

# **Project Administration Manual**

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**Islamic Republic of Afghanistan: Panj-Amu River  
Basin Sector Project**



## TABLE OF CONTENTS

ACRONYMS	I
I. PROJECT DESCRIPTION	1
A. Rationale	1
B. Impact and Outcome	4
C. Outputs	4
D. Benefits and Beneficiaries	5
II. IMPLEMENTATION PLANS	6
A. Project Readiness Activities	6
B. Overall Project Implementation Plan	7
III. MANAGEMENT ARRANGEMENTS	9
A. Project Implementation Organizations: Roles and Responsibilities	9
B. Key Persons Involved in Implementation	10
C. Project Organization Structure	11
D. Subproject Selection Process	19
IV. COSTS AND FINANCING	21
A. Detailed Cost Estimates by Expenditure Category	21
B. Allocation and Withdrawal of Grant Proceeds	22
C. Detailed Cost Estimates by Financier	23
D. Detailed Cost Estimates by Output	24
E. Detailed Cost Estimates by Year	25
F. Contract and Disbursement S-Curves	26
G. Fund Flow Diagram	28
V. FINANCIAL MANAGEMENT	29
A. Financial Management Assessment	29
B. Disbursement	30
C. Accounting	30
D. Auditing and Public Disclosure	30
VI. PROCUREMENT AND CONSULTING SERVICES	31
A. Advance Contracting and Retroacting Financing	31
B. Procurement of Goods, Works and Consulting Services	32
C. Procurement Plan	32
D. National Competitive Bidding	38
E. Consultant's Term of Reference	40
VII. SAFEGUARDS	40
A. Environment Safeguards	40
B. Social Safeguards	41
VIII. GENDER AND SOCIAL DIMENSIONS	42
IX. PERFORMANCE MONITORING, EVALUATION, REPORTING, AND COMMUNICATION	42
A. Project Design and Monitoring Framework	43
B. Monitoring	45
C. Evaluation	46
D. Reporting	46
E. Stakeholder Communication Strategy	47

X. ANTICORRUPTION POLICY	48
XI. ACCOUNTABILITY MECHANISM	48
XII. RECORD OF PAM CHANGES	49
ANNEXES	
ANNEX 1: LIST OF CANDIDATE SUBPROJECTS	50
ANNEX 2: IMPLEMENTATION SUPPORT CONSULTANCY (ISC) SERVICES	53
ANNEX 3: INCREMENTAL STAFF REQUIREMENTS	64

### **Program Administration Manual Purpose and Process**

The program administration manual (PAM) describes the essential administrative and management requirements to implement the Project on time, within budget, and in accordance with the government and Asian Development Bank (ADB) policies and procedures. The PAM should include references to all available templates and instructions either through linkages to relevant URLs or directly incorporated in the PAM.

The Ministry of Finance (MOF) as the executing agency and the Ministry of Energy and Water (MEW) and Ministry of Agriculture, Irrigation and Livestock (MAIL) as the implementing agencies are wholly responsible for the implementation of the Project, as agreed jointly between the recipient and ADB, and in accordance with the government and ADB's policies and procedures. ADB staff is responsible to support implementation including compliance by MOF, MEW and MAIL of their obligations and responsibilities for project implementation in accordance with ADB's policies and procedures.

At grant negotiations the recipient and ADB shall agree to the PAM and ensure consistency with the grant agreements. Such agreement shall be reflected in the minutes of the Grant Negotiations. In the event of any discrepancy or contradiction between the PAM and the grant agreements, the provisions of the grant agreements shall prevail.

After ADB Board approval of the project's report and recommendations of the President (RRP), changes in implementation arrangements are subject to agreement and approval pursuant to relevant government and ADB administrative procedures (including the Project Administration Instructions) and upon such approval they will be subsequently incorporated in the PAM.

## ACRONYMS

ADB	–	Asian Development Bank
ADF	–	Asian Development Fund
ANDS	–	Afghanistan National Development Strategy
ARTF	–	Afghanistan Reconstruction Trust Fund
AWARD	–	Afghanistan Water Resources Development Project
CIA	–	Central Intelligence Agency
COBP	–	country operations business plan
CMA	–	catchment management association
CPS	–	country partnership strategy
CWRD	–	Central and West Asia Department
DAIL	–	Department for Agriculture, Irrigation and Livestock
DMF	–	design and monitoring framework
DRRD	–	Department of Rural Rehabilitation and Development
EA	–	executing agency
EARF	–	environmental assessment and review framework
EMP	–	environmental management plan
EU	–	European Union
FAC	–	final acceptance certificate
FAO	–	Food and Agriculture Organization of the United Nations
FMA	–	financial management assessment
GDP	–	gross domestic product
GRM	–	grievance redress mechanism
IA	–	irrigation association
ICB	–	international competitive bidding
IEE	–	initial environmental examination
ISC	–	implementation support consultancy
ISF	–	irrigation service fee
IWRM	–	integrated water resource management
JICA	–	Japan International Cooperation Agency
KB	–	knowledge base
LARP	–	land acquisition and resettlement plan
MAIL	–	Ministry of Agriculture, Irrigation and Livestock
M&E	–	monitoring and evaluation
MEW	–	Ministry of Energy and Water
MHP	–	micro hydropower
MOF	–	Ministry of Finance
NCB	–	national competitive bidding
NEPA	–	National Environmental Protection Agency
NGO	–	non-government organization
NIP	–	National Irrigation Program
NRM	–	natural resources management
NWNRDP	–	National Water and Natural Resources Development Program
OFWM	–	on-farm water management
O&M	–	operation and maintenance
PAM	–	project administration manual
PES	–	payment for ecosystem services
PFM	–	public financial management
PIO	–	project implementation office
PMO	–	project management office

PPMS	-	project performance monitoring system
PPP	-	public-private partnership
PPTA	-	project preparatory technical assistance
QCBS	-	quality and cost based selection
RBA	-	river basin agency
RBC	-	river basin council
RFP	-	request for proposal
RRP	-	Report and Recommendation of the President to the Board of Directors
RSP	-	representative subproject
R&U	-	rehabilitation and upgrading
SBA	-	sub-basin agency
SBC	-	sub-basin council
SCLW	-	Supreme Council on Land and Water
SOP	-	standard operating procedure
SPS	-	Safeguards Policy Statement
SPRSS	-	summary poverty reduction and social strategy
SWE	-	snow water equivalent
TOR	-	terms of reference
UNEP	-	United Nations Environment Program
US	-	United States
USGS	-	US Geological Service
WEAP	-	water evaluation and planning
WRDIP	-	Water Resources Development Investment Program
WUA	-	water users' association

## I. PROJECT DESCRIPTION

### A. Rationale

1. The proposed project will increase agricultural productivity in the Panj-Amu River Basin through improving access and use of water at farm, scheme and river levels.<sup>1</sup> The project will support the government strategy, which aims to increase per-capita income and reduce poverty among rural and pastoral communities. It will improve cropping intensities and crop yields on a command area of 74,500 hectares (ha) and as a result, increase annual farm incomes in the range \$123–\$615 per household (or 11%–55%) for over 55,000 households, and create approximately 11,000 full-time rural jobs per annum, with an estimated labor income of \$10.4 million. The project will also improve food security, substitute imports for wheat, and improve self-sufficiency, and increase in exports of high-value products such as fruit and nuts. The project will also create more economic opportunities for agribusiness development, particularly for input suppliers and processors of and market intermediaries for agricultural products.<sup>2</sup> The project is included in ADB's Country Operations Business Plan for Afghanistan, 2016–2018.

2. **Sector Issues.** Afghanistan is one of the least developed countries in the world. The poverty headcount rate is 39% and the percentage of food insecure population is 33%.<sup>3</sup> Average gross domestic product (GDP) per capita during 2011–2015 is \$634, causing Afghanistan to rank 168th out of 183 countries reviewed by the World Bank.<sup>4</sup> Agriculture is Afghanistan's major sources of livelihood, employs 79% of the national work force, and is a significant source of national income. Agriculture contributes significantly to Afghanistan's GDP, although this has been decreasing from 38% in 2002 to 22% in 2014.<sup>5</sup> The country's major staple crop is wheat, representing 60% of Afghan's daily dietary intake. With total production output of 5.37 million tons in 2015, Afghanistan relies heavily on import to meet its population's dietary energy requirements with an import dependency of 16% of total food demand. This level of dependency is growing 11% per annum.<sup>6</sup> Food insecurity is prevalent throughout the country, but most critical in the north where food insecurity index is as high as 73% in the provinces of Badakhshan and Bamyan.<sup>7</sup>

3. Afghanistan is a dry country with precipitation falling as snow falls in the winter, while crops require water in the summer. Limited access to irrigation water is a key binding constraint to agricultural productivity, besides low quality inputs and traditional agricultural practices. While the vast majority of Afghans depends on agriculture for a living, only 12% (or 64.4 million ha) of the country's terrain is arable. Rain-fed area is currently of 3.7 million ha<sup>8</sup> and irrigated area 3.8 million ha, each representing about 5%–6% of total arable land. Of the total irrigated area of 3.8 million ha, around 2.2 million ha are single or double cropped, with balance of 1.6 million ha being irrigated if and when water is available, at intervals of 2–6 years.

4. Sporadic irrigation has been the primary cause for crop yields below the world average, for example average wheat yield of 2.03 tons/ha in 2013 (world average of 3.27 tons/ha) and

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<sup>1</sup> European Union (EU) provided project preparatory technical assistance for the proposed project.

<sup>2</sup> The sector modality is proposed since (i) a sector development plan is in place to meet the priority development needs of the sector, (ii) the institutional capacity is adequate to implement the sector development plan, and (iii) the policies applicable to the sector are appropriate.

<sup>3</sup> CSO. 2016. *Afghanistan Living Conditions Survey, National Risk and Vulnerability Assessment 2013–2014*. Kabul.

<sup>4</sup> The World Bank. 2016. *World Development Indicators*. Washington. (web database).

<sup>5</sup> FAOSTAT. 2015.

<sup>6</sup> Ibid.

<sup>7</sup> Central Intelligence Agency. 2014. *World Factbook, 2014–15* (52<sup>nd</sup> edition). Washington.

<sup>8</sup> Rain-fed crop production is largely limited to winter and spring cereal crops, predominantly wheat.

average rice yield 2.5 tons/ha in 2013 (world average of 4.5 tons/ha).<sup>9</sup> Irrigated yields are observed to be significantly greater than rain-fed yields, for example, the irrigated wheat yield is 2.5 times that of rain-fed. With irrigated areas producing 69% of total wheat outputs, irrigation water is a critical high value factor for yield improvement. While water is available, improving access to irrigation water on existing irrigation systems faces two critical constraints, including (i) inequitable distribution of water both between and within schemes, and (ii) dilapidated and inefficient state of irrigation infrastructure.

5. **Climate Change Impacts.** Afghanistan is considered highly vulnerable to the adverse effects of climate change.<sup>10</sup> Current models indicate significant warming across all regions of Afghanistan, and a decrease in precipitation particularly spring rainfall.<sup>11</sup> The anticipated rise in average temperatures means that the average timing of the spring snow melt may occur earlier into the year, reducing water availability in the summer growing season. This may be counteracted to some extent by the decrease in spring rainfall, which is another important catalyst in the initiation of spring snow melt. The anticipated rise in average temperatures means that there will be more energy available, which may result in a higher frequency of extreme storm events and resultant flooding. Higher temperatures and lower precipitation may increase the frequency, intensity and duration of droughts. Improving irrigation infrastructure proposed under the project, to protect irrigation schemes from flood events and to improve water distribution to downstream users particularly in dry years, as well as watershed management, will address key climate change adaptation needs identified in the National Adaptation Plan and Intended Nationally Determined Contribution submitted to the United Nations Framework Convention on Climate Change.<sup>12</sup>

6. **Panj-Amu Basin Overview.** The Panj-Amu Basin is located in the north-east of the country on the border with Tajikistan, covering the provinces of Badakshan, Takhar, Kunduz, Baghlan and part of Bamyan. The Basin is part of the Amu River Basin, parts of which lie in Afghanistan (30%), Tajikistan (61%), Uzbekistan (6%), Kyrgyzstan (2%) and Turkmenistan (1%). It is the second largest of Afghanistan's five basins, covering 14% of the land area of Afghanistan. It has the highest mean annual surface water flow of all basins (22 km<sup>3</sup> or 39% of the national total) and the highest precipitation (393mm/year).<sup>13</sup> With a population of 4.2 million (15% of total), per-capita water availability is the highest of all five basins, at 7,412m<sup>3</sup>/year, well above the water stress threshold. In spite of this, water is not always available at the right place at the right time (i.e. in the tail ends of canals, and in downstream schemes, in the summer, due to inadequate water distribution structures and water allocation regimes, as opposed to a lack of water resources at a basin or river level). While agriculture is by far the main water users in the basin (over 98% of water use), the Basin has the lowest irrigated land area with 0.45 million ha under irrigation, accounting for 12% of a total of 3.8 million ha of irrigated land country-wide. Of this, only 0.18 million ha is intensively irrigated while the remaining is irrigated only if and when water is available.<sup>14</sup> The Basin is the largest wheat producer, with over 1.28 million tons (1.0 million tons of which from irrigated areas) produced in 2015, and the largest rice producer, with 263,000 tons produced in 2015. The Basin also has significant potential for crop diversification, with a number of fruits, perennial crops and vegetables already grown. As such, irrigation

<sup>9</sup> FAOSTAT. 2015.

<sup>10</sup> Rated as 'Extreme' in the Verisk Maplecroft Climate Change Vulnerability Index 2015.

<sup>11</sup> Stockholm Environment Institute. 2008. *Socio-Economic Impacts of Climate Change in Afghanistan*. Oxford.

<sup>12</sup> Islamic Republic of Afghanistan. 2015. *Intended National Determined Contribution*. Kabul. (submitted to United Nations Framework Convention on Climate Change dated 21 September 2015).

<sup>13</sup> Source: National Water Master Plan weighted by river basin area.

<sup>14</sup> Food and Agriculture Organization of the United Nations. 2016. *The Islamic Republic of Afghanistan: Land Cover Atlas 2015*. Rome.



development is a key factor for the Basin to maintain its leading position in production of staple food and diversification into higher value crops.

7. **Opportunities.** Improving water availability for irrigated agriculture, particularly to downstream and tail-end areas through improved water distribution, will have a significant impact on agricultural productivity, increasing yields of wheat and rice in particular, which will result in improved food security, reduced poverty and import substitution (saving significant forex resources, which are scarce). Improved water availability will also make crop diversification easier, allowing farmers to diversify into more higher-value crops including vegetables, fruit and nuts which have a comparative advantage, making up 52% of total exports of \$720 million. When compared to total imports of \$7.96 billion this is a narrow export base which can be improved with project interventions.

8. **Government's Sector Strategy.** The Strategic Policy Framework for the Water Sector, approved in 2006, guides the water sector operation. The policy indicates that (i) basin communities are responsible for planning and management of basin water resources, supported by Ministry of Energy and Water (MEW); (ii) water user associations (WUAs) have a key role in rehabilitating small and medium irrigation schemes; and (iii) users-pay principle will be adopted to enable cost recovery. To support this policy, in 2009 a revised Water Law was enacted, which stipulates that (i) the river basin management approach for water resources planning will be followed, led by MEW through the establishment of (sub) river basin agencies (S/RBAs) and councils (S/RBCs); (ii) service providers (including WUAs) can charge for water delivery; and (iii) ownership and operation and maintenance (O&M) of schemes will be handed over to WUAs and irrigation associations (IAs). The National Water and Natural Resources Development Program (NWNDRDP) approved in 2010 acts as the government's sector development plan. The key implementing agencies of NWNDRDP are MEW and Ministry of Agriculture, Livestock, and Irrigation (MAIL). This targets improved access to irrigation for 300,000 ha; establishing and strengthening S/RBAs, S/RBCs and WUAs; and restoring 28,000 ha of rangeland through community management. The National Irrigation Program (NIP) (2016–2025) builds on the NWNDRDP, and, with a budget of US\$1.5 billion, aims to achieve self-sufficiency in wheat through (i) improved irrigation services; (ii) enhanced extension services; and (iii) improved on-farm water management, operation and maintenance. NWNDRDP implementation results so far suggest that the 2006 Policy Framework and the 2009 revised Water Law are appropriate for sector needs, but can be improved further by clarifying roles and responsibilities of MEW and MAIL, and ensuring the long-term sustainability of infrastructure through regular operation and maintenance. The project supports this through the establishment and strengthening of water user organizations, and development of an O&M policy (para. 32 of the RRP). NWNDRDP results also confirm adequate institutional capacity of the implementing agencies—MEW and MAIL, which are also implementing agencies of the project. MEW and MAIL have implemented a number of sector projects, and have acceptable levels of capacity. The project will provide additional capacity building in procurement and financial management, environmental impact assessment and social analysis in accordance with ADB procedures.

9. The project is consistent with ADB's interim country partnership strategy (CPS), 2014–2015, which includes investment in infrastructure, including energy, transportation, and agriculture and natural resources. ADB's strategic focus supports the government's priorities as set out in this new government's "Realizing Self-Reliance" paper, and is aligned with the National Priority Programs of the Afghanistan National Development Strategy (ANDS), including the National Water and Natural Resources Development Program. The project is aligned with ADB's long-term strategic framework 2008–2020 (Strategy 2020), Water Operational Plan 2011–2020, and Operational Plan for Agriculture and Natural Resources 2015–2020.

10. The project reflects lessons learnt from previous and on-going donor-funded water sector projects in support of the Government's sector policies and strategies. Key initiatives include: ADB-financed Water Resources Development Investment Program (2009–2018); Panj-Amu River Basin Programme (2009–2016) financed by the European Union (EU), Irrigation and Watershed Management Programme (2012–2017) financed by the United States Agency for International Development; and three World Bank financed projects including Emergency Irrigation Rehabilitation Programme (2004–2011), Technical Assistance for Water Sector Capacity Building (2009–2011), Irrigation Restoration and Development Project (2011–2017), and On-Farm Water Management Project (2011–2016).<sup>15</sup> Key lessons learnt call for the need to (i) increase government ownership, (ii) avoid setting-up parallel management structures, (iii) set up realistic implementation plan, (iv) keep interventions simple yet effective; and (v) embed community-based water management for effective water distribution and long-term O&M within schemes.<sup>16</sup> The project follows the fragile and conflict-affected states approach in that it includes (i) sector financing allows flexibility in subproject selection and implementation given security concerns, (ii) streamlined project management office (PMO) structure helps long-term programmatic sector interventions, and (iii) community participation in procurement and involvement of local elders throughout subproject cycles minimize interruptions of works contracts. The project readiness is enhanced by the use of advance contracting, and ADB's financing of taxes and duties on eligible project expenditures in accordance to R167-15: Enhancing Operational Efficiency of the Asian Development Bank (dated 24 November 2015).

## B. Impacts and Outcome

11. The impact of the project is per-capita income increased and poverty among rural and pastoral communities reduced.<sup>17</sup> The project's outcome is agricultural productivity in the Panj-Amu River Basin increased.

## C. Outputs

12. **Output 1: Water allocation and availability improved.** This output will include the following activities: (i) rehabilitating and upgrading head works and main canals in 21 priority irrigation schemes covering an estimated total command area of 74,500 ha in three northern provinces, namely Badakhshan, Kunduz, and Takhar;<sup>18</sup> (ii) establishing and strengthening the capacity of approximately 112 water users' associations (WUAs)<sup>19</sup> to operate and maintain (O&M) conveyance infrastructure in these schemes; and (iii) enhancing the capacity of Ministry of Energy and Water (MEW), river basin agency (RBA) and sub-basin agencies (SBAs) for effective water allocation between schemes to benefit downstream users. In addition, support will also be provided to Afghan members of the Afghanistan-Tajikistan transboundary technical working group to prepare them for technical meetings and strengthen their ability to conduct negotiations regarding the set-up and operations of the Pyanj River Basin Commission.

<sup>15</sup> Development Coordination (accessible from the list of linked documents in Appendix 2 of the RRP).

<sup>16</sup> Lessons Learned and Synergies (accessible from the list of linked documents in Appendix 2 of the RRP).

<sup>17</sup> Islamic Republic of Afghanistan. July 2010. *Afghanistan National Development Strategy: Prioritization and Implementation Plan, Mid 2010–Mid 2013 (Volume 1)*. Kabul.

<sup>18</sup> Twenty-one schemes were selected as first priority schemes covering a command area of 74,500 ha in the Lower Kunduz, Taloquan, Kokcha and Lower Panj-Amu sub-basins. For feasibility study, each scheme is referred to as a subproject. A list of candidate subprojects is accessible from the list of linked documents in Appendix 2 of the RRP.

<sup>19</sup> Including strengthening of WUAs already set up in schemes through previous EU assistance.

13. **Output 2: Command areas enhanced.** This output will include the following activities: (i) rehabilitating secondary and tertiary canals in schemes identified for improvement under Output 1 in order to secure an integrated approach; (ii) establishing and strengthening the capacity of approximately 105 irrigation associations (IAs) to operate and manage irrigation infrastructure in these schemes; and (iii) improving on-farm water management and agronomic techniques (such as land levelling, bed and furrow irrigation, and intercropping) with approximately 6,300 farmers having improved knowledge from 21 demonstration plots.

14. **Output 3: Watersheds properly managed and protected.** This output will include the following activities: (i) preparing a community-based natural resources management technical manual and guidebook, (ii) training staff of departments of agriculture, irrigation, and livestock (DAILs) as master trainers who will conduct training of communities, (iii) identifying approximately 21 watershed and/or rangeland sites for restoration and protection, (iv) creating catchment management associations (CMAs) for these sites, and (v) preparing and implementing natural resource management plans for these sites. These activities will help restore 10,500 hectares of forestry and/or rangeland in the vicinity of 21 prioritized schemes and protect irrigation structures under Outputs 1 and 2 from flash floods and sedimentation.

15. Using an integrated approach, on each of the 21 priority schemes, MEW will undertake rehabilitation of headworks and main canals while MAIL will undertake rehabilitation of secondary and tertiary canals, on-farm work, and watershed protection in the vicinity of the schemes. The project will provide technical resources to implementing agencies to ensure proper irrigation management and transfer (IMT). Specifically, the project assists the drafting, negotiation, and conclusion of pre-construction O&M agreements and hand-over and/or IMT agreements between SBAs and WUAs (Output 1), between DAILs and IAs (Output 2), and between DAILs and CMAs (Output 3).

