

Project Administration Manual

Project Number: 47360-003
Loan Number: {LXXXX}
November 2018

Islamic Republic of Pakistan: Proposed Loan for
Additional Financing of Loan for the Khyber
Pakhtunkhwa Provincial Roads Improvement Project

ABBREVIATIONS

ADB	–	Asian Development Bank
C&WD	–	Communication and Works Department
DMF	–	design and monitoring framework
EA	–	executing agency
EMP	–	environmental management plan
ICB	–	international competitive bidding
IEE	–	initial environmental examination
km	–	kilometer
KP	–	Khyber Pakhtunkhwa
NCB	–	national competitive bidding
PAM	–	project administration manual
PIU	–	project implementation unit
PKHA	–	Pakhtunkhwa Highways Authority
QCBS	–	quality- and cost-based selection
RRP	–	report and recommendation of the President to the Board
SOE	–	statement of expenditures
SPS	–	Safeguard Policy Statement
TOR	–	terms of reference

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Project Administration Manual Purpose and Process

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

The Communication and Works Department of the Government of Pakhtunkhwa (C&WD), and Pakhtunkhwa Highways Authority (PKHA) are wholly responsible for the implementation of ADB-financed projects, as agreed jointly between the borrower and ADB, and in accordance with the policies and procedures of the government and ADB. ADB staff is responsible for supporting implementation including compliance by C&WD and PKHA of their obligations and responsibilities for project implementation in accordance with ADB's policies and procedures.

At loan negotiations, the borrower and ADB shall agree to the PAM and ensure consistency with the loan agreement. Such agreement shall be reflected in the minutes of the loan negotiations. In the event of any discrepancy or contradiction between the PAM and the loan agreement, the provisions of the loan agreement 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.

I. PROJECT DESCRIPTION

1. The proposed additional financing will expand the scope of the current project to include dualizing 42km of provincial road from Mardan to Swabi in Khyber Pakhtunkhwa and strengthening the capacity of the Communication & Works Department (C&WD) of Khyber Pakhtunkhwa through the development of Khyber Pakhtunkhwa road network masterplan and trainings.¹

2. Pakistan's economy is largely driven by the strong growth in domestic consumption, recovery in agricultural production, and a marginal recovery in foreign direct investments; but is constrained by an inefficient transport system with poor levels of service. Road transport dominates Pakistan's transport system, accounting for almost 96% of freight traffic in ton-kilometers and 92% of passenger traffic in passenger-kilometers. Transport in (KP) has an even higher dependence on road transport. In addition, KP provides the main transit corridor to Afghanistan across the Khyber Pass.

3. The original Project will assist PKHA in (i) rehabilitating about 214 km of provincial highways in KP to reduce maintenance backlog of provincial highways, and thereby enabling optimal spending of the available resource envelop for road maintenance to ensure its sustainability; (ii) carrying out routine and periodic maintenance of about 104 km provincial highways combined with connecting district roads carried out using performance-based maintenance contracts; and (iii) enhancing the functionality of RAMS.

4. The proposed additional financing will dualize the 42 km existing 2-lane road between Mardan and Swabi to 4-lane that was part of the appraised project but was dropped due to its uncompleted detailed design. In addition to the physical works, the project will also finance consultancy service of (i) the development of KP road network master plan, (ii) construction supervision, and (iii) institutional strengthening of C&WD.

5. The proposed dualization of Mardan and Swabi road is between the Indus River and Kabul River and in the center of KP. The existing Mardan–Swabi road is a 2-lane highway but is being urbanized in many sections with delay and safety challenges. The traffic survey reveals that the increasing traffic volume has exceeded the capacity of the existing road. The proposed project will significantly improve connectivity between Mardan, the second largest city in KP, and Swabi the college city and the fourth populated district in KP.

6. **Impact and Outcome.** The impact will be an efficient and integrated transportation network established (Pakistan Vision 2025)². The outcome will be efficiency and safety along key sections of the KP provincial road network improved. The additional financing will reinforce the overall aggregate impact of the project and the overall project outcome will remain the same.

7. **Outputs.** The additional financing will expand the scope of the current project outputs as follows:

- (i) Output 1. Provincial roads rehabilitated. The project will reconstruct 42 km of provincial road to 4-lane between Mardan to Swabi, adopting relevant provincial

¹ ADB provided a transaction technical assistance for preparing the Khyber Pakhtunkhwa Provincial Roads Improvement Project (TA 9194-PAK).

² Government of Pakistan, Ministry of Planning, Development and Reforms. 2014. *Pakistan 2025: One Nation, One Vision*. Islamabad. www.pc.gov.pk

highway standards, road safety improvements, and climate resilience features to withstand damage and disruption from natural disasters.

- (ii) Output 2: C&WD's institutional capacity on road management strengthened. The project will further strengthen C&WD's institutional capacity through the development of a Khyber Pakhtunkhwa road network master plan. The master plan will be fully Gender Responsive.³

II. IMPLEMENTATION PLANS

A. Project Readiness Activities

Table 1: Project Readiness Activities for Loan 3601/3602-PAK

Indicative Activities	2017				2018				Responsible Individual/Unit/Agency/Government
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Advance contracting actions	✓								PKHA/ADB
Fact-finding mission		✓							ADB/C&WD/PKHA
Loan negotiations				✓					Government/ADB
ADB Board Approval				✓					ADB
Loan signing					✓				ADB and Borrower
Government legal opinion provided						✓			Government
Government budget inclusion						✓			Government
Declare loan effectiveness							✓		ADB
Contract awards							✓		PIU-PKHA

ADB = Asian Development Bank, C&WD = Communication and Works Department, PIU = Project Implementation Unit, PKHA = Pakhtunkhwa Highways Authority, Pakistan
Source: Asian Development Bank

Table 2: Project Readiness Activities for Additional Financing

Indicative Activities	2018				2019				Responsible Individual/Unit/Agency/Government
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Advance contracting actions	✓								PKHA/ADB
Fact-finding mission			✓						ADB/C&WD/PKHA
Loan negotiations				✓					Government/ADB
ADB Board Approval				✓					ADB
Loan signing					✓				ADB and Borrower
Government legal opinion provided					✓				Government
Government budget inclusion					✓				Government
Declare loan effectiveness					✓				ADB
Contract awards						✓			PIU-PKHA

ADB = Asian Development Bank, C&WD = Communication and Works Department, PIU = Project Implementation Unit, PKHA = Pakhtunkhwa Highways Authority, Pakistan
Source: Asian Development Bank

³ A road network which increases commuters' access to markets, social infrastructure and services with road side gender-sensitive facilities such as shelters, rest areas, safety measures particularly in areas where female road user is heavier.

B. Overall Project Implementation Plan

	2018		2019				2020				2021				2022				2023				
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
A. DMF																							
I. Output 1: Mardan-Swabi road dualized																							
1.1 Award civil works contracts				■																			
1.2 Civil works contracts completed				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
II. Output 2: KP road network masterplan developed																							
2.1 Award consultant contract				■																			
2.2 Draft final report completed				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
III. Output 3: Capacity of C&WD staff strengthened																							
3.1 First training session completed				■																			
3.2 Second training session completed										■													
3.3 Third training session completed																		■					
B. Management Activities																							
1 Procurement plan activities to procure contract packages	■	■	■																				
2 Consultant selection procedures			■	■																			
3 Environmental management plan key activities			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
4 Annual/Mid-term review				■						■						■							
5 Project completion report																						■	■

DMF = design and monitoring framework, Q = quarter.

Source: Asian Development Bank

III. PROJECT MANAGEMENT ARRANGEMENTS

A. Project Implementation Organizations: Roles and Responsibilities

Project Implementation Organizations	Management Roles and Responsibilities
Steering Committee	<p>Provide overall guidance on and oversight to the implementation and performance of the project</p> <p>Resolve issues and conflicts that would compromise quality of results, investment cost or projection completion time.</p> <p>Approve the annual activity plan.</p> <p>Review implementation progress and resolve issues.</p> <p>Convene meetings on quarterly basis or as and when required.</p>
<p>Executing agency/Implementing Agency</p> <p>KP/PKHA</p>	<p>Overall responsibility for implementation of the project.</p> <p>Focal point for communication with ADB on project related matters, and signatory to important documents such as civil works contracts, consultancy service contracts, withdrawal applications, and audit reports.</p> <p>Ensure timely completion of project.</p> <p>Administer all consultancy and works contracts (instructing the supervision consultant, approving variations, suspending and terminating contracts).</p> <p>Ensure compliance with loan covenants, ADB's guidelines, procedures, and policies.</p> <p>Prepare, implement, and monitor safeguards in accordance with the ADB's SPS (2009), loan agreement, and project agreement.</p> <p>Establish a grievance redress mechanism with a dedicated grievance officer.</p> <p>Establish a PIU.</p> <p>Maintain all project accounts and accurate records of both financial and physical progress with regards to all project components.</p> <p>Procure and supervise execution of civil works.</p> <p>Manage advance account.</p> <p>Provide ADB, in timely manner, the quarterly and annual reports including duly audited financial statements as per the loan agreement.</p> <p>Carry out monitoring and evaluation regularly and on time.</p> <p>Disseminate and publish procurements contracts-related information.</p> <p>Conduct spot checks for physical verification of safeguards compliance and complete checklists.</p>
ADB	<p>Assist PIU-PKHA in providing timely guidance at each stage of the project implementation.</p> <p>Review all the documents that require ADB approval.</p> <p>Conduct regular project review missions, a midterm review, and project completion mission.</p> <p>Process withdrawal applications and releasing eligible funds.</p> <p>Update regularly the project performance review reports with the assistance of PIU-PKHA.</p> <p>Update and post on ADB website the project information for public disclosure and the safeguards documents in accordance with the ADB SPS (2009) and Public Communication Policy.</p>

ADB = Asian Development Bank; KP = Khyber Pakhtunkhwa; PKHA = Pakhtunkhwa Highways Authority; PIU = Project Implementation Unit; SPS = Safeguards Policy Statement.

