



Project Readiness Financing Report

Project Number: 51359-001
December 2019

Islamic Republic of Pakistan: Punjab Water Resources Management Projects

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Asian Development Bank

CURRENCY EQUIVALENTS

(as of 21 October 2019)

Currency unit – Pakistan rupee/s (PRs/PRs)

PRs1.00 = \$0.0063
\$1.00 = PRs156.375

ABBREVIATIONS

ADB – Asian Development Bank
IBIS – Indus Basin Irrigation System
PAM – project administration manual
PID – Punjab Irrigation Department
PRF – project readiness financing

NOTE

In this report, "\$" refers to United States dollars.

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PROJECT AT A GLANCE

1. Basic Data		Project Number: 51359-001	
Project Name	Punjab Water Resources Management Projects	Department/Division	CWRD/CWER
Country	Pakistan	Executing Agency	Irrigation Department of the Government of Punjab
Modality	Project Readiness Financing (Loan)		
Borrower	Islamic Republic of Pakistan		
Country Economic Indicators	https://www.adb.org/Documents/LinkedDocs/?id=51359-001-CEI		
Portfolio at a Glance	https://www.adb.org/Documents/LinkedDocs/?id=51359-001-PortAtaGlance		
2. Sector	Subsector(s)	ADB Financing (\$ million)	
✓ Agriculture, natural resources and rural development	Agricultural production		2.00
	Irrigation		6.32
	Total		8.32
3. Operational Priorities		Climate Change Information	
✓ Addressing remaining poverty and reducing inequalities		Climate Change impact on the Project	Low
✓ Accelerating progress in gender equality			
✓ Tackling climate change, building climate and disaster resilience, and enhancing environmental sustainability			
✓ Promoting rural development and food security			
✓ Strengthening governance and institutional capacity			
Sustainable Development Goals		Poverty Targeting	
SDG 1.4		Geographic Targeting	✓
SDG 2.3, 2.4			
SDG 10.1			
SDG 12.3			
4. Risk Categorization:	Low		
5. Safeguard Categorization	Not Applicable.		
6. Financing			
Modality and Sources		Amount (\$ million)	
ADB		8.32	
Sovereign Project (Concessional Loan): Ordinary capital resources		8.32	
Cofinancing		0.00	
None		0.00	
Counterpart		0.30	
Government		0.30	
Total		8.62	
Currency of ADB Financing: US Dollar			

I. PROJECT READINESS FINANCING

A. Rationale

1. Agricultural production in Punjab has benefited from the Indus Basin Irrigation System (IBIS), which provides irrigation water to 15 million hectares of land, of which about 60% lie in Punjab. The IBIS is the lifeline for Punjab. However, deteriorated, century-old structures and inefficient water management within irrigation schemes and/or on farms led to unreliable delivery of surface irrigation water. Some cultivable lands in Punjab remain outside of the IBIS and rely on unpredictable, scarce rainfall or the use of groundwater, which may lower the water table. Although the Government of Punjab has placed high priority on improving irrigation infrastructure and its efficiency,¹ additional efforts are required to increase agricultural productivity and water-use efficiency, and achieve the targeted economic growth and food security in the province.

2. The provincial government identified five priority projects to develop, rehabilitate, or upgrade irrigation infrastructure that will enhance water availability and increase agricultural productivity in the province. National consulting firms prepared feasibility studies for these priority projects, but the project designs are falling short for the following reasons:

- (i) **Lack of an integrated approach.** Some projects were designed largely with a focus on civil works, paying less attention to the development of agriculture-related activities such as on-farm water management. A more integrated approach would include the promotion of more profitable and sustainable crops and cropping patterns, high-efficiency irrigation systems, use of advanced machinery, and innovative practices of postharvest management, all of which promote greater agricultural productivity and profitability. Such aspects of agriculture development and management need to be considered and adopted.
- (ii) **Lack of an analysis of alternative strategies for optimal use of water.** Alternative solutions were considered for civil works but not for area development strategies, particularly with respect to range management, forestation, and livestock development in arid areas that do not lend themselves to conventional crop production.
- (iii) **Lack of a comprehensive analysis of Punjab's share of water.** Potential irrigation schemes are not discussed comprehensively and with due consideration of key factors such as Punjab's share of non-perennial and additional flood flows, variations, entitlements, and planning and distribution aspects that could inform water availability scenarios in the design of the investment projects.
- (iv) **Lack of project-specific climate change considerations and adaptation measures.** Some feasibility studies discuss national and regional climate change impacts in general terms, but do not consider impacts that would be specific to the project area, or their ramifications for the project design and project benefits. They also do not propose any climate adaptation measures.
- (v) **Incomplete due diligence and economic evaluation.** Some safeguard due diligence studies were carried out as part of the feasibility studies, but they are not systematic and contain information gaps. These assessments do not meet the Safeguard Policy Statement (2009) requirements of the Asian Development Bank (ADB). Similarly, some important benefits and/or costs were not included in the economic evaluations.