#### **D. Benefits and Beneficiaries**

16. **Project Benefits.** The project will benefit approximately 55,000 farming households (over 400,000 people). Project benefits are multifaceted. First, farm household income is expected to increase as a result of increased cropping intensities, higher crop yields, and crop diversification. The analysis of three representative subprojects indicates that incremental household incomes will have an average increase in the range of \$123.0 (for head reach) and \$615 (for tail reach) per annum. Second, incremental crop labor will create an equivalent of 8,994 full-time rural jobs per annum valued at \$8.7 million, and project construction works are expected to generate an equivalent of 1,700 full time rural jobs for 6 years with estimated value of \$1.6 million. Most of this labor income goes to local workers drawn from low-income and poor households who may or may not have land within the project command area. Third, other economic benefits are also expected, which include (i) increased food security, which could arise from higher production of staple grain crops, i.e., wheat and rice; (ii) foreign exchange savings, which could result from the substitution of imported agricultural products because of higher domestic production, especially in the case of wheat; (iii) reduced water conflicts within and between irrigation schemes due to increased supply of water for agriculture, households, and industries; and (iv) more economic opportunities for downstream (input suppliers) and upstream (processors of and market intermediaries for agricultural products) industries in the agricultural supply chain.

17. Improved water availability will also make crop diversification easier, allowing farmers to diversify into more water dependent crops with higher average unit gross margins, including vegetables, fruit and nuts which have a comparative advantage, making up 52% of total exports

of \$720 million. When compared to total imports of \$7.96 billion this is a narrow export base which can be improved with project interventions. For example, with project interventions an additional 4,800 tons of apricots and peaches will be produced.

18. The project is categorized as *some gender benefit* (SGE). Gender will be mainstreamed into project activities to the extent possible. It will directly benefit farmers including poor households through increases in agricultural production and farm incomes. More equitable water distribution within and between schemes will reduce conflict over water, and reduce income inequality. In the creation of WUAs and IAs, water users will be briefed on the importance of female participation. Natural resource management (NRM) plans for watersheds will be prepared with due regard for the role of women in watershed activities, particularly income-generating activities. The project will also ease women’s water-fetching and laundry chores as it will install water access points along canals for household use.

19. **Beneficiaries.** The key beneficiaries are 55,000 farming households (over 400,000 beneficiaries) in the project area who will have increased incomes as a result of increases in agricultural productivity. These are either those who own and manage their own land or landless farmers who sharecrop and wage laborers. Additional beneficiaries will include (i) women in the project areas who will benefit from domestic water access points built along canals to aid access for water fetching and laundry; (ii) households in watersheds adjacent to irrigation schemes who will benefit from alternative income-generating activities and improved agricultural production; (iii) government staff (in MEW, MAIL, RBAs, SBAs and DAILs) and contractors who will be trained by the project; and (iv) downstream water users in other non-targeted irrigation schemes, as well as other users of water (environment, domestic, industry, hydro), who will benefit from improved water availability (and in the case of reservoir/hydro operators, improved performance from reduced siltation due to watershed management and protection activities).

## II. IMPLEMENTATION PLANS

### A. Project Readiness Activities

**Table 1: Summary Project Readiness Activities**

Indicative Activities	2016							2017	Responsible Agency
	June	July	Aug	Sep	Oct	Nov	Dec	Jan	
Advance contracting actions <sup>a, b</sup>									MEW
Establish project implementation arrangements <sup>b</sup>									MEW/MAIL
ADB Board approval (Oct 2016)					●				ADB
Grants signing (Nov 2016)						●			ADB and MOF
Government legal opinion provided							●		MOJ
Government budget inclusion								●	MOF
Grant effectiveness (Jan 2017)								●	ADB

<sup>a</sup> Including recruitment of implementation support consultancy, and works contracts for three representative subprojects. <sup>b</sup> With continued support of the PPTA consultants - Landell Mills Ltd.

ADB = Asian Development Bank; MAIL = Ministry of Agriculture, Irrigation, and Livestock; MEW = Ministry of Energy and Water; MOF = Ministry of Finance; MOJ = Ministry of Justice.

Source: Asian Development Bank

Notes: The project readiness is enhanced by the use of advance contracting, and ADB’s financing of taxes and duties on eligible project expenditures in accordance to R167-15: Enhancing Operational Efficiency of the Asian Development Bank (dated 24 November 2015).

## B. Overall Project Implementation Plan

20. The Gantt chart recording outputs with key implementation activities on a quarterly basis is in Table 2. This chart will be updated annually and submitted to ADB with contract and disbursement projections for the following year.

**Table 2: Overall Project Implementation Plan**

Activities	Q4	2017				2018				2019				2020				2021				2022				2023	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Grant approval	●																										
Project effectiveness	●																										
<b>1. Output 1: Water allocation and availability improved</b>																											
1.1 Sub-component 1: Water conveyance infrastructure rehabilitated and upgraded																											
(i) Activity 1: Sub-project identification and selection		■	■																								
(ii) Activity 2: Tendering and contracting of a design firm		■	■	■																							
(iii) Activity 3: Preparation of TORs for call-down design services			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
(iv) Activity 4: Feasibility studies and detailed design of subprojects			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
FS and DD for package 2			■	■	■																						
FS and DD for package 3					■	■	■																				
FS and DD for package 4						■	■	■																			
FS and DD for package 5							■	■	■																		
FS and DD for package 6								■	■	■																	
FS and DD for package 7									■	■	■																
FS and DD for package 8										■	■	■															
(v) Activity 5: Tendering and Contracting of Construction Firms		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Tendering and contracting of package 1 (3 rep subprojects)		■	■	■																							
Tendering and contracting of package 2					■	■	■																				
Tendering and contracting of package 3						■	■	■																			
Tendering and contracting of package 4							■	■	■																		
Tendering and contracting of package 5								■	■	■																	
Tendering and contracting of package 6									■	■	■																
Tendering and contracting of package 7										■	■	■															
Tendering and contracting of package 8											■	■	■														
(vi) Activity 6: Construction and Construction Supervision		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Construction of package 1 (3 rep subprojects)		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Construction of package 2						■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Construction of package 3							■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Construction of package 4								■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Construction of package 5									■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Construction of package 6										■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Construction of package 7											■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Construction of package 8												■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
(vii) Activity 7: Hand-over and future O&M											■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
1.2 Sub-component 2: WUAs established and strengthened																											
(i) Activity 1: Continued support, capacity building and mentoring of existing WUAs		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
(ii) Activity 2: Establishment of new WUAs		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
1.3 Sub-component 3: Water resources planning and management strengthened																											
(i) Activity 1: Strengthening the water resources planning system;		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
(ii) Activity 2: Strengthened central-level inter-agency co-ordination;			●			●			●			●			●			●			●			●			●
(iii) Activity 3: Strengthening co-ordination between (S)RBA, DAIL and DRRD in river basin planning and management;		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
(iv) Activity 4: Support to Afghan members of the Afghan/Tajik transboundary technical working group to prepare for WG meetings.			●		●		●		●		●		●		●		●		●		●		●		●		●

Table 2 (continued)

Activities	2017				2018				2019				2020				2021				2022				2023		
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
<b>2. Output 2: On-farm water management enhanced</b>																											
2.1 Sub-component 1: On-farm Irrigation infrastructure rehabilitated and upgraded																											
(i) Activity 1: Sub-project identification and selection		■	■																								
(ii) Activity 2: Feasibility studies and detailed design of subprojects																											
FS and DD for package 1																											
FS and DD for package 2																											
FS and DD for package 3																											
FS and DD for package 4																											
FS and DD for package 5																											
(iii) Activity 3: Tendering and Contracting of Construction Firms (or through community-based work contracts)																											
Tendering and contracting of package 1																											
Tendering and contracting of package 2																											
Tendering and contracting of package 3																											
Tendering and contracting of package 4																											
Tendering and contracting of package 5																											
(iv) Activity 4: Construction and Construction Supervision																											
Construction of package 1																											
Construction of package 2																											
Construction of package 3																											
Construction of package 4																											
Construction of package 5																											
(v) Activity 5: Hand-over and future O&M																											
2.2 Sub-component 2: IAs established and strengthened																											
(i) Activity 1: Establishment of IAs within the existing WUAs																											
(ii) Activity 2: Establishment of new IAs																											
2.3 Sub-component 3: Efficiency of agricultural water use enhanced																											
(i) Activity 1: OFWM and agricultural extension																											
<b>3. Output 3: Watersheds are properly managed and protected</b>																											
(i) Activity 1: Preparation of a Community-based NRM Technical Manual and Guidebook																											
(ii) Activity 2: Identification of Sites (approx. 21)																											
(iii) Activity 3: Training of DAILs who can train communities																											
(iv) Activity 4: Creation and strengthening of community associations																											
(v) Activity 5: Preparation of natural resource management (NRM) plans																											
(vi) Activity 6: Implementation of NRM Plans (including one PES pilot).																											
<b>4. Project management and implementation</b>																											
(i) Establishing and operationalizing PMO and PIOs																											
(ii) Recruiting and mobilizing staff																											
(iii) ISC firm recruited and mobilized																											
(iv) Office equipment and vehicles procured																											
(v) PPMS established and functioning																											
(vi) Project reporting (quarterly, project completion)																											
(vii) Annual audits																											
(viii) ADB Project reviews																											
Inception																											
Annual Reviews																											
Mid-term Review																											
Project Completion Report																											
Grant Closing																											

DAIL = Department of Agriculture, Irrigation and Livestock; FS = feasibility study; DD = detailed design; DRRD = Department of Rural Rehabilitation and Development; IA = irrigation association; ISC = implementation support consultancy; NRM = natural resources management; O&M = operations and maintenance; PES = payment for ecosystem service; PMO = project management office; PPMS = project performance monitoring system; RBA = river basin agency; TOR = terms of reference; WG = working group; WUA = water users association.

Source: Asian Development Bank.

### III. MANAGEMENT ARRANGEMENTS

#### A. Project Implementation Organizations: Roles and Responsibilities

Project Implementation Organizations	Management Roles and Responsibilities
<b>Executing Agency</b> Ministry of Finance (MOF)	MOF will be the executing agency and will be responsible for overall coordination and financial management of the Project.
<b>Implementing Agencies</b> Ministry of Energy and Water (MEW)  Ministry of Agriculture, Irrigation and Livestock (MAIL)	There will be two implementing agencies for the Project: <ul style="list-style-type: none"> <li>• MEW will be responsible to oversee the implementation of Output 1. It will set-up a PMO in Kabul in the MEW main office. This PMO will be part of an overall ADB PMO responsible for all ADB projects and programs implemented by the Ministry. It will set up a PIO for basin-level activities in the RBA in Kunduz, embedded within the RBA office to avoid setting up a parallel structure and to strengthen government institutional capacity. The PIO will coordinate with the six SBAs, in which project personnel will also be based.</li> <li>• MAIL will be responsible to oversee the implementation of Outputs 2 and 3. It will set up a PMO in Kabul in the MAIL main office. This PMO will be stand-alone but in the future could be part of an overall ADB PMO responsible for all ADB projects and programs implemented by the Ministry, in line with the plan for MEW. It will set up PIOs for basin-level activities in the five provincial DAILs, embedded within the DAIL offices to avoid setting up a parallel structure and to strengthen government institutional capacity. The DAILs will coordinate with agricultural development officers at the district level.</li> </ul>
<b>Program Management Offices</b>	The PMO for each implementing agency will be responsible for the following: <ul style="list-style-type: none"> <li>• overall management and coordination of the relevant outputs for the respective IA, and for coordination and liaison with each other, and with other relevant Ministries and agencies</li> <li>• guiding and overseeing the work of the PIOs</li> <li>• establishment and implementation of the project performance management system (PPMS) (consolidated by MEW PMO)</li> <li>• hiring of project staff</li> <li>• confirming subproject selection, feasibility studies and submitting to ADB for “no-objection”</li> <li>• procurement of goods, works and services specific to each PMO, following ADB procedures. MEW PMO will be responsible for recruitment of a firm for audit of program accounts (for both PMOs) and for recruitment of the implementation support consultancy (ISC) firm, with MAIL on the evaluation committee)</li> <li>• establishing and managing an imprest account, submission of withdrawal applications to ADB, retention of supporting documents, and overseeing sub-accounts of the PIOs</li> <li>• preparation of annual forecast of contract awards and disbursements</li> <li>• compilation of reports from the PIOs and preparation of project progress reports (consolidated by MEW PMO)</li> <li>• submission of progress reports and annual audit report and financial statements</li> </ul>

Project Implementation Organizations	Management Roles and Responsibilities
	<ul style="list-style-type: none"> <li>preparation of a project completion report (consolidated by MEW PMO)</li> </ul>
<b>Project Implementation Offices (PIOs)</b>	<p>The PIO for each implementing agency will be responsible for the following:</p> <ul style="list-style-type: none"> <li>implementation of project activities at the basin level, under the management and leadership of the respective PMO at MEW and MAIL</li> <li>coordination and liaison with each other, and with other relevant basin-level departments and agencies</li> <li>establish and manage sub-accounts and retention of supporting documents</li> <li>procurement of small shopping contracts</li> </ul>
<b>Financers</b>	
Asian Development Bank	<p>ADB will:</p> <ul style="list-style-type: none"> <li>provide a grant from the Asian Development Fund resources</li> <li>administer EU grant</li> <li>issue “no-objection” for subproject feasibility studies for financing</li> <li>monitor project implementation arrangements, disbursement, procurement, consultant selection, and reporting</li> <li>monitor schedules of activities, including funds flow;</li> <li>review compliance with agreed procurement procedures</li> <li>review compliance with grant covenants</li> <li>monitor effectiveness of safeguard procedures</li> <li>analyze the outcome of the capacity building and training initiatives</li> <li>monitor conformity with ADB anti-corruption policies;</li> <li>undertake periodic review missions</li> <li>undertake a joint midterm review mission with the government and EU.</li> </ul>
European Union	<ul style="list-style-type: none"> <li>provide a grant to cofinance the project</li> </ul>

ADB = Asian Development Bank; DAIL = Department of Agriculture, Irrigation, and Livestock; EU = European Union; ISC = implementation support consultancy; MAIL = Ministry of Agriculture, Irrigation, and Livestock; MEW = Ministry of Energy and Water; MOF = Ministry of Finance; PIO = project implementation office; PMO = project management office; PPMS = project performance management system; RBA = river basin agency; SBA = sub-basin agency.  
Source: Asian Development Bank.

## B. Key Persons Involved in Implementation

<b>Executing Agency</b>	
Ministry of Finance	<p>H.E. Mustafa Mastoor Deputy Minister of Finance Ministry of Finance Email address: _____ Office Address: _____</p>
<b>Asian Development Bank</b>	
Environment, Natural Resources and Agriculture Division (CWER), Central and West Asia Department (CWRD)	<p>Akmal Siddiq Director, CWER Telephone No.: +63 2 632 6234 Fax No.: +63 2 636 2231 Email address: asiddiq@adb.org</p>
Mission Leader	<p>Bui Minh Giap Senior National Resources and Agriculture Economist, CWER</p>



Telephone No. +63 2 632 6900 Email address: <a href="mailto:buigm@adb.org">buigm@adb.org</a>
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### C. Project Organization Structure

21. Ministry of Finance (MOF) will be the executing agency (EA) for the project, and MEW and MAIL the implementing agencies supported by a project management office (PMO) for each. Project implementation offices (PIOs) reporting to the PMOs will be established at the basin level. The overall project organization structure is in Chart 1.

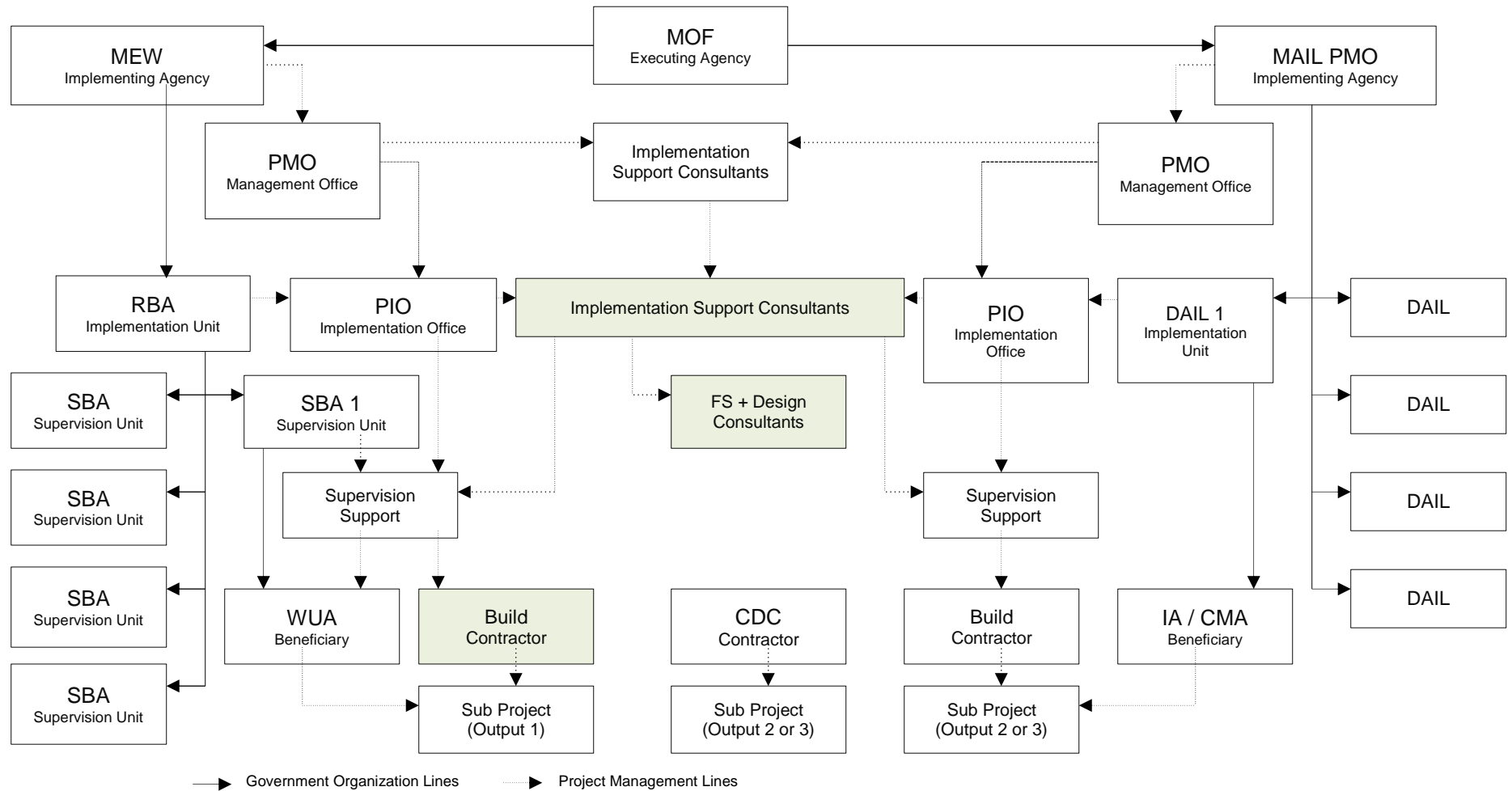
22. Project management and implementation will be embedded in existing government structures to prevent setting up parallel structures, which will help strengthen government institutional capacity. At the PMO level, the project will build on structures set-up under the ADB Water Resources Development Investment Program (WRDIP) to the extent possible. This will help avoid duplication and minimize implementation complexity. There will be no project steering committee proposed as this is not necessary and would be an ‘artificial’ structure with lack of long-term ownership—this is part of the lessons learnt from past ADB and EU projects. An ongoing coordination platform exists between the two implementing agencies, MEW and MAIL, including via the Supreme Council for Land and Water (SCLW) which includes representatives from other relevant Ministries such as the Ministry of Rural Rehabilitation and Development (MRRD), and which is chaired by the First Vice-President of the Islamic Republic of Afghanistan. Ongoing coordination between MEW and MAIL will be strengthened, so that any overlaps can be avoided, synergies realized and policy gaps identified and addressed. In case of disagreement between the two implementing agencies, the MOF in the role of the EA, will have a coordination role.

23. MEW will be responsible to oversee the implementation of Output 1. It will set-up a PMO in Kabul in the MEW main office (Chart 2). This PMO will be part of an overall ADB PMO responsible for all ADB projects and programs implemented by the Ministry. It will set up a PIO for basin-level activities in the river basin agency (RBA) in Kunduz, embedded within the RBA office to avoid setting up a parallel structure and to strengthen government institutional capacity. The PIO will coordinate with the six sub-basin agencies (SBAs), in which project personnel will also be based (Chart 3).

24. MAIL will be responsible to oversee the implementation of Outputs 2 and 3. It will set up a PMO in Kabul in the MAIL main office (Chart 4). This PMO will be standalone but in the future could be part of an overall ADB PMO responsible for all ADB projects and programs implemented by the Ministry, in line with the plan for MEW. The PMO will work closely with the Irrigation Directorate, the Extension Directorate and the NRM Directorate. It will set up PIOs for basin-level activities in the five provincial DAILs, embedded within the DAIL offices to avoid setting up a parallel structure and to strengthen government institutional capacity. The DAILs will coordinate with Agricultural Development Officers (ADOs) at the district level (Chart 5).

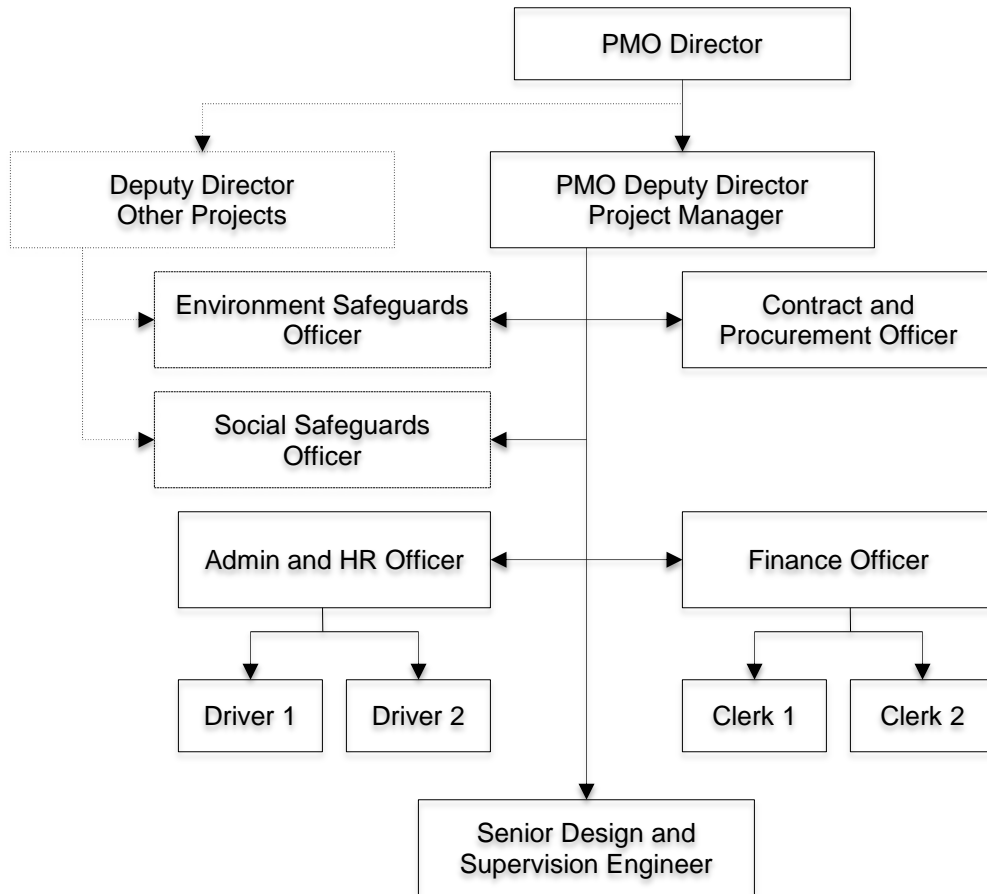
25. The project organization structure is shown in Chart 1 and associated PMOs and PIOs structures in Charts 2–5.

