



Project Information Document (PID)

Concept Stage | Date Prepared/Updated: 01-Apr-2026 | Report No: PIDDC01628

**BASIC INFORMATION****A. Basic Project Data**

Project Beneficiary(ies) Tajikistan	Operation ID P515852	Operation Name Second Strengthening Water and Irrigation Management	
Region EUROPE AND CENTRAL ASIA	Estimated Appraisal Date 23-Apr-2026	Estimated Approval Date 26-Jun-2026	Practice Area (Lead) Water
Financing Instrument Investment Project Financing (IPF)	Borrower(s) Ministry of Finance	Implementing Agency Agency for Land Reclamation and Irrigation (ALRI), Ministry of Energy and Water Resources (MEWR), PMU under ALRI	

Proposed Development Objective(s)

To increase the efficiency of water and energy use and improve irrigation service delivery

PROJECT FINANCING DATA (US\$, Millions)**Maximizing Finance for Development**

Is this an MFD-Enabling Project (MFD-EP)?	Yes
Is this project Private Capital Enabling (PCE)?	Yes

SUMMARY

Total Operation Cost	200.00
Total Financing	200.00
of which IBRD/IDA	100.00
Financing Gap	0.00

DETAILS**World Bank Group Financing**

International Development Association (IDA)	100.00
---	--------



IDA Grant	100.00
Non-World Bank Group Financing	
Other Sources	100.00
Islamic Development Bank	50.00
OPEC FUND	50.00

Environmental and Social Risk Classification
Substantial

Concept Review Decision
The review did authorize the preparation to continue

*The project amount and potential donor contributions are indicative and subject to change as the project design is further developed.

Other Decision (as needed)

B. Introduction and Context

Country Context

1. **While Tajikistan has achieved remarkable economic growth over the past 25 years, it remains the poorest country in the Europe and Central Asia (ECA) region.** Its gross national income (GNI) per capita is US\$1,650 and its poverty rate was just below 20% in 2024. Structural transformation in Tajikistan has been limited, with growth driven largely by remittance-financed consumption rather than a shift toward higher-productivity sectors, and employment remaining concentrated in low-value activities due to weak private sector development and the dominance of state-owned enterprises. Remittances peaking at about 49 percent of GDP in 2024 continue to fuel household spending and widen trade deficits as many Tajiks migrate abroad (mostly to Russia) in search of better-paid jobs, reflecting insufficient domestic job creation. A more jobs-rich growth model will require comprehensive reforms to reduce market distortions, strengthen investor protection, promote competition, and improve public sector efficiency and transparency, particularly in the governance of state-owned enterprises, energy sector performance, and delivery of infrastructure services.¹
2. **Tajikistan is highly vulnerable to climate change, making adaptation a top priority for the country.** Vulnerability to climate change arises from a range of issues, including low water productivity (1 US\$/m³ against an ECA average of 45 US\$/m³), land degradation (affects over 50 percent of the country’s land area), and reliance on poorly performing irrigated agriculture for employment and food security. Climate hazards are increasing in impact and frequency. Climate related damages (e.g. floods, landslides, debris flows) to infrastructure, irrigated agriculture, and livestock could reduce real GDP by 5–6 percent by 2050. Rising temperatures and glacier melt are increasing hydrological variability, complicating reservoir

¹ Macro Poverty Outlook / October 2025



operations and intensifying trade-offs between summer irrigation demand and winter hydropower generation². Demand for irrigation is expected to increase due to higher temperatures, while availability of water is likely to decrease by 10-20 percent and shift in season.

3. **Tajikistan aims to strengthen resilience and support growth through a transition to a green economy.** Its National Development Strategy (NDS) 2015–2030 prioritizes progress toward the SDGs and climate adaptation, particularly in the forestry and agriculture sectors, and efficient management of natural resources and strong civil society engagement.³ The National Strategy for Adaptation to Climate Change to 2030 commits Tajikistan to reducing the impacts of climate shocks, focusing on: (a) lowering the vulnerability of at-risk populations, priority sectors, and cross-cutting areas; (b) prioritizing climate adaptation investments across public budgets, private financing, and development partners; and (c) improving the design, implementation, monitoring, and assessment of climate risk management and adaptation measures⁴.

