the results of a study, indicating the identified risks, problems and achievements under the Project. The Consultant will submit a brief summary of the final report.

4) The Consultant will identify the final values of the Project results and impact indicators related to the same indicators used for the baseline and mid-term studies, in order to compare the mid-term and baseline data, which will highlight whether the Project has achieved the target values.

5) The Consultant will prepare the materials to introduce the results of the impact assessment and present it at a round table/seminar to discuss the results of assessment with all stakeholders, in agreement with the Client.

6) In the final report, the Consultant will highlight the lessons learned, and will elaborate on the recommendations for the Client to apply to future projects and ensure sustainability of investments.

7) The Consultant will prepare materials for presentation of the results of final assessment, and introduce it at a round table/seminar to discuss the results of assessment with all stakeholders, as agreed with the Client.

8) Duration of the impact assessment under the Project – 4 (four) months.

5. PAYMENT TIMELINE AND REPORTING:

#	Activity	Documents submitted by Consultant	Timeline	Terms of payment
Objective #1 (phase #1 – initial phase) – Baseline study: 1 December 2024 – 31 March 2025				
1	An initial report	The consultant must submit a detailed work plan for execution of the contract, indicating the calendar schedule, and the list of consultants with functional responsibilities. Work schedule. Survey methodology. The consultant must submit a survey plan specifying a sampling strategy, data collection tools, and data entry methodology.	During 21 days the contract signed-off	
2	Interim report	The consultant must submit a list(s) of households to be interviewed and a list(s) of communities/villages covered by the survey (for baseline study). The final version of a questionnaire, including electronic format (Stata, SPSS or SAS).	Work duration- 59 days after the initial report is submitted	

#	Activity	Documents submitted by Consultant	Timeline	Terms of payment
		Implemented automatic control and monitoring system for project management - PMIS.		
3	Final report	The Consultant must submit the analysis and reporting on the baseline study. A clean dataset for the baseline study. Basic values of Project indicators. The consultant will present a brief summary of the baseline survey. Baseline study presentation.	Work duration- 47 days upon submission of interim report	
	Total for task #1		127 days (4 months)	20% of the contract amount
Objective # 2 (during the life cycle - from the beginning of modernization works at 3 irrigation schemes)				
1	Communication strategy and media plans.	Communications strategy and media plans developed and approved by the PIU.	Preparation and approval period - 60 days from the date of contract signing	
2	Quarterly and annual reports on the project's information activities.	Quarterly and annual reports from 2024 to 2028.	Quarterly and annually	
3	Final report on the project's information activities.	Final report on the Project's information activities, including public awareness of the Project's activities and inputs and the process of citizen interaction/involvement in Project activities.	October 2028	
	Total for task # 2			15% of the contract amount
Objective # 3 (annually) - Annual water user satisfaction surveys in target areas under the Project.				
1	First Annual Report	The final version of a questionnaire, including electronic format.	Work duration- 30 days - September 2025	5%
2	Second Annual Report	Net data set for each year of the survey.	Work duration- 30 days - September 2026	5%
3	Third Annual Report	4 annual reports related to surveying of water user satisfaction, and satisfaction with the citizen engagement process under the Project.	Work duration- 30 days - September 2027	5%
4	Fourth Annual Report	4 brief summaries of surveys conducted.	Work duration- 30 days - September 2028	5%
	Total for task #3		120 days (4 months)	20% of the contract amount
Objective # 4 (phase #2) – The mid-term study: 1 October 2025. – 31 January 2026.				
1	An initial report	The Consultant will submit methodology, toolkit, sampling for baseline study to apply for the mid-term study, taking into account relevant stage of the Project implementation	Within 14 days	
	Interim report	The consultant will prepare the analysis and reporting on the mid-term study A clean dataset for a mid-term study.	Work duration- 59 days after submission of initial report	