Source: Asian Development Bank

B. Key Persons Involved in Implementation

Executing Agency Communication and Works Department, Government of Khyber Pakhtunkhwa	Engr. Muhammad Shahab Khan Khattak Secretary to Government of Khyber Pakhtunkhwa, Communication and Works Department +92 91 9210859 Civil Secretariat, Khyber Road, Peshawar
Implementing Agency Pakhtunkhwa Highways Authority (PKHA)	Engr. Ahmad Nabi Sultan Managing Director, PKHA +92 91 9210557 Attached Department Complex, Gate No. 5 Khyber Road, Peshawar
Project Implementation Unit (PIU) under PKHA	Engr. Muhammad Tariq Khan Project Director +92 91 9212443 pdprp.pkha@gmail.com 24-C Circular Road, University Town, Peshawar, Khyber Pakhtunkhwa
Asian Development Bank Transport and Communications Division, Central and West Asia Department (CWTC)	Dong-Soo Pyo Director +63 2 6325167 dspyo@adb.org
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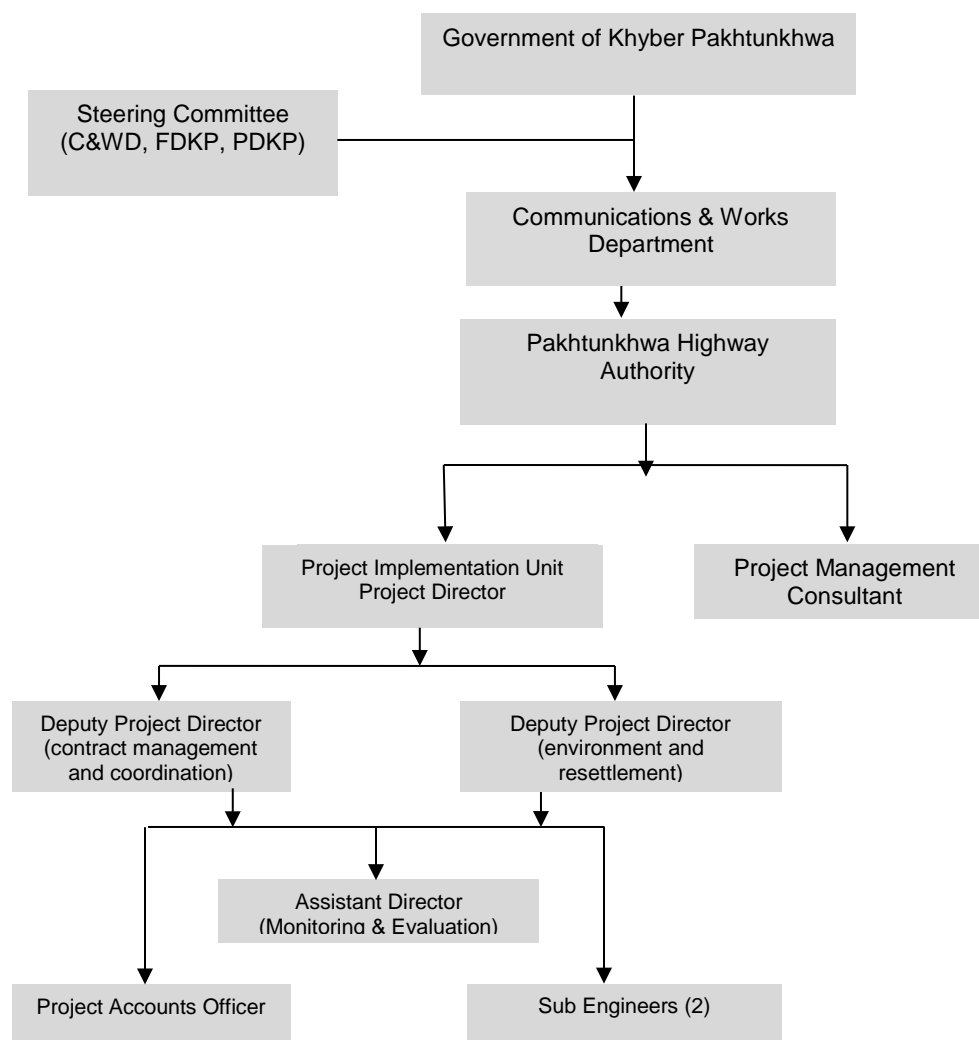
C. Project Organization Structure

8. The Government of Khyber Pakhtunkhwa will be the executing (EA) causing through PKHA that has the mandate for planning, designing, and implementing transport projects for provincial highways as well as policy and regulatory authority over the sector in the province. The project steering committee, consisting of members from C&WD, Finance Department of KP, Planning Department of KP, and PKHA, as well as other relevant line departments, chaired by the Additional Chief Secretary, has been established for overall coordination of the project at KP government level.

9. As an implementing agency (IA), PKHA has established a fully functional PIU with a formal appointment of a full-time Project Director (PD); four Deputy Directors (DD) responsible for: (i) contract management and coordination, (ii) environment and resettlement, and (iii) Construction-1 and Construction 2; an Assistant Director (Environment) and a Project Accounts Officer. PIU has also established a fully functioned and equipped finance wing, who will oversee and provide full financial management support to the project during project

implementation. The PIU is equipped with office equipment, such as laptops, furniture, printers, photocopying/scanning machines, and air conditioning system. The PIU will require additional equipment including vehicles which will be eligible to be financed from the loan as incremental administrative costs. The key PIU staff, such as the PD and DDs, should be retained throughout the project implementation. Therefore, ADB's prior approval is required before processing any replacement of key staff. The project organization structure is presented in Figure 1.

Figure 1: Project Organization Structure



IV. COSTS AND FINANCING

10. The project is estimated to cost about \$85 million, in which ADB may finance \$75 million loan from ordinary capital resources (OCR). The loan will have a 25-year term, including a grace period of 7 years, a custom-tailored repayment method, an annual interest rate determined in accordance with ADB's London interbank offered rate (LIBOR)-based lending facility, a commitment charge of 0.15% per year, and other terms and conditions to be set forth in the draft regular loan agreement. Based on this, the average loan maturity is 15.98 years and the maturity premium payable to ADB is 0.10% per year.

Table 3: Project Investment Plan
(\$ million)

Items	Amount
A. Base Cost ^a	
1. Road Rehabilitation	72.34
2. Implementation Support	1.71
3. Construction of Central Laboratory	1.30
Subtotal (A)	75.35
B. Contingencies ^b	6.24
C. Financing Charges During Implementation ^d	3.41
Total (A+B+C)	85.00

^a In May 2018 prices.

^b Physical contingencies computed at 5% for civil works. Price contingencies calculated based on Asian Development Bank (ADB) cost escalation factors.

^c Includes interest and commitment charges. Interest during construction for the ADB loan is computed at the 5-year US dollar fixed swap rate corresponding to the implementation period plus an effective contractual spread of 0.35% and a maturity premium of 0.1% (for regular OCR part). Commitment charges for the ADB loan are 0.15% per year to be charged on the undisbursed loan amount.

A. Cost Estimates Preparation and Revisions

11. The proposed financing plan is in Table 4

Table 4: Financing Plan

Source	Current ^a		Additional Financing		Total	
	Amount (\$ million)	Share of Total (%)	Amount (\$ million)	Share of Total (%)	Amount (\$ million)	Share of Total (%)
Asian Development Bank	140.0	85.6	75.0	88.0	215.0	86.3
OCR (regular loan)	121.5	74.1	75.0	88.0	209.5	84.1
OCR (concessional loan)	18.5	11.3			18.5	7.4
Government of KP	24.0	14.6	10.0	12.0	34.0	13.7
Total	164.0	100.0	85.0	100.0	249.0	100.0

^a Refers to the original amount and any previous additional financing.

Source: ADB estimates

B. Key Assumptions

12. The following key assumptions underpin the cost estimates and financing plan:
- (i) Exchange rate: Rs132.806 = \$1.00 (as of 17 October 2018).
 - (ii) Price contingencies based on expected cumulative inflation over the implementation period are as follows:

Table 5: Escalation Rates for Price Contingency Calculation

Item	2018	2019	2020	2021	2022	Average
Foreign rate of price inflation	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%
Domestic rate of price inflation	5.00%	5.20%	5.50%	5.50%	5.50%	5.34%

Source: Asian Development Bank

A. Detailed Cost Estimates by Expenditure Category

Table 6: Loan 3601/3601-PAK
(\$ million)

Item	Foreign Exchange	Local Currency	Total Cost	% of Total Base Cost
A. Investment Costs				
1. Road rehabilitation works	25.60	102.40	128.00	84.1%
2. Performance-based component	0.00	10.00	10.00	6.6%
3. Consulting services	2.30	2.81	5.10	3.4%
4. RAM enhancement	2.64	0.66	3.30	2.2%
5. Resettlement	0.00	2.50	2.50	1.6%
Subtotal (A)	30.54	118.37	148.90	97.8%
B. Project Management	1.32	1.98	3.30	2.2%
Total Base Cost (A+B)	31.86	120.35	152.20	100.0%
C. Contingencies				
1. Physical	0.57	2.27	2.84	1.9%
2. Price	0.45	1.79	2.23	1.5%
Subtotal (C)	1.02	4.06	5.07	3.3%
Financial Charges During Implementation				
D. Implementation				
1. Interest during implementation	6.45	2.27	6.45	
2. Commitment charges	0.29	0.00	0.29	
Subtotal (D)	6.74	0.00	6.74	4.4%
Total Project Cost (A+B+C+D)	39.61	124.40	164.00	107.8%

Source: Asian Development Bank

Table 7: Additional Financing
(\$ million)

Item	Foreign Exchange	Local Currency	Total Cost	% of Total Base Cost
A. Investment Costs				
1. Dualization civil works	13.20	52.81	66.01	88.4%
2. Development of master plan	0.45	0.55	1.00	1.3%
3. Construction supervision	1.74	0.43	2.17	2.9%
4. Construction of Central Laboratory			1.30	1.7%
5. Resettlement		3.50	3.50	4.7%
Subtotal (A)	15.39	57.29	73.98	99.0%
B. Project Management	0.28	0.43	0.71	1.0%
Total Base Cost (A+B)	15.67	57.72	74.69	100.0%
C. Taxes and Duties	0.00	0.66	0.66	0.9%
D. Contingencies				
1. Physical	0.66	2.64	3.30	4.4%
2. Price	0.59	2.35	2.94	3.9%
Subtotal (D)	1.25	4.99	6.24	8.4%
E. Financial Charges During Implementation	3.41	0.00	3.41	4.6%
Interest during implementation	6.45	0.00	6.45	
Commitment charges	0.20	0.00	0.20	
Total Project Cost (A+B+C+D+E)	20.33	63.37	85.00	113.8%

Source: Asian Development Bank

B. Allocation and Withdrawal of Loan Proceeds**Table 8: Allocation and Withdrawal of Loan (regular OCR)
(Loan 3601/3602-PAK)**

No.	Item	Total Amount Allocated for ADB Financing (\$ million)		Basis for Withdrawal from the Loan Account
		Category	Subcategory	
1	Road rehabilitation works *	99.0		91% of total expenditure claimed
2	Consulting services and equipment	8.4		100% of total expenditure claimed**
3	Project implementation support/Incremental expenditure	3.3		100% of total expenditure claimed
4	Financial charges during implementation	5.7		100% of total amount due
5	Unallocated	5.1		
	Total	121.5		

* Financing allocation to road rehabilitation works under the Ordinary Operations Concessional Loan agreement shall be utilized first at 100% of every claim until such financing has been disbursed in full. Thereafter, financing allocated to road rehabilitation works in this item 1 under this Loan Agreement shall be utilized at 100% of every claim.

