

PROJECT PREPARATORY TECHNICAL ASSISTANCE

A. Justification

1. Project preparatory technical assistance (PPTA) is required to complete due diligence for the ensuing project.

B. Major Outputs and Activities

2. The PPTA is to design an investment project for increased farm incomes in the Chubek Irrigation System (CIS) area in the Pyanj River basin (PRB). The TA will include the key activities and outputs as summarized in Table 4.1:

Table 4.1: Summary of Major Outputs and Activities

Major Activities	Completion	Major Outputs
Assess agricultural and irrigation performance of CIS and diagnose constraints	September 2014	Productivity of water maps, performance constraints identified including irrigation efficiency, system water balances assessed, alleviation measures formulated
Review of climate change risk (CCR) and vulnerability and adaptation (CRVA) assessments ¹	September 2014	Recommendations to incorporate CCR and CRVA assessments into project design
Assessment of capacity of key stakeholders including ALRI, MEWR, WUAs, irrigation O&M managers	September 2014	Participation plan for key stakeholders, including women
Topographic and geotechnical surveys	December 2014	Canal and drain long and cross sections, structure site surveys, geotechnical results and mapping
Prepare feasibility study of proposed improvement of CIS	February 2015	Off- and on-farm CIS improvements and investment packages
Institutional arrangement of WRMs of PRB and CIS	February 2015	Plans for sustainable O&M of off- and on-farm CIS, programs to establish and implement PRB organization, and Joint PRB committee
Agricultural extension arrangements	December 2014	Report on approach, methods and organization of provision of agricultural support services
Due diligence and project safeguard arrangements	February 2015	Assess EA financial/procurement management capacity, develop risk mitigation measures, assess economic and financial viability, assess poverty, social, and food security impacts, develop gender development strategy, assess environmental and social aspects and resettlement plan
Formulate investment packages	February 2015	Implementation arrangements, Investment and financing plans and all required documents

ALRI = Agency on Land Reclamation and Irrigation, CIS = Chubek irrigation system, EA = executing agency, MEWR = Ministry of Energy and Water Resources, O&M = operation and maintenance, PRB = Pyanj River basin, WRM = water resources management, WUA = water users' association.

Source: Asian Development Bank.

C. Cost Estimate and Proposed Financing Arrangement

3. PPTA is estimated to cost \$1,120,000, of which (i) \$800,000 will be financed on a grant basis by ADB's Technical Assistance Special Fund (TASF-V); and (ii) \$200,000 will be financed

¹ ADB. 2013. *Report and Recommendation of the President to the Board of Directors on a Proposed Grant to Tajikistan for Building Climate Resilience in the Pyanj River Basin (Supplementary Document.20)*. Manila.

on a grant basis by the Multi-Donor Trust Fund² under the Water Financing Partnership Facility and administered by ADB. The Agency of Land Reclamation and Irrigation will provide complimentary counterpart support and in-kind contributions equivalent to \$120,000 in the form of: (i) counterpart staff; (ii) office space with furniture and equipment in Dushanbe and Kulob for the consultants; (iii) access to telephone, air-conditioning, heating, electricity, and water; (iv) logistical support during the field visits, access to project sites and other facilities; (v) provision of available data and feasibility studies; and (vi) facilitation of workshops. The detailed cost estimate is in Table 4.2.

Table 4.2: Cost Estimates and Financing Plan (\$'000)

Item	Total Cost
A. Asian Development Bank^a	
1. Consultants	
a. Remuneration and per diem	
i. International consultants (17.5 person-months)	450.0
ii. National consultants (45 person-months)	156.0
b. International and local travel ^b	60.5
c. Reports and communications	25.0
2. Workshops, training, seminars, and conferences ^c	10.5
3. Surveys and studies ^d	43.0
4. Miscellaneous administration and support costs ^e	5.0
5. Contingencies	50.0
Subtotal (A)	800.0
B. Multi-Donor Trust Fund^f under the Water Financing Partnership Facility	
1. Consultants ^g	
a. Remuneration and per diem	157.0
i. International consultants (5 person-months)	136.0
ii. National consultants (6 person-months)	21.0
b. International and local travel	6.0
2. Surveys and studies ^h	37.0
Subtotal (B)	200.0
Total (A + B)	1,000.0

^a Financed by the Asian Development Bank's Technical Assistance Special Fund (TASF-V). ALRI will provide counterpart support and in-kind contribution equivalent to 11% of the TA cost.

^b Includes international and local travel and hired vehicles for travel within Tajikistan.

^c Workshops, training, seminars, and conferences

Purpose	Each participants	Venue	Each duration (days)	Each cost (\$)
Inception, Midterm, Final Workshops	60	Hotel	1	3,500

^d Include: (i) topographic, geotechnical and condition surveys for preparation of feasibility studies and tender designs; (ii) socio-economic surveys and environment studies; and (iii) food security assessment.

^e Covers the costs of office manager, secretarial and related support facilities.

^f Financing partners: the governments of Australia, Austria, Norway, Spain, and Switzerland. Administered by the Asian Development Bank.

^g International and national river basin management and water resources management institution specialists.

^h Include satellite imagery, its image interpretation, processing, and analysis and reporting.

Source: Asian Development Bank estimates.

² Financing partners: the governments of Australia, Austria, Norway, Spain, and Switzerland.