4. **Tajikistan plays an important regional role in the management of shared water resources and hydropower systems due to its position at the headwaters of major transboundary rivers, and connectivity to the regional power grid.** Tajikistan shares the water resources of the Amu Darya and Syr Darya with Central Asian countries, making transboundary water management a priority. The country is similarly significant in regional energy dynamics, generating more than 95 percent of its electricity from hydropower and expanding its capacity through large infrastructure investments. The Rogun Hydropower Project (HPP) currently under construction and in part supported through the World Bank financing is expected to provide access to clean and affordable energy to 10 million people in Tajikistan and position Tajikistan as a growing regional energy supplier. In parallel, the World Bank is supporting energy sector reforms to strengthen utility governance and financial sustainability, modernize transmission and distribution networks, improve tariff policies to reach cost-recovery by 2027, and promote energy efficiency. It also supports sustainable financing and safeguards for large hydropower projects like Rogun and Nurek. Tajikistan's regional energy connectivity is further shaped by cross-border initiatives such as CASA-1000, which aims to facilitate electricity exchanges between Central and South Asia; as well as the Regional Electricity Market Development and Power System Integration in Central Asia (REMIT), approved in January 2026. REMIT aims to create a regional power market and boost cross-border trade to 15,000 GWh/year, and integrate 9 GW of renewable energy by 2035, connecting hydropower from Tajikistan and Kyrgyz Republic with thermal power in downstream countries. As connectivity and opportunity costs of electricity increase, Tajikistan's sustainable and efficient management of water and energy resources will remain essential to broader regional cooperation and energy security.

5. **Irrigation Modernization is at the center of Tajikistan's efforts to respond to these multiple economic and climate challenges.** First, irrigation is essential for sustaining and creating jobs in the agrifood sector, and reducing poverty. As the agrifood sector shifts towards export-oriented, higher-value, more job-intensive crops, this transition will only succeed with adequate irrigation and drainage infrastructure, and stronger sector capacity. Second, irrigation is highly energy-intensive. In Tajikistan, it accounts for about 20% of national electricity consumption. Irrigation requires 14-15 TWh/year across Central Asia, equivalent to the expected average annual electricity production of the Rogun Hydropower Plant once completed. Improving energy efficiency would reduce emissions, cut pumping costs, and increase energy

² World Bank. 2024. *Country Climate and Development Report: Tajikistan*. Washington, DC: World Bank.

<https://www.worldbank.org/en/country/tajikistan/publication/ccdr>

³ National Review Towards a Green Economy in Tajikistan. <https://sustainabledevelopment.un.org/content/documents/1021tajikistan.pdf>

⁴ Government of the Republic of Tajikistan. 2019. "National Strategy for Adaptation to Climate Change of the Republic of Tajikistan for the Period up to 2030." Order No. 482, Dushanbe.



export potential. Finally, water conservation and better drainage can improve environmental outcomes by restoring ecosystems and degraded lands.

Sectoral and Institutional Context

6. **Water and energy security are key to Tajikistan's economic growth. Food security, job creation and poverty reduction are core government priorities.** Tajikistan is pursuing agricultural, energy, and water reforms and these are reflected in the pillars of the National Development Strategy (NDS 2030) including: (a) increase agricultural efficiency and develop capacity for processing agricultural products targeting exports beyond Central Asia; (b) increase electricity generation and export to neighboring countries; (c) increase productive human capital, and (d) increase productive employment and inclusive labor markets. Water is critical to each of these pillars, through irrigation improvement, hydropower development, universal access to safe and secure water and sanitation services as a foundation for human capital development, as well as expanding productive job opportunities, especially, with particular emphasis on youth, women, and rural populations. The National Strategy for Adaptation to Climate Change to 2030 also commits the country to reducing the vulnerability of the population and priority sectors to climate change and extreme weather events. This builds on Tajikistan's Third National Communication under the United Nations Framework Convention on Climate Change (UNFCCC), which identified priority measures to enhance resilience to climate change and the impacts of extreme hydrometeorological events.