**Exclusive of tax and duties.

**Table 9: Allocation and Withdrawal of Loan (concessional OCR)
(Loan 3601-3602-PAK)**

No.	Item	Total Amount Allocated for ADB Financing (\$ million)		Basis for Withdrawal from the Loan Account
		Category	Subcategory	
1	Road rehabilitation works*	17.5		91% of total expenditure claimed
2	Financial charges during implementation	1.0		100% of total amount due
	Total	18.5		

* Financing allocation to this item under the Loan agreement shall be utilized first at 100% of every claim until such financing has been disbursed in full. Thereafter, financing allocated to road rehabilitation works in item 1 under the Ordinary Operations Loan Agreement shall be utilized at 100% of every claim.

**Table 10: Allocation and Withdrawal of Loan (regular OCR)
(Additional Financing)**

No.	Item	Total Amount Allocated for ADB Financing (\$ million)		Basis for Withdrawal from the Loan Account
		Category	Subcategory	
1	Civil works	62.0		91% of total expenditure claimed
2	Consulting services	2.6		100% of total expenditure claimed*
3	Project implementation support/Incremental expenditure	0.7		100% of total expenditure claimed*
4	Financial charges during implementation	3.4		100% of total amount due
5	Unallocated	6.3		
	Total	75.0		

* Exclusive of tax and duties

C. Detailed Cost Estimates by Financier

Table 11: Loan 3601/3602-PAK
(\$ million)

Cost Item	ADB		Government		TOTAL	
	Amount	% of Cost Category	Amount	% of Cost Category	Amount	Taxes and Duties
A. Investment Cost ^a						
1. Rehabilitation works	116.5 ^d	91.0	11.5	9.0	128.0	(5)
2. Performance-based maintenance	0.0	0.0	10.0	100.0	10.0	(0)
3. Resettlement	0.0	0.0	2.5	100.0	2.5	(0)
4. RAMS enhancement	3.3	100.0	0.0	0.0	3.3	(0)
5. Construction supervision	5.1	100.0	0.0	0.0	5.1	(0)
Sub-Total (A)	124.9	83.9	24.0	16.1	148.9	(5)
B. Recurrent Cost	3.3	100.0	0.0	0.0	3.3	(0)
C. Contingency						
Physical contingency ^b	2.8	100.0	0.0	0.0	2.8	(0)
Price contingency	2.2	100.0	0.0	0.0	2.2	(0)
Subtotal (B)	5.1	100.0	0.0	0.0	5.1	(0)
D. Financial charges during project implementation ^c	6.7	100.0	0.0	0.0	6.7	(0)
TOTAL	140.0	85.4	24.0	14.6	164.0	(5)

Note: Numbers may not sum precisely because of rounding.

^a In August 2017 prices.

^b Physical contingencies computed at 3% for civil works. Price contingencies calculated based on ADB cost escalation factors.

^c Includes (a) Interest during construction for ADB OCR loan computed at the 5-year US dollar fixed swap rate corresponding to the implementation period plus an effective contractual spread of 0.5% and a maturity premium of 0.1%. Commitment charges for the ADB OCR loan are 0.15% per year to be charged on the undisbursed loan amount; (b) Interest of \$1.0 million during construction for ADB concessional loan with a 25-year term, including a grace period of 5 years; an interest rate of 2.0% per year during the grace period.

^d Includes \$17.5 million concessional OCR loan to be disbursed ahead of regular OCR loan

Source: ADB estimates.

Table 12: Additional Financing
(\$ million)

Cost Item	ADB		Government		Amount
	Amount	% of Cost Category	Amount	% of Cost Category	
A. Investment Cost ^a					
1. Dualization civil works	60.79	91.0	6.01	9.0	66.80
2. Development of master plan	0.00	0.0	1.00	100.0	1.00
3. Construction supervision	2.17	100.0	0.00	0.0	2.17
4. Construction of Central Laboratory	1.18	91.0	0.12	9.0	1.30
5. Resettlement	0.00	0.0	3.50	100.0	3.50
Sub-Total (A)	64.14	87.4	7.13	12.6	71.27
B. Recurrent Cost	0.71	100.0	0.0	0.0	0.71
C. Taxes and duties ^b			0.66	100.0	0.66
D. Contingency ^c					
Physical contingency	3.30	100.0	0.00	0.0	3.30
Price contingency	2.94	100.0	0.00	0.0	2.94
Subtotal (B)	6.24	100.0	0.00	0.0	6.24
E. Financial charges during implementation ^d	3.41	100.0	0.00	0.0	3.41
TOTAL	74.58	88.2	10.29	11.8	84.87

Note: Numbers may not sum precisely because of rounding.

^a In May 2018 prices.

^b Taxes and duties to be financed from government resources in the form of cash.

^c Physical contingencies computed at 5% for civil works. Price contingencies calculated based on ADB cost escalation factors.

^d Includes interest and commitment charges. Interest during construction for the ADB loan is computed at the 5-year US dollar fixed swap rate corresponding to the implementation period plus an effective contractual spread of 0.35% and a maturity premium of 0.1% (for regular OCR part). Commitment charges for the ADB loan are 0.15% per year to be charged on the undisbursed loan amount.

Sources: PC-1 prepared by the government and ADB estimates.

D. Detailed Cost Estimates by Outputs and/or Components

Table 13: Additional Financing
(\$ million)

Item	Total Cost	Mardan–Swabi dualization		KP road network master plan		Central Laboratory	
		Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category
A. Investment Costs ^a							
1. Civil works	66.80	66.01	100.0%	0.00	0.0%	0.00	0.0%
2. Resettlement	3.50	3.50	100.0%	0.00	0.0%	0.00	0.0%
3. Consultants							
a. Construction supervision	2.17	2.17	100.0%	0.00	0.0%	0.00	0.0%
b. Development of master plan	1.00	0.00	0.0%	1.00	100.0%	0.00	0.0%
4. Construction of Office Accommodation	1.30	0.00	0.0%	0.00	0.0%	1.30	100.0%
Subtotal (A)	73.98	71.68	96.9%	1.00	1.4%	1.30	1.7%
B. Recurrent Costs	0.71	0.71	100.0%	0.00	0.0%	0.00	0.0%
Total Base Cost	74.69	72.39	96.9%	1.00	1.3%	1.30	1.8%
C. Taxes and Duties	0.66	0.66	100.0%	0.00	0.0%	0.00	0.0%
D. Contingencies							
1. Physical ^b	3.30	3.30	100.0%	0.00	0.0%	0.00	0.0%
2. Price ^c	2.94	2.94	100.0%	0.00	0.0%	0.00	0.0%
Subtotal (D)	6.24	6.24	100.0%	0.00	0.0%	0.00	0.0%
D. Financial Charges During Implementation ^d	3.41	3.41	100.0%	0.00	0.0%	0.00	0.0%
Total Project Cost (A+B+C+D)	85.00	82.70	97.3%	1.00	1.2%	1.30	1.5%

^a In May 2018 prices.

^b Physical contingencies computed at 5% for civil works.

^c Price contingencies calculated based on ADB cost escalation factors.

^d Includes interest and commitment charges. Interest during construction for the ADB loan is computed at the 5-year US dollar fixed swap rate corresponding to the implementation period plus an effective contractual spread of 0.35% and maturity premium of 0.1% (for regular OCR part). Commitment charges for the ADB loan are 0.15% per year to be charged on the undisbursed loan amount.

Source: PC-1 prepared by the government and ADB estimates.

E. Detailed Cost Estimates by Year

Table 14: Loan 3601/3602-PAK
(\$ million)

Item	Total Cost	2018	2019	2020	2021	2022	2023
A. Investment Costs							
1. Road Rehabilitation Works	128.00	38.40	64.00	25.60	0.00	0.00	0.00
2. Performance-based Component	10.00	4.00	1.60	1.60	1.60	1.20	0.00
3. Consulting Services	5.10	2.04	1.79	0.74	0.31	0.23	0.00
4. RAM Enhancement	3.30	3.30	0.00	0.00	0.00	0.00	0.00
5. Resettlement	2.50	2.50	0.00	0.00	0.00	0.00	0.00
Subtotal (A)	138.90	46.24	65.79	26.34	0.31	0.23	0.00
B. Project Management	3.30	1.32	1.32	0.26	0.26	0.13	0.00
Total Base Cost (A+B)	142.20	47.56	67.11	26.60	0.57	0.36	0.00
D. Contingencies							
1. Physical	2.84	0.00	2.84	0.00	0.00	0.00	0.00
2. Price	2.23	0.89	1.34	0.00	0.00	0.00	0.00
Subtotal (D)	5.07	0.89	4.18	0.00	0.00	0.00	0.00
E. Financial Charges During Implementation	6.74	0.54	1.69	1.69	1.35	1.35	1.13
Total Project Cost (A+B+C+D+E)	164.00	59.39	80.33	34.87	2.26	1.62	0.00
% Total Project Cost	100%	32%	47%	19%	1%	1%	0%

Source: ADB estimates.