¹ Actions were taken through projects and technical assistance funded by the Asian Development Bank (ADB), the World Bank, and Japan International Cooperation Agency. ADB's \$700 million multitranché financing facility for the Punjab Irrigated Agriculture Investment Program is designed to help improve irrigation infrastructure, develop about 3 million hectares of on-farm command areas, and carry out institutional reforms.

3. The provincial government, through the Government of Pakistan, requested ADB to provide support to improve the implementation readiness of five priority projects through a project readiness financing (PRF) facility. The PRF will support project preparation and start-up activities, including assistance in recruiting project implementation support consultants or staff through a systematic and streamlined operational approach. It will help rectify the shortcomings discussed above (para. 2) and enable the provision of synthesized technical inputs into the proposed priority projects to increase the quality, and the time- and cost-efficiency, of their implementation. Furthermore, the PRF will support the executing agency's capacity for achieving high levels of project readiness. ADB's value addition also lies in ensuring a comprehensive project design that incorporates integrated irrigation infrastructure and on-farm command area development, and other agriculture support such as high-value production inputs. Such an approach was not adopted in some of the past irrigation projects of the Punjab Irrigation Department (PID), including a few financed by ADB. ADB's intervention through the proposed PRF will address this gap.

4. The PRF is aligned with (i) ADB's Strategy 2030 and its operational priority of promoting rural development and food security, which includes increasing agricultural productivity and improving the management of natural resources; (ii) ADB's country partnership strategy, 2015–2019 for Pakistan, which prioritizes the improvement of irrigated agriculture;² and (iii) other pertinent policies and strategies of the governments of Pakistan and Punjab, and ADB.³ The PRF is included in the country operations business plan, 2020–2022.⁴ It is confirmed that this assistance will be used to prepare ensuing investments that are expected to be financed by ADB. Three of the provincial government's five priority projects are included in the country operations business plan as ensuing projects.

B. Outputs and Activities

5. **Output 1: Detailed design, and procurement and safeguard documents in line with ADB requirements and procedures completed.** PID as the executing agency, supported by the PRF consultants, will (i) review the existing feasibility studies of the proposed five priority projects; (ii) verify the technical and economic feasibility of the priority projects and update them in accordance with ADB guidelines and requirements; (iii) prepare or update the detailed designs, and identify and assess all alternative technical options that are applicable; (iv) conduct all due diligence, including safeguard and risk assessments, in line with ADB requirements, and prepare the project and safeguard documents that the Government of Punjab and ADB need to approve the projects; (v) prepare procurement documents such as draft bidding documents for the first batch of packages, and support the executing agency in carrying out the bidding process, specifically advance tendering before ADB Board approval; and (vi) support project preparation and start-up activities such as the recruitment of project implementation support consultants or staff. The social development and gender specialist will ensure that the design of ensuing projects will promote gender equality.

6. The key issues described in para. 2 will be addressed through the activities under output 1. The priority projects proposed for the PRF may be replaced with other priority projects, or any

² ADB. 2015. *Country Partnership Strategy: Pakistan, 2015–2019*. Manila.

³ ADB. 2018. *Strategy 2030*. Manila; ADB. 2011. *Water Operational Plan 2011–2020*. Manila; ADB. 2006. *Agriculture and Natural Resources Sector Evaluation for Pakistan*. Manila; Government of Pakistan. 2014. *Pakistan 2025. One Nation, One Vision*. Islamabad; Government of Pakistan. 2018. *National Water Policy 2018*. Islamabad; and Government of Punjab. 2015. *Punjab Growth 2018*. Lahore.

