ADB ASIAN DEVELOPMENT BANK

Tajikistan: Water Resources Management in Pyanj River Basin Project

Project Name	Water Resources Management in Pyanj River Basin Project
Project Number	47181-002
Country	Tajikistan
Project Status	Active
Project Type / Modality of Assistance	Grant Loan Technical Assistance
Source of Funding / Amount	**Grant 0498-TAJ: Water Resources Management in Pyanj River Basin** concessional ordinary capital resources lending / Asian Development Fund — US$ 5.85 million **Grant 9188-TAJ: Water Resources Management in Pyanj River Basin** Japan Fund for Poverty Reduction — US$ 3.00 million **Loan 3434-TAJ: Water Resources Management in Pyanj River Basin** concessional ordinary capital resources lending / Asian Development Fund — US$ 19.15 million **TA 9183-TAJ: Water Resources Management in Pyanj River Basin** Japan Fund for Poverty Reduction — US$ 2.00 million
Strategic Agendas	Environmentally sustainable growth Inclusive economic growth
Drivers of Change	Governance and capacity development Partnerships
Sector / Subsector	**Agriculture, natural resources and rural development** - Irrigation
Gender Equity and Mainstreaming	Effective gender mainstreaming
Description	The proposed Water Resources Management in the Pyanj River basin (PRB) Project will improve institutional and physical capacities of water resources management (WRM) system in PRB of southern Tajikistan, and it will: (i) establish a PRB organization, council, and Joint PRB committee, and develop a PRB management plan; (ii) modernize and climate-proof the Chubek Irrigation System (CIS); and (iii) improve farm and water use management capacities. The impact of the proposed project will be increased farm incomes in CIS area of PRB. The outcome will be increased agricultural water productivity in CIS area of PRB. The key outputs will be (i) WRM capacity improved in PRB; (ii) WRM infrastructure in PRB modernized and climate-proofed; (iii) farm management and water use capacities increased; and (iv) efficient and effective project management system. The installation of a sediment basin, the replacement of pumps and motors in the pump stations with energy efficient ones, and more profitable farm management to enable them to pay water use levies will result in more sustainable O&M of CIS. ALRI will be the executing agency to manage the overall project implementation. MEWR will be the implementing agency responsible for implementing output 1. Considering that the reform of WRM system is still ongoing, implementation arrangement will be further clarified during project preparation. A representative to be appointed by ALRI and MEWR each will serve as the project director and the deputy project director, respectively. The international competitive bidding will be the majority of procurement, and all procurement will follow ADB's Procurement Guidelines (2013, as amended from time to time). Consulting firms will be recruited to support the project implementation following ADB's Guidelines on the Use of Consultants (2013, as amended from time to time). The proposed project is categorized as _complex._ While MLRWR had reasonable administration capacity for externally financed projects including ADB's financed projects, it should be confirmed during project preparation whether ALRI inherited the capacity from MLRWR. The proposed project will be category B for impact on involuntary resettlement, C for impact on indigenous peoples, and B for impact on environment. PPTA will be implemented over a period of 11 months (July 2014-May 2015).