#	Activity	Documents submitted by Consultant	Timeline	Terms of payment
		The Consultant will submit an updated Results Framework, with a summary report.		
	Final report	The consultant will prepare an analytical report with practical recommendations based on results of the study, indicating the identified risks, problems and achievements under the Project. The consultant will submit a short summary of the mid-term study, the Consultant will also submit and introduce the results of the mid-term study at a round table.	Work duration- 54 days after submission of interim report	
	Total for task #3		127 days (4 months)	20% of the contract amount
Objective #5 (Phase #3) – Impact assessment (final assessment): 1 July 2028. – 31 October 2028				
	An initial report	The Consultant will submit an acceptable methodology, tools, sampling of the Project impact assessment (final study), taking into account the final stage of the Project.	Within 14 days	
	Interim report	The consultant will submit the Project impact study analysis and reporting, as well as a clean impact evaluation dataset. The consultant will submit an updated RF with final values, based on results of the study.	Work duration- 55 days after submission of initial report	
	Final report	The final report shall include: <ul style="list-style-type: none"> • lessons learned and recommendations for use to future projects; • short summary of the Project impact study; • the presentation of the results of the Project impact study at a round table. 	Work duration- 58 days after submission of interim report	
	Task total#4		127 days (4 months)	25% of the contract amount
	Contract total		500 days (no more 16-20 months)	100%

The consultant will be accountable to the PIU director, and he or she will need to coordinate all activities with the PIU, the technical supervision consultant, and the local WUA Support Units on the ground.

In accordance with the expected and implementation timelines, payments for the services provided will be made after the products/materials are timely submitted, and agreed with the Client and the Bank.

The clean dataset as well as the resulting reports will be the property of the Project.

6. QUALIFICATION REQUIREMENTS

COMPANY QUALIFICATION REQUIREMENTS

The consulting company shall meet the following qualification criteria:

- *The consultant should have at least 5 years of general experience in research, monitoring and evaluation of projects of public/commercial organizations or international organizations - 30 points;*
- *The Consultant shall demonstrate specific experience in at least 3 (three) projects in the field of impact research and evaluation, preferably in WB, ADB and EBRD funded projects - 70 points.*

a. Consultant expertise and required qualifications

The proposed team should include a reasonable number of qualified and experienced professionals, having proven track record in designing and implementing socio-economic and baseline studies, and/ or evaluation studies, and having good in-depth understanding of rural development, as well as gender and social inclusion and experience in information support.

The proposal submitted by the consulting company will be evaluated against the following criteria:

- Methodology and work plan for completing the assignment 20%
- Experience and qualifications of key staff 80%

Evaluation criteria for the key staff:

- General qualification (general education, trainings and experience): 30%
- Adequacy to the assignment (relevant education, professional courses, experience in the similar assignment): 60%
- Knowledge of Kyrgyz and Russian languages, work experience with the government bodies. Knowledge of English language is an asset: 10%

b. Key and non-key staff

Key Experts (KE)

1) KE-1. Team leader (1 position):

- Higher education in economics, statistics, agricultural economics, irrigation, water management, environment, or related field.
- 5-year, minimum, of relevant work experience in conducting impact assessments, leading multidisciplinary teams, conducting and analyzing large quantitative studies, required experience in collecting, and analyzing data on households and agriculture.
- Knowledge of Russian or Kyrgyz languages is mandatory. Knowledge of English language is an asset. Work experience with the government bodies.

The study coordinator/Team Leader will oversee coordinating the planning, implementation of study/survey(s), and ensuring that the performance is executed following the highest professional standards. The Team leader will be responsible in ensuring the quality control and supervision mechanism in place for a survey is effective, manage a data collection team, and ensure that each member performs their specific scope of work(s).

2) KE-2. Research and Field Supervision Expert (1 position):

- Higher education in economics, statistics, agricultural economics or a related field.
- 5-year, minimum, experience in conducting large-scale surveys, studies as the required experience in conducting household and agricultural surveys in the Kyrgyz Republic;
- Knowledge of Russian, Kyrgyz languages is mandatory, work experience with the government bodies. Knowledge of English language is an asset.

3) KE-3. Socio-Economic Analyst (1 position):

- Higher education in economics, agricultural economics or related fields.
- 5-year, minimum, experience in survey data analysis using STATA or equivalent software.

- Knowledge of Russian or Kyrgyz languages is mandatory, work experience with the government bodies. Knowledge of English language is an asset.