**Chart 1: Overall Project Organization Structure**



ADB = Asian Development Bank; CDC = community development council; CMA = community management authority; DAIL = Department of Agriculture, Irrigation, and Livestock; IA = irrigation association; ISC = implementation support consultancy; MAIL = Ministry of Agriculture, Irrigation, and Livestock; MEW = Ministry of Energy and Water; MOF = Ministry of Finance; PIO = project implementation office; PMO = project management office; RBA = river basin agency; SBA = sub-basin agency.

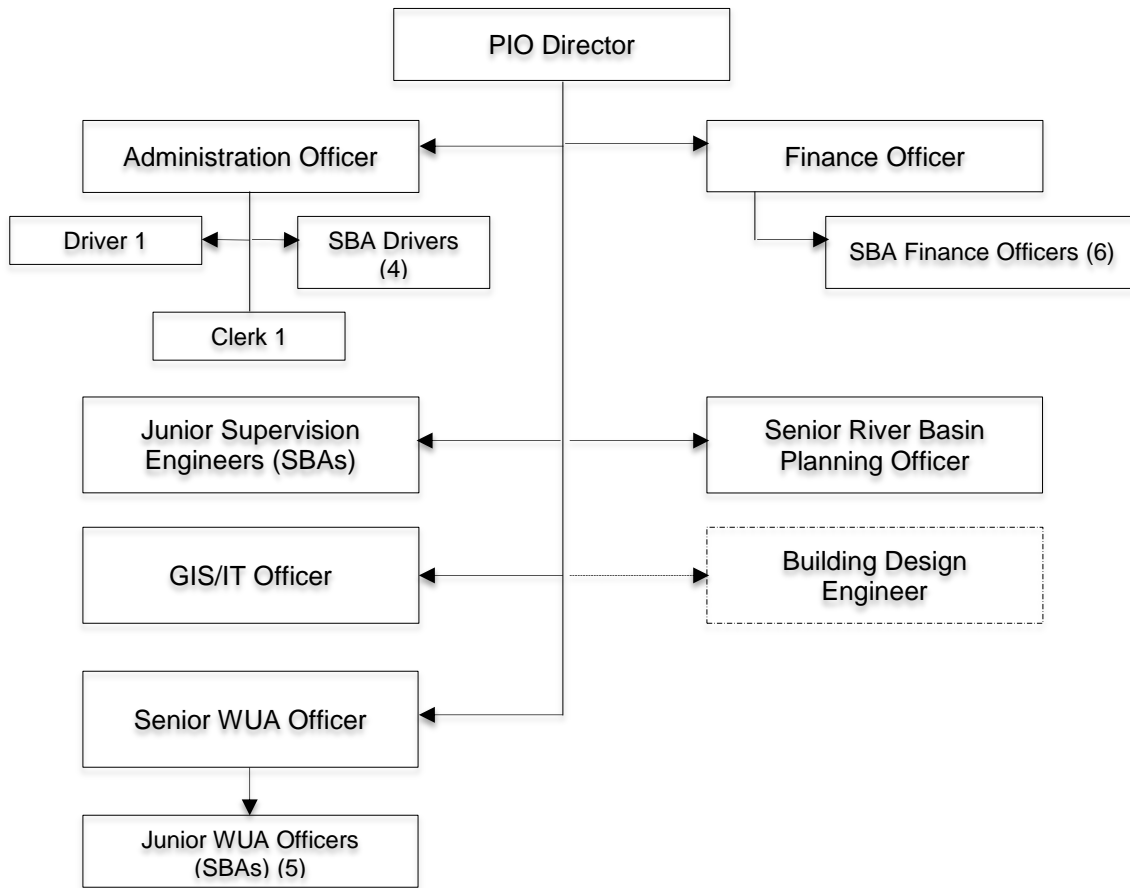
**Chart 2: Project Management Office (PMO) Structure at the Ministry of Energy and Water (MEW)**



HR = human resource; MEW = Ministry of Energy and Water; PMO = project management office.

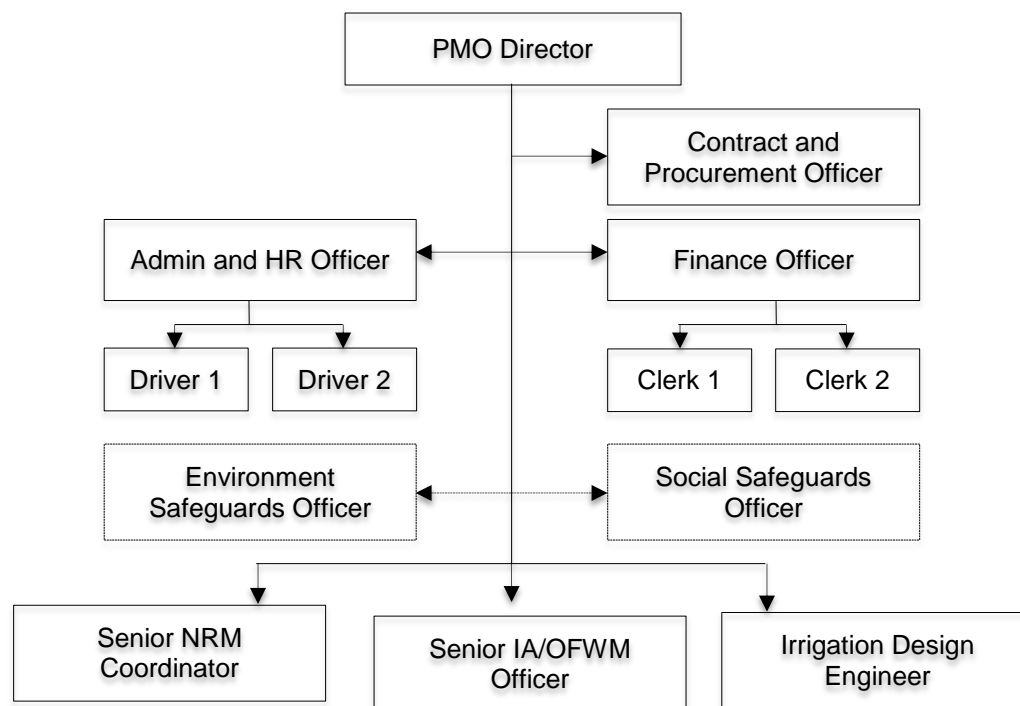
**Chart 3: Project Implementation Office (PIO) Structure at the Ministry of Energy and Water (MEW)**

(1 PIO located in River Basin Agency [RBA])



GIS = geographic information system, IT = information technology; MEW = Ministry of Energy and Water; PIO = project implementation office; PMO = project management office; RBA = river basin agency; SBA = sub-basin agency; WUA = water users association.

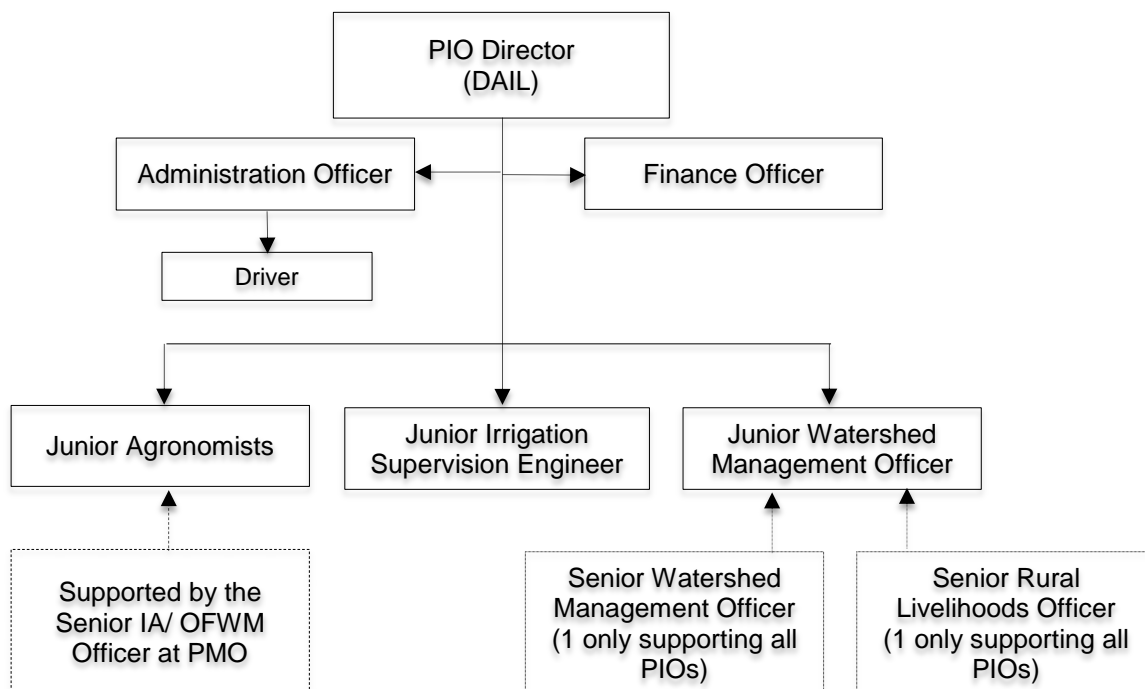
**Chart 4: Project Management Office (PMO) Structure at the Ministry of Agriculture, Irrigation, and Livestock (MAIL)**



HR = human resource; IA = irrigation association; MAIL = Ministry of Agriculture, Irrigation and Livestock; NRM = natural resources management; OFWM = on-farm water management; PMO = project management office.

**Chart 5: Project Implementation Office (PIO) Structure at the Ministry of Agriculture, Irrigation, and Livestock (MAIL)**

(5 PIOs located at 5 Departments of Agriculture, Irrigation, and Livestock [DAILs])



DAIL = Department of Agriculture, Irrigation and Livestock; IA = irrigation association; OFWM = on-farm water management; PIO = project implementation office; MAIL = Ministry of Agriculture, Irrigation and Livestock.

26. Institutional responsibilities by project outputs and key activities are in Table 3.

**Table 3: Institutional Responsibilities by Outputs and Key Activities**

<b>Outputs and Activities</b>	<b>Responsible Agency(ies)</b>
<b>1. Output 1: Water allocation and availability improved</b>	
1.1 Sub-component 1: Water conveyance infrastructure rehabilitated and upgraded	
(i) Activity 1: Subproject identification and selection	MEW PMO (in co-ordination with MAIL PMO)
(ii) Activity 2: Tendering and contracting of a design firm	MEW (PMO)
(iii) Activity 3: Preparation of TORs for call-down design services	MEW (PMO)
(iv) Activity 4: Feasibility studies and detailed design of subprojects	Feasibility study and detailed design firm contracted to MEW. Oversight by MEW (PMO)
(v) Activity 5: Tendering and contracting of construction Firms	MEW (PMO)
(vi) Activity 6: Construction and construction supervision	Private firms contracted to MEW for construction. MEW (SBAs/PIO) for supervision.
(vii) Activity 7: Hand-over and future O&M	MEW (SBAs/PIO); WUAs
1.2 Sub-component 2: WUAs established and strengthened	
(i) Activity 1: Continued support, capacity building and mentoring of existing WUAs	MEW (SBAs/PIO)
(ii) Activity 2: Establishment of New WUAs	MEW (SBAs/PIO)
1.3 Sub-component 3: Water resources planning and management strengthened	
(i) Activity 1: Strengthening the water resources planning system;	MEW (Department of Water Resources)
(ii) Activity 2: Strengthened central-level inter-agency co-ordination;	MEW (PMO)
(iii) Activity 3: Strengthening co-ordination between (S)RBA, DAIL and DRRD in river basin planning and management;	MEW (RBA/SBAs/PIO)
(iv) Activity 4: Support to Afghan members of the Afghan/Tajik transboundary technical working group to prepare for WG meetings.	MEW (PMO)
<b>2. Output 2: On-farm water management enhanced</b>	
2.1 Sub-component 1: On-farm Irrigation infrastructure rehabilitated and upgraded	
(i) Activity 1: Subproject identification and selection	MAIL PMO (in coordination with MEW PMO) (with Irrigation Directorate)
(ii) Activity 2: Feasibility studies and detailed design of subprojects	MAIL (PMO) (with Irrigation Directorate)
(iii) Activity 3: Tendering and contracting of construction firms (or through community-based work contracts)	MAIL (PMO)
(iv) Activity 4: Construction and construction supervision	Private firms contracted to MAIL for construction. MAIL (DAILs/PIOs) for supervision ((with Irrigation Directorate)  Or community-based contracts through MAIL-CDC/IA contracts. MAIL (DAILs/PIOs) for supervision (with

<b>Outputs and Activities</b>	<b>Responsible Agency(ies)</b>
	Irrigation Directorate).
(v) Activity 5: Hand-over and future O&M	MAIL (DAILs/PIOs) (with Irrigation Directorate); IAs
<b>2.2 Sub-component 2: IAs established and strengthened</b>	
(i) Activity 1: Establishment of new IAs	MAIL (DAILs/PIOs) (with Irrigation Directorate)
<b>2.3 Sub-component 3: Efficiency of agricultural water use enhanced</b>	
(i) Activity 1: OFWM and agricultural extension	MAIL (DAILs/PIOs) (with Extension Directorate)
<b>3. Output 3: Watersheds are properly managed and protected</b>	
(i) Activity 1: Preparation of a community-based natural resources management technical manual and guidebook	MAIL (PMO) (with NRM Directorate)
(ii) Activity 2: Identification of sites (approx. 21)	MAIL PMO (in co-ordination with MEW PMO) (with NRM Directorate)
(iii) Activity 3: Training of DAILs who can train communities	MAIL (PMO) (with NRM Directorate)
(iv) Activity 4: Creation and strengthening of community associations	MAIL (DAILs/PIOs)
(v) Activity 5: Preparation of natural resource management (NRM) plans	Catchment management associations with assistance from MAIL (DAILs/PIOs)
(vi) Activity 6: Implementation of NRM Plans (including one Payment for Ecosystem Services (PES) pilot).	Catchment management associations with assistance from MAIL (DAILs/PIOs). Works to be contracted by MAIL (PMO) to private firms or CDCs (community-based contracting)
<b>4. Project Management</b>	
(i) Establishment and operationalization of PMOs and PIOs	MEW and MAIL
(ii) Recruitment of project staff	MEW and MAIL PMOs
(iii) Recruitment of ISC firm	MEW PMO (with MAIL's membership on technical evaluation committee)
(iv) Procurement of office equipment and vehicles	MEW and MAIL PMOs
(v) PPMS establishment and operationalization	MEW and MAIL PMOs (MEW PMO to consolidate)
(vi) Project reporting (quarterly and project completion)	MEW and MAIL PMOs (MOF to consolidate)
(vii) Annual project financial audits	Annual audit by independent auditing firm(s)
(viii) Project reviews	ADB

CDC = commune development council; DAIL = Department of Agriculture, Irrigation and Livestock; ISC = implementation support consultancy; MAIL = Ministry of Agriculture, Irrigation and Livestock; MEW = Ministry of Energy and Water; MOF = Ministry of Finance; NRM = natural resource management; O&M = operation and maintenance; OFWM = on-farm water management; PES = payment for ecosystem services; PIO = project implementation office; PMO = project management office; PPMS = project performance monitoring system; RBA = river basin agency; SBA = sub-basin agency; TOR = terms of reference; WG = working group.



## D. Subproject Selection Process

27. **Selection Criteria.** Eligibility criteria were used to shortlist 55 eligible subprojects from an initial list of 408 subprojects. These criteria are: (i) an irrigation rehabilitation and upgrading subproject (i.e., not a river training project, dam or building); (ii) no significant potential environmental impact as outlined in the ADB's Safeguard Policy Statement (June 2009); more specifically, exclusions from the list are ADB's Category A subprojects, the Government's Category 1 and Category 2 subprojects for which National Environmental Protection Agency (NEPA) requires environmental impact assessment (EIA); (iii) not in an environmentally protected area; (iv) approved by government (i.e. government priority); (v) no major social impact, i.e., no significant resettlement or land compensation implications as outlined in the ADB's Safeguard Policy Statement (June 2009) for categories B or C for resettlement, nor any outstanding social safeguard issues.

28. Prioritization criteria were then used to select a list of 21 first priority (candidate) subprojects, 24 second priority subprojects, and 11 third priority subprojects. Prioritization criteria are: (i) command area size: small - less than 400ha (0 points), medium - 400-3,000 ha (3 points), >3,000ha (6 points); (ii) command area of sub-basin (>3,000ha, 3 points, <3,000ha 0 points); (iii) accessibility: within 2 hours of Sub-basin Agency (SBA) office (1 point); (iv) accessibility: no major winter cut-off (1 point). Subprojects classified as Category A for involuntary resettlement and environment will not be financed. In order to prioritize, irrigation schemes are grouped together and not geographically dispersed to ensure economies of scale making supervision easier without wasting time travelling.

29. It is important to note that the above eligibility and prioritization criteria are to be used to determine subprojects on which to undertake further feasibility studies. Inclusion of subprojects as priority subprojects does not necessarily mean they are technically, environmentally, socially and economically feasible. For these aspects to be determined, feasibility studies will be undertaken to determine that the subproject (i) is pro-poor (i.e. benefits will mainly accrue to poor farming households); (ii) has demonstrated water availability in sufficient quantity and quality to ensure the intended benefits of the project can be achieved; (iii) works are technically feasible; (iv) has demonstrated commitment from local government authorities; (v) has commitment from water users to establish a water users' association to operate and maintain rehabilitated and/or updated structures and to distribute water in an equitable manner; and (vi) is economically feasible, i.e., base-case economic internal rate of return (EIRR) being greater than 12%. ADB has supported the preparation of feasibility of three representative subprojects as models for the remaining subprojects. ADB will review, comment, and clear the feasibility studies of three other subprojects to ensure adequate PMO capacity in selecting viable subprojects for project financing. For the remaining subprojects, PMO shall be responsible for the final feasibility studies and submit to ADB for 'no objection'.

30. **Selection and Implementation Processes.** In November 2015, MEW and MAIL, with assistance of the project preparation consultants, prepared a long list of 408 potential subprojects in all six sub-basins, having an estimated total cost of US\$164 million. This list comprised potential subprojects identified by MEW, MAIL, and by other donor projects. MEW and MAIL prioritized the list leaving a more manageable list of subprojects for assessment. The list was reduced to 55 subprojects. Surveys were undertaken on each of these to determine the subproject location and command area and generate a description of its R&U needs. With assistance of the project preparation consultants, MEW and MAIL evaluated each subproject using the set of eligibility and prioritization criteria as described in paras. 28–29 and selected 21

first priority subprojects as candidate subproject for feasibility study. The list of candidate subprojects is in Annex 1.<sup>20</sup>

31. The RBA and SBAs then identified three representative subprojects (RSPs), of high priority in relatively secure and accessible areas, to be the first studied and designed during project preparation and rehabilitated and upgraded during project implementation. The three identified were Sharawan-Takhar, Seyaab, and Laqi (a second priority subproject chosen before completion of the ranking). These have been designed during the PPTA and will be tendered by MEW PMO as the first civil works construction package (package 1).

32. Feasibility study and detailed design of the remaining 19 subprojects will be outsourced to a feasibility study and detailed design firm (FSDD) to evaluate the subproject viability against the criteria stated in para. 30. Design will be done on a package by package basis. Seven packages are proposed (packages 2–8). These 19 sub-projects will be grouped in a logical manner and then the contracted FSDD firm will start design work on a package by package basis. Given the time needed to undertake feasibility studies and DD for each package, as well as preparing tender documents (approximately 6 months), packages will be undertaken one after the other. However, there may be some overlap depending on the speed and resources of the FSDD firm. Grouping of packages will be done based on location (with subprojects grouped according to sub-basin to the extent possible), as well as total estimated works contract size. Viable subprojects will then be approved by MEW and MAIL, and have works contracts tendered using logical geographical and contract size grouping. Taking into account security concerns in the North, civil works will start wherever security is less of a concern.

33. Since works in schemes will be undertaken in an integrated manner (with MEW working on the main canal and headworks, and MAIL on the secondary and tertiary canals), MEW and MAIL will take a joint decision on the sequencing of schemes for R&U. The MEW PMO and MAIL PMO Irrigation Design Engineers, with support from the ISC Team Leader and ISC on-farm water management specialist, will assess and reach agreements on implementation sequencing. The MEW and MAIL PMO Directors will then give joint final approval. MEW PMO will then instruct the FSDD firm to commence work. Decisions can be made on a package-by-package basis to allow flexibility and changing circumstances—i.e. there is no need to agree on the sequencing of all subprojects at the start of the project. However, a decision will be made at least three months prior to the FSDD starting its work so it has time to mobilize appropriate resources and plan its work.

34. In case additional subprojects are identified during the implementation, the above mentioned eligibility and selection criteria and processes described above shall be followed.

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<sup>20</sup> Notes: two subprojects (No. 14 and 15) in the list are in the same scheme – Sharawan-Takhar. Due to the size of this scheme additional work will be undertaken representing an additional subproject. Hence, 21 schemes but 22 subprojects.