Project Rationale and Linkage to Country/Regional Strategy	Tajikistan is the most vulnerable in of central Asia and Caucasus countries to food insecurity due to its limited irrigated land which account for 95% of crop production and underdeveloped agriculture. 45% of the country's employment and 57% of all rural employment is still in agriculture. Almost 80% of the country's working poor live in rural areas and half of the working poor are in agriculture mainly due to low labor incomes. Between 1990 and 2004 country's annual diversions from surface and groundwater declined from 13.7 km3 to 12.3 km3 and its water delivered declined from 12 km3 to 9 km3. This resulted in a decrease of water delivery efficiency from 88% to 75%. These are attributed to the deteriorating WRM infrastructure, in particular irrigation and drainage (I&D) as 91% of country's diverted water has been used for irrigation, and the weak capacity of WRM institutions including government agencies and water users' associations (WUAs) on the operation and maintenance (O&M) of the WRM. The government has prioritized efforts to increase the effectiveness and efficiency of WRM and agriculture production. It targets the improvement of irrigated agriculture covering 320,000 ha and the creation of irrigated land of 1,500 ha to increase 7% in the value of agricultural products by 2015 to meet national food demand. To achieve these targets it calls for $262 million for a better WRM and $24 million for better agriculture investment. The government is also reforming WRM system. The Ministry of Land Reclamation and Water Resources (MLRWR) was abolished in November 2013 and its responsibilities were reassigned to the newly formed: (i) the Ministry of Energy and Water Resources (MEWR) responsible for the policy and regulations on WRM; and (ii) the Agency of Land Reclamation and Irrigation (ALRI) responsible for development and management of WRM infrastructure. Further reforms include: (i) the change in WRM areas from territorial administrative to hydrological areas; and (ii) the establishment of river basin management plans (RBMPs) to clarify and monitor water allocations, water governance institutes such as river basin organizations to develop RBMPs, river basin councils which will provide a participation mechanism of different water users and approve RBMPs, in line with principles of integrated WRM. The World Bank has commenced support for these reforms at a national level and in the Kafernigan River basin. ADB is requested by the government to help reform and modernize deteriorated WRM infrastructure in PRB, the largest river basin in the country. Given more than 40% of PRB comprises the territory of Afghanistan and serious flood disasters occurred frequently, in 2010 both governments signed a bilateral agreement for joint hydrological monitoring of Pyanj River, with the help of developing partners including ADB. A road map to establish a joint PRB commission was developed in 2013 with ADB assistance. The governments are seeking technical and financial assistance to implement the road map. PRB's WRM will affect economy and food security in PRB as it includes the majority of Khatlon province which has the largest population (2.7 million) and agriculture production (e.g., 774,000 tons cereal production) in the country, and is country's poorest river basin (55% in poor population). For better PRB's WRM, the following in particular need to be paid attention: (i) PRB's water demand is 12% higher than diversion; and (ii) PRB is vulnerable to the climate change, and the following impacts to WRM are predicted, (a) gradual shift in the river flow seasonal distribution, and (b) increase of water deliveries requirements in irrigation systems. Among irrigation systems covering about 120,000 ha in PRB, CIS is the largest system (45,000 ha) taking water from the Pyanj River. CIS's water supply capacity has declined up to around 80m3/s in 2013 compared to 150m3/s in 1950 due to a deterioration of I&D infrastructure, high sediment loads, and weak O&M capacity. While ADB financed $3.7 million for partial rehabilitation, it is not enough for its full functioning. Major crops are wheat, cotton, and vegetables which account for 31%, 51%, and 18% of the cultivated area, respectively. Crop yields are low (e.g., wheat yield of 2.36 t/ha is significantly lower than the one in Uzbekistan of 4.50 t/ha) and water productivity in PRB is also low (e.g., estimated productivity for wheat of 0.6 kg/m3 could be between 0.8-1.0 kg/m3 with appropriate irrigation and sufficient other inputs). The proposed project will reflect the following lessons learnt from previous ADB financed irrigation project: (i) focus should be on full rather than partial rehabilitation for effective system performance; (ii) projects dispersed over a broad geographic area are hard to implement and have high administrative burdens; (iii) improving on-farm agricultural productivity is important for project sustainability and an appropriate implementing partner should be chosen for the improvement; and (iv) sufficient funds should be raised through water use levies or government contributions to ensure the sustainability of WUAs and coverage of O&M costs. A standard stand-alone project is proposed as the majority of the project scope (i.e. target river basin and WRM infrastructure), has been identified. It is included in the Country Operations Business Plan, 2014-2016
Impact	Irrigated land in good condition and food security increased by 2020 The efficiency of water-resources use increased by 2020

Project Outcome

Description of Outcome	Increased agricultural production in CIS areaof PRB
Progress Toward Outcome	
Implementation Progress	
Description of Project Outputs	Water resources in PRB better managed Modernized and climate-proofed CIS WRM infrastructure fully operational Farm management capacity and water use skill improved

Status of Implementation Progress (Outputs, Activities, and Issues)	Recruitment of consultants for the different outputs are ongoing. Consultants are expected to be deployed soon as the project becomes effective.
Geographical Location	Khatlon