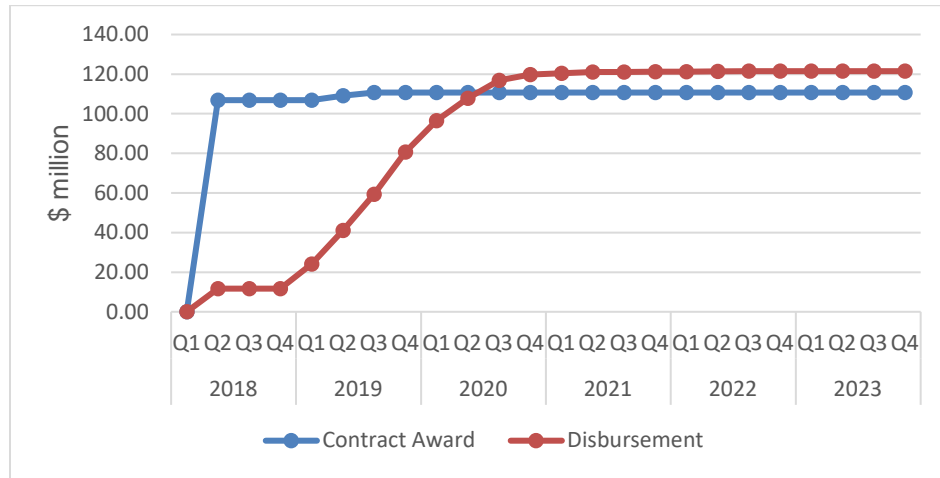
Table 15: Additional Financing
(\$ million)

Item	Total Cost	2019	2020	2021	2022	2023
A. Investment Costs						
1. Civil works	66.80	13.20	19.80	19.80	13.20	0.00
2. Resettlement	3.50	3.50	0.00	0.00	0.00	0.00
3. Construction of Central Laboratory	1.30	0.26	0.59	0.46	0.00	0.00
4. Consultants						
a. Construction supervision	2.17	0.87	0.76	0.31	0.13	0.10
b. Development of master plan	1.00	0.20	0.45	0.35	0.00	0.00
Subtotal (A)	73.98	17.81	21.71	21.48	13.33	0.13
B. Recurrent Costs	0.71	0.28	0.28	0.06	0.06	0.03
Total Base Cost	74.69	18.10	21.99	21.53	13.39	0.16
C. Taxes and Duties	0.66	0.00	0.00	0.66	0.00	0.00
D. Contingencies						
1. Physical	3.30	0.00	3.30	0.00	0.00	0.00
2. Price	2.94	0.88	1.62	0.44	0.00	0.00
Subtotal (D)	6.24	0.88	4.92	0.44	0.00	0.00
E. Financial Charges During Implementation	3.41	0.27	0.85	0.85	0.68	0.68
Total Project Cost (A+B+C+D)	85.00	19.25	27.76	23.49	14.07	0.81
% Total Project Cost	100%	22%	32%	27%	16%	1%

Source: ADB estimates.

F. Contract and Disbursement S-Curve

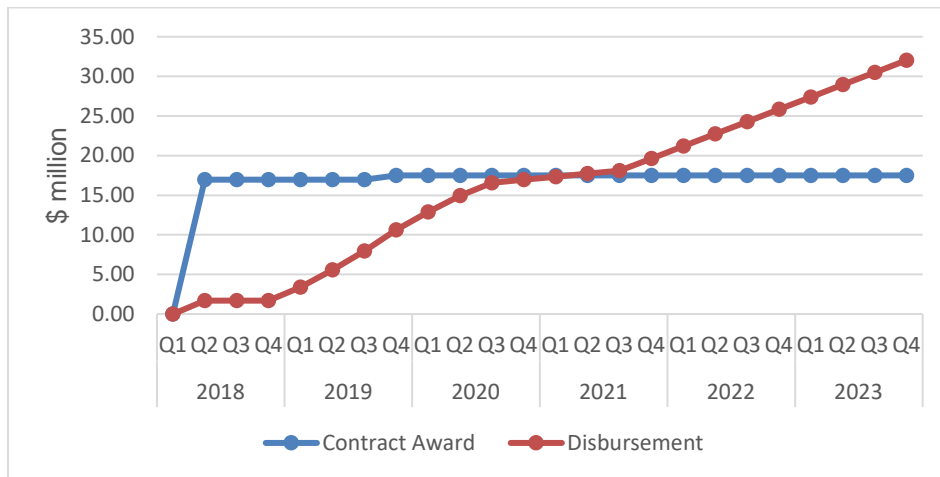
1. Loan 3601/3602-PAK



Contract Awards						Disbursements					
Year	Q1	Q2	Q3	Q4	Total	Year	Q1	Q2	Q3	Q4	Total
2018	0.00	106.90	0.00	0.00	106.90	2018	0.00	11.63	0.00	0.00	11.63
2019	0.00	2.20	1.60	0.00	3.80	2019	12.50	17.00	18.30	21.20	69.00
2020	0.00	0.00	0.00	0.00	0.00	2020	15.81	11.39	8.97	3.00	39.17
2021	0.00	0.00	0.00	0.00	0.00	2021	0.60	0.60	0.12	0.12	1.44
2022	0.00	0.00	0.00	5.10	5.10	2022	0.00	0.12	0.14	0.00	0.26
2023	0.00	0.00	0.00	0.00	0.00	2023	0.00	0.00	0.00	0.00	0.00
					Total						Total
					115.80						121.50

Notes: 1. Numbers do not sum precisely due to rounding off.
 2. Interest during construction (IDC) is not included in the total value of contract awards.

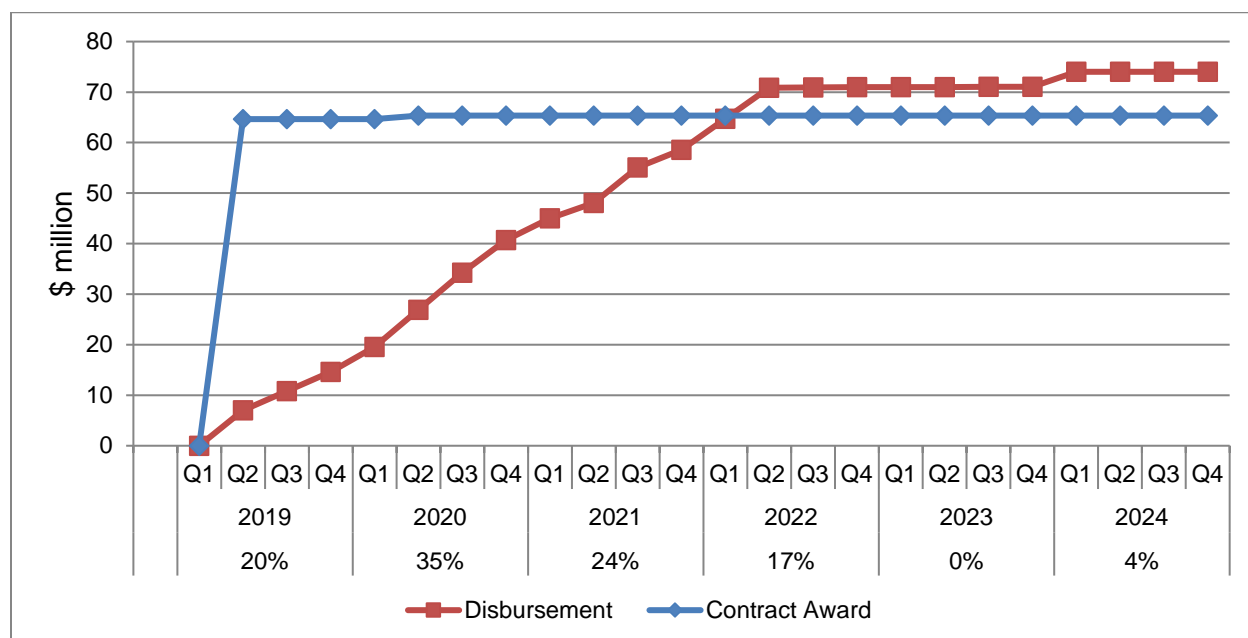
2. Loan 3602-PAK



Contract Awards						Disbursements					
Year	Q1	Q2	Q3	Q4	Total	Year	Q1	Q2	Q3	Q4	Total
2018	0.00	16.95	0.00	0.00	16.95	2018	0.00	1.69	0.00	0.00	1.69
2019	0.00	0.00	0.00	0.55	0.55	2019	1.68	2.21	2.36	2.67	8.92
2020	0.00	0.00	0.00	0.00	0.00	2020	2.29	2.06	1.61	0.38	6.34
2021	0.00	0.00	0.00	0.00	0.00	2021	0.00	0.00	0.00	1.55	1.55
2022	0.00	0.00	0.00	5.10	5.10	2022	0.00	0.00	0.00	0.00	0.00
2023	0.00	0.00	0.00	0.00	0.00	2023	0.00	0.00	0.00	0.00	0.00
Total					17.50	Total					18.50

Notes: 1. Numbers do not sum precisely due to rounding off.
2. SC is not included in the total value of contract awards.