7. **Irrigated Agriculture employs half of Tajikistan's workforce and produces 90% of all agricultural outputs, but its economic productivity remains one of the lowest in the world.** Agriculture contributes 22 percent of national GDP⁵ and about 85 percent of cultivated land is irrigated, delivering over 90 percent of the total value of crop production.⁶ However, the condition and performance of irrigation infrastructure has declined because of severe underfinancing. Poor performing infrastructure includes many high-lift, high-volume pumping stations—more than 40 percent of irrigated areas in Tajikistan are dependent on pumping (the highest dependency in Central Asia). Pumping is inefficient at around 0.28 kWh/m³ and represents around 20 percent of national electricity use.⁷ The economic productivity of irrigation is among the lowest 5 percent globally – about 0.21 US\$/m³⁸ - due to high water losses, low value crops, and low yields. Irrigation is often unreliable, with poor delivery control causing both under and over-irrigation. Withdrawals are high because of high water application rates (1,200–8,000 m³/ha) and system losses. Aging, poorly maintained infrastructure and weak management result in low-quality services, driving low productivity, low rural incomes, food insecurity, and environmental stress. In the absence of reform, investment, and adaptation, irrigation performance will further decline, with knock-on impacts on economic growth and poverty reduction.

8. **Women represent nearly 60 % of agricultural employment in the context of substantial male labor migration.** In Tajikistan's irrigation and agriculture sectors, persistent gender gaps constrain inclusive growth and institutional effectiveness. Women play a central role in agricultural production, yet they remain under-represented in technical positions and decision-making bodies within water management institutions, limiting their influence over resource allocation and service delivery. At the same time, women farmers often face comparatively reduced access to knowledge, productive resources including irrigation services, agricultural inputs, finance, and climate-resilient technologies affecting productivity and income potential. These challenges are compounded by limited availability and systematic use of gender-

⁵ World Bank. 2024. *Country Climate and Development Report: Tajikistan*. Washington, DC: World Bank.

<https://www.worldbank.org/en/country/tajikistan/publication/ccdr>

⁶ FAO Aquastat.

⁷ Based on Government of Tajikistan data for irrigation water withdrawals and electricity consumption in 2017.

⁸ Based on latest values of GDP, agriculture share of the economy, and annual irrigation withdrawals from data.worldbank.org.



disaggregated data in sector monitoring systems, which restricts evidence-based planning and the design of targeted training and capacity-building interventions. Together, these constraints weaken the sector's ability to deliver equitable outcomes and to fully leverage women's contributions to irrigation management and agricultural development.

9. **Sectoral reforms have progressed over the last decade and are on the right path, despite the fractured institutional context of Tajikistan.** The National Water Sector Reform Program (WSRP) 2016–2025 stresses water as a valuable resource and calls for broad adoption of Integrated Water Resources Management (IWRM) in river basins. It sets out national principles for water resources management (WRM) including (a) separation of policy and operational functions, (b) aligning of WRM to hydrological boundaries, and (c) decentralization of service functions. New Laws were passed on Water User Associations (WUAs) and on Drinking Water Supply and Wastewater and the adoption of a revised National Water Code.⁹ Tajikistan's National Water Strategy to 2040 was formally adopted in 2025 prioritizing integrated basin-level WRM and improved irrigation and water-use efficiency to ensure reliable supply and address water scarcity. It promotes legal and institutional reforms, improved use of information systems, investment for rehabilitating water infrastructure, and safety standards for hydraulic structures. The strategy aims to support achievement of water-related SDGs and implementation of the NDS. However, the division of mandates between agencies, ministries and committees, which report to the Government and not to each other, is a barrier to IWRM (i.e. ALRI for irrigation and drainage, Hydromet Agency for monitoring water resources, Committee for Environmental Protection for monitoring water uses, and IWRM is under MEWR). In irrigation, a focus on performance improvement and modernization rather than expansion is required, and achievement of targets requires increased investment.

10. **With the reform progress heavily reliant on development partner support, newly developed institutional arrangements are partially effective and need strengthening.** The National Water Council (NWC) was formally constituted and established in June of 2025. A supervisory and coordinating body to the Government under the Water Code, the NWC will coordinate the actions of relevant ministries, agencies, river basin organizations and councils, water users' associations, private sector organizations, and non-governmental organizations in the field of water resources use and protection; as well as coordinate state forecasts, concepts, strategies, development programs and basin plans for water resources management and plans related to the use and protection of water resources. The first meeting of the NWC was held on December 10th of 2025. Progress was made in establishing river basin organizations (RBOs) as "structural units of authorized state body for regulation and management of water resources". These organizations are legally mandated as coordinating bodies for the activities of River Basin Councils (RBCs). RBOs, however, are yet to become fully effective in performing their mandate given issues of low capacity, insufficient financing, and lack of empowerment. There is a serious underrepresentation of women in the current institutional arrangements for both water resources planning and irrigation management. For example, there are no women in the water wing of MEWR and only 12 percent of ALRI staff are women, and these are concentrated in administrative support roles.