⁴ ADB. 2019. *Country Operations Business Plan: Pakistan, 2020–2022*. Manila.

new priority projects may be added to the PRF list of ensuing projects—provided that these projects meet the project selection criteria.⁵ The output activities described in para. 5 will apply to any replacement and/or added priority projects. If necessary, output 1 will also cover the feasibility studies for those projects. The PRF will also help identify entry points for private sector participation in the ensuing projects, especially engaging farming services providers for farm mechanization and productivity improvement.

7. Output 2: Capacity of executing agency and implementing agency for project implementation readiness improved. Output 2 will be delivered through the provision of PRF consultants who will support the day-to-day activities of PID and other departments involved in implementing the PRF-supported projects; this includes consultant recruitment, contract management, financial management, and technical discussions for developing the project design. In addition to improving project readiness, output 2 will support better coordination and collaboration between PID and the Punjab Agriculture Department to ensure comprehensive project designs and high implementation readiness.

C. Ensuing Projects

8. The ensuing projects to be supported by the PRF are listed in Table 1. Of the five priority projects, two (projects 4 and 5) are for the construction of new irrigation infrastructure and the development of agricultural command areas; two (projects 1 and 2) are for the rehabilitation and upgrade of existing irrigation infrastructure; and one (project 3) is for the upgrade of water conveyance canals in the IBIS. In project 5, flood management also comes into play as part of the development and management of water resources.

Table 1: List of Ensuing Projects

No.	Proposed Project Name	Indicative Cost (\$ million)	Expected Year of Approval
1	Rehabilitation and Upgrade of Upper Jhelum Canal System	174	2022 or 2023
2	Dera Ghazi Khan Canal Irrigated Agriculture Improvement	68	2021
3	Remodeling of Rasul–Qadirabad, Qadirabad–Balloki, and Balloki–Sulemanki Canals	50	2023 or 2024
4	Greater Thal Canal Project, Phase 2 (Dhingana Branch System, Noorpur Branch System, and Mehmood Sub-Branch System)	600	2022 or 2023
5	Harnessing of Hill Torrents in Dera Ghazi Khan and Rajanpur	316	2023 or 2024

Note: The project readiness financing (PRF) team will help review the government's priority projects and develop a project pipeline for Asian Development Bank financing. The PRF team will carry out the detailed design of the priority projects by phase. Priority projects 1, 2, and 4 are included in the country operations business plan, 2020–2022 for Pakistan. Inclusion of priority projects 3 and 5 under the PRF will be confirmed after the pipeline assessment. The feasibility study of priority project 3 was prepared under the Punjab Irrigated Agriculture Investment Program Project 1. Source: Government of Punjab, Planning Commission Proforma No. II.

D. Cost Estimates and Financing Arrangements

9. The PRF is estimated to cost \$8.62 million (Table 2). Detailed cost estimates by expenditure category and by financier are included in the project administration manual (PAM).⁶ The government has requested a concessional loan of \$8.32 million from ADB's ordinary capital resources to help finance the PRF. The loan will have a 25-year term, including a grace period of 5 years; an interest rate of 2% per year during the grace period and thereafter; and such other

⁵ Project Selection Criteria (accessible from the list of linked documents in the Appendix).

⁶ Project Administration Manual (accessible from the list of linked documents in the Appendix).

terms and conditions set forth in the draft loan agreement.

Table 2: Summary Cost Estimates
(\$ million)

Item	Amount ^a
A. Base Cost^b	
1. Output 1: Detailed design, and procurement and safeguard documents in line with ADB requirements and procedures completed	6.25
2. Output 2: Capacity of executing agency and implementing agency for project implementation readiness improved	0.43
Subtotal (A)	6.68
B. Contingencies^c	1.47
C. Interest During Implementation^d	0.47
Total (A+B+C)	8.62

^a Includes taxes and duties of \$0.3 million. Such amount does not represent an excessive share of the project cost. The government will finance taxes and duties through cash contribution.

^b In mid-2019 prices

^c Physical contingencies computed at 3.0% for services. Price contingencies computed at average of 6.5% on local currency costs; includes provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

^d Includes interest charges at the rate of 2% per year during implementation.