4) KE-4. IT programmer for data entry and databases (1 position):

- Higher education in the field of information technology.
- 3-year, minimum, experience with extensive survey datasets and data entry software is required.
- Knowledge of Russian or Kyrgyz languages is mandatory, work experience with the government bodies. Knowledge of English language is an asset.

The data specialist will develop appropriate data management system with the adequate quality controls, and finalize the data management system prior to a data collection team moves to the field. The data management system would also be organized in such a way as to deliver partial datasets, on a regular basis, to the Project Team.

5) KE-5. Communication and Public Awareness Specialist (1 position):

- Higher education in journalism, PR and communication;
- Minimum 3 years' experience in PR and communications. Experience in developing and implementing a communications strategy, understanding communication channels and key messages, writing news articles, preparing informational materials;
- Fluency in Kyrgyz and Russian languages, work experience with the government bodies. Knowledge of English language is an asset.

This specialist will be responsible for the implementation of the communications strategy and information support for all project activities.

Non-Key Expert (NKE)

Non-key experts will not be evaluated during the evaluation of the Technical Proposal. The non-key experts shall be agreed with the Employer.

NKE-1 Field supervisors: it is necessary to hire, at least, 2-3 field supervisors (the optimal ratio is 1 supervisor for 4 registrars/enumerators). They must be selected based on the following criteria:

- 2-year, minimum, experience in conducting or managing household surveys/study in KR.
- knowledge of the Kyrgyz and Russian languages.

NKE-2 Study Registrars/enumerators: it is necessary to hire, at least, 8-10 registrars/enumerators. The minimum qualification includes:

- 1 year, minimum, experience in collecting quantitative data in rural areas of the Kyrgyz Republic, i.e. on the topics of a questionnaire.
- knowledge of the Kyrgyz and Russian languages.

NKE-3 Data Entry Specialists: it is necessary to hire, at least, 1-2 specialists. The minimum qualification includes:

- 1 year, minimum, experience in entering quantitative data into a database.
- knowledge of the Kyrgyz and Russian languages.

ANNEXES
TO THE TERMS OF REFERENCES

ANNEX # 1: Results Framework (RF)).

Results Framework

**COUNTRY: The Kyrgyz Republic
Climate Resilient Water Services Project**

The Project Development Objectives

The PDO are: (i) increase access to climate resilient water services in selected river basins and (ii) increase institutional capacity for climate resilient water management at the local and national levels.

Project Development Objectives Indicators

Indicator Name	PBC	Baseline	Intermediate Targets						End Target
			1	2	3	4	5	6	
Increased access to climate resilient water services in selected basins									
People provided with access to safely managed water supply services (Number)		0.00	0.00	0.00	2,000.00	15,000.00	40,000.00	65,000.00	95,000.00
Out of which female (Percentage)		0.00	0.00	0.00	49.00	49.00	49.00	49.00	49.00
People provided with access to safely managed sanitation services (Number)		0.00	0.00	0.00	0.00	9,000.00	21,000.00	33,000.00	43,000.00
Out of which female (Percentage)		0.00	0.00	0.00	0.00	49.00	49.00	49.00	49.00
Farmers provided with improved irrigation and drainage services (Number)		0.00	0.00	0.00	2,000.00	5,000.00	8,400.00	11,700.00	16,800.00
Out of which female (Percentage)		0.00	0.00	0.00	5.00	5.00	5.00	5.00	5.00
Area provided with new/improved irrigation or drainage services (CRI, Hectare(Ha))		0.00	0.00	0.00	0.00	5,600.00	11,200.00	19,600.00	28,000.00
Area provided with improved irrigation or drainage services (CRI, Hectare(Ha))		0.00	0.00	0.00	0.00	5,600.00	11,200.00	19,600.00	28,000.00
Strengthened institutional capacities for climate resilient water management									

Indicator Name	PBC	Baseline	Intermediate Targets						End Target
			1	2	3	4	5	6	
National Program for climate resilient water services developed and aligned with National Water Resources Strategy 2040 (Yes/No)		No	No	No	No	No	Yes	Yes	Yes
Reduction in the specific energy consumption of water supply delivery (Percentage)		0.00	0.00	0.00	5.00	10.00	15.00	20.00	30.00