11. **Regional and national water accounting systems for irrigation water have not evolved since 35 years ago, but efforts are starting now.** The national branches of the Basin Water Organizations (BWO) 'Amudarya' and BWO 'Syrdarya' collect flow data manually at the main river diversion intakes and reported manually to MEWR and the regional BWOs twice daily. Flow measurements are made at major irrigation headworks and WUA boundaries in the Zarafshon and Lower Kofarnihon basins to determine water delivery volumes to WUAs as the basis of irrigation service fees to be paid by WUAs to ALRI. The ongoing development and implementation of the *Irrigation Management Information System* (IMIS) under ALRI (within the *SWIM* project), in combination with incipient digitalization and automatic transmission of irrigation flow data, is expected to transform water accounting and information management. River flow monitoring is conducted by the Hydromet agency but is not routinely provided to MEWR and RBOs. The database of withdrawal permits maintained by

⁹ Republic of Tajikistan (2019, 2020) Resolutions #1633, #1668, and #1688.



the Committee for Environmental Protection is not digitalized or linked to the Water Information System (WIS), making effective water allocation planning difficult. As a result, the operational use of integrated hydrological and irrigation data for planning, water allocation, and performance management remains limited, constraining timely and evidence-based decision-making at basin and scheme levels.

12. In Tajikistan, Water User Associations (WUAs) are a critical but weak link in irrigation service delivery. Under the 2020 WUA Law, they manage farm-level water distribution, fee collection, and the operation and maintenance of on-farm infrastructure. They operate as public organizations but without sufficient capacity, clear accountability, or effective oversight, and they often lack direct service contracts with ALRI. Financial viability is a binding constraint: a survey of 136 WUAs shows total income of about US\$ 2,8 million against US\$ 6,2 million in expenses, with capped membership fees (often only covering salaries) leading to persistent deficits and underfunded O&M. Performance remains weak due to deficiencies in billing systems, limited financial management capacity, weak enforcement mechanisms, and the absence of a unified digital customer registry. Average on-farm network efficiency is roughly 0.70, actual water intake is about 7% below plan, and delivery to farmers nearly 28% below plan. The current WUA model is not financially, nor operationally sustainable, particularly once donor-funded projects conclude. Two structural reform options are under discussion: (1) transferring internal networks to ALRI district branches, and (2) transforming WUAs into state-owned entities. Building on current SWIM efforts, the project will continue to support ALRI's organizational reforms, and in that context, targeted support for WUAs. Key needs are water metering systems between district structures and WUAs to enable volume-based billing, improving fee collection and financial management, increasing transparency and user participation, as well as basic operational resources (vehicles and essential equipment) to perform these tasks and maintain infrastructure.

13. Several key irrigation reform instruments are supported by the ongoing Strengthening Water and Irrigation Management (SWIM) Project. The National Irrigation and Drainage Strategy 2025-2040 is under development and is progressing with several key instruments: (i) a national baseline assessing the state of irrigation systems in the five river basins of Tajikistan; (ii) the Energy Audit, which identified 392 priority pumping stations in need of rehabilitation with an estimated investment value of US\$300 mln (including associated facilities); and (iii) the Tariffs & Subsidies study, covering 42 irrigation schemes selected from 280 nationwide. The findings show potential cost recovery improvement from 63% to 71% by 2030 through gradual tariff adjustment and energy efficiency, alongside a 68% rise in agricultural output per m³ of water. A draft Concept for Land Reclamation and Irrigation 2050 has been prepared setting targets for modernization, energy savings, improved and expanded irrigated land, digitalization, and management reforms. As of 2025, of the total of 763 thousand ha equipped for irrigated agriculture, the area equipped for surface pumped irrigation under ALRI's mandate is 304 thousand ha, of which only 247 thousand ha receive water to sustain crops, enabled by pumping stations built between the 1950s to 1980's which are in desperate need of rehabilitation and modernization. The instruments above provide a roadmap for this project's investments to increase water-energy efficiency and irrigation productivity in Tajikistan; and the detailed prioritized list of pumping stations to modernize (see Annex 1) present an opportunity for project readiness, early disbursements, and impact at scale.