Source: Asian Development Bank estimates.

10. The summary financing plan is in Table 3. ADB will finance the expenditures in relation to consulting services, surveys, recurrent costs (project management), and financial charges during implementation. The provincial government will finance taxes and duties.

Table 3: Summary Financing Plan

Source	Amount (\$ million)	Share of Total (%)
Asian Development Bank		
Ordinary capital resources (concessional loan)	8.32	96.5
Government	0.30	3.5
Total	8.62	100.0

Source: Asian Development Bank estimates.

E. Implementation Arrangements

11. The implementation arrangements are summarized in Table 4 and described in detail in the PRF PAM. Procurement will follow ADB's Procurement Policy (2017, as amended from time to time) and its associated guidance notes, user's guides, and staff instructions.

Table 4: Implementation Arrangements for Project Readiness Financing

Aspects	Arrangements
PRF implementation period	December 2019–December 2023
Estimated PRF completion date	31 December 2023
Management	
(i) Oversight body	PRF working group: Secretary, Punjab Irrigation Department (chair); Punjab departments of planning and development, irrigation, agriculture, livestock, and forest and wildlife (members)
(ii) Executing agency	Punjab Irrigation Department
(iii) Key implementing agencies	Punjab Irrigation Department and Punjab Agriculture Department

Aspects	Arrangements		
Consulting services	QCBS (90:10)	988 person-months	\$6.25 million
Advance contracting	Advance contracting for recruitment of consulting services		
Disbursement	PRF disbursements will follow ADB's <i>Loan Disbursement Handbook</i> (2017, as amended from time to time) and detailed arrangements agreed between the government and ADB.		

ADB = Asian Development Bank, PRF = project readiness financing, QCBS = quality- and cost-based selection.

Source: Asian Development Bank.

II. DUE DILIGENCE

12. **Technical.** The technical feasibility of the priority projects will be assessed and updated through detailed examination of their compatibility with local conditions, including current and projected climate variables, availability of water sources, proximity to the residents, and available land for project facilities. Alternative design options will be identified and assessed, if required. The need for capacity building to ensure adequate skills for project implementation and operation and maintenance will be factored in when selecting design options. The technical design will meet the applicable guidelines and regulations of Pakistan.

13. **Governance.** ADB has a sound record of performance in Pakistan and in the agriculture sector. The executing and implementing agencies have proven capacity for administering and implementing externally funded projects, including those financed by ADB. Their ability to administer project implementation, including financial management, and supervise and evaluate consultants' deliveries was assessed in a recently conducted due diligence on their financial management and procurement capacity.⁷ The due diligence concluded that, despite a few negligible shortcomings, the financial capability of PID and its project management office was generally satisfactory and found to be adequate. The final pre-mitigation financial management risk rating was specifically assessed as substantial, and recommendations were presented in a financial management action plan.

14. **Safeguards.** Since the proposed activities consist of consulting services only, they were not categorized in accordance with ADB's Safeguard Policy Statement (2009). The safeguard classification for the ensuing loan for the Greater Thal Canal Irrigation Project is expected to be category A for both environment and involuntary resettlement. The safeguard classifications for the other ensuing loans are not known yet. No adverse impact from the ensuing projects are expected for indigenous peoples (category C). For the ensuing loans, the PRF will finance the preparation of the necessary safeguard documents.

III. THE PRESIDENT'S DECISION

15. The President, acting under the authority delegated by the Board, has approved the loan of \$8,320,000 to the Islamic Republic of Pakistan for Punjab Water Resources Management Projects, from the ordinary capital resources of the Asian Development Bank (ADB), in concessional terms, with an interest charge at the rate of 2% per year during the grace period and thereafter; for a term of 25 years, including a grace period of 5 years; and such other terms and conditions as are substantially in accordance with those set forth in the draft loan agreement; and hereby reports this action to the Board.

⁷ Both are included in ADB. Forthcoming. Major Change in Project: Trimmu and Panjnad Barrages Improvement Project. Revised PAM (accessible from the list of linked documents in Appendix 2). Manila.

LIST OF LINKED DOCUMENTS

<http://www.adb.org/Documents/LinkedDocs/?id=51359-001-PRF>

1. Loan Agreement
2. Project Administration Manual
3. Project Selection Criteria