## IV. COSTS AND FINANCING

### A. Detailed Cost Estimates by Expenditure Category

35. Detailed cost estimates by expenditure category are in Table 4.

**Table 4: Detailed Cost Estimates by Expenditure Category**

	(Afg '000)			(US\$ '000)			% Total Base Costs
	Local	Foreign	Total	Local	Foreign	Total	
<b>I. Investment Costs</b>							
<b>A. Civil Works</b>							
1. Representative Subprojects	136,603.6	27,427.4	164,031.0	2,008.9	403.3	2,412.2	3.0
2. Allocation for Other Subprojects (MEW) /a	2,353,226.0	415,275.2	2,768,501.2	34,606.3	6,107.0	40,713.3	56.0
3. Allocation for Other Subprojects (MAIL) /b	545,429.7	96,252.3	641,682.0	8,021.0	1,415.5	9,436.5	13.0
4. WUAs Office Buildings /c	15,606.0	1,734.0	17,340.0	229.5	25.5	255.0	0.0
5. RBA Office Building	16,068.4	2,835.6	18,904.0	236.3	41.7	278.0	0.0
<b>Subtotal</b>	<b>3,066,933.7</b>	<b>543,524.5</b>	<b>3,610,458.2</b>	<b>45,102.0</b>	<b>7,993.0</b>	<b>53,095.0</b>	<b>72.0</b>
B. Catchment Protection	179,520.0	0.0	179,520.0	2,640.0	0.0	2,640.0	4.0
<b>C. Vehicles &amp; Equipment</b>							
1. Vehicles /d	6,215.2	24,860.8	31,076.0	91.4	365.6	457.0	1.0
2. Machinery /e	4,760.0	19,040.0	23,800.0	70.0	280.0	350.0	0.0
3. Equipment	11,035.7	8,769.3	19,805.0	162.3	129.0	291.3	0.0
<b>Subtotal</b>	<b>22,010.9</b>	<b>52,670.1</b>	<b>74,681.0</b>	<b>323.7</b>	<b>774.6</b>	<b>1,098.3</b>	<b>2.0</b>
D. Capacity Development	66,776.7	0.0	66,776.7	982.0	0.0	982.0	1.0
<b>E. Implementation Consultancy Services</b>							
1. For Output 1	44,778.0	154,020.0	198,798.0	658.5	2,265.0	2,923.5	4.0
2. For Output 2	21,093.6	49,218.4	70,312.0	310.2	723.8	1,034.0	1.0
3. For Output 3	0.0	22,372.0	22,372.0	0.0	329.0	329.0	0.0
<b>Subtotal</b>	<b>65,871.6</b>	<b>225,610.4</b>	<b>291,482.0</b>	<b>968.7</b>	<b>3,317.8</b>	<b>4,286.5</b>	<b>6.0</b>
<b>F. External Monitoring (Safeguards)</b>							
1. For Output 1	2,040.0	0.0	2,040.0	30.0	0.0	30.0	0.0
2. For Output 2	2,040.0	0.0	2,040.0	30.0	0.0	30.0	0.0
<b>Subtotal</b>	<b>4,080.0</b>	<b>0.0</b>	<b>4,080.0</b>	<b>60.0</b>	<b>0.0</b>	<b>60.0</b>	<b>0.0</b>
G. Financial Audits	4,760.0	0.0	4,760.0	70.0	0.0	70.0	0.0
<b>Total Investment Costs</b>	<b>3,409,952.9</b>	<b>821,805.0</b>	<b>4,231,757.8</b>	<b>50,146.4</b>	<b>12,085.4</b>	<b>62,231.7</b>	<b>86.0</b>
<b>II. Recurrent Costs</b>							
A. Incremental Project Staff (PMO / PIO)	590,646.8	0.0	590,646.8	8,686.0	0.0	8,686.0	12.0
B. Office Accommodation	41,616.0	0.0	41,616.0	612.0	0.0	612.0	1.0
C. Office Running Cost	29,131.2	0.0	29,131.2	428.4	0.0	428.4	1.0
D. Vehicle Running Costs	50,836.8	0.0	50,836.8	747.6	0.0	747.6	1.0
E. Equipment Running Costs	3,468.0	0.0	3,468.0	51.0	0.0	51.0	0.0
<b>Total Recurrent Costs</b>	<b>715,698.8</b>	<b>0.0</b>	<b>715,698.8</b>	<b>10,525.0</b>	<b>0.0</b>	<b>10,525.0</b>	<b>14.0</b>
<b>Total BASELINE COSTS</b>	<b>4,125,651.7</b>	<b>821,805.0</b>	<b>4,947,456.6</b>	<b>60,671.3</b>	<b>12,085.4</b>	<b>72,756.7</b>	<b>100.0</b>
Physical Contingencies	91,106.4	17,693.6	108,800.0	1,339.8	260.2	1,600.0	2.0
Price Contingencies	150,501.3	12,240.0	162,741.3	2,213.3	180.0	2,393.3	3.0
<b>Total PROJECT COSTS</b>	<b>4,367,259.4</b>	<b>851,738.5</b>	<b>5,218,997.9</b>	<b>64,224.4</b>	<b>12,525.6</b>	<b>76,750.0</b>	<b>105.0</b>

<sup>a</sup> Ministry of Energy & Water (MEW).

<sup>b</sup> Ministry of Agriculture, Irrigation & livestock (MAIL).

<sup>c</sup> Water Users Associations (WUAs).

<sup>d</sup> Including River Boat & Trailer (Component 1.3).

<sup>e</sup> Rented Machinery (Component 2.3).

Source: ADB estimates.

## B. Allocation and Withdrawal of Grant Proceeds

36. The government has requested a grant not exceeding \$26 million from the ADB's Special Funds resources to help finance the project.<sup>21</sup> The European Union (EU) is expected to finance a grant not exceeding equivalent of EUR45 million (equivalent to \$50 million), which will be administered by ADB. The government will contribute \$0.75 million by way of office space and utilities for project implementation. Allocation and withdrawal of grant proceeds are in Table 5.

**Table 5: Allocation and withdrawal of grant proceeds**

### 1. ADB ADF Grant

Panj-Amu River Basin Project				
CATEGORY			ADB ADF GRANT FINANCING	
Number	Item	Amount Allocated [\$]		Percentage and Basis for Withdrawal from the Grant Account
		Category		
	Outputs 1, 2, and 3 (all expenditure categories including recurrent costs)	26,000,000		34.2 percent of total expenditure claimed
	<b>Total</b>	<b>26,000,000</b>		

Source: ADB estimates.

### 2. EU Grant

Panj-Amu River Basin Project				
CATEGORY			EU GRANT FINANCING	
Number	Item	Amount Allocated [\$]		Percentage and Basis for Withdrawal from the Grant Account
		Category		
1	Outputs 1, 2, and 3 (all expenditure categories including recurrent costs)	39,000,000		65.8 percent of total expenditure claimed
2	Unallocated	11,000,000		
2.1.	Foreign exchange reserves		7,500,000	
2.2.	ADB Administrative fees		3,500,000	
	<b>Total</b>	<b>50,000,000</b>		

Source: ADB estimates.

<sup>21</sup> ADB will finance taxes and duties, which include the business receipt tax, estimated at 4%; fixed import tax of 2%–7%; and custom duties of 2.5%–16%. They do not represent an excessive share of the financing plan and are within applicable country partnership strategy parameters. ADB. 2005. *Innovation and Efficiency Initiative—Cost Sharing and Eligibility of Expenditures for Asian Development Bank Financing: A New Approach*. Manila.

## C. Detailed Cost Estimates by Financier

37. Detailed cost estimates by financier are in Table 6.

**Table 6: Detailed Cost Estimates by Financier (\$'000)**

	EU (Grant) <sup>f</sup>		ADB (Grant) <sup>g</sup>		The Government		Total Amount
	Amount	%	Amount	%	Amount	%	
<b>I. Investment Costs</b>							
<b>A. Civil Works</b>							
1. Representative Subprojects	1,893.5	65.8	984.6	34.2	0.0	0.0	2,878.1
2. Allocation for Other Subprojects (MEW) /a	26,785.0	65.8	13,928.2	34.2	0.0	0.0	40,713.3
3. Allocation for Other Subprojects (MAIL) /b	6,208.2	65.8	3,228.3	34.2	0.0	0.0	9,436.5
4. WUAs Office Buildings /c	205.8	65.8	107.0	34.2	0.0	0.0	312.8
5. RBA Office Building	219.7	65.8	114.2	34.2	0.0	0.0	333.9
<b>Subtotal</b>	<b>35,312.2</b>	<b>65.8</b>	<b>18,362.4</b>	<b>34.2</b>	<b>0.0</b>	<b>0.0</b>	<b>53,674.6</b>
B. Catchment Protection	2,228.9	65.8	1,159.0	34.2	0.0	0.0	3,387.9
<b>C. Vehicles &amp; Equipment</b>							
1. Vehicles /d	318.9	65.8	165.8	34.2	0.0	0.0	484.8
2. Machinery /e	256.7	65.8	133.5	34.2	0.0	0.0	390.1
3. Equipment	205.6	65.8	106.9	34.2	0.0	0.0	312.5
<b>Subtotal</b>	<b>781.2</b>	<b>65.8</b>	<b>406.2</b>	<b>34.2</b>	<b>0.0</b>	<b>0.0</b>	<b>1,187.4</b>
D. Capacity Development	744.6	65.8	387.2	34.2	0.0	0.0	1,131.8
<b>E. Implementation Consultancy Services</b>							
1. For Output 1	2,134.0	65.8	1,109.7	34.2	0.0	0.0	3,243.7
2. For Output 2	750.0	65.8	390.0	34.2	0.0	0.0	1,140.0
3. For Output 3	232.0	65.8	120.6	34.2	0.0	0.0	352.6
<b>Subtotal</b>	<b>3,116.0</b>	<b>65.8</b>	<b>1,620.3</b>	<b>34.2</b>	<b>0.0</b>	<b>0.0</b>	<b>4,736.3</b>
<b>F. External Monitoring (Safeguards)</b>							
1. For Output 1	22.6	65.8	11.8	34.2	0.0	0.0	34.4
2. For Output 2	22.6	65.8	11.8	34.2	0.0	0.0	34.4
<b>Subtotal</b>	<b>45.2</b>	<b>65.8</b>	<b>23.5</b>	<b>34.2</b>	<b>0.0</b>	<b>0.0</b>	<b>68.7</b>
G. Financial Audits	54.7	65.8	28.4	34.2	0.0	0.0	83.1
<b>Total Investment Costs</b>	<b>42,282.8</b>	<b>65.8</b>	<b>21,987.1</b>	<b>34.2</b>	<b>0.0</b>	<b>0.0</b>	<b>64,269.9</b>
<b>II. Recurrent Costs</b>							
A. Incremental Project Staff (PMO / PIO)	6,759.1	65.8	3,514.7	34.2	0.0	0.0	10,273.8
B. Office Accommodation	0.0	0.0	0.0	0.0	750.0	100.0	750.0
C. Office Running Cost	334.6	65.8	174.0	34.2	0.0	0.0	508.7
D. Vehicle Running Costs	584.0	65.8	303.7	34.2	0.0	0.0	887.6
E. Equipment Running Costs	39.5	65.8	20.5	34.2	0.0	0.0	60.0
<b>Total Recurrent Costs</b>	<b>7,717.2</b>	<b>61.8</b>	<b>4,012.9</b>	<b>32.2</b>	<b>750.0</b>	<b>6.0</b>	<b>12,480.1</b>
<b>Total PROJECT COSTS</b>	<b>50,000.0</b>	<b>65.1</b>	<b>26,000.0</b>	<b>33.9</b>	<b>750.0</b>	<b>1.0</b>	<b>76,750.0</b>

<sup>a</sup> Ministry of Energy & Water (MEW).

<sup>b</sup> Ministry of Agriculture, Irrigation & livestock (MAIL).

<sup>c</sup> Water Users Associations (WUAs).

<sup>d</sup> Including River Boat & Trailer (Component 1.3).

<sup>e</sup> Rented Machinery (Component 2.3).

<sup>f</sup> Including ADB's administration fee, audit cost, and bank charges and foreign exchange reserves.

<sup>g</sup> Including taxes and duties.

Source: ADB estimates.

**D. Detailed Cost Estimates by Output**

38. Detailed cost estimates by output are in Table 7.

**Table 7: Detailed Cost Estimates by Output**

	Output 1: Water Allocation & Availability Improved (MEW)	Output 2: Command Areas Enhanced (MAIL)	Output 3: Watersheds Properly Managed & Protected (MAIL)	Total
<b>I. Investment Costs</b>				
<b>A. Civil Works</b>				
1. Representative Subprojects	2,878.1	0.0	0.0	2,878.1
2. Allocation for Other Subprojects (MEW) /a	40,713.3	0.0	0.0	40,713.3
3. Allocation for Other Subprojects (MAIL) /b	0.0	9,436.5	0.0	9,436.5
4. WUAs Office Buildings /c	312.8	0.0	0.0	312.8
5. RBA Office Building	333.9	0.0	0.0	333.9
<b>Subtotal</b>	<b>44,238.1</b>	<b>9,436.5</b>	<b>0.0</b>	<b>53,674.6</b>
B. Catchment Protection	0.0	0.0	3,387.9	3,387.9
<b>C. Vehicles &amp; Equipment</b>				
1. Vehicles /d	209.5	275.2	0.0	484.8
2. Machinery /e	0.0	390.1	0.0	390.1
3. Equipment	178.8	68.1	65.6	312.5
<b>Subtotal</b>	<b>388.4</b>	<b>733.4</b>	<b>65.6</b>	<b>1,187.4</b>
D. Capacity Development	637.7	401.2	92.9	1,131.8
<b>E. Implementation Consultancy Services</b>				
1. For Output 1	3,243.7	0.0	0.0	3,243.7
2. For Output 2	0.0	1,140.0	0.0	1,140.0
3. For Output 3	0.0	0.0	352.6	352.6
<b>Subtotal</b>	<b>3,243.7</b>	<b>1,140.0</b>	<b>352.6</b>	<b>4,736.3</b>
<b>F. External Monitoring (Safeguards)</b>				
1. For Output 1	34.4	0.0	0.0	34.4
2. For Output 2	0.0	34.4	0.0	34.4
<b>Subtotal</b>	<b>34.4</b>	<b>34.4</b>	<b>0.0</b>	<b>68.7</b>
G. Financial Audits	83.1	0.0	0.0	83.1
<b>Total Investment Costs</b>	<b>48,625.4</b>	<b>11,745.4</b>	<b>3,899.1</b>	<b>64,269.9</b>
<b>II. Recurrent Costs</b>				
A. Incremental Project Staff (PMO / PIO)	4,726.5	4,971.8	575.5	10,273.8
B. Office Accommodation	206.0	372.0	171.9	750.0
C. Office Running Cost	309.2	199.5	0.0	508.7
D. Vehicle Running Costs	402.3	485.4	0.0	887.6
E. Equipment Running Costs	16.6	29.1	14.3	60.0
<b>Total Recurrent Costs</b>	<b>5,660.6</b>	<b>6,057.7</b>	<b>761.7</b>	<b>12,480.1</b>
<b>Total PROJECT COSTS</b>	<b>54,286.0</b>	<b>17,803.2</b>	<b>4,660.8</b>	<b>76,750.0</b>

/a Ministry of Energy &amp; Water (MEW).

/b Ministry of Agriculture, Irrigation &amp; livestock (MAIL).

/c Water Users Associations (WUAs).

/d Including River Boat &amp; Trailer (Component 1.3).

/e Rented Machinery (Component 2.3).

Source: ADB estimates.

## E. Detailed Cost Estimates by Year

39. Detailed cost estimates by year are in Table 8.

**Table 8: Detailed Cost Estimates by Year**

	2017	2018	2019	2020	2021	2022	Total
<b>I. Investment Costs</b>							
<b>A. Civil Works</b>							
1. Representative Subprojects	845.1	2,033.0	0.0	0.0	0.0	0.0	2,878.1
2. Allocation for Other Subprojects (MEW) /a	928.5	5,304.6	9,931.7	9,931.7	9,131.7	5,485.0	40,713.3
3. Allocation for Other Subprojects (MAIL) /b	352.1	352.1	1,273.2	3,115.5	2,194.4	2,149.4	9,436.5
4. WUAs Office Buildings /c	0.0	150.8	162.0	0.0	0.0	0.0	312.8
5. RBA Office Building	32.7	301.2	0.0	0.0	0.0	0.0	333.9
<b>Subtotal</b>	<b>2,158.4</b>	<b>8,141.7</b>	<b>11,366.9</b>	<b>13,047.2</b>	<b>11,326.1</b>	<b>7,634.3</b>	<b>53,674.6</b>
B. Catchment Protection	0.0	532.9	752.1	1,297.3	805.6	0.0	3,387.9
<b>C. Vehicles &amp; Equipment</b>							
1. Vehicles /d	423.4	61.4	0.0	0.0	0.0	0.0	484.8
2. Machinery /e	62.7	63.6	64.5	65.5	66.4	67.4	390.1
3. Equipment	204.5	35.7	72.3	0.0	0.0	0.0	312.5
<b>Subtotal</b>	<b>690.7</b>	<b>160.7</b>	<b>136.8</b>	<b>65.5</b>	<b>66.4</b>	<b>67.4</b>	<b>1,187.4</b>
D. Capacity Development	283.9	234.2	173.9	158.0	163.0	118.8	1,131.8
<b>E. Implementation Consultancy Services</b>							
1. For Output 1	680.8	743.6	550.5	560.5	351.2	357.1	3,243.7
2. For Output 2	388.0	268.5	144.0	146.8	95.4	97.2	1,140.0
3. For Output 3	124.2	126.0	102.3	0.0	0.0	0.0	352.6
<b>Subtotal</b>	<b>1,193.1</b>	<b>1,138.2</b>	<b>796.9</b>	<b>707.3</b>	<b>446.6</b>	<b>454.2</b>	<b>4,736.3</b>
<b>F. External Monitoring (Safeguards)</b>							
1. For Output 1	6.4	6.6	6.9	7.1	7.4	0.0	34.4
2. For Output 2	6.4	6.6	6.9	7.1	7.4	0.0	34.4
<b>Subtotal</b>	<b>12.8</b>	<b>13.3</b>	<b>13.7</b>	<b>14.2</b>	<b>14.7</b>	<b>0.0</b>	<b>68.7</b>
G. Financial Audits	12.9	13.2	13.6	14.0	14.4	14.9	83.1
<b>Total Investment Costs</b>	<b>4,351.8</b>	<b>10,234.2</b>	<b>13,253.9</b>	<b>15,303.5</b>	<b>12,836.9</b>	<b>8,289.6</b>	<b>64,269.9</b>
<b>II. Recurrent Costs</b>							
A. Incremental Project Staff (PMO / PIO)	1,585.8	1,730.3	1,782.3	1,777.1	1,674.1	1,724.1	10,273.8
B. Office Accommodation	121.6	125.3	129.2	133.1	137.3	103.5	750.0
C. Office Running Cost	78.8	81.1	83.4	85.9	88.4	91.1	508.7
D. Vehicle Running Costs	137.5	141.5	145.6	149.9	154.3	158.9	887.6
E. Equipment Running Costs	9.8	10.1	10.4	10.7	11.0	8.2	60.0
<b>Total Recurrent Costs</b>	<b>1,933.4</b>	<b>2,088.2</b>	<b>2,150.9</b>	<b>2,156.7</b>	<b>2,065.1</b>	<b>2,085.8</b>	<b>12,480.1</b>
<b>Total PROJECT COSTS</b>	<b>6,285.2</b>	<b>12,322.4</b>	<b>15,404.8</b>	<b>17,460.2</b>	<b>14,902.1</b>	<b>10,375.4</b>	<b>76,750.0</b>

\a Ministry of Energy & Water (MEW).

\b Ministry of Agriculture, Irrigation & livestock (MAIL).

\c Water Users Associations (WUAs).

\d Including River Boat & Trailer (Component 1.3).

\e Rented Machinery (Component 2.3).

Source: ADB estimates.

## F. Contract and Disbursement S-Curves

40. The forecasted contract award and disbursement profile at project design stage is shown in Table 9 (ADB ADF grant) and Table 10 (EU grant). Projections of contract awards and disbursements will be confirmed with the MOF, MEW, and MAIL during ADB inception mission and the PAM will be updated accordingly.

**Table 9: Contract and Disbursement (ADB ADF Grant)**

Asian Development Fund (grant)										
(\$ million equivalent)										
Projections for Contract Award						Projections for Disbursement				
Year	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total
2017	0.0	4.7	1.0	0.5	<b>6.2</b>	0.0	0.8	0.7	0.6	<b>2.1</b>
2018	0.5	2.0	2.0	2.0	<b>6.5</b>	0.7	2.0	4.5	0.4	<b>7.6</b>
2019	2.0	0.0	1.0	1.0	<b>4.0</b>	1.0	1.5	2.0	0.7	<b>5.2</b>
2020	1.0	1.0	1.0	1.0	<b>4.0</b>	0.8	1.5	2.0	0.8	<b>5.1</b>
2021	0.5	1.0	1.0	1.0	<b>3.5</b>	1.0	1.5	1.5	0.9	<b>4.9</b>
2022	0.8	1.0	0.0	0.0	<b>1.8</b>	0.2	0.5	0.2	0.3	<b>1.2</b>
<b>Total</b>	<b>4.8</b>	<b>9.7</b>	<b>6.0</b>	<b>5.5</b>	<b>26.0</b>	<b>3.7</b>	<b>7.8</b>	<b>10.9</b>	<b>3.6</b>	<b>26.0</b>

The graph illustrates the cumulative contract awards and disbursements over a six-year period. The Y-axis represents the amount in millions of dollars, ranging from 0.0 to 30.0. The X-axis represents the year, from 1 to 7. Two data series are plotted: 'Contract Awards' (blue line with diamond markers) and 'Disbursement' (red line with square markers). Both series show a steady increase over time, with Contract Awards reaching a total of 26.0 million and Disbursement reaching a total of 26.0 million by the end of Year 6. The two lines are very close to each other, indicating that the total amount of contract awards is nearly equal to the total amount of disbursements.

Source: ADB estimates.