14. This Project will support water and energy efficiency investments and underpin agrifood sector transformation and jobs. Building on ongoing efforts and recently developed instruments, the project will significantly scale-up water conservation and energy efficiency investments, through pumping station rehabilitation at the national scale and canal lining, contributing to a significant decrease in energy costs as well as emissions reductions. In addition to metering and tariff reform instruments, the establishment of a Carbon Finance Program will create revenue on the emissions reductions achieved under the project and further incentivize energy efficiency investments. This project will also be transformational in the digitalization of the water and irrigation sectors in Tajikistan, establishing the operational use of real-time irrigation flow monitoring and the newly developed information systems under ALRI and MEWR to support data-based operational planning and management. By making water services more reliable, data-driven and inclusive, this project underpins



ongoing projects (Strengthening Resilience of the Agriculture Sector Project (SRASP), P175952) and broader agrifood sector transformation efforts. In addition, the project will have regional benefits: with investments in water accounting and digitalization, water conservation, and reductions in energy consumption, this project will contribute to reducing competing demands for water and energy resources in the *Amudarya* and *Syrdarya* basins and will result in significant climate adaptation and mitigation benefits for Tajikistan and the Central Asia Region.

Relationship to CPF

15. The Program and its proposed third phase remain fully relevant to the objective of the new CPF under preparation for FY2026-FY2031 to support Tajikistan's transition towards a more sustainable and resilient growth model centered on private sector job creation, human capital development, and climate resilience. In line with the CPF's three-pillar jobs agenda, the project will invest in foundational water and irrigation infrastructure—one of the priority sectors identified alongside energy, agriculture, transport, and digital development—to enhance productivity, strengthen service delivery, and mobilize private sector investment. By reducing energy use through water conservation and energy efficiency investments in irrigation Pumping Stations, alignment with Rogun's energy sector reforms, improved energy metering and incentives for financial sustainability, the project contributes directly to CPF *Outcome # 1: Increased access to Secure, Affordable and Clean Energy*. Through investments in irrigation systems modernization, water conservation, strengthening governance and sustainability of irrigation systems, the project contributes directly to CPF *Outcome 3: private Investments for more and better jobs*. Irrigation is the enabler of agriculture and improved performance of irrigation services will provide climate resilience and employment opportunities. The project addresses climate-related vulnerabilities affecting agriculture and water resources management, enhances rural livelihoods in a sector employing a significant share of the population, and supports the transition to a green economy. Overall, the project advances the CPF's objectives of promoting private sector-driven growth, climate resilience, and inclusive economic transformation.

16. The Project directly contributes towards the recommendations of the Tajikistan Country Climate and Development Report, which prioritizes low-carbon irrigation modernization with emphasis on water conservation and energy efficiency with full cost recovery in the energy sector, as well as institutional reform in the water sector and improved use of data, as actions to build resilience to climate change and decarbonize the economy.

C. Proposed Development Objective(s)

To increase the efficiency of water and energy use and improve irrigation service delivery

Key Results (From PCN)

1. Water users provided with improved irrigation and drainage services (Number of people)
2. Water users provided with improved irrigation and drainage services – female (Number of people)
3. Area provided with improved irrigation and drainage services with climate-resilient features
4. Energy savings (kW/hr)
5. Information systems under MEWR (*National Water Information System*) and ALRI (*Irrigation Management Information System*) receive data in real-time and are used operationally for day-to-day decision making and planning.



D. Concept Description

17. **The Project aims to increase the efficiency of water and energy use and improve irrigation service delivery in Tajikistan.** The Project aims to achieve this development objective through investments in canal conveyance efficiency and rehabilitation of pumping stations in selected irrigation schemes in Tajikistan, while continuing to support sectoral reforms and institutional strengthening towards operational and financial sustainability. The Development Objective of the Project (DO) is to increase the efficiency of water and energy use and improve irrigation service delivery. These improvements are expected to support job creation and higher-quality employment in irrigated agriculture by improving the reliability of water supply, reducing production costs, increasing agriculture productivity and enhancing rural livelihoods. Project interventions will generate short-term employment through rehabilitation and modernization works, while longer-term impacts will materialize through improved irrigation service, increased agricultural productivity, and enhanced on-farm and off-farm employment along agricultural value chains. The Project contributes to the World Bank's Water Forward Implementation Plan (Scalable Solution #4) and to Tajikistan's National Irrigation Strategy (under development) by delivering scalable solutions that modernize irrigation services and lower energy costs through prioritized water conservation and energy-efficient investments, while supporting institutional reforms towards operational and financial sustainability of irrigation services. The Project is expected to improve irrigation services for 330,000 people, with 140,000 ha of irrigated land.