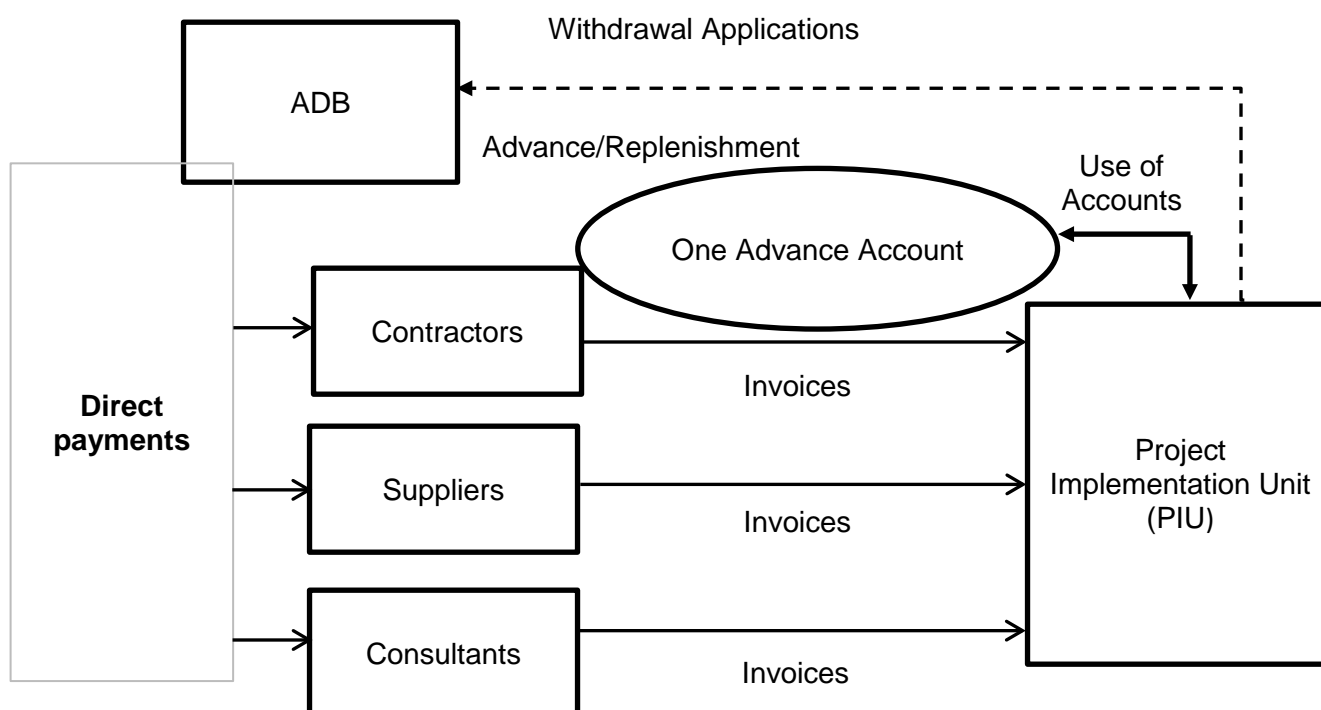
3. Additional Financing



Contract Awards						Disbursements					
Year	Q1	Q2	Q3	Q4	Total	Year	Q1	Q2	Q3	Q4	Total
2019	0.00	64.64	0.00	0.00	64.64	2019	0.00	7.02	3.80	3.80	14.61
2020	0.00	0.71	0.00	0.00	0.71	2020	4.94	7.34	7.34	6.48	26.10
2021	0.00	0.00	0.00	0.00	0.00	2021	4.31	7.02	7.02	3.51	21.85
2022	0.00	0.00	0.00	0.00	0.00	2022	6.17	6.16	0.04	0.04	12.39
2023	0.00	0.00	0.00	0.00	0.00	2023	0.04	0.01	0.01	0.00	0.06
2024	0.00	0.00	0.00	0.00	0.00	2024	0.00	0.00	0.00	0.00	0.00
Total					65.35	Total					75.00

Notes: 1. Numbers do not sum precisely due to rounding off.
2. Interest during construction (IDC) is not included in the total value of contract awards.

G. Fund Flow Diagram



V. FINANCIAL MANAGEMENT

A. Financial Management Assessment

13. The financial management assessment (FMA) was conducted in May 2017 in accordance with ADB's Guidelines for the Financial Management and Analysis of Projects and the Financial Due Diligence: A Methodology Note. The FMA considered the capacity of the PKHA, including funds-flow arrangements, staffing, accounting and financial reporting systems, financial information systems, and internal and external auditing arrangements. Based on the assessment, the key financial management risks identified are in Table 16. It is concluded that the overall pre-mitigation financial management risk of PKHA is substantial. The use of advance fund and Statement of Expenditures (SOE) procedures are proposed. The PKHA has adequate capacity to manage advance fund and SOE procedures although some improvements and capacity building will be needed. The PKHA has agreed to implement an action plan as key measures to address the deficiencies. The financial management action plan is provided in Table 17. Key financial management assessment findings are as follows:

Table 16: Summary of Risks and Mitigating Measures

Risk	Risk rating*	Remarks/Risk Mitigation Measures
Inherent Risk		
Country-specific Risks	S	Substantial risk derived from Public Financial Management and Accountability Assessment conducted in 2012 for Pakistan. Key issues are that internal audit is not setup at provincial level, delayed or partial budget release by government and infrequent scrutiny of audit observations. These can be mitigated by following the Financial Management Manual that provides guidance on internal controls, PIU preparing budget monitoring reports to highlight deviations in a timely fashion and PIU working closely with Auditor General's office to ensure Departmental Accounts Committee hearings are convened frequently to settle the observations.
Entity-specific Risks	M	The PIU is not experienced in implementing ADB and other foreign aided projects however certain senior staff and leadership have such prior experience managing and implementing foreign aided projects. Although there is little institutional memory of such projects, senior leadership offsets this risk. Nevertheless, PIU is to ensure timely decision-making on project related issues and instill a learning environment in addition to pre-emptive measures which should be in place to mitigate project risks.
Project-specific Risks	M	<ul style="list-style-type: none"> - For Financial Management, conduct training annually on ADB procedures related to disbursement, audit and financial management. - Be vigilant regarding environment and social impacts e.g. land acquisition and resettlement plan. - Be proactive to highlight potential obstacle that could delay progress and add cost with frequent risk reassessments. - Political upheaval and frequent leadership change contribute to project risk
Overall Inherent Risk	S	
Project Risk		
Major Experiences of Managing Externally financed projects	S	PIU as an entity does not have experience of executing externally financed projects however senior management have adequate experience and shown willingness to execute successful project delivery.
Fund Flow Mechanisms	N	<p>A rule-based mechanism for fund flow is available and governed under rules of GoP's Ministry of Finance:</p> <ul style="list-style-type: none"> - Advance Account used for external financing, - Direct Payment procedure by donors is also used for fund flow, - Assignment Account for GOP counterpart funding.

Organization and Staffing	M	Staff is sufficient in number and well-trained to manage to project as well as managing advance account and SOE procedures for external financing. As a risk mitigation measure, staff alternates must be identified so that there is back-up in case certain employee is unable to perform office duty due to any unforeseen circumstance.
Accounting Policies and Procedures	M	Accounting standards and practices are based on IPSAS Standards which are following International Accounting Standards. It was observed that Chart of Accounts are still under development and must be in place.
Payments	M	All payments are governed under Government's Financial Rules and Manuals.
Policies and Procedures	N	Government Financial Rules, New Accounting Manual, RFA procedures for advance fund and assignment accounts and ADB Disbursement Procedures and Procurement Guidelines are also followed.
Cash and Bank	M	PIU has separate bank accounts operated jointly with dual signatories. However, there is a risk that there may be some delay in account opening that may add to delay in project execution. Follow-up with concerned authorities including State Bank of Pakistan on a periodic basis is required to mitigate the risk.
Safeguard Over Assets	H	Project specific fixed assets registers are available. However periodic physical verification and tagging/coding of assets is missing. This needs to be implemented, responsibilities are to be assigned and the procedure must be documented as soon as possible ideally before project loan effectiveness. Insurance of all significant assets such as vehicles must be taken to share/transfer some of the risk.
Internal Audit	S	PIU has two dedicated staff in internal audit and control which is an adequate arrangement. However, they should ideally report to an independent person either within PIU (e.g. Project Director) or outside PIU (e.g. C&W) to ensure independence and objectivity. Adequate whistleblowing arrangement must be in place to ensure misappropriations are reported in confidence without the risk of losing anonymity or being reprimanded to an independent person, entity or authority.
Information Systems	S	PKHA uses an accounting software that has limited flexibility to tailor to meet PKHA's financial reporting requirements. For project accounting and financial reporting needs, FMM includes guidance on deployment of a suitable software in PIU-PKHA.
Overall Project Risk	S	
Overall (Combined) Risk	S	

ADB = Asian Development Bank, FMM = financial management manual, PKHA = Pakhtunkhwa Highways Authority, PIU = Project Implementation Unit

Source: Asian Development Bank estimates

Table 16: Financial Management Action Plan

Action	Responsibility	Resources	Timeline
1. Adopt Financial Management Manual and tailor it accordingly to the need of the project	PIU-PKHA	Project Accountant	Within 3 months after effectiveness
2. Hire Accounts Assistant	PIU-PKHA	Project Director	Within 3 months after effectiveness
3. Timely opening of Assignment Account	PIU-PKHA	Project Accountant	Start opening procedure upon effectiveness
4. Develop and implement chart of accounts	PIU-PKHA	Project Accountant	Within 2 months after effectiveness
5. Complete asset tagging aligned with fixed asset register	PIU-PKHA	Project Accountant	Within 6 months after effectiveness
6. Whistleblowing policy prepared and disseminated in staff	PIU-PKHA	Project Director	Within 1 year after effectiveness
7. Possibility of implementing computerized accounting software	PIU-PKHA	Project Accountant	Subject to results of need assessment and results after one year of operations
8. Timely submission of audited project financial statements	PIU-PKHA	Project Director and Project Accountant	Within 6 months of fiscal year end

ADB = Asian Development Bank, FMM = financial management manual, PKHA = Pakhtunkhwa Highways Authority, PIU = Project Implementation Unit

Source: Asian Development Bank estimates.

14. **Risk Assessment and Risk Management Plan.** A financial management internal control and risk management assessment was conducted, while considering the adequate implementation capacity of PKHA. Factors of staffing, country systems and autonomous nature of PKHA were also considered. Based on the assessment, it is concluded that the overall project financial management pre-mitigation risk is “Moderate”, considering PKHA’s management style, experience, supervisory, technical and financial capability.

B. Disbursement

15. The loan proceeds will be disbursed in accordance with ADB’s *Loan Disbursement Handbook* (2017, as amended from time to time)⁴, and detailed arrangements agreed upon between the government and ADB. Online training for project staff on disbursement policies and procedures is available.⁵ Project staff are encouraged to avail of this training to help ensure

⁴ The handbook is available electronically from the ADB website (<http://www.adb.org/documents/loan-disbursement-handbook>)

⁵ Disbursement eLearning. http://wpqr4.adb.org/disbursement_elearning

efficient disbursement and fiduciary control.

16. **Advance fund procedure.** The PIU-PKHA will establish an advance account promptly after loan effectiveness at a commercial bank. The currency of the advance account is the US dollar. The advance account is to be used exclusively for the ADB's share of eligible expenditures. The PIU-PKHA who administers the advance account is accountable and responsible for proper use of advances to the advance account.

17. The total outstanding advance to the advance account should not exceed the estimate of ADB's share of expenditures to be paid through the advance account for the forthcoming 6 months. The PIU-PKHA may request for initial and additional advances to the advance account based on an Estimate of Expenditure Sheet⁶ setting out the estimated expenditures to be financed through the account{s} for the forthcoming 6 months. Supporting documents should be submitted to ADB or retained by the PIU-PKHA in accordance with ADB's *Loan Disbursement Handbook* (2017, as amended from time to time) when liquidating or replenishing the advance account.

18. **Statement of expenditure procedure.**⁷ The SOE procedure may be used for reimbursement of eligible expenditures or liquidation of advances to the advance account. The ceiling of the SOE procedure is the equivalent of \$100,000 per individual payment. Supporting documents and records for the expenditures claimed under the SOE should be maintained and made readily available for review by ADB's disbursement and review missions, upon ADB's request for submission of supporting documents on a sampling basis, and for independent audit. Reimbursement and liquidation of individual payments in excess of the SOE ceiling should be supported by full documentation when submitting the withdrawal application to ADB.