**Table 10: Contract and Disbursement (EU Grant)**

European Union (grant) (\$ million equivalent)										
Projections for Contract Award						Projections for Disbursement				
Year	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total
2017	1.5	2.0	2.0	1.0	<b>6.5</b>	0.5	0.8	1.1	1.7	<b>4.1</b>
2018	2.0	2.0	3.0	3.0	<b>10.0</b>	1.0	1.0	1.0	1.6	<b>4.6</b>
2019	3.0	3.0	3.0	3.0	<b>12.0</b>	1.0	4.0	4.0	1.1	<b>10.1</b>
2020	3.0	3.0	3.0	3.0	<b>12.0</b>	1.0	5.0	4.0	2.2	<b>12.2</b>
2021	1.0	2.0	3.0	1.5	<b>7.5</b>	0.5	4.0	4.0	1.4	<b>9.9</b>
2022	0.0	0.0	1.0	1.0	<b>2.0</b>	1.5	3.0	3.0	1.6	<b>9.1</b>
<b>Total</b>	<b>10.5</b>	<b>12.0</b>	<b>15.0</b>	<b>12.5</b>	<b>50.0</b>	<b>5.5</b>	<b>17.8</b>	<b>17.1</b>	<b>9.6</b>	<b>50.0</b>

\$ million

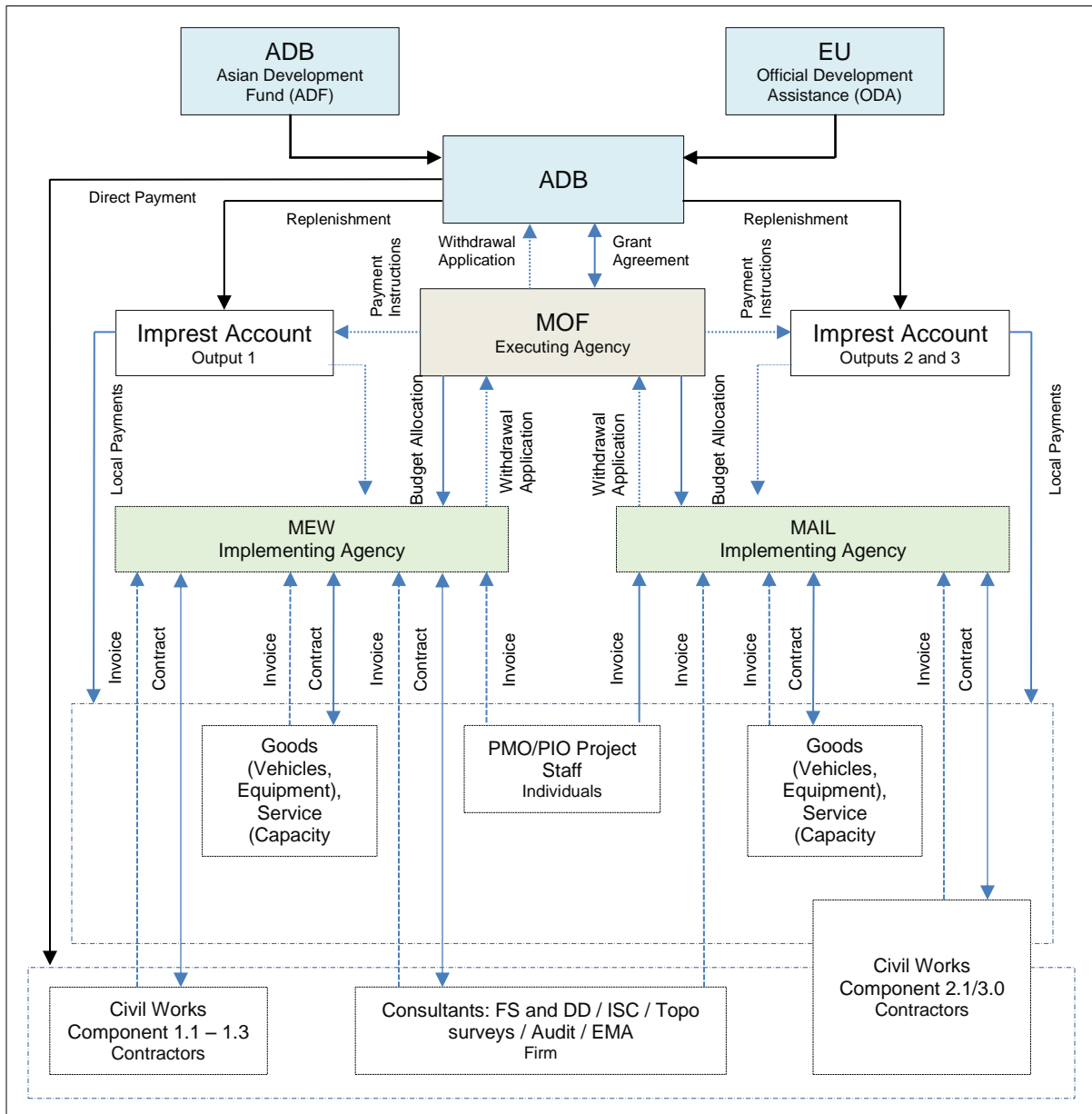
Year	Contract Awards (\$ million)	Disbursement (\$ million)
1	6.5	4.1
2	10.0	4.6
3	12.0	10.1
4	12.0	12.2
5	7.5	9.9
6	2.0	9.1

Year

Source: ADB estimates.

G. Fund Flow Diagram

Chart 8: Fund Flow Diagram



ADB = Asian Development Bank; DD = detailed design; EMA = external monitoring agency, EU = European Union; FS = feasibility study; MOF = Ministry of Finance; MAIL = Ministry of Agriculture, Irrigation and Livestock; MEW = Ministry of Energy and Water; PMO = project management office.  
 Source: Asian Development Bank.

## V. FINANCIAL MANAGEMENT

### A. Financial Management Assessment

41. A Financial Management Assessment (FMA) of the proposed project was conducted in April 2016 in accordance with Asian Development Bank's (ADB) "*Guidelines for the Financial Management and Analysis of Projects*"<sup>22</sup> and the "*Financial Due Diligence: A Methodology Note (January 2009)*, Technical Guidance Note on Financial Management Assessment (May 2015)."<sup>23</sup> The FMA considered the role of the Ministry of Energy and Water (MEW) and the Ministry of Agriculture, Irrigation, and Livestock (MAIL) as implementing agencies for the proposed project.

42. Based on the assessment, the key financial management risks identified are (i) incomplete and inaccurate financial reports due to manual system and unreconciled accounts; (ii) delaying in producing financial reporting. These could undermine the assessment of MEW and MAIL's project budget and financial status during the implementation.

43. It is concluded that the overall pre-mitigation financial management risk of MEW and MAIL is substantial. MEW and MAIL have agreed to implement an action plan as key measures to address the deficiencies. The financial management action plan is in Table 11.

**Table 11: Financial Management Action Plan**

Action	Responsibility	Resources	Timing
Appoint a PMO Director	MAIL	MAIL (HR Department)	Q1 2017
Establish a MAIL PMO	PMO Director	MAIL (HR Department)	Q1 2017
Hire a deputy director and accounting staff for MEW PMO	MEW-PMO	PMO Director and staff	Q1 2017
Hire one accounting staff each for MEW PMO and MAIL PMO to handle project financial bookkeeping and accounting	MEW-PMO	MEW and MAIL (HR Department)	Q1 2017
Add a unit under MEW-PMO to be in charge of the project	MEW-PMO Deputy Director	PMO Director and Staff	Q1 2017
Upgrade project accounting, information system [i.e. acquisition of standard accounting software]	Accounting staff with support of ISC financial management	Project procurement team	Q2 2017

<sup>22</sup> ADB. 2005. *Guidelines for the Financial Management and Analysis of Project*. Manila.

<sup>23</sup> ADB. 2015. *Financial Management Technical Guidance Note*.

Action	Responsibility	Resources	Timing
Provide project training for MEW's and MAIL's finance personnel and project Staff on: <ul style="list-style-type: none"> <li>• use of spreadsheets</li> <li>• use of accounting system</li> <li>• ADB disbursement procedures</li> </ul>	Accounting staff with support of ISC financial management	MEW and MAIL finance personnel; and staff of ADB-funded projects	Q2 2017 – Q1 2018
Engage Internal Audit Department to expand role to include internal audit of projects funded by the official development assistance budget	Both PMOs at MEW and MAIL	Project funds	Q4 2017

Source: Asian Development Bank.

## B. Disbursement

44. Grant proceeds will be disbursed in accordance with ADB's Loan Disbursement Handbook (February 2015, as amended from time to time). To expedite implementation of the project through the timely release of funds, four imprest accounts will be established two in US Dollar for the ADF grant and two in Euro for the EU grant at Da Afghanistan Bank (DAB, the Central Bank of Afghanistan) for exclusive use by the two PMOs (two at MEW and two at MAIL). The imprest accounts will be managed, replenished, and liquidated in accordance with ADB's Loan Disbursement Handbook, and detailed arrangements agreed to by the Recipient and ADB. The total outstanding advance to the imprest accounts will not exceed six months of estimated expenditure to be paid through the respective imprest accounts. The ADB statement of expenditure procedures will be used for individual payments valued at \$100,000 or less. The minimum value per withdrawal application is set in accordance with the Loan Disbursement Handbook. Individual payments below this amount should be paid (i) by the PMOs and subsequently claimed from ADB through reimbursement; or (ii) from the imprest account, unless otherwise accepted by ADB.

## C. Accounting

45. MEW and MAIL will maintain, or cause to be maintained, separate books and records by funding source for all expenditures incurred on the project. MEW and MAIL will prepare separate project financial statements in accordance with the government's accounting laws and regulations which are consistent with international accounting principles and practices. MAIL will submit its project financial statements to MEW by the end of each February. MOF<sup>24</sup> will prepare a consolidated project financial statements of MEW and MAIL in accordance with the government's accounting laws and regulations which are consistent with international accounting principles and practices.

## D. Auditing and Public Disclosure

46. MEW will cause the detailed consolidated project financial statements of MEW and MAIL to be audited in accordance with International Standards on Auditing and with the Government's

<sup>24</sup> A general project coordination unit is currently serving the ADB financed Water Resources Development Investment Program (WRDIP). This unit will also undertake the consolidated reporting for this project.

audit regulations, by an independent auditor acceptable to ADB. The audited project financial statements will be submitted in the English language to ADB within six months of the end of the fiscal year by MOF.

47. The annual audit report for the project accounts will include an audit management letter and audit opinions which cover (i) whether the project financial statements present a true and fair view or are presented fairly, in all material respects, in accordance with the applicable financial reporting framework; and (ii) whether grant proceeds were used only for the purposes of the project or not.

48. Compliance with financial reporting and auditing requirements will be monitored by review missions and during normal program supervision, and followed up regularly with all concerned, including the external auditor.

49. The Government, MOF, MEW, and MAIL have been made aware of ADB's approach to delayed submission, and the requirements for satisfactory and acceptable quality of the audited project financial statements.<sup>25</sup> ADB reserves the right to require a change in the auditor, or for additional support to be provided to the auditor, if the audits required are not conducted in a manner satisfactory to ADB, or if the audits are substantially delayed. ADB reserves the right to verify the project's financial accounts to confirm that the share of ADB's financing is used in accordance with ADB's policies and procedures.

50. ADB shall disclose the annual audited financial statements for the Project and the opinion of the auditors on the financial statements no later than 14 calendar days of ADB's confirmation of their acceptability by posting them on ADB's website. The management letter will not be disclosed.

## VI. PROCUREMENT AND CONSULTING SERVICES

### A. Advance Contracting and Retroacting Financing

51. All advance contracting will be undertaken in conformity with ADB's *Procurement Guidelines* (2015, as amended from time to time)<sup>26</sup> and the *Guidelines on the Use of Consultants* by Asian Development Bank and its Borrowers (2013, as amended from time to time).<sup>27</sup> The issuance of invitations to bid under advance contracting will be subject to ADB approval. The EA has been advised that undertaking of advance contracting does not commit ADB to finance the project.

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<sup>25</sup> ADB approach and procedures regarding delayed submission of audited project financial statements:

- When audited project financial statements are not received by the due date, ADB will write to the executing agency advising that (i) the audit documents are overdue; and (ii) if they are not received within the next six months, requests for new contract awards and disbursement such as new replenishment of imprest accounts, processing of new reimbursement, and issuance of new commitment letters will not be processed.
- When audited project financial statements have not been received within 6 months after the due date, ADB will withhold processing of requests for new contract awards and disbursement such as new replenishment of imprest accounts, processing of new reimbursement, and issuance of new commitment letters. ADB will (i) inform the executing agency of ADB's actions; and (ii) advise that the grant may be suspended if the audit documents are not received within the next six months.
- When audited project financial statements have not been received within 12 months after the due date, ADB may suspend the grant.

<sup>26</sup> Available at: <http://www.adb.org/Documents/Guidelines/Procurement/Guidelines-Procurement.pdf>

<sup>27</sup> Available at: <http://www.adb.org/documents/guidelines-use-consultants-asian-development-bank-and-its-borrowers>

52. Advance contracting will be used for recruitment of consulting services, and pre-construction activities such as prequalification bidding, and bid evaluation for civil works packages.

53. There is no retroactive financing envisaged in this project.

## B. Procurement of Goods, Works and Consulting Services

54. All procurement of goods and works will be undertaken in accordance with ADB's Procurement Guidelines. Key features of the procurement of civil works and goods are summarized in the following paragraphs. The procurement plan indicates review procedures, goods, works and consulting service contract packages and national competitive bidding (NCB) guidelines. National competitive bidding (NCB) procedures will be used for civil works contracts estimated to cost more than \$100,000 and international competitive bidding (ICB) for those that cost more than \$5,000,000. Similarly, NCB procedure will also be used for goods contracts estimated to cost \$100,000 or more. Shopping procedures will be used for contracts for procurement of small works and equipment worth less than \$100,000. A procurement action plan is in Table 12.

**Table 12: Procurement Action Plan**

Action	Responsibility	Resources	Timing
Procurement of project implementation support consultancy service, including financial management and procurement	Both PMOs at MEW and MAIL	Procurement Department	Q4 2016
Provide project training for MEW's and MAIL's project staff on: <ul style="list-style-type: none"> <li>• ADB procurement procedures</li> </ul>	Accounting staff with support of ISC financial management/procurement specialist	MEW and MAIL finance personnel; and staff of ADB-funded projects	Q2 2017 – Q1 2018

55. Consultants will be recruited according to ADB's *Guidelines on the Use of Consultants*. The terms of reference for the implementation support consultancy (ISC) firm is included in Annex 1. The Project Management Office under MEW (Ministry of Energy and Water) in cooperation with the MEW Procurement Department will conduct the procurement with the assistance of the PPTA Consultants.

## C. Procurement Plan

56. Various packages of the procurement plan are presented in the following sections. The basic data of the Project is given in Table 13.

**Table 13: Basic Data**

<b>Project Name:</b> Panj-Amu River Basin Project	
<b>Project Number:</b> 48042-001-AFG	<b>Approval Number:</b>
<b>Country:</b> Afghanistan	<b>Executing Agency:</b> Ministry of Finance

<b>Project Financing Amount:</b> US\$ 76,750,000	<b>Implementing Agency:</b>
<b>ADB Financing:</b> US\$ 26,000,000	Ministry of Energy and Water
<b>Cofinancing (ADB Administered):</b> US\$ 50,000,000	Ministry of Agriculture, Irrigation, and Livestock
<b>Government Contribution (in-kind):</b> US\$750,000	
<b>Date of First Procurement Plan:</b> Q3 2016	<b>Date of this Procurement Plan:</b> 5 September 2016

## 2. Process Thresholds, Review and 18-Month Procurement Plan

### a. Project Procurement Thresholds

57. Except as ADB may otherwise agree, the following process thresholds given in the table below shall apply to procurement of goods and works.

**Table 14: Thresholds for Procurement of Goods and Works**

Method	Threshold
International Competitive Bidding (ICB) for Works	US\$ 5,000,001 and Above
International Competitive Bidding for Goods	US\$ 1,000,001 and Above
National Competitive Bidding (NCB) for Works	Between US\$ 100,001 to US\$ 5,000,000
National Competitive Bidding for Goods	Between US\$ 100,001 to US\$ 1,000,000
Shopping for Goods	Up to US\$ 100,000
Shopping for Works	Up to US\$ 100,000
Community Participation in Procurement <sup>a</sup>	Up to US\$ 100,000

<sup>a</sup> The Ministry of Agriculture, Irrigation, and Livestock (MAIL) will coordinate with irrigation associations within project sites to identify subprojects on rehabilitation of small scale irrigation infrastructure and on-farm water management activities (OFWM) as well as agricultural extension. Once the subprojects are identified, MAIL PIOs in DAILs will directly contract the registered community development councils (CDCs) within the respective irrigation associations to implement the subproject. The procurement process follows the procurement procedure for ADB financed projects used by the Ministry of Rural Rehabilitation and Development (MRRD) using community participation in procurement (CPP).

### b. ADB Prior or Post Review

58. Except as ADB may otherwise agree, the following, given in the table below, prior or post review requirements apply to the various procurement and consultant recruitment methods used for the project.

**Table 15: Review Requirements for Various Procurement and Consultant Recruitment Method**

<b>Procurement Method</b>	<b>Prior or Post</b>	<b>Comments</b>
<b>Procurement of Goods and Works</b>		
NCB Works	Prior	Prior review applies to the procurement of the first two NCB contracts. If the first two contracts are procured satisfactorily it will be determined by ADB if post-review may be used.
NCB Goods	Prior	Prior review applies to the procurement of the first two NCB contracts. If the first two contracts are procured satisfactorily it will be determined by ADB if post-review may be used.
Shopping for Works	Post	
Shopping for Goods	Prior	
Community Participation in Procurement	Prior	Prior review applies to the procurement of the first two CPP contracts. If the first two contracts are procured satisfactorily it will be determined by ADB if post-review may be used.
<b>Recruitment of Consulting Firms</b>		
Quality and Cost Based Selection (QCBS)	Prior	Quality and cost based on 90:10 quality – cost weighting. Applied in accordance with Guidelines on the Use of Consultants (March 2013, as amended from time to time)
Other Selection Methods: Consultant's Qualification Selection (CQS), Least Cost Selection (LCS), Fixed Budget (FBS) and Single Source (SSS)	Prior	
<b>Recruitment of Individual Consultants</b>		
Individual Consultants Selection (ICS)	Prior	



c. **18-Month Procurement Plan**<sup>28</sup>

i. **Goods and Works Contracts Estimated to Cost More than \$1 Million**

59. Table 16 lists goods and works contracts for which procurement activity is either ongoing or expected to commence within the next 18 months.

**Table 16: Works and Goods to be Procured During First 18 Months**

Package Number	General Description	Estimated Value (US \$ '000)	Procurement Method	Review (Prior/ Post /Post [Sample])	Bidding Procedure	Advertisement Date (Quarter/ Year)	Comments
MEW/P-ARBP/NCB/01	Representative subproject works (Laqi Canal; Sharawan Takhar Canal; and Seyaab Canal)	2,412	NCB	Prior	1S1E	Q4 / 2016	Prequalification of Bidders: N; Bid Document: Small Works

ii. **Consulting Services Contracts Estimated to Cost More Than \$100,000**

60. Table 17 lists consulting services contracts for which procurement activity is either ongoing or expected to commence within the next 18 months.

**Table 17: Consulting Services to be Procured During First 18 Months**

Package Number	General Description	Estimated Value (US\$ '000)	Recruitment Method	Review (Prior / Post)	Type of Proposal	Advert. Date (Quarter/ Year)	Comments
MEW/P-ARBP/CONS/01	Implementation support consultants (ISC)	4,287	QCBS	Prior	Full	Q4 / 2016	International; quality-cost ratio (90:10)
MEW/P-ARBP/CONS/02	Feasibility & design for other subprojects	3,200	QCBS	Prior	STP	Q1 / 2017	Quality-cost ratio (90:10)

<sup>28</sup> All cost estimates are inclusive of taxes and duties, but exclusive of contingencies.

iii. **Goods and Works Contracts Estimated to Cost Less than \$1 Million and Consulting Services Contracts Less than \$100,000**

61. Table 18 groups smaller-value goods, works and consulting services contracts for which procurement activity is either ongoing or expected to commence within the next 18 months.

**Table 18: Smaller Value Contracts Estimated to Cost Less than \$1,000,000**

Goods and works							
Package Number	General Description	Estimated Value (US\$)	Procurement Method	Review (Prior/ Post/ Post [Sample])	Bidding Procedure	Advert. Date (Quarter/ Year)	Comments
MAIL/P-ARBP/ NCB/01	Motor vehicles for MAIL PMO and 5 PIOs (DAILs)	260,000	NCB	Prior	1S1E	Q1 / 2017	2 units saloon cars + 5 units twin cabs
MEW/P-ARBP/ NCB/02	RBA office building	250,000	NCB	Prior	1S1E	Q2 / 2017	This can start since the detailed design was completed Prequalification of bidders: N
MEW/P-ARBP/ SHP/01	Motor vehicles for MEW PMO	60,000	Shopping	Prior	1S1E	Q1/2017	
MEW/P-ARBP/ SHP/02	Motor vehicles for MEW PIO (RBA)	80,000	Shopping	Prior	1S1E	Q1/2017	
MEW/P-ARBP/ SHP/03	Equipment (for MEW PMO, PIO, RBA)	66,300	Shopping	Prior	1S1E	Q1/2017	
MEW/P-ARBP/ SHP/04	River boat and trailer (for RBA PIO)	57,000	Shopping	Prior	1S1E	Q2/2018	
MEW/P-ARBP/ SHP/05	Staff gauges, ArcGIS Spatial Analyst, rain/ snow gauges/ relocation of existing staff gauges	99,200	Shopping	Prior	1S1E	Q2/2018	
MAIL/P-ARBP/ SHP/01	Equipment (for MAIL PMO, DAILs)	63,750	Shopping	Prior	1S1E	Q1/2017	
MAIL/P-ARBP/ SHP/02	Office equipment (for 5 DAIL NRM offices)	62,000	Shopping	Prior	1S1E	Q1/2017	
Consulting services							
MEW/P-ARBP/ CQS/01	Survey, design & supervision RBA office building	28,000	CQS	Prior	1S1E	Q2/2017	
MEW/P-ARBP/ CQS/02	Project financial audit	70,000	CQS	Prior	1S1E	Q4/2016	
MEW/P-ARBP/ CQS/03	External monitoring (safeguards)	60,000	CQS	Prior	1S1E	Q4/2016	
MAIL/P-ARBP/ CQS/01	Topographical surveys	225,000	CQS	Prior	1S1E	Q3/2017	4-5 packages

### 3. Indicative Lists of Packages Required under the Project

62. Table 19 provides an indicative list of goods, works, and consulting services contracts over the life of the project, other than those mentioned in previous sections (i.e. those expected beyond the current period).