Component 1: Institutional Reforms & Strengthened Service Delivery

18. This component will support institutional, operational and financial sustainability activities towards improved service delivery and the effective operation and maintenance (O&M) of irrigation systems and water resources management. The component builds on ongoing efforts and will scale up reforms under the Tajikistan Strengthening Water and Irrigation Management Project (SWIM) as well as continue building capacity of the Ministry of Energy and Water Resources (MEWR) and the Agency for Land Reclamation and Irrigation (ALRI). This component will support activities to ensure that institutions and service providers (ALRI District Offices, WUAs, RBOs) have the operational and information systems, skills, and incentives needed to manage water resources efficiently and deliver improved irrigation services in a sustainable, efficient and inclusive manner.

19. **Subcomponent 1.1: Strengthening water resources planning and management:** Key activities will include consultancy services and goods for: (a) strengthening water resources monitoring and information management, including: (i) development of a conceptual framework for the digitalization of the water sector, aimed at improving the efficiency, transparency, and sustainability of water resources management, and including an integral plan for the modernization and management of existing hydroposts; (ii) modernization of selected hydroposts; (iii) strengthening and further developing the National Water Information System (b) development of reservoir operation rules for selected reservoirs and cascades; (c) the implementation of key actions identified in the Vaksh River Basin Plan; (d) technical equipment for the River Basin Organizations; (e) support for higher education, research and youth engagement in the water sector; (f) training and capacity-building programs for water sector specialists; (g) Strengthening and developing of the RBO and RBCs of selected river basins.

20. **Subcomponent 1.2: Strengthening irrigation planning and management:** Key activities will include consultancy services and goods for (a) developing regulatory mechanisms, including pricing and subsidy policies and revision of irrigation norms, to promote efficient water and energy use aligned with Tajikistan's Green Growth Strategy; (b) preparing instruments and investments to promote cost recovery of irrigation services and their financial sustainability; (c) mechanisms to establish a Carbon Finance Program to generate credits revenue from the emissions reductions achieved



under the project; (d) building capacity among irrigation service providers and Water User Associations to improve O&M performance, as well as support for district office rehabilitation, equipment and solar solutions; (e) implementing youth engagement initiatives, including faculty support, internships, and programs to attract and retain young professionals taking into account gender balance in the irrigation sector; and (f) strengthening monitoring and information systems to support irrigation management and enhance transparency across the sector, including support for: (i) purchase and installation of equipment for water flow monitoring, digitalization, automatization and transmission, (ii) the strengthening and further development of the Irrigation Management Information System (IMIS), (iii) equipment for the preparation and establishment of “monitoring and control rooms”, and (iv) training for the relevant Units of ALRI; (g) targeted support for Water Users Associations to increase their operational capacity and collection of fees; (h) scale-up of efforts with the agriculture sector, such as the demonstration plots in coordination with the Strengthening Resilience of the Agriculture Sector Project (SRASP); and (i) preparation and provision of transaction advisory support services to explore the structuring of appropriate PPP frameworks and identify potential private sector partners, such as for O&M contracts for Pumping Stations.

21. **This component introduces key innovations and transformational efforts in Tajikistan.** This is in addition to continuing support for ongoing reforms, key sectoral instruments, and capacity development in ALRI and WUAs:

- **Carbon Finance Program:** its establishment would create revenue on the emissions reductions achieved under the project and further incentivize energy efficiency investments. Water conservation investments will reduce the amount of water to be pumped, and the energy efficiency investments in pumping stations will further reduce energy use for the pumped water. The program will benefit from these two adaptation investments to capitalize on climate mitigation benefits in the carbon market (leveraging PCE/PCM), and support adaptation investments.
- **Digital Transformation of the Water Sector:** building on current efforts, this project aims to be transformational in the digitalization of the water and irrigation sectors in Tajikistan, establishing the operational use of real-time irrigation flow monitoring and the newly developed information systems under ALRI and MEWR to support real-time data-based operational planning and management.
- **Scaled-Up Synergies with Agriculture Sector:** Building on current efforts under the SWIM (Water) and SRASP (Agriculture), the project will scale up ongoing cross-sectoral coordination towards taking water efficiency measures all the way to the field level and further support agricultural productivity in Tajikistan.
- **Support to WUAs:** the program will follow a phased approach to accommodate ongoing organizational reforms, increase the operational performance of WUAs and increase the collection of fees. This work will combine targeted and systematic support to WUAs with the establishment of a baseline, key indicators, and a basic monitoring framework.
- **Private Sector Engagement with IFC:** the upstream preparation and support for transaction advisory services to structure PPP engagements in the irrigation sector, as well as other private sector engagements will be a first in Tajikistan. O&M contracts of pumping stations could support ALRI towards increasing bill collection and cost recovery.

Component 2: Infrastructure investment for Irrigation and Drainage services

22. This component will finance civil works, goods, equipment, and services to improve water and energy efficiency in selected irrigation systems, as well as the reliability of irrigation and drainage service provision. It will modernize pumping stations, key gated diversion facilities, conveyance systems and associated facilities towards water conservations, energy efficiency and climate resilience. Component 2 has two complementary dimensions addressing both pumped and gravity-fed schemes.



23. **Subcomponent 2.1: Rehabilitation and Modernization of Pumped Irrigation Schemes in Selected Regions:** This subcomponent will finance investments to reduce energy intensity and enhance the reliability of pumped irrigation systems across selected schemes. It will support (i) rehabilitation and modernization of pumping stations and associated irrigation infrastructure, including construction supervision and measures to improve water-use efficiency and incorporate energy-efficient designs, including metering and solar solutions where suitable; and (ii) rehabilitation and conversion of identified schemes from pumped to gravity-fed irrigation (fully or partially) aimed at minimizing reliance on pumping. The subcomponent will also fund the preparation of feasibility studies and detailed engineering designs for prioritized schemes. These rehabilitation and modernization works are expected to reduce the average energy intensity of water delivered to fields, increase the area with adequate water delivery, and increase the value of irrigation production.

24. Pumping Station scheme modernization investments under this subcomponent will be of national scope and are based on the recent 2026 National Energy Audit prioritization of 392 pumping stations in need of rehabilitation. Infrastructure investments will be accompanied by performance monitoring arrangements, including integration of key operational indicators (water delivery, energy use, and O&M performance) into the Irrigation Management Information System (IMIS) supported under Component 1, as is also the case for gravity schemes below.

25. **Subcomponent 2.2: Rehabilitation of Gravity Irrigation schemes in selected regions:** This subcomponent will finance the rehabilitation and modernization of gravity-fed irrigation systems to enhance service reliability, improve water-use efficiency, and strengthen climate resilience in selected regions. It will support: (i) rehabilitation and upgrading of irrigation infrastructure, with construction supervision, and targeted measures for water efficiency and conservation; (ii) rehabilitation of strategic infrastructure facilities including the Danghara diversion tunnel; the Beshkent hydrotechnical facility; and Panj River diversion works at Khalqayor (Panj district, Khatlon region,) and Dekhqonobod Mir Said Alii Hamadoni District, Khatlon Region) and other selected facilities; (iii) rehabilitation and construction of drainage canals and groundwater wells to manage groundwater levels in the Danghara Valley and other selected schemes; (iv) provision of equipment and machinery to improve operation and maintenance of irrigation infrastructure as well as enhance emergency response measures; and (v) preparation of feasibility studies and detailed engineering designs for selected schemes.

26. **Component 3: Project Management:** This component will finance activities supporting the preparation and supervision of all project investments. It will complement the other components by covering operating costs for project execution, including project management; social and environmental management; financial management (FM); procurement; contract administration; project reporting; monitoring and evaluation (M&E); and communication and learning activities.

32. **Rapid Response Option (RRO):** The project will consider embedding an RRO into its design to enhance crisis preparedness in the event of a crisis or emergency, ensuring that resources can be mobilized rapidly.