19. Before the submission of the first withdrawal application (WA), the borrower should submit to ADB sufficient evidence of the authority of the person(s) who will sign the withdrawal applications on behalf of the government, together with the authenticated specimen signatures of each authorized person. The minimum value per WA is stipulated in the *Loan Disbursement Handbook* (2017, as amended from time to time). Individual payments below such amount should be paid (i) by the PIU-PKHA and subsequently claimed to ADB through reimbursement, or (ii) through the advance fund procedure, unless otherwise accepted by ADB. The borrower should ensure sufficient category and contract balances before requesting disbursements. Use of ADB's Client Portal for Disbursements (CPD)⁸ system is encouraged for submission of withdrawal applications to ADB.

20. For direct payment, the contractors and consultants will submit their invoices or interim payment certificates as appropriate to PIU-PKHA who will process them and send with the required withdrawal applications to ADB. PIU-PKHA will responsible for (i) preparing disbursed projections, (ii) requesting budgetary allocations for counterpart funds, (iii) collecting supporting documents, and (iv) preparing and sending withdrawal applications to ADB. Commitment Procedures may also be used.

⁶ Estimate of Expenditure sheet is available in Appendix 8A of ADB's *Loan Disbursement Handbook* (2017, as amended from time to time),

⁷ SOE forms are available in Appendix 7B and 7D of ADB's *Loan Disbursement Handbook* (2017, as amended from time to time).

⁸ The CPD facilitates online submission of WA to ADB, resulting in faster disbursement. The forms to be completed by the Borrower are available online at <https://www.adb.org/documents/client-portal-disbursements-guide>.

C. Accounting

21. PKHA through the PIU will maintain, or cause to be maintained, separate books and records by funding source for all expenditures incurred on the project. The PIU-PKHA will prepare project financial statements in accordance with the government's accounting laws and regulations which are consistent with international accounting principles and practices.

D. Auditing and Public Disclosure

22. PKHA through the PIU will cause the detailed consolidated project financial statements to be audited in accordance with International Standards on Auditing, by an independent auditor acceptable to ADB. The audited project financial statements together with the auditor's opinion will be presented in the English language to ADB within 6 months from the end of the fiscal year by the PIU-PKHA.

23. A separate audited project financial statement should be submitted for this project and cannot be combined with original project.

24. The audit report for the project financial statements will include a management letter and auditor's opinions, which cover (i) whether the project financial statements present an accurate and fair view or are presented fairly, in all material respects, in accordance with the applicable financial reporting standards; (ii) whether the proceeds of the loan were used only for the purpose(s) of the project; and (iii) whether the borrower or executing agency was in compliance with the financial covenants contained in the legal agreements (where applicable).

25. 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.

26. The KP government, and PIU-PKHA 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.⁹ ADB reserves the right to require a change in the auditor (in a manner consistent with the constitution of the borrower), 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.

⁹ ADB's approach and procedures regarding delayed submission of audited project financial statements:

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

27. Public disclosure of the audited project financial statements, including the auditor's opinion on the project financial statements, will be guided by ADB's Public Communications Policy 2011.¹⁰ After the review, ADB will disclose the audited project financial statements and the opinion of the auditors on the project financial statements no later than 14 days of ADB's confirmation of their acceptability by posting them on ADB's website. The management letter, additional auditor's opinions, and audited entity financial statements will not be disclosed.¹¹

VI. PROCUREMENT AND CONSULTING SERVICES

A. Advance Contracting and Retroactive Financing

28. All advance contracting and retroactive financing will be undertaken in conformity with ADB Procurement Guidelines (2015, as amended from time to time) and ADB's Guidelines on the Use of Consultants (2013, as amended from time to time). The issuance of invitations to bid under advance contracting and retroactive financing will be subject to ADB approval. The borrower, PKHA have been advised that approval of advance contracting and retroactive financing does not commit ADB to finance the project.

29. **Advance contracting.** Advance contracting was allowed for procurement of civil works contractors and recruitment of supervision consultants. PIU-PKHA will proceed with tendering, bid evaluation for civil work packages, and technical and financial evaluation of consultant proposals before loan effectiveness.

30. **Retroactive financing.** ADB will not finance expenditures paid by the borrower prior to loan effectiveness, even if advance contracting is approved, unless retroactive financing has also been approved by ADB. The maximum amount of eligible expenditures for retroactive financing will be up to 20% of the amount of the loan proceeds incurred before loan effectiveness, but not more than 12 months before the signing of the loan and project agreements.

B. Procurement of Goods, Works, and Consulting Services

31. All procurement of goods and works will be undertaken in accordance with ADB's Procurement Guidelines (2015, as amended from time to time). PIU-PKHA and ADB have discussed procurement packages and procedures and agreed threshold for international and national competitive bidding (ICB and NCB) for works. The procurement plan should be updated whenever change in the procurement arrangements is required and agreed.

32. Civil works for dualization of Mardan–Swabi will be divided into two lots under one package, to be procured through international competitive bidding (ICB). Bids will be evaluated based on contract, or a combination of contracts, or as a total of contracts to arrive at the least-cost combination for the executing agency (EA).

33. Before the start of any procurement, ADB and the government will review the public procurement laws of the central and state governments to ensure consistency with ADB's Procurement Guidelines (2015, as amended from time to time). An 18-month procurement plan indicating threshold and review procedures, goods, works, and consulting service contract packages and national competitive bidding guidelines is in Section C. All consultants will be

¹⁰ Public Communications Policy: <http://www.adb.org/documents/pcp-2011?ref=site/disclosure/publications>

¹¹ This type of information would generally fall under public communications policy exceptions to disclosure. ADB. 2011. *Public Communications Policy*. Paragraph 97(iv) and/or 97(v).

recruited according to ADB's Guidelines on the Use of Consultants (2013, as amended from time to time).¹² The terms of reference for all consulting services are detailed in Section D.

34. An estimated 272 person-months comprising of 30 person-months international and 242 person-months national consultants are required to supervise the construction works. An estimated 172 person-months comprising of 48 person-months international and 124 person-months national consultants are required to develop KP road network master plan. Consulting firms will be engaged using the quality- and cost-based selection (QCBS) method with a standard quality-cost ratio of 90:10.

C. Procurement Plan

Procurement Plan for Loan 3601/3602-PAK

Basic Data

Project Name: Khyber Pakhtunkhwa Provincial Roads Improvement Project	
Project Number: 47360-002	Approval Number: 3601 / 3602
Country: Pakistan	Executing Agency: Government of Khyber Pakhtunkhwa (GoKP)
Project Procurement Classification:	Implementing Agency: Pakhtunkhwa Highways Authority (PKHA), Peshawar
Project Procurement Risk:	
Project Financing Amount: US\$ 164,000,000	Project Closing Date: 15 September 2020
ADB Financing: US\$ 140,000,000	
Cofinancing (ADB Administered):	
Non-ADB Financing: US\$ 24,000,000	
Date of First Procurement Plan: 28 November 2017	Date of this Procurement Plan: 5 April 2018, Version 1

A. Methods, Thresholds, Review and 18-Month Procurement Plan

1. Procurement and Consulting Methods and Thresholds

Except as the Asian Development Bank (ADB) may otherwise agree, the following process thresholds shall apply to procurement of goods and works.

Procurement of Goods and Works		
Method	Threshold	Comments
International Competitive Bidding for Goods	US\$ 2,000,000 and Above	
National Competitive Bidding for Goods	Between US\$ 100,000 and US\$ 1,999,999	The first NCB is subject to prior review, thereafter post review.
Shopping for Goods	Up to US\$ 99,999	
International Competitive Bidding for Works	US\$ 15,000,000 and Above	
National Competitive Bidding for Works	Between US\$ 100,000 and US\$ 14,999,999	The first NCB is subject to prior review, thereafter post review.
Shopping Works	Up to US\$ 99,999	

¹² Checklists for actions required to contract consultants by method available in e-Handbook on Project Implementation at: <http://www.adb.org/documents/handbooks/project-implementation/>

Consulting Services	
Method	Comments
Quality- and Cost-Based Selection for Consulting Firm	

2. Goods and Works Contracts Estimated to Cost \$1 Million or More

The following table lists goods and works contracts for which the procurement activity is either ongoing or expected to commence within the next 18 months.

Package Number	General Description	Estimated Value	Procurement Method	Review (Prior/Post)	Bidding Procedure	Advertisement Date (quarter/year)	Comments
KPPRI/ CW-01	Rehabilitation and Improvement of Package-1 Roads:	36,550,000.00	ICB	Prior	1S2E	Q3/2017	Prequalification of Bidders: N
	Lot-1: Rehabilitation of Shah Alam–Sardaryab Road Section	16,120,000.00					Domestic Preference Applicable: N
	Lot-2: Rehabilitation of Umerzai–Harichand–Shergarh Road Section	12,830,000.00					Advance Contracting: Y
	Lot-3: Rehabilitation of Mardan Ring Road Western Bypass Section	7,600,000.00					Bidding Document: Large Works
KPPRI/ CW-02	Rehabilitation and Improvement of Package-2 Roads:	105,180,000.00	ICB	Prior	1S2E	Q3/2017	Prequalification of Bidders: N
	Lot-1: Kahirabad–Kahi (Nizampur) Road Section	16,540,000.00					Domestic Preference Applicable: N
	Lot 2: Risalpur–Pirsabaq–Misri Banda–Jehangira Road Section	19,720,000.00					Advance Contracting: Y
	Lot-3: Mardan Ring Road Eastern Bypass Section	7,600,000.00					Bidding Document: Large Works
	Lot 4: Adina–Yar Hussain–Lahor Road Section	11,240,000.00					
	Lot 5: Maqsood–Kohala Sohawa Road Section	21,740,000.00					
	Lot 6: Hattar–Haripur Road Section	28,340,000.00					
KPPRI/ EQ-01	Maintenance Equipment	1,000,000.00	NCB	Prior	1S1E	Q2 / 2018	Prequalification of Bidders: N Domestic Preference Applicable: N Advance Contracting: Y Bidding Document: Goods
KPPRI/ EQ-02	Laboratory Testing Equipment	1,200,000.00	NCB	Prior	1S1E	Q2 / 2018	Prequalification of Bidders: N Domestic

Package Number	General Description	Estimated Value	Procurement Method	Review (Prior/Post)	Bidding Procedure	Advertisement Date (quarter/year)	Comments
							Preference Applicable: N Advance Contracting: Y Bidding Document: Goods

3. Consulting Services Contracts Estimated to Cost \$100,000 or More

The following table lists consulting services contracts for which the recruitment activity is either ongoing or expected to commence within the next 18 months.