**Table 19: Goods and Works**

Package Number	General Description	Estimated Value (US\$)	Number of Contracts	Procurement Method	Review (Prior/ Post)	Bidding Procedure	Advertisement Date (Quarter/ Year)	Comments
MEW/P-ARBP/ NCB/ Contracts	Subprojects works (with completed FS and DD based on list of priority subprojects)	37,513,253	8	NCB	Post	1S1E	Q2/2018	Maximum value for an individual contract: \$5.0 million
MEW/P-ARBP/ NCB/ Contracts	WUA office building contract	255,000	1	NCB	Post	1S1E	Q3/2018	
MAIL/P-ARBP/ NCB/ Contracts	On-farm irrigation subprojects	8,711,500	5	NCB	Post	1S1E	Q1/2018	First three subprojects will be subject to prior review; and post review thereafter. Maximum value for an individual contract: \$1.6 million
MAIL/P-ARBP/ CPP/ Contracts	Community-based subprojects	500,000	5	CPP	Post	Direct	Q1/2018	
MAIL/P-ARBP/ CPP/ Contracts	Catchment protection	2,600,000	26	CPP	Post	Direct	Q1/2018	First three subprojects will be subject to prior review; and post review thereafter. Maximum value for an individual contract: \$0.1 million
MAIL/P-ARBP/ CPP/ Contracts	PES pilot	40,000	1	CPP	Post	Direct	Q1/2018	

## **D. National Competitive Bidding**

### **1. General**

63. National competitive bidding for the procurement of goods and related services shall conform to the provisions for Open Tender without prequalification as prescribed in the Procurement Law of October 2005 and elaborated in the Rules of Procedure for Public Procurement issued by the Ministry of Finance in April 2007, with the clarifications and modifications described in the following paragraphs required for compliance with the provisions of the ADB Procurement Guidelines.

### **2. Registration and Other Pre-Bid Requirements**

- (i) Bidding shall not be restricted to Shortlists or Standing Lists;
- (ii) No bid shall be declared as ineligible on the grounds of debarment without ADB's prior concurrence;
- (iii) No bid shall be declared ineligible on the grounds of government regulations that restrict sources without ADB's prior concurrence; and
- (iv) Foreign suppliers and contractors shall be allowed to bid, without registration, licensing, and other government authorizations. However, in case these foreign suppliers and contractors are declared winning bidders, the requirements may be completed after award and before signing of contract, without unreasonable costs or additional requirements.

### **3. Prequalification**

64. Post qualification shall be used unless prequalification is explicitly provided for in the Grant Agreement/procurement plan. Irrespective of the procedure applied (whether prequalification or post qualification), no domestic or foreign contractor shall be precluded from participation.

65. If prequalification is undertaken, the prequalification criteria should include "Eligibility Requirements", "Financial Situation", "Pending Litigation", and "Experience". Technical Capacity (personnel and equipment) should not be part of the prequalification criteria.

66. Interested bidders shall be given a minimum period of 28 days for the preparation and submission of prequalification applications.

### **4. Advertising**

67. Bidding of NCB contracts estimated at \$500,000 or more for goods and related services and NCB contracts estimated at \$1,000,000 or more for works shall be advertised on ADB's website via the posting of the Procurement Plan.

### **5. Bidding Documents**

68. Procuring entities shall use standard bidding documents acceptable to ADB, based ideally on the standard bidding documents issued by ADB.

**6. Bidding Period**

69. Procuring entities shall allow for a minimum of four weeks for submission of bids.

**7. Bid Security**

70. Where required, bid security shall be in the form of a bank guarantee or check from a reputable bank and should not be more than two percent of the estimated value of contract to be procured.

**8. Preferences**

71. No preference of any kind shall be given to domestic bidders or for domestically manufactured goods.

**9. Evaluation**

72. No bid shall be rejected on the grounds of price, or for any other reason not related to the evaluation and qualification criteria, without ADB's prior concurrence.

73. Prompt payment discounts offered by bidders shall not be considered in bid evaluation.

**10. Price Negotiations**

74. Price negotiation shall be allowed only after receiving ADB's prior concurrence.

**11. Advance Payments**

75. No advance payment shall be made without an advance payment security in the form of a bank guarantee or check from a reputable bank.

**12. Government-Owned Enterprises**

76. Government-owned enterprises in Afghanistan shall be eligible to participate only if they can establish that they are legally and financially autonomous, operate under commercial law, and are not a dependent agency of the procuring entity, or the Project Executing Agency, or the Implementing Agencies.

**13. Right to Inspect/Audit**

77. A provision shall be included in all NCB works and goods contracts financed by the Bank (ADB) requiring suppliers and contractors to permit ADB to inspect their accounts and records and other documents relating to the bid submission and the performance of the contract, and to have them audited by auditors appointed by ADB.

**14. Anti-Corruption Policy**

- (i) The Recipient shall reject a proposal for award if it determines that the bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the contract in question.

- (ii) ADB will declare a firm or individual ineligible, either indefinitely or for a stated period, to be awarded a contract financed by ADB, if it at any time determines that the firm or individual has, directly or through an agent, engaged in corrupt, fraudulent, collusive, or coercive practices in competing for, or in executing, ADB-financed contract, as indicated in paragraph 1.14 (a) of ADB's Procurement Guidelines.

## **15. Disclosure of Decision on Contract Awards**

78. At the same time that notification of award of Contract is given to the successful bidder, the results of bid evaluation shall be published in a local newspaper or well-known freely accessible website identifying the bid and lot numbers and providing information on (i) name of each bidder who submitted a Bid; (ii) bid prices as read out at bid opening; (iii) name of bidders whose bids were rejected and the reasons for their rejection; and (iv) name of the winning bidder, and the price it offered, as well as duration and summary scope of the contract awarded. The executing agency and/or implementing agency and/or contracting authority shall respond in writing to unsuccessful bidders who seek explanations on the grounds on which their bids are not selected.

## **16. Member Country Restriction**

79. Universal procurement applies. No member country restriction.

## **E. Consultant's Term of Reference**

80. Detailed terms of reference of implementation support consultancy are provided in Annex 2.

# **VII. SAFEGUARDS**

## **A. Environment Safeguards**

81. The Project is classified environment Category B. The Environmental Assessment and Review Framework (EARF) (Linked Document 11) describes the measures required to ensure that potential environmental impacts are identified, avoided, reduced, and mitigated in accordance with ADB SPS (2009) and the laws and regulations of Afghanistan. The EARF covers subproject screening, categorization, and preparation of Initial Environmental Examinations (IEEs) for each Category B subproject. Each IEE will include impact assessment and mitigation, public consultation, information disclosure, and an environmental management plan (EMP). EMPs consist of plans for mitigation, monitoring, reporting, and stakeholder communication during pre-construction, construction, and operation phases.

82. The IEE prepared for the three representative subprojects (RSPs Laqi, Sharawan, Seyaab (Supplementary Document 10) describes RSP screening, categorization, assessment, public consultation, anticipated environmental adverse impacts, required mitigation and monitoring measures, and roles and responsibilities of implementing agency staff, consultants, and contractors. The IEE concluded that the impacts of the implementation of representative subprojects with EMP will be environmentally acceptable. The MEW has disclosed IEE results relevant to stakeholders through the relevant sub-basin agency offices in a Dari language booklet (combined with the public disclosure booklet for the LARPs). RSP clearance certificate applications will be submitted to NEPA by the PMOs prior to works contracts being signed; EMP

measures have been incorporated into civil works designs (in the case of physical measures) and contracts.

83. Subprojects prepared during Project implementation will follow the safeguard procedures set forth in the EARF. Responsibility for supervision of EARF implementation rests with the PMOs of the MEW and the MAIL. The environment specialist(s) of the feasibility study and design team contracted by MEW, and the environment safeguards officer contracted by MAIL will screen and classify MEW and MAIL civil works proposals respectively, as ADB Category A, B, or C. They will then prepare an IEE with EMP for each Category B subproject and a summary of environmental implications for each Category C subproject. MEW and MAIL PMOs will ensure that IEE findings are locally disclosed; IEEs are submitted to ADB for review and clearance unless exempt; clearance certificate applications are submitted to NEPA; EMP measures are incorporated into civil works designs and contracts, and that their PIOs undertake required environmental monitoring and reporting, and perform their assigned roles in the grievance redress mechanism (GRM).

## **B. Social Safeguards**

84. The project is classified Category C for indigenous peoples. Project preparation activities have determined that there will be no indigenous peoples issues associated with the project.

85. The project is classified as category B for involuntary resettlement impacts.

86. The Land Acquisition and Resettlement Framework (LARF) (Linked Document 15) describes the measures required to ensure that potential land acquisition and resettlement impacts are identified, avoided, reduced, and mitigated in accordance with ADB SPS (2009) and the laws and regulations of Afghanistan. The LARF covers subproject screening, categorization, and preparation of Land Acquisition and Resettlement Plans (LARPs or RPs) for each Category B subproject. Each LARP will include impact assessment and mitigation, public consultation, and information disclosure. The LARF specifies that subprojects with major social impacts, i.e., significant resettlement impact as outlined in the ADB Safeguard Policy Statement (June 2009) for category A for resettlement, and involving physical displacement and loss of livelihood for category B will not be considered.

87. The LARPs prepared for the three representative subprojects (RSPs Laqi, Sharawan, Seyaab (Linked Documents 12–14) describes RSP screening, categorization, assessment, public consultation, anticipated adverse impacts, required mitigation and monitoring measures, and roles and responsibilities of implementing agency staff, consultants, and contractors. The LARPs concluded that the impacts of the implementation of representative subprojects with minimal consisting only of the removal of trees along the right of way of the canals, for which compensation is required. The MEW has disclosed LARP results relevant to stakeholders through the relevant sub-basin agency offices in a Dari language booklet (combined with the public disclosure booklet for the IEEs). Compensation will be undertaken by contractors once they are recruited.

88. Subprojects prepared during Project implementation will follow the safeguard procedures set forth in the LARF. Responsibility for supervision of LARF implementation rests with the PMOs of the MEW and MAIL. The social safeguard specialist(s) of the feasibility study and design team contracted by MEW, and the social safeguards officer contracted by MAIL will screen and classify MEW and MAIL civil works proposals respectively, as ADB Category A, B, or C. They will then prepare a LARP for each Category B subproject and a summary of land

acquisition and resettlement implications for each Category C subproject. MEW and MAIL PMOs will ensure that LARP findings are locally disclosed; LARPs are submitted to ADB for review and clearance unless exempt; compensation measures are incorporated into civil works designs and contracts, and that their PIOs undertake required mitigation monitoring and reporting, and perform their assigned roles in the grievance redress mechanism (GRM).

89. Pursuant to ADB's Safeguard Policy Statement (2009) (SPS),<sup>29</sup> ADB funds may not be applied to the activities described on the ADB Prohibited Investment Activities List set forth at Appendix 5 of the SPS. The implementing agencies will ensure that the project is in compliance with applicable national laws and regulations and will apply the prohibited investment activities list to the project financed by ADB.

### **VIII. GENDER AND SOCIAL DIMENSIONS**

90. Project interventions will be done in a manner whereby the neutral role of the project cannot be questioned, which may otherwise put the project and staff in a security risk. Specific gender-related activities implemented by the project will include the following (i) promotion of the involvement of women membership in WUAs/IAs and specific training for men where appropriate to raise awareness on the importance of gender involvement in WUAs/IAs, and specific training for women members of WUAs/IAs to increase their skill sets; (ii) construction of domestic (and livestock) water access points along canals; (iii) inclusion of women in training demonstrations given to farms on improved on-farm water management and agronomic techniques, and specific training for women on household plot vegetable and fruit growing; and (iv) NRM plans prepared with due regard for the role of women in watershed activities, particularly income-generating activities. All training for women will be conducted by female trainers to ensure willingness to participate.

91. The project will also ease women's water-fetching and laundry chores as it will install water access points along canals for household use. In addition, structures such as offtakes will be adapted as footbridges at appropriate locations along the canals to facilitate movements of human and farm produces. The PIOs will be responsible for ensuring such activities are undertaken. PMOs will lead the implementation and monitoring and reporting quarterly reports of gender-inclusive design features.

92. The cost for implementing the activities is incorporated in the cost allocation for each project output. The above mentioned public disclosure document for the IEEs and LARPs for the three representative subprojects also includes information on gender related activities.

### **IX. PERFORMANCE MONITORING, EVALUATION, REPORTING, AND COMMUNICATION**

93. The implementing agencies, MEW and MAIL will be responsible for monitoring project progress and evaluating project outputs. Monitoring and evaluation shall be in accordance with the DMF and each implementing agency will be responsible for regular reporting, with MEW producing consolidated report and submit to MOF and ADB.

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<sup>29</sup> Available at: <http://www.adb.org/documents/safeguard-policy-statement>.



## A. Project Design and Monitoring Framework

<b>Impacts the Project is Aligned with</b>			
Per capita income increased and poverty among rural and pastoral communities reduced. (Afghanistan National Development Strategy) <sup>a</sup>			
<b>Results Chain</b>	<b>Performance Indicators with Targets and Baselines</b>	<b>Data Sources and Reporting Mechanism</b>	<b>Risks</b>
<p>Outcome</p> <p>Agricultural productivity in the Panj-Amu River Basin increased</p>	<p>a. Cropping intensities increased by 20.3% (baseline 2016: 148.1%; target 2023: 168.4%) in total command area of 74,500 ha<sup>b</sup></p> <p>b. Crop yields for wheat and rice increased by 7.0% (baseline 2016: wheat 3.081 tons/ha, rice 3.320 tons/ha; target 2023: wheat 3.297 tons/ha, rice 3.552 tons/ha)<sup>b</sup></p>	<p>a–b. PPMS and crop production surveys at the end of project</p>	<p>Extreme climate events hamper agricultural production</p> <p>Security deteriorates</p>
<p>Outputs</p> <p>1. Water allocation and availability improved</p> <p>2. Command areas enhanced</p>	<p>By 2022:</p> <p>1a. Head works and main canals rehabilitated and upgraded in approximately 21 schemes (including approximately 84 domestic and 21 livestock access points) (baseline 2016: 0)</p> <p>1b. O&amp;M agreements signed by WUA for all completed works, or with government assurance of continued O&amp;M (baseline 2016: 0)</p> <p>1c. 112 WUAs established and officially registered with MEW (baseline 2016: 0)</p> <p>By 2022:</p> <p>2a. Secondary and tertiary canals rehabilitated and upgraded in approximately 21 schemes (including approximately 21 domestic and 21 livestock access points) (baseline 2016: 0)</p> <p>2b. O&amp;M agreements signed by IAs for all completed works (baseline 2016: 0)</p>	<p>1a. PPMS and project progress reports</p> <p>1b. Signed O&amp;M agreements</p> <p>1c. MEW registrar</p> <p>2a. PPMS and project progress reports</p> <p>2b. Signed O&amp;M agreements</p>	<p>Increased security concerns in project areas hampers engagement of competent contractors</p> <p>Community-contracting not possible due to political interference from CDCs</p>

Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting Mechanism	Risks
3. Watersheds properly managed and protected	<p>2c. Approximately 106 IAs established and officially registered with MAIL (baseline 2016: 0)</p> <p>2d. Approximately 6,300 farmers (including women) adopted on-farm water management techniques (baseline 2016: 0)</p> <p>By 2022: 3a. Approximately 10,000 hectares of forestry and/or rangeland restored and/or protected<sup>c</sup> (baseline 2016: 0)</p> <p>3b. Twenty-one catchment management associations established and registered with MAIL (baseline 2016: 0)</p> <p>3c. Twenty-one NRM plans prepared and implemented (baseline 2016: 0)</p>	<p>2c. MAIL registrar</p> <p>2d. PPMS and project progress reports</p> <p>3a. PPMS and project progress reports</p> <p>3b. MAIL registrar</p> <p>3c. Approved NRM plan and PPMS</p>	
<p><b>Key Activities with Milestones</b></p> <p><b>1. Output 1: Water allocation and availability improved</b></p> <p>1.1 Commence construction of three representative subprojects by Q2 2017.  1.2 Conduct feasibility and detailed design studies for other subprojects by Q3 2017.  1.3 Commence construction for other subprojects started by Q4 2017.  1.4 Establish river basin model and put in use by Q3 2019.  1.5 Commission and hand over all works completed to WUAs or SBAs by Q4 2022.</p> <p><b>2. Output 2: Command areas enhanced</b></p> <p>2.1 Tender designed works by Q1 2018.  2.2 Train DAAIL's staff to become trainers by Q4 2017.  2.3 Establish approximately 21 crop production demonstrations by Q2 2018.  2.4 Commission and hand over all works completed to IAs by Q4 2022.</p> <p><b>3. Output 3: Watersheds are properly managed and protected</b></p> <p>3.1 Identify watersheds in the vicinity of subprojects by Q4 2017.  3.2 Prepare community-based NRM Technical Manual and Guidebook by Q1 2018.  3.3 Prepare 21 NRM plans (plus one pilot PES plan) by Q2 2018.  3.4 Assist 21 catchment management associations in consultation, establishment, and registration by Q3 2018.  3.5 Complete restoration and/or protection of selected watersheds by Q4 2022.</p> <p><b>Project management activities</b></p> <p>Set up PPMS by Q4 2016.  Mobilize implementation support consultants by Q1 2017.  Purchase office equipment, furniture, and vehicles by Q2 2017.  Prepare project completion report by Q4 2022.</p>			

**Inputs**

ADB: \$26.0 million (grant)

EU: \$50.0 million (grant)

Government: \$0.75 million

**Assumptions for Partner Financing: Not Applicable**

ADB = Asian Development Bank; ADF = Asian Development Fund; CDC = commune development council; DAIL = Department for Agriculture and Livestock; EU = European Union; IA = irrigation association; MAIL = Ministry of Agriculture, Irrigation and Livestock; MEW = Ministry of Water and Energy; NRM = natural resources management; O&M = operations and maintenance; PES = payments for ecosystem services; PPMS = project performance monitoring system; Q = quarter; WUA = water users association.

<sup>a</sup> Islamic Republic of Afghanistan. July 2010. *Afghanistan National Development Strategy, Prioritization and Implementation Plan, Mid 2010-2013, Volume 1*. Kabul, Afghanistan.

<sup>b</sup> Based on financial and economic analysis estimates (para 84, Supplementary Document 5).

<sup>c</sup> All are in watersheds adjacent to irrigation schemes under Outputs 1 and 2.

Source: Asian Development Bank.

**B. Monitoring**

94. **Project Performance Monitoring.** The MEW will lead the development of comprehensive project performance monitoring systems (PPMS) with inputs from MAIL, and closely monitor the progress of project activities, outputs, and outcomes based on the PPMS in accordance with the DMF and subsets of indicators as detailed in Supplementary Documents 22, 23, and 24. In particular, the PPMS will assess the following outputs and indicators (i) progress of planned activities according to the milestones, and (ii) progress in achieving each project output and project outcome according to the performance targets and indicators indicated in the DMF.

95. Information and data gathered during the project implementation period will be analyzed and measured against the targets. The IAs will submit quarterly progress reports, covering progress and achievements during the period against milestones and indicators in the DMF, and a project completion report at the last year of project implementation, outlining the achievements and lessons learned. MEW will prepare a consolidated report.

96. **Compliance monitoring.** All project assurances will be monitored through the quarterly progress reports, and during ADB review missions.

97. ADB will also monitor the progress of achievement of each output and outcome based on performance indicators with targets, and each activity based on milestones indicated in the DMF through a project management information system (i.e. e-Ops).

98. **Environmental impact and mitigation monitoring.** The EMP of each subproject IEE includes a monitoring plan. During the construction phase, the general approach will be for the environmental monitoring plan to be integrated into the work plans, schedules, procedures, and checklists of PIO construction supervisors. ISC and PMO specialists and/or officers will provide on-the-job training and backstopping to construction supervisors as required. The environment safeguards officers will provide inputs into quarterly and annual progress reports detailing environmental safeguard progress, and prepare and submit to ADB semi-annual Environmental Safeguard Reports.

99. **Involuntary resettlement monitoring.** Monitoring of each subproject LARP will be undertaken by PIO construction supervisors. ISC and PMO specialists and/or officers will provide on-the-job training and backstopping to construction supervisors as required. The social safeguards officers will provide inputs into quarterly and annual progress reports detailing environmental safeguard progress, and prepare and submit to ADB semi-annual Social Safeguard Reports.

### C. Evaluation

100. **Inception Mission.** ADB will conduct an inception mission within 3 months of grant signing to assess project readiness and implementation arrangements including establishment of PMO, PIOs, opening of an imprest account, status of the development of the PPMS, and progress of advance procurement actions including recruitment of the ISC firm and the contractor for the first three representative subprojects.

101. **Review Mission.** ADB will field review missions at least once a year to (i) assess the progress of project activities and outputs and effectiveness of implementation arrangements, (ii) monitor safeguard compliance with *ADB Safeguard Policy Statement (2009)*, (iii) review compliance with grant agreements and related matters, (iv) follow up on decisions and actions agreed during previous review missions, and (v) resolve any project implementation issues that may arise.

102. **Midterm Review Mission.** ADB will conduct a midterm review in the fourth year of project implementation. The midterm review will (i) assess the project performance and achievement against targets and milestones in the DMF; (ii) review the initial outcomes, benefits, and impact of the project, and (iii) identify gaps, if any, and recommend necessary changes to strengthen implementation arrangements or modify project design.

103. **Project Completion Review Mission.** ADB will field a project completion review mission upon physical completion of the project to commence preparation of ADB's project completion report (PCR). The mission will (i) assess the project performance against all targets, indicators, and benchmarks (including any revised at the midterm review); (ii) evaluate initial benefits, and outcome of the project across outputs; and (iii) identify any incomplete activities and agree on the necessary actions.

### D. Reporting

104. The implementing agencies through the PMOs will submit to ADB the following reports (i) quarterly progress reports in a format consistent with ADB's standards; and (ii) annual reports including (a) progress achieved by output as measured through the indicator's performance targets, (b) key implementation issues and solutions, (c) updated procurement plan, (d) issues concerning environment and social safeguards (through semi-annual reports); and (e) updated implementation plan for next the 12 months.

105. The implementing agencies through the PMOs will submit a government's PCR within 6 months of physical completion of the project, which will be consolidated into one report by MEW. The government's PCR will evaluate the performance and achievements of the project

against the indicators, expected benefits, and outcome, and should include information on (a) project implementation, and (b) the use of grant funds to ADB.<sup>30</sup>

## E. Stakeholder Communication Strategy

106. The EARF and LARF contain a public consultation and/or information disclosure plan and grievance reporting mechanism. Public consultation meetings will be held as part of each subproject feasibility study, with findings relevant to local stakeholders disclosed in a form, place, and language accessible to them prior to tendering. During construction, PIO construction supervisors will liaise frequently with WUAs and IAs where these exist (and with community leaders where they do not) to disclose information, receive and respond to questions and comments, and to record and address grievances; unresolved issues can be progressively escalated to PIOs and PMOs progressively. During operation and maintenance, WUAs, IAs, SBAs, DAILs, district governors, and PMOs will exchange information about subproject performance, including environmental and social impact and mitigation information.