Safeguard Categories

Environment	B
Involuntary Resettlement	C
Indigenous Peoples	C

Summary of Environmental and Social Aspects

Environmental Aspects	The Project will finance the following outputs: (i) water resources management (WRM) institutional capacity improved in Pyanj River basin (PRB); (ii) WRM infrastructure in PRB modernized with climate-proofed; (iii) farm and water use management capacity increased; and (iv) efficient and effective project management system. The project area is not adjacent to or within any environmental sensitive area. The physical activity is limited to rehabilitation of existing irrigation facilities, and building a new sedimentation pond. Site-specific environmental impacts are expected during construction and operation. An initial environmental assessment will re-confirm whether environment category B will be maintained.
Involuntary Resettlement	The key outputs of the proposed project will be (i) WRM institutional capacity improved in PRB; (ii) WRM infrastructure in PRB modernized with climate-proofed; (iii) farm and water use management capacity increased; and (iv) efficient and effective project management system. During further project processing, the activities shall be thoroughly assessed for any such impacts, and appropriate LARP will be prepared and implemented, if necessary.
Indigenous Peoples	The key outputs of the proposed project will be (i) WRM institutional capacity improved in PRB; (ii) WRM infrastructure in PRB modernized and climate-proofed; (iii) farm and water use management capacity increased; and (iv) efficient and effective project management system. The project will have no impact on any indigenous peoples or ethnic groups during project construction and implementation.
Stakeholder Communication, Participation, and Consultation	
During Project Design	The main beneficiary groups are those within the CIS areas. As the proposed works are rehabilitation and improvement of existing infrastructure and improved farmer/household capacity, no negatively affected people are identified.
During Project Implementation	TBD

Responsible Staff

Responsible ADB Officer	Takaku, Ryutaro
Responsible ADB Department	Central and West Asia Department
Responsible ADB Division	Environment, Natural Resources & Agriculture Division, CWRD
Executing Agencies	*Agency of Land Reclamation and Irrigation* *5/1 Shamci Street* *Dushanbe* *Tajikistan* *Ministry of Energy and Water Resources* *Shamsi Street 5/1* *Dushanbe, Tajikistan*

Timetable

Concept Clearance	12 May 2014
Fact Finding	30 Nov 2015 to 12 Dec 2015
MRM	09 May 2016
Approval	28 Sep 2016
Last Review Mission	-
Last PDS Update	22 Mar 2017

Grant 0498-TAJ

Milestones					
Approval	Signing Date	Effectivity Date	Closing		
			Original	Revised	Actual
28 Sep 2016	15 Nov 2016	-	30 Jun 2022	-	-

Financing Plan		Grant Utilization			
	Total (Amount in US$ million)	Date	ADB	Others	Net Percentage
Project Cost	9.58	Cumulative Contract Awards			
ADB	5.85	28 Sep 2016	0.00	0.00	0%
Counterpart	3.73	Cumulative Disbursements			
Cofinancing	0.00	28 Sep 2016	0.00	0.00	0%

Grant 9188-TAJ

Milestones					
Approval	Signing Date	Effectivity Date	Closing		
			Original	Revised	Actual
28 Sep 2016	15 Nov 2016	-	30 Jun 2022	-	-

Financing Plan		Grant Utilization			
	Total (Amount in US$ million)	Date	ADB	Others	Net Percentage
Project Cost	3.00	Cumulative Contract Awards			
ADB	0.00	28 Sep 2016	0.00	0.00	0%
Counterpart	0.00	Cumulative Disbursements			
Cofinancing	3.00	28 Sep 2016	0.00	0.00	0%

Loan 3434-TAJ

Milestones					
Approval	Signing Date	Effectivity Date	Closing		
			Original	Revised	Actual
28 Sep 2016	15 Nov 2016	-	30 Jun 2022	-	-

Financing Plan		Loan Utilization			
	Total (Amount in US$ million)	Date	ADB	Others	Net Percentage
Project Cost	19.15	Cumulative Contract Awards			
ADB	19.15	28 Sep 2016	0.00	0.00	0%
Counterpart	0.00	Cumulative Disbursements			
Cofinancing	0.00	28 Sep 2016	0.00	0.00	0%

TA 9183-TAJ

Milestones					
Approval	Signing Date	Effectivity Date	Closing		
			Original	Revised	Actual
28 Sep 2016	21 Oct 2016	21 Oct 2016	31 Dec 2021	-	-

Financing Plan/TA Utilization	Cumulative Disbursements

ADB	Cofinancing	Counterpart				Total	Date	Amount
		Gov	Beneficiaries	Project Sponsor	Others			
0.00	2,000,000.00	0.00	0.00	0.00	0.00	2,000,000.00	28 Sep 2016	58,086.00

Project Page	https://www.adb.org/projects/47181-002/main
Request for Information	http://www.adb.org/forms/request-information-form?subject=47181-002
Date Generated	06 July 2017