Intermediate deliverables indicators under Components

Indicator Name	PBC	Baseline	Intermediate Targets						End Target
			1	2	3	4	5	6	
Infrastructure Investments and Service Improvements									
Water supply systems rehabilitated with climate-resilient design standards (Number)		0.00	0.00	0.00	2.00	7.00	17.00	27.00	37.00
Continuity of water supply in participating water utilities (Hours)		4.00	4.00	4.00	6.00	8.00	12.00	16.00	20.00
Wastewater treatment facilities/structures constructed (Number)		0.00	0.00	0.00	0.00	0.00	1.00	2.00	3.00
Wastewater collection and treatment capacity (Cubic meters/year)		0.00	0.00	0.00	0.00	500,000.00	1,000,000.00	1,500,000.00	1,500,000.00
Social institutions with functional safely managed drinking water supply and/or sanitation facilities/structures (Number)		0.00	0.00	0.00	4.00	15.00	35.00	70.00	93.00
Water meters installed (Number)		0.00	0.00	0.00	400.00	3,000.00	8,000.00	13,000.00	19,000.00
WSS service providers benefitting from improved institutional capacity for improved service delivery (Number)		0.00	0.00	0.00	2.00	7.00	15.00	22.00	30.00
Irrigation and drainage schemes rehabilitated with climate-resilient design standards (Number)		0.00	0.00	1.00	1.00	1.00	1.00	2.00	3.00
Institutional Strengthening for Service Delivery, Water Resources Management and Dam Management									

Intermediate deliverables indicators under Components

Indicator Name	PBC	Baseline	Intermediate Targets						End Target
			1	2	3	4	5	6	
Digital Water Information System and Monitoring Strengthened (Yes/No)		No	No	No	Yes	Yes	Yes	Yes	Yes
State of the Sector Annual Reports prepared and publicly disclosed (Yes/No)		No	No	No	Yes	Yes	Yes	Yes	Yes
Operational Water User Associations strengthened (Number)		0.00	0.00	0.00	2.00	5.00	10.00	15.00	21.00
Management of dams improved (Yes/No)		No	No	No	Yes	Yes	Yes	Yes	Yes
WSS Sector-wide monitoring and benchmarking system established and operational (Yes/No)		No	No	No	No	No	Yes	Yes	Yes
Development of WSS mid-term investment plan (Yes/No)		No	No	No	No	No	Yes	Yes	Yes
Development of pro-poor tariff setting procedures, modelling and institutionalization (Yes/No)		No	No	No	No	No	Yes	Yes	Yes
Improved billing and collection efficiency (Percentage)		30.00	30.00	50.00	60.00	70.00	80.00	90.00	90.00
Operation cost ratio improved (Number)		0.00	0.00	0.00	0.60	0.70	0.80	0.90	1.00
Development of energy efficiency improvement plan for priority utilities (Yes/No)		No	No	No	Yes	Yes	Yes	Yes	Yes

Intermediate deliverables indicators under Components

Indicator Name	PBC	Baseline	Intermediate Targets						End Target
			1	2	3	4	5	6	
Share of decision-making positions in WUA decision-making bodies held by women (Percentage)		7.00	7.00	7.00	7.00	7.00	8.00	10.00	12.00
Project Management, M&E and Professional Development									
Customer satisfaction with the quality of water supply services (percentage of customers) (Text)		tbd			40.00	50.00	60.00	70.00	70.00
Share of water users satisfied with WUA managerial and operational performance (Percentage)		0.00	0.00	20.00	20.00	40.00	60.00	70.00	90.00
Share of beneficiaries who report that the Project has established effective engagement processes (Percentage)		0.00	0.00	50.00	75.00	75.00	75.00	75.00	75.00
Of which female (Percentage)		0.00	0.00	50.00	75.00	75.00	75.00	75.00	75.00
Communication and citizen engagement strategy developed and adopted (Yes/No)		No	No	No	Yes	Yes	Yes	Yes	Yes