**Table 20: ADB Public Communications Strategy**

Project Documents	Means of Communication	Responsible Party	Frequency	Audience(s)
Project data sheet (PDS)	ADB's website	ADB	Initial PDS posted on the website no later than two weeks after approval of the concept paper; updated at least twice a year	General Public
Design and Monitoring Framework (DMF)	ADB's website	ADB	Key information from the draft reflected in project data sheet; final version posted on the website at the same time it is circulated to the Board for approval, subject to the concurrence of the government	General Public
Initial Environmental Examination	ADB's website	ADB	Post fact-finding mission and for all Category B projects	General Public, project-affected people in particular
Resettlement Planning Documents	ADB's website	ADB	Post fact-finding mission and for all Category B projects	General Public, project-affected people in particular
Reports and Recommendations of the President	ADB's website	ADB	Posted on the website within 14 days of Board approval of the grant	General Public
Legal and Grant Agreements	ADB's website	ADB	No later than 14 days of signing	General Public
Summary of Poverty Reduction and Social Strategy	ADB's website	ADB	Posted on the website at the same time it is circulated to the Board for approval, subject to concurrence of the government	General Public
Documents Produced under Technical Assistance	ADB's website	ADB	within 2 weeks of completion	General Public

<sup>30</sup> Project completion report format is available at: <http://www.adb.org/Consulting/consultants-toolkits/PCR-Public-Sector-Landscape.rar>.

<b>Project Documents</b>	<b>Means of Communication</b>	<b>Responsible Party</b>	<b>Frequency</b>	<b>Audience(s)</b>
Project Administration Manual	ADB's website	ADB	Posted on the website within 14 days of Board approval of the grant	General Public
Social and Environmental Safeguard Monitoring Reports	ADB's website	ADB	Within 1 month after each 6 month monitoring period	General Public, project-affected people in particular
Audited project financial statements and the auditors' report	ADB's website	ADB	Within 30 days of receipt	General Public
Project Completion Report	ADB's website	ADB	Within two weeks of circulation to the Board for information	General Public
Evaluation Report	ADB's website	ADB	Within two weeks of circulation to Management and the Board	General Public

Source: Asian Development Bank.

## **X. ANTICORRUPTION POLICY**

107. ADB reserves the right to investigate, directly or through its agents, any violations of the Anticorruption Policy relating to the project.<sup>31</sup> All contracts financed by ADB shall include provisions specifying the right of ADB to audit and examine the records and accounts of the implementing agencies and all project contractors, suppliers, consultants and other service providers. Individuals and/or entities on ADB's anticorruption debarment list are ineligible to participate in ADB-financed activity and may not be awarded any contracts under the project.<sup>32</sup>

108. To support these efforts, relevant provisions are included in the grant agreements and the bidding documents for the project. The Government, through MOF, MEW and MAIL, will ensure that the anticorruption provisions acceptable to ADB are included in all bidding documents and contracts including provisions specifying the right of ADB to audit and examine the records and accounts of the executing agencies and all contractors, suppliers, consultants, and other service providers as they relate to the Project.

109. The IAs will preferably provide updated information on the project on their websites, including information on the performance of the project, business opportunities, bidding process and guidelines, outcome of biddings and summary progress reports of the project.

## **XI. ACCOUNTABILITY MECHANISM**

110. People who are, or may in the future be, adversely affected by the project may submit complaints to ADB's Accountability Mechanism. The accountability mechanism provides an independent forum and process whereby people adversely affected by ADB-assisted projects can voice, and seek a resolution of their problems, as well as report alleged violations of ADB's operational policies and procedures. Before submitting a complaint to the accountability mechanism, affected people should make a good faith effort to solve their problems by working with the concerned ADB operations department. Only after doing that, and if they are still dissatisfied, should they approach the accountability mechanism.<sup>33</sup>

<sup>31</sup> Available at: <http://www.adb.org/Documents/Policies/Anticorruption-Integrity/Policies-Strategies.pdf>

<sup>32</sup> ADB's Integrity Office web site is available at: <http://www.adb.org/integrity/unit.asp>

<sup>33</sup> For further information see: <http://www.adb.org/Accountability-Mechanism/default.asp>.

## XII. RECORD OF PAM CHANGES

111. All revisions and/or updates during the course of implementation should be retained in this Section to provide a chronological history of changes to implemented arrangements recorded in the PAM.

#	Description of Revision	Date
1	Initial draft for discussion	May 2016
2	Fact Finding Mission	June 2016
3	Incorporating comments from cross-departmental review	July 2016
4	Incorporating comments from Management Review Meeting	August 2016
5	Incorporating comments from Grant Negotiations	5 September 2016
6		
7		
8		
9		

## ANNEX 1: LIST OF CANDIDATE SUBPROJECTS

	Sub-Basin	Province	District	Canal Name	Surveyed Command Area (ha)	Summary Description	MEW – headworks (\$)	MEW - main canal conveyance and distribution (\$)	MAIL- secondary and tertiary canals (\$)	Total (\$)	Total scheme cost \$/ha	Estimated # hh	Estimated # beneficiaries
1	Kokcha	Badakhshan	Baharak	Kocha Hasar	715	Headwork, offtakes, canal lining, wash protection, bank protection, 5 culverts	350,000**	500,500**	71,500	922,000	1,290	536	4,440
2	Kokcha	Badakhshan	Baharak	Sar-e-Shar	1,703	Cross-regulator, offtakes, canal lining, wash protection, bank protection, 1 culvert		1,192,100	170,300	1,362,400	800	1,277	10,576
3	Kokcha	Badakhshan	Baharak	Farhad	519	Headwork, offtakes, canal lining, wash protection, bank protection, 5 culverts	350,000	363,300	51,900	765,200	1,474	389	3,223
4	Kokcha	Badakhshan	Kishim	Seyaab*	400	Cross-regulators, offtakes, wash protection, bank protection		406,742	40,000	446,742	1,117	300	2,142
5	Lower Panj	Takhar	Dashtqala	Dashtqala	6,247	Offtakes, bank protection, canal extension		2,186,450	624,700	2,811,150	450	4,685	28,580
6	Lower Panj	Takhar	Darqad	Qaghni	466	Headwork, offtakes, wash protection, bank protection, 2 culverts	350,000	326,200	46,600	722,800	1,551	350	2,219
7	Lower Panj	Takhar	Khojabahauddin	Qataqjar	1,907	Off-takes, bank protection, 1 culvert		1,334,900	190,700	1,525,600	800	1,430	13,730
8	Lower Panj	Takhar	ChaAb	Yatim Tapa	12,200	Cross-regulators, offtakes, canal lining, bank protection, 2		4,270,000	1,220,000	5,490,000	450	9,150	52,155



	Sub-Basin	Province	District	Canal Name	Surveyed Command Area (ha)	Summary Description	MEW – headworks (\$)	MEW - main canal conveyance and distribution (\$)	MAIL- secondary and tertiary canals (\$)	Total (\$)	Total scheme cost \$/ha	Estimated # hh	Estimated # beneficiaries
						culverts							
9	Lower Panj	Takhar	Khojabahuddin	Arpoli	724	Headwork , spillway, cross-regulators, offtakes, bank protection	350,000**	506,800**	72,400	929,200	1,283	543	5,213
10	Lower Panj	Takhar	Khojabahuddin	Momen Abad	1,449	Cross-regulators, offtakes, canal lining, bank protection, 2 culverts		1,014,300	144,900	1,159,200	800	1,087	10,433
11	Taloqan	Takhar	Taloqan center	Nar e Chaman	1,014	Bank protection		709,800	101,400	811,200	800	761	5,605
12	Taloqan	Takhar	Taloqan Center	Shorab	842	Headwork, canal lining, wash protection, bank protection, spillway, controlled gate and sluice gate	350,000	589,400	84,200	1,023,600	1,216	632	4,654
13	Taloqan	Takhar	Taloqan center	Qulbars	835	Bank protection		584,500	83,500	668,000	800	626	4,615
14	Taloqan	Takhar	Taloqan Center	Sharawan-Takhar	11,122	Cross-regulators, off-takes, canal lining, wash protection, bank protection		3,892,700	1,112,200	5,004,900	450	8,342	61,477
15	Taloqan	Takhar	TaloqanCenter	Sharawan-Takhar*	1,831	Cross-regulators, off-takes, canal lining, wash protection, bank protection		2,006,978	183,100	2,190,078	1,196	1,373	10,121
16	Taloqan	Kunduz	Kunduz Center	Naqi Kunduz	647	Cross-regulators, off-takes, wash protection, bank protection		452,900	64,700	517,600	800	485	3,945
17	Taloqan	Kunduz	Kunduz Center	Gul Tepa	6,063	Headworks, off-takes, wash protection, bank	500,000	2,122,050	606,300	3,228,350	532	4,547	36,969

	Sub-Basin	Province	District	Canal Name	Surveyed Command Area (ha)	Summary Description	MEW – headworks (\$)	MEW - main canal conveyance and distribution (\$)	MAIL- secondary and tertiary canals (\$)	Total (\$)	Total scheme cost \$/ha	Estimated # hh	Estimated # beneficiaries
						protection, 2 controlled spillway and 1 divider							
18	Lower Kunduz	Kunduz	Chardara	Chardara	15,904	Headwork, canal lining, wash protection, bank protection	500,000	5,566,400	1,590,400	7,656,800	481	11,928	87,074
19	Lower Kunduz	Kunduz	Qalazal	Qala I Zal	4,120	Headwork, spillway, intake retaining wall, cross-regulators, off-takes, canal lining, wash protection, bank protection	500,000	1,442,000	412,000	2,354,000	571	3,090	24,813
20	Lower Kunduz	Kunduz	Qalazal	Aqtepa	4,260	Headwork, cross-regulators, off-takes, bank protection, dividers and spillway	500,000	1,491,000	426,000	2,417,000	567	3,195	25,656
21	Lower Kunduz	Kunduz	Aliabad	Abdullah	1,367	Off-takes, bank protection, three spillways		956,900	136,700	1,093,600	800	1,025	8,581
22	Lower Kunduz	Kunduz	Aliabad	Laqi*	163	Headwork, cross-regulators, off-takes, canal lining, wash protection, bank protection	200,000	160,349	16,300	376,649	2,311	122	1,023
					<b>74,498</b>		<b>3,950,000***</b>	<b>32,076,269****</b>	<b>7,449,800</b>	<b>43,476,069</b>	<b>584</b>	<b>55,874</b>	<b>407,245</b>

\* Representative subprojects. Note that Laqi is in fact a second-priority subproject but has been included on this list since it will be included in the first contract package.

\*\* The design and construction of headworks and main canal for Kocho Hasar and Arpoli schemes will be undertaken by MAIL as a pilot to test their capacity to implemented larger scale more complex irrigation R&U works.

\*\*\* Approximately \$3,250,000 through MEW and \$700,000 through MAIL.

\*\*\*\* Approximately \$31,068,969 through MEW and \$1,007,300 through MAIL.

Note: Two subprojects (14 and 15 in the list above) are in the same scheme – Sharawan-Takhar. Due to the size of this scheme additional work will be undertaken representing an additional subproject. Hence, 21 schemes but 22 subprojects.

## ANNEX 2: IMPLEMENTATION SUPPORT CONSULTANCY (ISC) SERVICES

1. **The Project.** The proposed project will increase agricultural productivity in the Panj-Amu River Basin<sup>1</sup> through improving access and use of water at farm, scheme and river levels.<sup>2</sup> The project will support the government strategy, which aims to increase per-capita income and reduce poverty among rural and pastoral communities.<sup>3</sup> It will improve cropping intensities, irrigated areas, and crop yields on a command area of 74,500 hectares (ha) and as a result, increase annual farm incomes in the range \$123–\$615 per household (or 11%–55%) for over 55,000 households, and create approximately 11,000 full-time rural jobs per annum, with an estimated value of \$10.4 million. The project will also improve food security, substitute imports for wheat, and improve self-sufficiency, and increase in exports of high-value products such as fruit and nuts. The project will also create more economic opportunities for agribusiness development, particularly for input suppliers and processors of and market intermediaries for agricultural products.
2. **Impact and Outcome.** The impact of the project is to increase per-capita income and reduce poverty among rural and pastoral communities (footnote 3). The project's outcome is increased agricultural productivity in the Panj-Amu river basin.
3. **Outputs.** The project has three outputs outlined below.
4. **Output 1: Water allocation and availability improved.** This output will provide the capacity and resources for MEW, and associated river basin agency (RBA), and sub-basin agencies (SBAs) in the Panj-Amu River Basin, to (i) improve the conveyance and allocation of water to irrigated areas through rehabilitating and upgrading head works and main canals in priority schemes with command area over 400 ha;<sup>4</sup> (ii) establish and strengthen the capacity of approximately 112 water users associations (WUAs)<sup>5</sup> to operate and maintain (O&M) conveyance infrastructure in these schemes to better distribute water between the head, middle and tail end of canals more equitably; and for them to work with RBA and SBAs to facilitate water sharing between schemes; and (iii) enhance the capacity of MEW, RBA and SBAs for more effective water allocation between schemes to benefit downstream users. In addition, support will also be provided to Afghan members of the Afghanistan-Tajikistan transboundary technical working group to prepare them for technical meetings and strengthen their ability to conduct negotiations regarding the set-up and operations of the Pyanj River Basin Commission.
5. **Output 2: Command areas enhanced.** This output will provide the capacity and resources for MAIL, and associated DAILs in the Panj-Amu river basin to: (i) improve irrigation infrastructure at the secondary and tertiary canal level in schemes identified for improvement under Output 1 in order to secure an integrated approach; (ii) establish and strengthen the capacity of approximately 105 IAs to operate and manage irrigation infrastructure in these schemes to improve distribution of water within schemes; and (iii) improve water use efficiency by improved on-farm water management and agronomic techniques (such as land levelling, bed

<sup>1</sup> Covering the provinces of Badakshan, Baghlan, Kunduz, Takhar, and partially Bamyan.

<sup>2</sup> European Union (EU) provided project preparatory technical assistance for the proposed project.

<sup>3</sup> Government of Afghanistan. 2010. *Afghanistan National Development Strategy: Prioritization and Implementation Plan, Mid 2010-Mid2013 (Volume 1)*. Kabul.

<sup>4</sup> Twenty-one schemes were selected as first priority schemes covering a command area of 74,500 ha in the Kokcha, Lower Kunduz, Lower Panj-Amu sub-basins, and Taloqan. For feasibility study, each scheme is referred to as a subproject. A list of candidate subprojects is accessible from the list of linked documents in Appendix 2.

<sup>5</sup> Including strengthening of WUAs already set-up in schemes through previous EU assistance.

and furrow irrigation, and intercropping) with approximately 6,300 farmers having improved knowledge from 21 demonstration plots.

6. **Output 3: Watersheds properly managed and protected.** This output will provide the capacity and resources for MAIL, and associated DAILs in the Panj-Amu River Basin to improve community-based watershed management. This output includes (i) preparation of a community-based natural resources management technical manual and guidebook; (ii) training of DAILs' staff as master trainers who will conduct training of communities; (iii) identification of approximately 21 watershed and/or rangeland sites for restoration and protection; (iv) creation of catchment management associations for these sites; and (v) preparation and implementation of natural resource management plans for these sites. These activities will help restore 10,500 hectares of forestry and/or rangeland in the vicinity of 21 prioritized schemes and protect irrigation structures under Outputs 1 and 2 from flash floods and sedimentation.

7. Using an integrated approach on each of the 21 schemes, MEW will undertake rehabilitation of headworks and main canals while MAIL will undertake rehabilitation of secondary and tertiary canals, on-farm work, and watershed protection work in the vicinity of the schemes to protect them from being washed away. For all three outputs, the project will provide technical resources to implementing agencies to ensure proper irrigation management and transfer (IMT). Specifically, the project assists the drafting, negotiation, and conclusion of pre-construction O&M agreements and hand-over and/or IMT agreements between SBAs and WUAs (Output 1), between DAILs and IAs (Output 2), and between DAILs and catchment management associations (Output 3).

8. The project will be implemented over a period of 6 years. The Executing Agency is the Ministry of Finance (MOF). The Implementing Agencies are the Ministry of Energy and Water (MEW) and the Ministry of Agriculture, Irrigation and Livestock (MAIL). MEW will set-up a Project Management Office (PMO) in its central office in Kabul with a Project Implementation Office (PIO) in the Panj-Amu River Basin Agency (RBA) in Kunduz. MAIL will set-up a PMO in its central office in Kabul with PIOs in the provincial Departments of Agriculture, Irrigation and Livestock (DAILs) in the five project provinces (Badakshan, Baghlan, Bamyan, Kunduz, and Takhar). MEW will be the implementing agency for output 1 and MAIL the implementing agencies for output 2. Both ministries will need to coordinate together in an effective and efficient manner.

9. **General Scope of Work.** The consultant (implementation support consultancy (ISC) firm) will assist MEW and MAIL in overall project implementation. Key aspects of the consultant's work will be:

- (i) to build capacity of staff in the PMOs and PIOs to undertake their tasks;
- (ii) to deliver training jointly with the PMOs and PIOs to government agencies involved in project implementation (notably the Panj-Amu RBA and Sub-basin Agencies (SBAs), the Department of Water Resources under the DG Water Affairs in MEW, and DAILs in the five project provinces;
- (iii) to help set-up systems and procedures (including relevant management and monitoring templates) for the PMOs and PIOs to follow;
- (iv) to provide technical oversight and guidance on technical aspects of the project; and
- (v) to help to foster coordination and synergy of project interventions between MEW and MAIL.

10. Consulting services are for international consultants only since allocation has been made for incremental project staff to be engaged by PMOs as and when needed. The ISC comprises a total of 214 person-months of international specialists over a period of 6 years. Advance action for recruitment of ISC will be requested to facilitate the timely mobilization of consultants. The ISC will be fielded shortly after loan effectiveness. All months will be field months (i.e. in Afghanistan). Home days during project implementation may be allowed on a case-by-case if justification is given, and with prior contracting authority approval. Consultants will be based in various locations, as provided in the table below. Working days are Saturday to Thursday. In Kabul, Thursdays can be worked from the consultant's place of stay (i.e. guesthouse or hotel). Additionally, the ISC firm will hire adequate support staff to support its consultants in undertaking their duties in an effective and efficient manner. The planning and deployment of manpower shall be arranged in coordination with the respective PMOs such that the person-months allocations shall be optimum. The summary input schedule is given in the table below.

#### Summary Input Schedule for Implementation Support Consultancy

Position	Unit	2017	2018	2019	2020	2021	2022	Total
Team Leader / Design & Supervision Engineer	P Month	10.0	10.0	10.0	10.0	8.0	7.0	55.0
Supervision Engineer	P Month	10.0	10.0	10.0	10.0	8.0	7.0	55.0
On Farm Water Management Specialist	P Month	9.0	9.0	6.0	6.0	6.0	6.0	42.0
Procurement & Financial Management Specialist	P Month	8.0	5.0	0.0	0.0	0.0	0.0	13.0
Hydrologist / Modeler	P Month	3.0	3.0	3.0	3.0	5.0	4.0	21.0
GIS Specialist	P Month	3.0	3.0	0.0	0.0	0.0	0.0	6.0
Trans Boundary Specialist	P Month	1.0	1.0	1.0	1.0	0.0	0.0	4.0
Environmental Safeguards Specialist	P Month	1.0	1.0	0.0	0.0	0.0	0.0	2.0
Social Safeguards Specialist	P Month	1.0	1.0	0.0	0.0	0.0	0.0	2.0
Watershed Management Specialist	P Month	5.0	5.0	4.0	0.0	0.0	0.0	14.0
<b>Total</b>		<b>51.0</b>	<b>48.0</b>	<b>34.0</b>	<b>30.0</b>	<b>27.0</b>	<b>24.0</b>	<b>214.0</b>

Source: ADB estimates.

11. The ISC will be selected and engaged in accordance with ADB's *Guidelines on the Use of Consultants* (2013, as amended from time to time). The MEW, with MAIL as a member of the bid evaluation committee, will recruit the ISC following the quality- and cost-based selection (QCBS) procedure with a standard quality to cost ratio of 80:20. The Terms of References of the ISC are outlined below.

#### 12. Team Leader/Design and Supervision Engineer (international, 55 person-months).

The international design and supervision engineer will be the team leader and, thus responsible for overall team coordination, and delivery of quality and timely outputs. Technically (s)he will support MEW in the delivery of Output 1, sub-component 1.1. (S)he will be a qualified engineer (preferably civil engineer) with adequate experience in the design and supervision of irrigation rehabilitation and upgrading works. (S)he will have had experience in setting up supervision systems and procedures with appropriate quality control. Experience with traditional irrigation systems, experience in the region (South and/or Central/West Asia), experience in providing training on irrigation R&U design and supervision, and experience in coordinating and managing teams will be preferable. (S)he will report to the MEW PMO Project Manager and will work in close co-ordination with the Senior Design and Supervision Engineer. (S)he will:

- (i) Be responsible for overall direction of the consultant team, and coordination and management of inputs, in consultation with ISC sub-component leaders;
- (ii) Manage the ISC relationships with government, the ADB and other stakeholders;
- (iii) Identify tasks on the critical path for output 1, sub-component 1.1, and ensure that implementation schedules follow an integrated approach;

- (iv) Ensure close coordination with other component teams so that an integrated approach is realized;
- (v) Assist the Senior Design and Supervision Engineer to coordinate with MAIL PMO staff under output 2 to agree on priority subprojects (using the list prepared by the PPTA team as a basis) such that both outputs work in the same schemes (at different levels);
- (vi) Select logical packages of subprojects for design and construction packages;
- (vii) Unless already undertaken at start-up by the PPTA team, prepare terms of reference for the Feasibility Study and Detailed Design consulting contract (tendered as an international QCBS tender). Assist in tender evaluation if requested. Once contracted (by MEW), this firm will be responsible for undertaking feasibility study and detailed design of irrigation R&U works (for headworks and main canal structures), plus preparation of tender documents, for subprojects selected by the PMO on a package-by-package basis. The firm will mobilize staff for each package on a demand-led basis according to specific instructions from the MEW PMO;
- (viii) Assist the Senior Design and Supervision Engineer, working with the SBAs and water users, to select priority structures for R&U in each scheme, on a package by package basis. Assist the PMO in requesting the feasibility study and design firm to then mobilize resources to prepare the designs and tenders for the works for the specific package;
- (ix) Provide oversight to the work of the feasibility study and detailed design firm by checking and commenting on deliverables;
- (x) In coordination with the feasibility study and detailed design firm, assist the Senior Design and Supervision Engineer in organizing and conducting training courses in irrigation R&U design (using the P-ARBP User's Manual and excel sheet) for staff from MEW, RBA, SBAs (and possibly national companies and staff from MAIL/DAILs) so that they are aware of the design process;
- (xi) Act as a member on evaluation committees if requested to do so;
- (xii) Assist the Senior Design and Supervision Engineer in setting-up supervision systems, following the supervision manual and practices set-up under the EU-funded Panj-Amu River Basin Programme. Organize training for SBA engineers (and private contractors) in such systems. Such training could be outsourced (e.g. to Kabul Polytechnic) to build local long-term capacity;
- (xiii) Prepare pro-formas for pre-construction O&M agreements and hand-over/irrigation management transfer (IMT) between SBAs and WUAs, and provide oversight to ensure these are initiated for each subproject;
- (xiv) Assist MEW and MAIL in drafting O&M policy to facilitate this policy's operationalization by 2020 to guide the O&M and handover/IMT of all irrigation structures nation-wide;
- (xv) Assist the Senior Design and Supervision Engineer in providing oversight of the construction works, and hand-over to the WUA;
- (xvi) Assist the Output 1, sub-component 1.2 team, and Output 2, sub-component 2.2 team, as requested, in conducting training for WUAs/IAs in operation and maintenance (O&M);
- (xvii) Provide assistance to the PMO and PIO in project monitoring and reporting;
- (xviii) Assist in the implementation of gender development activities; and
- (xix) Prepare ISC quarterly progress reports (the first one of which will be replaced by an inception report and the final one by a final report), plus brief monthly summary reports (5 pages max) with support as required from other team members.