Package Number	General Description	Estimated Value	Recruitment Method	Review (Prior/Post)	Advertisement Date (quarter/year)	Type of Proposal	Comments
KPPRI/CS-01	Construction Supervision	6,000,000.00	QCBS	Prior	Q3 / 2017	FTP	Assignment: International Quality-Cost Ratio: 90:10 Advance Contracting: Y Comments: Referenced to EA Procurement Plan
KPPRI/CS-02	RAM Enhancement Consultancy	1,600,000.00	QCBS	Prior	Q2 / 2018	FTP	Assignment: International Quality-Cost Ratio: 90:10 Advance Contracting: Y Comments: Referenced to EA Procurement Plan

4. Goods and Works Contracts Estimated to Cost Less than \$1 Million and Consulting Services Contracts Less than \$100,000 (Smaller Value Contracts)

The following table lists smaller-value goods, works and consulting services contracts for which the activity is either ongoing or expected to commence within the next 18 months.

Goods and Works								
Package Number	General Description	Estimated Value	Number of Contracts	Procurement Method	Review (Prior/Post)	Bidding Procedure	Advertisement Date (quarter/year)	Comments
KPPRI/EQ-03	Vehicles	253,000.00	3	SHOPPING	Prior		Q1 / 2018	Advance Contracting: Y

Consulting Services								
Package Number	General Description	Estimated Value	Number of Contracts	Recruitment Method	Review (Prior/Post)	Advertisement Date (quarter/year)	Type of Proposal	Comments
None								

B. Indicative List of Packages Required Under the Project

The following table 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).

Goods and Works							
Package Number	General Description	Estimated Value (cumulative)	Estimated Number of Contracts	Procurement Method	Review (Prior/Post)	Bidding Procedure	Comments
None							

Consulting Services							
Package Number	General Description	Estimated Value (cumulative)	Estimated Number of Contracts	Recruitment Method	Review (Prior/Post)	Type of Proposal	Comments
KPPRI/CS-03,04,05	Technical Advisory and Technical Audit	200,000.00	3	QCBS	Prior	FTP	Assignment: International Quality-Cost Ratio: 80:20

Procurement Plan for Additional Financing

Basic Data

Project Name: Additional Financing for Khyber Pakhtunkhwa (KP) Provincial Roads Improvement Project	
Project Number: 47360-003	Approval Number:
Country: Pakistan	Executing Agency: Government of Khyber Pakhtunkhwa (GoKP)
Project Procurement Classification:	Implementing Agency: Pakhtunkhwa Highways Authority (PKHA), Peshawar
Project Procurement Risk: Low	
Project Financing Amount: US\$ 85,000,000	Project Closing Date: 31 December 2023
ADB Financing: US\$ 75,000,000	
Cofinancing (ADB Administered):	
Non-ADB Financing: US\$ 24,000,000	
Date of First Procurement Plan: November 2018	Date of this Procurement Plan: November 2018

A. Methods, Thresholds, Review and 18-Month Procurement Plan

1. Procurement and Consulting Methods and Thresholds

Except as the Asian Development Bank (ADB) may otherwise agree, the following process thresholds shall apply to procurement of goods and works.

Procurement of Goods and Works		
Method	Threshold	
International Competitive Bidding for Works	US\$ 15,000,000 and Above	
International Competitive Bidding for Goods	US\$ 1,000,000 and Above	
National Competitive Bidding for Works	Beneath that stated for ICB, Works	
National Competitive Bidding for Goods	Beneath that stated for ICB, Goods	
Shopping for Works	Below US\$100,000	
Shopping for Goods	Below US\$100,000	

Consulting Services		
Method	Comments	
Quality- and Cost-Based Selection for Consulting Firm	90:10	
Individual Consultants Selection		

2. Goods and Works Contracts Estimated to Cost \$1 Million or More

The following table lists goods and works contracts for which the procurement activity is either ongoing or expected to commence within the next 18 months.

Package Number	General Description	Estimated Value	Procurement Method	Review (Prior/Post)	Bidding Procedure	Advertisement Date (quarter/year)	Comments
KPPRI-AF/ CW-01	Dualization of Mardan-Swabi:	58,100,000.00	ICB	Prior	1S2E	Q4/2018	Prequalification of Bidders: N Domestic Preference Applicable: N
	Lot-1	30,500,000.00					
	Lot-2	27,600,000.00					

Consulting Services								
Package Number	General Description	Estimated Value	Number of Contracts	Recruitment Method	Review (Prior/Post)	Advertisement Date (quarter/year)	Type of Proposal	Comments
None								

B. Indicative List of Packages Required Under the Project

The following table 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).

Goods and Works							
Package Number	General Description	Estimated Value (cumulative)	Estimated Number of Contracts	Procurement Method	Review (Prior/Post)	Bidding Procedure	Comments
None							

Consulting Services							
Package Number	General Description	Estimated Value (cumulative)	Estimated Number of Contracts	Recruitment Method	Review (Prior/Post)	Type of Proposal	Comments
None							

C. List of Awarded and On-going, and Completed Contracts

The following tables list the awarded and on-going contracts and completed contracts.

Goods and Works							
Package Number	General Description	Estimated Value (cumulative)	Estimated Number of Contracts	Procurement Method	Review (Prior/Post)	Bidding Procedure	Comments
None							

Consulting Services							
Package Number	General Description	Estimated Value (cumulative)	Estimated Number of Contracts	Recruitment Method	Review (Prior/Post)	Type of Proposal	Comments
None							

D. Non-ADB Financing

The following table lists goods, works and consulting services contracts over the life of the project, financed by Non-ADB sources.

Goods and Works							
Package Number	General Description	Estimated Value (cumulative)	Estimated Number of Contracts	Procurement Method	Review (Prior/Post)	Bidding Procedure	Comments
None							

Consulting Services							
Package Number	General Description	Estimated Value (cumulative)	Estimated Number of Contracts	Recruitment Method	Review (Prior/Post)	Type of Proposal	Comments
KPPRI-AF / CS-02	KP Road Network Master Plan	\$1,000,000	QCBS	Prior	Q3/2018	FTP	Assignment: International Quality-Cost Ratio: 90:10 Advance Contracting: Y Comments: Referenced to EA Procurement Plan

D. Consultant's Terms of Reference

35. The consultancy services would be required for a period of forty-two (42 months) including the defects notification period, which will be 12 months. Total input of 30-person months international and 242-person months national consultants would be required for the assignment. Consultant's terms of reference for the construction supervision are in Appendix 1.

VII. SAFEGUARDS

36. **Environment.** The project is classified category B for environment, based on category of the most environmentally sensitive subprojects. A consolidated initial environmental examination (IEE) was prepared by PIU-PKHA in accordance with ADB's Safeguards Policy Statement (SPS 2009). To ensure compliance with the ADB's SPS and the national, provincial environmental health and safety legislation, PKHA through the PIU, will follow the IEE and environmental management plans (EMP). The PIU will ensure that:

- (i) updated initial environmental examinations (IEEs), and environmental management plans (EMPs) are prepared for the detailed design as required under the SPS 2009, the Khyber Pakhtunkhwa Environmental Protection Act, 2014, and other provincial environmental rules and regulations;
- (ii) the IEEs reports are submitted to the Khyber Pakhtunkhwa Environmental Protection Agency and environmental clearance is sought thereof before starting civil works;
- (iii) ADB clearance of updated IEEs to be sought before start of civil works;
- (iv) the environmental management plans (EMPs) are included in bidding documents for all contracts;
- (v) all contractors prepare, and submit to the PIU for approval at least 10 days before taking possession of any work site, and implement site-specific EMPs;
- (vi) no access to the site will be allowed until the site specific EMPs is approved by the PMU;
- (vii) implementation of the site-specific EMPs is regularly monitored through PIU, CSC, and ADB environmental consultants;
- (viii) a non-compliance notice will be issued if the contractor is not in compliance with requirements of IEE, EMP, and/or contractual documents. The contractor is required to prepare a corrective action plan, which is to be implemented by a date agreed with the PIU;

- (ix) the environment-related documents, specifically updated IEEs, and semi-annual Environmental Monitoring Reports (EMRs), are disclosed locally, and on the ADB website;
- (x) semi-annual EMRs are submitted to ADB for review and disclosure within 1 month after the reporting period, and
- (xi) for unpredicted impacts follow ADB's SPS and OM/F1 on unanticipated impacts requiring an updated IEE/EMP, not a CAP. Same applies to design changes before or during construction, with CAP only required if non-compliance by borrower or contractor.
- (xii) ADB will ensure that:
- (xiii) monitoring and supervision of the project is carried out on an ongoing basis until a project completion report is issued;
- (xiv) project review missions regularly visit project sites to ascertain the status of implementing the EMP with detailed review by ADB's safeguard specialists, officers and/or consultants
- (xv) updated IEEs are timely reviewed and disclosed on the ADB website; and
- (xvi) semi-annual EMRs are timely reviewed to disclosed on the ADB web-site.

37. **Involuntary resettlement.** The project is classified as category B for involuntary resettlement as the road dualization work will be undertaken within 82–104 feet wide right-of-way, owned by C&WD. About 38 structures owned by 38 families are expected to be impacted partially. These include 4 residential and 8 commercial structures that will have boundary walls and sun-roof sheds partially affected. There are 26 movable stalls/kiosks selling fruits, vegetables and household items which will need to move away (within ROW) during the road dualization work. In addition, there are 3,116 wood/forest trees, 23 EA owned bus stop sheds, and 558 telephone and electricity poles which will need to be relocated by concerned government departments. The C&WD has prepared a draft resettlement plan following SPS (2009 and has endorsed it for implementation after its updating and approval by ADB based on the detailed;/final design of the project. The draft resettlement plan will be disclosed on ADB website after its review and will be re-disclosed after it has been updated.

38. **Indigenous peoples (IP).** The project is classified category C for IP since there are no indigenous peoples in the project area as defined operationally under ADB SPS (2009).

39. **Grievance Redress.** A functioning grievance redress mechanism, headed by the project director, will be established at the project level while 4 grievance redress committees will be set up in built-up areas, i.e. Zandoo Dheri, village Sang-e-Mar Mar, village Shahbaz and Balla Garhi and village Adina/Yar Hussein chowk.

40. **Information Disclosure:** Public consultation with the affected persons and the public along the project roads and information disclosure were undertaken during the preparation of resettlement plans. The consultation and information sharing process will be continued throughout project implementation. The main features of the resettlement plan including project impacts, asset valuation, entitlements and compensation provisions were disclosed to the project affected persons during the consultation meetings. The resettlement plan is disclosed to the public through the PIU-PKHA and ADB websites. The implementation of resettlement plans will be monitored regularly by C&WD and the result including social monitoring will be shared with ADB quarterly during implementation phase of resettlement plans and biannually throughout project implementation period after implementation of resettlement plan is completed.