Monitoring & Evaluation Plan: PDO Indicators

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
People provided with access to safely managed water supply services	The indicator for SDG 6.1, safely managed drinking water services is defined as use of an improved drinking water source which is accessible on premises, available when needed and free from contamination (compliant drinking water quality as per national norms).	Semi-annual	PIU progress reports	The number of people provided with access to improved water sources will be calculated based on the number of customers provided by service providers multiplied by the average family size.	PIU
Out of which female	The indicator provides supplemental information on the percentage of women benefiting from increased access to safely managed water services.	Semi-annual	PIU progress reports, local self-governments, service providers	Based on the information from local self-governments and service providers	PIU
People provided with access to safely managed sanitation services	The indicator for SDG 6.2, safely managed sanitation services, is defined as households that use an improved, not shared sanitation facility where excreta are disposed in situ or transported and treated offsite as per national effluent norms.	Semi-annual	PIU progress reports, local self-governments, service providers	The information will be compiled by the PIU with inputs from service providers and local self-governments.	PIU
Out of which female	The indicator provides supplemental information on the percentage of women benefiting from increased access to safely managed sanitation services.	Semi-annual	PIU progress reports, local self-governments, service providers	The information will be compiled by the PIU with inputs from service providers and local self-governments	PIU
Farmers provided with improved irrigation and drainage services	This indicator measures the cumulative number of farmers (WUA members) that benefit from improved irrigation and drainage services as a result of the project interventions.	Semi-annual	WRS, WUA support units, PIU progress reports	The information will be calculated based on the number of WUA members that are provided with improved irrigation services from the selected scheme.	PIU

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
Out of which female	This indicator measures the percentage of female farmers (WUA members) who benefit from improved irrigation and drainage services as a result of project interventions.	Semi-annual	WRS, WUA support units, PIU	The information will be compiled on the female heads of WUAs that benefit from improved irrigation and drainage services in the selected scheme.	PIU
Area provided with new/improved irrigation or drainage services	This indicator measures the total area of land provided with irrigation and drainage services under the project, including in (i) the area provided with new irrigation and drainage services, and (ii) the area provided with improved irrigation and drainage services, expressed in hectare (ha).	Semi-annual	Remote sensing data, ground truth data, impact evaluation surveys	Data will be compiled by PIU based on the progress of advancement of civil works and data of WUA support units	PIU
Area provided with improved irrigation or drainage services	Measures in hectares the total area of land provided with new or improved irrigation or drainage services in operations supported by the World Bank.	Semi-annual	Remote sensing data, ground truth data, impact evaluation surveys	Data will be compiled by PIU based on the progress of advancement of civil works and data of WUA support units	PIU
National Program for climate resilient water services developed and aligned with National Water Resources Strategy 2040	This indicator measures the presence of a national program focused on the resilience of water supply/sanitation and irrigation infrastructure.	Annual	PIU progress report	Independent audit of the national program before project	PIU
Reduction in the specific energy consumption of water supply delivery	Specific energy consumption is defined as the ratio of total energy consumed by water supply in kWh to the volume of the water supply delivered measured in cubic meters. This indicator calculates the percentage reduction in specific energy consumption, which is expected to take place because of strengthened institutional	Annual	PIU progress report and system surveys	Data will be compiled by PIU based on regular surveys of energy consumption of water supply systems.	PIU

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collecti	Responsibility Data Collectio
	<p>capacity to deliver climate-resilient water services. Therefore this indicator reflects the level of institutional capacity strengthening: to be achieved, it requires improved operational, design and planning capacity in energy efficiency, energy alternatives (renewables), leakage reduction and water metering.</p>				