D. Consulting Services

4. PPTA will require one consultancy contract and provide 22.5 international person-months and 51 national person-months through a firm using the QCBS procedure at 80:20 ratio and simplified technical proposals following ADB's *Guidelines on the Use of Consultants and its Borrowers* (2013, as amended from time to time) (Table 4.3).

Table 4.3: Summary of Consulting Services Requirement

International		National	
Position (Specialization)	Months	Position (Specialization)	Months
RBM&WRM Institution Specialist/TL	5.0	WRM Institutional Specialist	6.0
Hydrology / Sedimentation Specialist	1.0	Hydraulic Structures Engineer	3.0
Pump Engineer	3.0	Pump (Mechanical) Specialist	4.0
		Pump (Electrical) Specialist	1.5
		Pump (Pump House) Specialist	1.5
I&D Engineer	4.0	I&D Engineer (Deputy TL)	7.0
		On-farm Irrigation Engineering and Water Use Specialist	3.0
		O&M Specialist	4.0
Agricultural Development Specialist	2.0	Agricultural Development Specialist	3.0
Procurement Specialist	1.0	Procurement Specialist	3.0
Economist	2.0	Economist	3.0
Financial Management Specialist	1.5	Financial Management Specialist	3.0
Environment Specialist	1.5	Environment Specialist	3.0
Resettlement and Indigenous Peoples Specialist	1.5	Resettlement and Indigenous Peoples Specialist	3.0
		Social, Poverty and Gender Specialist	3.0
Total	22.5	Total	51.0

I&D = irrigation and drainage, O&M = operation and maintenance, RBM = river basin management, TL = team leader, WRM = water resources management.

Source: Asian Development Bank.

5. PPTA will be implemented over a period of 11 months (July 2014-May 2015). The outline terms of references for the key TA consultants are described in paragraphs 6 to 13.

6. **RBM and WRM Institution Specialist (international/team leader, 5 person-months; national, 6 person-months).** Lead PPTA Team, manage relationships with the Agency of Land Reclamation and Irrigation (ALRI), the Ministry of Energy and Water Resources (MEWR), ADB and other stakeholders and coordinate all PPTA inputs and outputs with direct responsibility for: (i) institutional assessment and stakeholder participation plan; (ii) the development of programs for PRB organization and its management plan and joint PRB committee; (iii) integrated project formulation; (iv) organizational capacity development; and (v) project packaging and reporting.

7. **I&D Engineers (international, 4 person-months; national/deputy team leader; 7 person-months).** He/she will be responsible for (i) topographic and other surveys; and (ii) technical feasibility studies, formulating the system infrastructure improvement component and detailed design by incorporating CCR and CRVA assessments.

8. **Pump Engineers (international, 3 person-months; national [3 positions], 7 person-months).** He/she will be responsible for pump station assessment, design, specification and

costing in (i) formulation of project elements, and (ii) feasibility studies of irrigation system improvements by incorporating CCR and CRVA assessments.

9. **On-farm Irrigation Engineering and Water Use Specialist (national, 3 person-months).** He/she will be responsible for: (i) system performance assessment and diagnosis of constraints with taking into consideration of potential CCR and CRVA assessments, and (ii) formulation of the WUA training package and arrangements for NGOs to support WUAs.

10. **Agricultural Development Specialists (international, 2 person-months; national, 3 person-months).** He/she will be responsible for: agricultural development/extension and farmer irrigation method/scheduling component by incorporating CCR and CRVA assessments, organizational arrangements, and NGO support arrangements.

11. **Economists (international, 2 person-months; national, 3 person-months).** He/she will be responsible for economic and financial viability of the project by conducting sensitivity analysis, project cost estimation and financing plan, identification of project benefits, assessment of financial sustainability, analysis of relevant investment scenarios, analysis of farmers' financial ability.

12. **Financial Management Specialists (international, 1.5 person-months; national, 3 person-months).** He/she will be responsible for: (i) assessments of financial management and financially sustainable capacities of EA, IA and other stakeholders and potential risks; and (ii) financial management and sustainability arrangements with mitigation measures.

13. **Social, Poverty and Gender Specialist (national, 3 person-months).** He/she will be responsible for: (i) a Poverty and Social Assessment including assessment of compliance with national labor laws and international core labor standards (CLS) and recommendations to ensure that CLS are observed in areas affected by the project; (ii) a draft Summary Poverty Reduction and Social Strategy; (iii) Gender Action and any social actions, mitigations, and/or participation/communication plans.

E. Implementation Arrangements

14. ALRI will be the executing agency and MEWR will be the implementing agency for the TA. The deputy head of ALRI will serve as the Project Director and provide overall guidance to TA implementation. ALRI and MEWR will also appoint a TA coordinator each to facilitate communication between ADB, the TA consultants, ALRI and MEWR. All disbursements under the TA will be made in accordance with ADB's *Technical Assistance Disbursement Handbook* (2010, as amended from time to time).

15. The proposed TA processing and implementation schedule is listed in Table 4.4.

Table 4.4: Technical Assistance Processing and Implementation Schedule

Major Milestones	Expected Completion Date
Contract Negotiations	June 2014
Commencement of TA	July 2014
Submission of Draft Final Report	February 2015
Approval of Final Report (physical completion)	April 2015
TA Completion (financial closure)	May 2015

Source: Asian Development Bank.