Legal Operational Policies

Policies	Triggered?
Projects on International Waterways OP 7.50	Yes
Projects in Disputed Area OP 7.60	No



Summary of Screening of Environmental and Social Risks and Impacts

27. The overall E&S risk is classified as “Substantial”, while ESS1, ESS2, ESS3, ESS4, ESS6, ESS8, and ESS10 have been screened as relevant. The environmental and social risk rating for SWIM-2 is assessed as Substantial, reflecting the institutional and policy reforms of Component 1 and the scale and nature of proposed irrigation infrastructure rehabilitation activities and their interaction with surface water and groundwater systems of Component 2. At the concept stage, key environmental risks include soil erosion and sedimentation from earthworks; pollution of watercourses from sediment runoff, fuels, oils, and construction wastes; disturbance of aquatic and riparian habitats and hydrological connectivity; increased dust and noise emissions during construction; and challenges related to construction waste management. Climate variability is expected to exacerbate these risks through more frequent and intense extreme hydrological events, including floods and droughts, which may affect construction scheduling, drainage management, and long-term ecosystem resilience. Additional Risks are primarily associated with temporary construction-related disturbances, including access restrictions to irrigation infrastructure, traffic and pedestrian safety hazards, and nuisance from dust, noise, and construction traffic, as well as occupational health and safety risks for project workers. Social risks include impacts on affordability, livelihoods, and social inclusion under Component 1, and land acquisition, physical or economic displacement, service disruptions, labor influx-related risks (including GBV/SEA/SH and community health and safety, cultural heritage, and community grievances under Component 2. While the Borrower’s institutional capacity to manage environmental and social risks has improved under SWIM-1, further strengthening is required. These E&S risks are considered manageable through the integration of E&S considerations into studies (Component 1) and through an Environmental and Social Management Framework, a Stakeholder Engagement Plan, a Resettlement Policy Framework, a Labor Management Procedures to be prepared and disclosed prior to appraisal, with site-specific ESMPs and RAPs during project implementation. All these E&S instruments will be included in the project Environmental and Social Commitment Plan (ESCP) The ESMF will require the preparation of site-specific ESMPs and OHS plans, including C-ESMPs, to control and monitor risks at the subproject level. With the application of the mitigation hierarchy, strengthened environmental and social supervision, and targeted capacity-building support for implementing agencies, the environmental and social risks and impacts associated with SWIM-2 are considered manageable. These measures will support achievement of the project’s development objectives improved water-use efficiency, enhanced climate resilience, and more reliable irrigation service delivery while ensuring that adverse impacts on communities and the environment are avoided, minimized, or mitigated in line with the World Bank Environmental and Social Framework. The SWIM 2 Project will be implemented by the Agency for Land Reclamation and Irrigation (ALRI) and the Ministry of Energy and Water Resources (MEWR), both of which have experience under SWIM 1 and are currently implementing core environmental and social instruments. While the Project Management Units have developed basic familiarity with the World Bank’s Environmental and Social Framework, including risk screening, stakeholder engagement, and grievance redress, institutional capacity remains constrained in areas such as environmental analysis, biodiversity assessment, EHS/OHS, pollution control, and environmental monitoring, due in part to limited specialized staffing and insufficient integration of environmental criteria into irrigation planning and design. To address these gaps, the PMU will require dedicated environmental, social, and OHS specialists, supported by targeted capacity building, strengthened contractor oversight, improved mitigation enforcement, and enhanced environmental information and monitoring systems, including water quality and rehabilitation phase monitoring. In regard to OP 7.50 Projects on International Waterways, the project will seek and exception as per paragraph 7(a) in accordance with its main focus of water efficiency and conservation.



CONTACT POINT

World Bank

Aleix Serrat Capdevila
Senior Water Resources Specialist

Borrower/Client/Recipient

Ministry of Finance

Implementing Agencies

Agency for Land Reclamation and Irrigation (ALRI)

Ministry of Energy and Water Resources (MEWR)

PMU under ALRI

FOR MORE INFORMATION CONTACT

The World Bank
1818 H Street, NW
Washington, D.C. 20433
Telephone: (202) 473-1000
Web: <http://www.worldbank.org/projects>

APPROVAL

Task Team Leader(s):	Aleix Serrat Capdevila
----------------------	------------------------

Approved By

Practice Manager/Manager:	Winston Yu	24-Feb-2026
Country/Division Director:	Indu John-Abraham	01-Apr-2026