Monitoring & Evaluation Plan: Intermediate Results Indicators

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
Water supply systems rehabilitated with climate-resilient design standards	This indicator measures the number of water supply systems rehabilitated with climate-resilient design standards.	Semi-annual	PIU progress reports	PIU progress reports on completed detailed designs and works	PIU
Continuity of water supply in participating water utilities	This indicator measures the continuity of water supply services delivered in the target areas expressed in hours per day.	Annual	PIU progress reports and reports from service providers	Data will be compiled by the PIU based on surveys and reports from the participating water utilities	PIU
Wastewater treatment facilities constructed	The indicators measures the progress in construction of wastewater treatment facilities in selected target areas.	Annual	PIU progress reports	Data will be compiled by PIU based on the progress of advancement of civil works.	PIU
Wastewater collection and treatment capacity	This indicator measures the volume of wastewater appropriately collected, treated and disposed in cubic meters per year.	Annual	PIU progress reports, service providers	The information will be compiled by the PIU with inputs from the service providers.	PIU
Social institutions with functional safely managed drinking water supply and/or sanitation facilities	This indicator measures the number of social institutions in the target areas that have functional water supply or sanitation facilities and are provided with safely managed water supply and/or sanitation services. Social institutions include schools, kindergartens, health centers, and hospitals.	Semi-annual	PIU progress reports	Data will be compiled by PIU based on the progress of advancement of civil works and annual reviews of the functionality of the facilities.	PIU
Water meters installed	This indicator measures the cumulative number of consumer	Semi-annual	PIU, service providers	This information will be compiled by PIU with	PIU

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
	water meters installed in the project areas.			inputs from service providers.	
WSS service providers benefitting from improved institutional capacity for improved service delivery	This indicator measures the number of service providers in target project areas that have improved capacity under the project and meet at least 3 out of the following criteria: (i) have a signed contract with the asset owner (local self-government); (ii) have a signed contract with laboratories in charge of water quality monitoring; (iii) have an approved tariff determined in line with the tariff setting methodologies; (iv) have reported (at least once a year) to the customers and asset owner on achievement of key performance indicators (KPIs) in a transparent manner through public meetings, citizen engagement platforms or other channels; and/or (v) have developed performance improvement plans (reduced Non-Revenue Water, use of meter readings for billing) in consultation with the customers and are implementing measures included in the plan.	Annual	Service providers and PIU	The information will be compiled by the PIU with inputs from service providers.	PIU
Irrigation and drainage schemes rehabilitated with climate-resilient design standards	This indicator measures the number of irrigation and drainage schemes rehabilitated with climate-resilient	Semi-annual	PIU progress reports	PIU progress reports on completed detailed designs and works	PIU

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
	design standards taking into account communities' feedback.				
Digital Water Information System and Monitoring Strengthened	This indicator measures whether the project has strengthened institutional capacities for water information management and monitoring. The following criteria are used to measure progress: (i) Digital Water Information System contains at least oblast-level data on water use and abstraction licenses, water quality, dams (ii) Digital Water Information System has improved visualization and dissemination functionalities (iii) water and soil quality monitoring laboratories in target areas are equipped and functioning according to international standard (ISO17025) (iv) a country-wide water and soil quality monitoring plan is developed.	Annual	Independent reviews and audits, PIU progress reports	Independent auditing methodologies, PIU progress reports	PIU
State of the Sector Annual Reports prepared and publicly disclosed	"State of the Sector Annual Report" means an annual analytical report to be prepared for the water sector by the end of each calendar year, providing comprehensive analysis of the sector performance reflecting data from the information systems.	Annual	PIU progress reports	State of the Sector Annual Report publicly disclosed	PIU
Operational Water User Associations strengthened	The indicator measures the number of WUAs that have strengthened their capacity for service delivery and meet the following criteria: (i) WUA has a signed contract with service provider	Annual	Satisfaction surveys of samples of farmers, key informant interviews with	Independent audits of Water User Associations	PIU

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
	and WUA members; (ii) at least 70% of the irrigation service fee amount collected as percentage of planned amount; (iii) WUA prepared annual maintenance plan and budget that is approved by WUA assembly; (iv) at least 20% of total actual expenditures of WUA account for maintenance expenditures; and (v) WUA members are trained under the project.		WUA representatives		
Management of dams improved	This indicator measures the progress in establishment of: (i) the Dam management Unit in the Water Resource Service that will be in charge of regular dam inspections, review of dam management procedures and guidelines, enforcement of and compliance with these procedures and guidelines (ii) guidelines for dam management plans and (iii) applying these guidelines to four dams in the target areas.	Annual	PIU progress reports, WRS	Data will be provided by the Water Resource Service Agency	PIU
WSS Sector-wide monitoring and benchmarking system established and operational	This indicator measures the progress in establishment and operationalization of a sector-wide monitoring and benchmarking system of water supply and sanitation to measure sector performance and sustainability and progress towards the sustainable development goals for water supply and sanitation. "Established" means the system is	Annual	PIU progress reports. Information from DDWSWD and system users	PIU will compile information on the presence of the system, availability of guiding documents for management and operation of the system, and functionality of the system based on the results of the pilot.	PIU