**13. Supervision Engineer (international, 55 person-months).** The international supervision engineer will support MEW in the delivery of Output 1, sub-component 1.1. (S)he will be a qualified engineer (preferably civil engineer) with adequate experience in the supervision of hydraulic work construction (preferably irrigation works). (S)he will have had experience in setting up supervision systems and procedures with appropriate quality control. Experience of working with civil engineering companies or water agencies on hydraulic rehabilitation and upgrading projects in developed or developing countries will be preferable. Willingness to work in the RBA and SBAs in the project area, security permitting, is preferable. (S)he will report to the ISC team leader and/or design and supervision engineer, and will work in close coordination with the Senior Design and Supervision Engineer and SBAs. (S)he will:

- (i) Assist the Team Leader and Senior Design and Supervision Engineer in working with stakeholders to select priority subprojects (using the list prepared by the PPTA team as a basis). Select logical packages of subprojects for design and construction packages;
- (ii) Assist the Team Leader and Senior Design and Supervision Engineer, working with the SBAs and water users, to select priority structures for R&U in each scheme, on a package by package basis;
- (iii) Assist the Team Leader and Senior Design and Supervision Engineer in setting-up supervision systems, following the supervision manual and practices set-up under the EU-funded Panj-Amu River Basin Programme. Help to organize training for SBA engineers (and private contractors) in such systems. Such training could be outsourced (e.g. to Kabul Polytechnic) to build local long-term capacity;
- (iv) Assist the Senior Design and Supervision Engineer in providing oversight of the construction works, and hand-over to the WUA;
- (v) Assist the Output 1, sub-component 1.2 team, and Output 2, sub-component 2.2 team, as requested, in conducting training for WUAs and/or IAs in operation and maintenance (O&M); and
- (vi) Provide assistance to the team leader, PMO and PIO in project monitoring and reporting.

**14. Hydrologist/River Basin Modeler (international, 21 person-months).** The hydrologist/modeler will be responsible for team coordination, and delivery of quality and timely outputs, under Output 1, sub-component 1.3. (S)he will have a relevant educational background with at least ten years' experience in hydrology and river basin modelling, including knowledge of WEAP. (S)he should be highly proficient in MS Excel (including the use of pivot tables) and MS Access. Experience in the region (South and/or Central/West Asia), experience in providing training on river basin planning tools, and experience of using ArcGIS will be preferable. (S)he will report to the Director of the Water Management Department under the DG Water Affairs in MEW. (S)he will:

- (i) Be responsible for overall direction of the Output 1, sub-component 1.3 consultant team, and co-ordination and management of inputs;
- (ii) Identify tasks on the critical path for output 1, sub-component 1.3, and ensure that implementation schedules follow an integrated approach;
- (iii) Ensure close coordination with other component teams so that an integrated approach is realized;

- (iv) Provide support and on-the-job training<sup>6</sup> to the Department, working with the RBA and SBAs, in strengthening the water resources planning system. This will include: (a) strengthening data collection and storage systems including developing a knowledge base (linked to GIS, working with the GIS specialist); (b) setting up a river basin model (building on the WEAP model already prepared under a previous project [AWARD]<sup>7</sup>) in order to produce more accurate and timely water availability forecasts; (c) improve data dissemination to the RBA, SBA and farmers through the preparation and implementation of a water resources data management and dissemination policy and plan (with the assistance of the senior river basin planning and management officer); (d) working with the senior river basin planning and management officer to ensure such information is used and converted into field-level actions (by RBA/SBAs) and farmers through preparation and implementation of water sharing arrangements to aid more equitable water distribution between and within schemes. This will require support to the RBA/SBAs in creating rating curves for each main canal. Also by ensuring that water availability information reaches farmers in the most appropriate manner, so that they can change farm management practice (with support from output 2, sub-component 2.3). (e) ensuring data from the model is accessible to other stakeholders (in MEW and other ministries, plus other donors and projects) to assist them in preparing river basin investment and management plans;
- (v) Assist in preparing technical specifications for equipment (and works) to be procured under this output including: mobile staff gauges for un-gauged river tributaries (e.g. in Upper Panj); relocation of six existing permanent gauging stations; 12 automatic rain and snow gauges (to only be procured once adequate capacity has been built in the department to undertake effective water resources planning; ARcGIS Spatial Analyst software; and a boat and trailer for water flow monitoring on the Panj-Amu river (in support of agreements made with Government of Tajikistan under the Afghan/Tajik transboundary technical working group). In addition, provide support for the identification of sites for the gauges;
- (vi) Guide and oversee the senior river basin planning and management officer in his/her tasks which are to (a) help strengthen central-level inter-agency co-ordination; and (b) help strengthen co-ordination between (S)RBA/DAIL/DRRD in river basin planning and management; and
- (vii) Provide assistance to the team leader, PMO and PIO in project monitoring and reporting.

15. **GIS Specialist (international, 6 person-months).** The GIS Specialist will support MEW in the delivery of Output 1, sub-component 1.3. (S)he will have a relevant educational background with at least ten years' previous experience in GIS (including ArcGIS). (S)he should be highly proficient in MS Excel (including the use of pivot tables) and MS Access. Experience in the region (South and/or Central/West Asia), of using GIS for water resources planning, in providing training on GIS, and of using all various modules of ArcGIS, including spatial analyst is preferable. (S)he will report to the Director of the Water Management Department under the DG Water Affairs in MEW, and will work closely with the international hydrologist/river basin modeler. (S)he will:

<sup>6</sup> Plus formal training in short 1-2 day courses for problem areas.

<sup>7</sup> And in the longer-term possibly linked to snowmelt and rainfall-run off models.



- (i) Provide support and on-the-job training to the Department, working with the RBA and SBAs, in strengthening the GIS system and/or knowledge base set-up in the RBA under the EU-funded Panj-Amu River Basin Programme, combining this with the GIS and/or knowledge base set-up under the World Bank funded AWARD project to ensure that a consolidated GIS/knowledge base is used by MEW;
- (ii) Ensure that data from all project components is included in the GIS and/or knowledge base and is utilized by them for their needs;
- (iii) Provide assistance to the hydrologist/river basin modeler in setting up a river basin model (using WEAP) based on the knowledge base/GIS;
- (iv) Provide assistance to the hydrologist/river basin modeler in the preparation and implementation of a water resources data management and dissemination policy and plan (with the assistance of the senior river basin planning and management officer);
- (v) Assist in preparing presentation materials (e.g. schematics, maps) which can be utilized for project purposes and also for use by RBAs/SBAs and farmers for their decision-making processes;
- (vi) Assist in preparing technical specifications for ArcGIS Spatial Analyst software for the procurement tender; and
- (vii) Provide assistance to the team leader, PMO and PIO in project monitoring and reporting.

**16. Transboundary Specialist (international, 4 person-months).** The transboundary specialist will support MEW in the delivery of Output 1, sub-component 1.3. (S)he will have a relevant educational background with at least ten years' experience in facilitating transboundary dialogue and negotiations on water analysis, sharing and use. Experience of supporting and providing training to governments in the region (South and/or Central/West Asia), knowledge of the Amu Darya river basin, and experience of drafting the water law is preferable. (S)he will report to the PMO Project Manager in MEW. (S)he will:

- (i) Assess whether additional members should be included in the Afghan/Tajik transboundary technical working group from the Afghan side (such as from the Ministry of Foreign affairs);
- (ii) Provide training to Afghan members of the Afghan/Tajik transboundary technical working group to prepare for WG meetings to be held in Dushanbe. Training will cover transboundary issues, in particular on agenda points that will come up in meetings, including providing assistance to the working group to review and comment on the proposed agreement for the set-up of a Pyanj River Basin Commission. Such training would likely be undertaken twice per year for four years prior to the working group meetings taking place. First training will be provided over a two day period, and then a pre-working group meeting will take place over 2 days; and
- (iii) Provide assistance to the team leader, PMO and PIO in project monitoring and reporting.

**17. On-farm water management specialist (international, 42 person-months).** The on-farm water management specialist will support MEW in the delivery of Output 1, sub-component 1.2 (approximately 20% of time) and MAIL in the delivery of Output 2 (all sub-components) (approximately 80% of time). (S)he will be a qualified engineer (preferably irrigation engineer, agricultural engineer or civil engineer) with adequate experience in the design and supervision of secondary and tertiary canal irrigation rehabilitation and upgrading works; in the

establishment and strengthening of community-based water management organizations; and in on-farm water management (such as land levelling and improved agricultural techniques). Experience in the region (South and/or Central/West Asia) is preferable. (S)he will report to the Project Manager in MEW PMO and the Project Director in MAIL PMO. (S)he will:

18. Assist in coordination between MAIL and MEW as follows:
  - (i) Ensure close coordination with other component teams so that an integrated approach is realized;
  - (ii) Assist the Irrigation Design Engineer to co-ordinate with MEW staff under output 1 to agree on priority subprojects (using the list prepared by the PPTA team as a basis) such that both outputs work in the same schemes (at different levels)). Select logical packages of subprojects for construction packages.
  
19. Provide support to MAIL in implementation of output 2 as follows:
  - (iii) Identify tasks on the critical path for output 2, (all sub-components) and ensure that implementation schedules follow an integrated approach;
  - (iv) Assist the Irrigation Design Engineer, working with DAILs and water users, to select priority structures for R&U in each scheme (at the secondary and tertiary level), on a package by package basis;
  - (v) Assist the Irrigation Design Engineer, and MAIL and DAIL design teams, to prepare designs and tender packages for the works, following standard designs as exist in for example the FAO design manual;
  - (vi) Assist the Irrigation Design Engineer in organizing and conducting training courses in irrigation R&U design for staff from MAIL/DAILs;
  - (vii) Act as a member on evaluation committees if requested to do so;
  - (viii) Assist the PMO, together with the international procurement and financial management specialist, in organizing training for CDCs and IAs in community-based contracting;
  - (ix) Set-up supervision systems, following the supervision manual and practices set-up under the EU-funded Panj-Amu River Basin Programme. Organize training for DAIL engineers (and private contractors, and in the case of community-based contractors, CDC personnel) in such systems. Such training could be outsourced (e.g. to Kabul Polytechnic) to build local long-term capacity;
  - (x) Together with the team leader, prepare pro-formas for pre-construction O&M agreements and hand-over/irrigation management transfer (IMT) between DAILs and IAs, and provide oversight to ensure these are initiated for each subproject;
  - (xi) Together with the team leader, assist MAIL in drafting O&M policy to facilitate this policy's operationalization by 2020 to guide the O&M and handover/IMT of all irrigation structures nation-wide.
  - (xii) Assist the PMO and PIOs in providing oversight of the construction works, and hand-over to the IAs;
  - (xiii) Provide support to the senior IA & OFWM officer in assisting DAILs (including through training of trainers courses) in the establishment and training of IAs;
  - (xiv) Assist in the implementation of gender development activities; and
  - (xv) Provide support to the senior IA & OFWM officer in assisting DAILs in the set-up of demonstrations for farmers on OFWM and improved agronomic techniques.
  
20. Provide support to MEW in implementation of output 1 as follows:

- (xvi) Identify tasks on the critical path for output 1, sub-component 1.2, and ensure that implementation schedules follow an integrated approach;
- (xvii) Provide support to the senior WUA officer in assisting SBAs (including through training of trainers courses) the establishment and training of WUAs; and

21. General support:

- (xviii) Provide assistance to the team leader, PMO and PIO in project monitoring and reporting.

22. **Community-based watershed management specialist (international, 14 person-months).** The community-based watershed management specialist will support MAIL in the delivery of Output 3. (S)he will have a relevant educational background with adequate experience in community-based watershed management, including forestry and rangeland management and the establishment and support of catchment management groups (e.g. forestry groups or rangeland groups). Experience with erosion control structures such as gully plugs and bunds; experience with fostering alternative livelihood activities, and experience in the region (South and/or Central/West Asia) is preferable. (S)he will report to the Senior NRM Coordinator. (S)he will:

- (i) Identify tasks on the critical path for Output 3 and ensure that implementation schedules follow an integrated approach;
- (ii) Ensure close coordination with other component teams so that an integrated approach is realized;
- (iii) Prepare a Community-based Natural Resources Management Technical Manual and Guidebook and provide training on this to MEW and DAIL staff;
- (iv) Assist the Senior NRM Coordinator to select sites for project interventions, using the list of subprojects agreed on under Outputs 1 and 2, based on field work undertaken by DAIL staff, together with the Senior Community-based Watershed Management Officer, Senior Rural Livelihood Officer and Junior Watershed Management Officers;
- (v) Provide assistance to undertake training of trainers courses for DAIL staff, so that they are able to work with communities to set-up and strengthen community-based catchment management associations;
- (vi) Provide guidance in the preparation of NRM plans, and in the most appropriate form of contracting. Propose ideas for an appropriate Payment for Ecosystem Services (PES) pilot initiative;
- (vii) Help to set-up systems for the monitoring and oversight of plan implementation; and
- (viii) Provide assistance to the team leader, PMO and PIO in project monitoring and reporting.

23. **Procurement and Financial Management Specialist (international, 13 person-months).** The procurement and financial management specialist will provide support to MEW PMO (approximately 60% of the time) and MAIL PMO (approximately 40% of time), although exact time allocation will be needs-based. (S)he will have a relevant educational background with adequate experience in ADB procurement and financial management procedures. Experience of Afghan finance and procurement systems is preferable. (S)he will report to the MEW PMO Project Manager. (S)he will:

- (i) Ensure that the Asian Development Bank (ADB) procurement directives and norms, described in the Grant Agreement, are fully respected in all stages of the procurement of goods, works and services for the Project;
- (ii) Assist the PMOs in preparing bidding documents for the procurement of goods, works and services in accordance with ADB guidelines taking into account the Afghanistan Procurement Law. Coordinating and supervising all project procurement activities, in close coordination with corresponding relevant procurement department (MEW and/or MAIL) and ADB;
- (iii) Review tender documents with particular reference to the commercial aspects to ensure ADB comments are incorporated in the final version;
- (iv) Assist in evaluation of bids and proposals if requested, and in the preparation of any relevant evaluation reports;
- (v) Assist the project director in regular update of the procurement plan in coordination with the work plan and time schedule of the Project and the financing plan;
- (vi) Support MEW and MAIL PMOs during contract negotiations and ensure meetings are properly recorded and ADB norms and applicable national regulations are followed and that these are attached as annexes to the contract form;
- (vii) Develop systems to train and transfer finance and procurement skills on various aspects of ADB's procedures for PMOs and the Ministries' procurement department and finance department;
- (viii) Verify that correct documentation for each disbursement related to the execution of the contracts is maintained and that the corresponding contractual obligations have been fulfilled;
- (ix) Help MEW and MAIL PMOs establish and maintain a financial management system, including books and accounts for the projects, adequate to reflect the operations, resources and expenditures related to the projects in a detailed manner to facilitate accurate, detailed and timely project reporting. Ensure proper asset management, compliance of expenditures with ADB fiduciary requirements, and that the accounting meets the applicable government and donor standards);
- (x) Assist in the planning and budgeting for the project program, taking the lead role in the financial plan and budgets and ensuring that the assumptions, parameters, guidelines and policies in planning are complied with; and
- (xi) Ensure timely preparation and submission of financial reports, including provision of supporting documentation necessary to facilitate internal and external audits (the reporting framework should enable maintenance of accurate and updated accounting records and documents, including vouchers, bank statements, agreements, receipts, etc.).

**24. Environmental Safeguards Specialist (international, 2 person-months).** The environmental safeguards specialist will provide support to MAIL PMO (and to some extent the MEW PMO). (S)he will have a relevant educational background with adequate experience in environmental safeguard procedures for donor organizations such as ADB or the World Bank. (S)he will report to the MAIL PMO Project Director. (S)he will:

- (i) Provide course-based (and on the-job) training to the environmental safeguards officer in environmental due diligence of irrigation R&U works under Output 2, following the procedures set-out in the EARF (and representative subproject

- IEEs), and in the preparation of IEEs including Environmental Management and Monitoring Plans (EMPs); and
- (ii) Help set-up monitoring systems, procedures and templates for the environmental safeguards officers (in MAIL and MEW PMOs) to adhere to, ensuring that EMPs are undertaken by contractors, and provide training.

25. **Social Safeguards Specialist (international, 2 person-months).** The social safeguards specialist will provide support to MAIL PMO (and to some extent the MEW PMO). (S)he will have a relevant educational background (preferably in a social science) with adequate experience in resettlement and, social and gender safeguard procedures for donor organizations such as ADB or the World Bank. (S)he will report to the MAIL PMO Project Director. (S)he will:

- (i) Provide course-based (and on-the-job) training to the social safeguards officer in resettlement, social and gender due diligence of irrigation R&U works under output 2, following the procedures set-out in the LARF and SPRSS (and representative subproject LARPs), and in the preparation of LARPs; and
- (ii) Help set-up monitoring systems, procedures and templates for the social safeguards officers (in MAIL and MEW PMOs) to adhere to, ensuring that LARPs are implemented as planned.

### ANNEX 3: INCREMENTAL STAFF REQUIREMENTS

Position	NTA Grade	Base	Number of Persons	Number of Person-months	Project Incremental Staff (person months)
<b>Output/Component 1: Water allocation and availability improved</b>					
<b>Sub-Component 1.1: Water conveyance infrastructure rehabilitated and upgraded</b>					
Head of Design and Supervision Team	B	MEW PMO	1	72	72
Supervision Engineers	C	SBAs (4)	12	72	864
Senior GIS/IT Officer	D	RBA, Kunduz	1	72	72
<b>Sub-Component 1.2: WUAs established and strengthened</b>					
Senior WUA Officer	D	RBA, Kunduz	1	72	72
Junior WUA Officers	E	SBAs (5)	5	36	180
<b>Sub-Component 1.3: Water resources planning and management strengthened</b>					
Senior RB Planning and Management Officer	C	RBA, Kunduz	1	72	72
Building Design Engineer	C	RBA, Kunduz	1	1	1
<b>Sub-total Output 1</b>					<b>1,333</b>
<b>Output/Component 2: Command area enhanced</b>					
<b>Sub-Component 2.1: On-farm irrigation infrastructure rehabilitated and upgraded</b>					
Senior Irrigation Design Engineer	C	MAIL PMO	1	72	72
Irrigation Supervision Officers (Engineers)	D	DAILs (5)	5	72	360
<b>Sub-Component 2.2: IAs established and strengthened</b>					
Senior IA & OFWM Officer	C	MAIL PMO (or RBA Kunduz or DAIL Kunduz)	1	72	72
Agronomists	D	DAIL (5)	5	72	360
<b>Sub-Component 2.3: Efficiency of agricultural water use enhanced</b>					
Included in SC2.2					
<b>Sub-total Output 2</b>					<b>864</b>
<b>Output/Component 3: Watersheds properly managed and protected</b>					
Senior NRM Co-ordinator	B	NRM Directorate, MAIL	1	48	48
Senior Community based Watershed Management Officer	C	DAIL (TBD)	1	48	48
Senior Rural Livelihood Officer	C	DAIL (TBD)	1	48	48
Watershed Management Officers	D	DAIL (5)	5	48	240
<b>Sub-total Output 3</b>					<b>384</b>
<b>Staffing List continued (next page)</b>					

<i>Staffing List continued from the previous page</i>					
Position	NTA Grade	Base	Number of Persons	Number of Person-months	Project Incremental Staff (person months)
<b>MOF PCU</b>					
Senior Project Officer	C	MOF PCU	1	72	72
<i>Sub-total MOF PCU</i>					<b>72</b>
<b>MEW PMO</b>					
PMO Director	B		1	42	42
Project Manager (Deputy Director)	B-Step 4		1	72	72
Contracts and Procurement Officer	C		1	72	72
Finance Officer	D		1	72	72
Admin & HR Officer	D		1	72	72
Environment Safeguards Officer	C		1	42	42
Social Safeguards Officer	D		1	42	42
Clerks	F		2	72	144
Drivers	G		2	72	144
<i>Sub-total MEW PMO</i>					<b>702</b>
<b>MAIL PMO</b>					
Project Manager	B		1	72	72
Senior Contracts and Procurement Officer	C		1	72	72
Senior Finance Officer	C		1	72	72
Senior Admin & HR Officer	C		1	72	72
Senior Environment Safeguards Officer	C		1	25	25
Senior Social Safeguards Officer	C		1	33	33
Clerks	F		2	72	144
Drivers	G		2	72	144
<i>Sub-total MAIL PMO</i>					<b>634</b>
<b>MEW PIO - RBA (1 PIO)</b>					
PIO Manager	C		1	72	72
Finance Officer	D		1	72	72
Admin Officer	D		1	72	72
Clerk	F		1	72	72
SBA Finance Officers	D		6	72	432
Drivers	G		4	72	288
<i>Sub-total MEW PIO - RBA</i>					<b>1,008</b>
<b>MAIL PIO - DAIL (5 PIOs)</b>					
PIO Manager	C		5	72	360
Finance Officer(s)	D		5	72	360
Admin Officer(s)	D		5	72	360
Driver(s)	G		5	72	360
<i>Sub-total MAIL PIO - DAIL</i>					<b>1,440</b>
<b>Grant Total</b>					<b>6,437</b>

## Note:

\*The Department of Hydrology under the DG Water Affairs (MEW) is based in a building near the airport, not in the main MEW building on Dar-ul-aman road where the PMO is.

\*\*Guards and cleaners are in-kind government contributions.