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
	developed and populated with baseline data. "Operational" means the system is used to monitor the sector performance, inform investment planning and decision-making in the sector.				
Development of WSS medium-term investment plan	This indicator measures the progress in development of the WSS medium-term investment plan.	Annual	DDWSWD	PIU progress reports with inputs from DDWSWD	PIU
Development of pro-poor tariff setting procedures, modelling and institutionalization	This indicator measures the progress in development and institutionalization of pro-poor tariff setting procedures and modelling.	Annual	PIU progress reports	PIU	PIU
Improved billing and collection efficiency	This indicator measures the ratio of collected amount to the billed amount.	Annual	PIU progress reports	The information will be compiled by PIU with inputs from service providers.	PIU
Operation cost ratio improved	This indicator measures the ratio of total revenue to the total operating cost.	Annual	Monitoring and reporting by service providers	The information will be compiled by PIU with inputs from service providers	PIU
Development of energy efficiency improvement plan for priority utilities	This indicator measures the progress in development of energy efficiency improvement plans for priority utilities.	Annual	PIU progress reports, service providers	The information will be compiled by PIU with inputs from service providers.	PIU
Share of decision-making positions in WUA decision-making bodies held by women	The indicator measures the percentage of decision-making positions held by women in WUA decision-making bodies	Annual	WRS, WUA support units, WUAs	The data will be compiled by the PIU with inputs from WRS WUA specialist,	PIU

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
	(administrations, councils, dispute resolution committees) in the project areas.			WUA support units and WUAs.	
Customer satisfaction with the quality of water supply services (percentage of customers)	This indicator measures overall customer satisfaction with the water system expressed in percentage. It is based on expressed opinions on factors such as satisfaction with quantity and quality of water received, taste and color, and continued use of alternative sources.	Annual	Satisfaction surveys	Satisfaction surveys will be held annual for all ongoing subprojects (at least twice for each subproject).	PIU
Share of water users satisfied with WUA managerial and operational performance	This indicator measures the water user satisfaction related to irrigation water services in target areas as measured by: (i) frequency of meetings of WUA assembly; (ii) annual budget prepared and approved by WUA assembly; (iii) irrigation service fee approved; (iv) annual water distribution plan and scheduled prepared and approved by WUA assembly; and (v) annual maintenance plan and budget prepared and approved by WUA assembly.	Annual	PIU progress reports	The information will be compiled by the PIU based on the data from Oblast and Rayon WUA Support Units.	PIU
Share of beneficiaries who report that the project has established effective engagement processes	Citizen engagement indicator that measures progress on three core elements: (i) satisfaction with access to information about the project, (ii) with opportunities/channels for feedback and dialogue, and (iii) satisfaction with responses received to feedback. Engagement mechanisms	Annual	Satisfaction surveys	Satisfaction surveys will be held annual for all ongoing subprojects (at least twice for each subproject). The value will be calculated as the average value of three elements.	PIU

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
	include community consultations, online survey complemented by local snapshots, public hearings, roundtables, accessibility of the GRM, and outreach through Public Water Management Council and village meetings.				
Of which female	This indicator monitors if female beneficiaries are satisfied with the projects engagement processes as described in the parent indicator	Annual	Satisfaction surveys	Share of women (out of all female respondents) who report satisfaction with established engagement process.	PIU
Communication and citizen engagement strategy developed and adopted	This indicator measures if a communication and engagement strategy has been developed and adopted.	Annual	WRS and DDWSWD	PIU progress reports with inputs from WRS and DDWSWD	PIU

2. Theory of Change