41. **Monitoring and Evaluation.** Resettlement plan implementation shall be monitored by C&WD through its environment and social unit (ESU) established by the Project Management Unit (PMU). The ESU will be assisted by an experienced resettlement/monitoring expert to be engaged by C&WD through the construction supervision firm. The expert will assist ESU in updating and implementation of resettlement and its monitoring.

42. **Prohibited investment activities.** Pursuant to ADB's Safeguard Policy Statement (2009), ADB funds may not be applied to the activities described on the ADB Prohibited Investment Activities List set forth at Appendix 5 of the Safeguard Policy Statement (2009).

VIII. GENDER AND SOCIAL DIMENSIONS

43. The project has been categorized as 'Some Gender Elements', women will benefit from the project through improved access to basic social services such as health, education and social networking facilities. Road safety features will reduce accidents and fatalities. Key gender actions will include; (i) consultations with separate men and women groups to mitigate the negative project impacts; (ii) 20% of the road sections rehabilitated with gender design features including; bus stops for women, elderly and children, pedestrians sidewalk, and rest areas for families; (iii) capacity building of PIU-PKHA in social safeguard and gender sensitive planning and implementation of road sector projects; and (iv) additional assistance to female-headed households will be provided as part of the resettlement plan.

IX. PERFORMANCE MONITORING, EVALUATION, REPORTING, AND COMMUNICATION

A. Project Design and Monitoring Framework

Impact the Project is Aligned with: An efficient and integrated transportation network established. (Pakistan Vision 2025) ^a			
Overall Project Above impact unchanged			
Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting Mechanisms	Risks
Outcome Current Project Efficiency and safety along key sections of the Khyber Pakhtunkhwa provincial road network improved	a. Average travel speed along the project roads increased to 60 km per hour by 2024 (2017 baseline: 45 km per hour) b. The International Road Assessment Program safety rating for the project roads increased to three stars or higher by 2024 (2017 baseline: one star)	a.-b. PKHA's survey report	The government's insufficient budget for the road sector and unbalanced public investments (favoring road construction over road maintenance) result in unsustainable road maintenance
Overall Project Unchanged	a.-b. Unchanged	a.-b. PKHA's survey report	

<p>Outputs Current Project Output 1 Provincial roads rehabilitated</p>	<p>1a. Approximately 214 km of provincial roads rehabilitated by 2023 (2017 baseline: not applicable)</p> <p>1b. Pavement international roughness index of project roads increased to 3.0 meter/km by 2023 (2017 baseline: 7.0 meter/km)</p> <p>1c. 20% of the project road sections rehabilitated with gender design features^b</p>	<p>1a.–c. PKHA’s survey report</p>	
<p>Overall Project Output 1 Unchanged</p>	<p>1a.–1c. Unchanged</p> <p>1d. Dualization of 42 km Mardan–Swabi road with gender design features completed by 2023</p>	<p>1a.-1d. PKHA’s survey report</p>	
<p>Current Project Output 2 The CWD’s institutional capacity for road maintenance strengthened</p>	<p>2a. Two pilot PBM contracts with a total length of 104 km completed by 2023 (2017 baseline: none)</p> <p>2b. Laboratory and maintenance equipment acquired by PKHA from 2019 (2017 baseline: none)</p> <p>2c. More than 30 PKHA staff trained in the RAMS, social safeguards, and gender-sensitive planning by 2020 (2017 baseline: none)</p> <p>2d. Annual maintenance plans and budget reports prepared with the RAMS from FY2021 onwards (2017 baseline: none)</p>	<p>2a.–2c. Consultant’s report as endorsed by the government, PKHA project progress reports</p> <p>2d. Annual PKHA road maintenance plan and budget reports</p>	<p>The PBM pilot cannot be implemented</p>

Overall Project Output 2 Unchanged	2a.–2d. Unchanged 2e. Gender responsive Khyber Pakhtunkhwa road network master plan developed and approved by the government (2017 baseline: none) 2f. Central laboratory built at the PKHA by 2020 (2018 baseline: none) 2g. At least 120 CWD staff (at least 10 of them women) receive training and have better knowledge of road management by 2020 (2018 baseline: 0)	2a.–2d. Unchanged 2e–2f. Consultant's report as endorsed by the government, PKHA project progress reports 2g. Participant feedback survey conducted by PIU	Khyber Pakhtunkhwa road network master plan may not be approved by the government because the budget allocation is inadequate.
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Activities with Key Milestones (overall project)

1. Provincial road rehabilitated

- 1.1. Recruit construction supervision consulting firm (completed)
- 1.2. Award of civil works contracts for approximately 214 km of provincial roads (completed)
- 1.3. Complete civil works contracts for approximately 214 km of provincial roads by March 2021.
- 1.4. Award of civil works contracts for the dualization of 42 km Mardan–Swabi road by April 2019.
- 1.5. Complete civil works contracts for the dualization of 42 km Mardan–Swabi road by March 2023.

2. PKHA's institutional capacity on road maintenance strengthened

- 2.1. Award PBM contracts by December 2019.
- 2.2. Complete PBM contracts by April 2024.
- 2.3. Procure laboratory and maintenance equipment by December 2018 and install by May 2019.
- 2.4. Conduct RAMS training sessions by December 2020.
- 2.5. Implement the RAMS from January 2021.
- 2.6. Develop an annual PKHA maintenance plan and budget based on RAMS inputs from 2021.
- 2.7. Award consultancy contract for Khyber Pakhtunkhwa road network master plan developed by June 2019.
- 2.8. Complete Khyber Pakhtunkhwa road network master plan by April 2022.
- 2.9. Award consultancy contract for training by December 2019.
- 2.10. Complete training by December 2023.
- 2.11. Award civil works contract for central laboratory by December 2019.
- 2.12. Complete construction of central laboratory by December 2020.

Inputs

	ADB		Government
	Regular OCR Loan	Concessional OCR Loan	
	(\$ million)		
Current	121.5	18.5	24.0
Additional	75.0	0.0	10.0
Overall	196.5	18.5	34.0

Assumptions for Partner Financing

Current Project: Not Applicable

Overall Project: Unchanged

ADB = Asian Development Bank, CWD = Communication and Works Department, km = kilometer, OCR = ordinary capital resources, PIU = project implementation unit, PBM = performance-based maintenance, PKHA = Pakhtunkhwa Highways Authority, RAMS = road asset management system.

^a Government of Pakistan, Ministry of Planning, Development and Reforms. 2014. [Pakistan 2025: One Nation, One Vision](#). Islamabad.

^b A road network with roadside gender-sensitive facilities such as shelters, rest areas, and safety measures, particularly in areas where women road users are prevalent, increases commuters' access to markets, social infrastructure, and services.

Source: Asian Development Bank.

B. Monitoring

44. **Project performance monitoring.** The ADB and the PIU-PKHA agreed on a preliminary set of indicators to be monitored and for evaluating project performance. Representative indicators are included in the design and monitoring framework. At the beginning of project implementation, PKHA will confirm baseline values for all the project indicators and measured with appropriate frequency during implementation. Findings regarding the project indicators will be incorporated in progress reports to be submitted to ADB. In addition, project evaluation will be conducted at project completion. PIU will establish a monitoring and evaluation system with the help of project management consultant, and periodically report on progress in achieving the project targets.

45. **Compliance monitoring.** Compliance to the covenants will be jointly monitored by PIU-PKHA and ADB through monthly and semi-annual updates provided by the PIU and supervision consultant. The consultant will submit to PKHA and ADB a status report on the covenants with the explanation and time-bound actions on partly or non-complied covenants. Apart from ADB project review missions 2–3 times a year, ADB's resident mission in Pakistan will also hold quarterly country portfolio review meetings with PIU-PKHA to ensure the full compliance to the covenants.

46. **Safeguards monitoring.** The environmental monitoring report (EMR) will be monitored regularly with the assistance of supervision consultant team, the performance and results of which (through EMP reports) will be uploaded in ADB and PIU-PKHA websites. Construction environmental monitoring is a day to day process, which ensures that departures from the EMP are avoided or quickly rectified, or that any unforeseen impacts are quickly discovered and remedied. Specific actions in the EMP that are to be monitored are included in the initial environmental examination. These include the preparation of plans for aspects of the work, such as construction camps, borrow pits and quarries, establishing crusher and asphalt facilities, and a site safety plan, which need to be completed and approved during the preconstruction phase. Also included are air, noise, and water quality monitoring parameters that follow related Pakistan national standards, and regular monitoring of the condition of the road surface, bridges, culverts, drainage structures and slope protection structures. In addition, information on the locations, type and consequences. If there are any unforeseen safeguards impacts or incidents these will be reported to ADB immediately for necessary action.

47. **Monitoring of land acquisition and resettlement (LAR)** tasks will be routinely conducted by PIU with the assistance of Resettlement Specialist mobilized through project management consultant. The monitoring results of LAR tasks and issues can be included in the

monthly project progress report for ADB. Monthly monitoring reports will be consolidated into quarterly monitoring reports (during RP implementation) and bi-annual (when RP implementation is completed) to be submitted to ADB for review and clearance before its disclosure on PIU-PKHA and ADB websites. Specific monitoring benchmarks for LAR monitoring report include (i) information campaign and consultation with affected persons; (ii) status of grievance/complaints recorded and grievances redressed during monitoring period; (iii) compensation for affected structures and other assets; (iv) relocation of affected persons; (v) payments for loss of income; and (vi) living standard and income restoration activities.

48. **Gender and social dimensions monitoring.** A summary poverty reduction and social strategy has been prepared. PIU shall ensure the project follows (i) measures to raise public awareness of the risks of HIV/AIDS and other sexually transmitted infections, drug and human trafficking; (ii) requirements for the civil works contractor(s) to take measures to protect construction workers from the risks of HIV/AIDS and other sexually transmitted infections, and for the testing and treatment of construction workers; (iii) awareness raising among temporary workers of important social and health issues; and (iv) measures to protect public and workers with requirements for the civil works contractor(s) to maintain their labor environment in healthy condition will be incorporated into the contract documents and are provided in the mitigation provisions of the EMP to meet requirements of ADB's Core Labor Standards (2006) and the country's relevant laws and regulations. PMU will monitor performance indicators and gender targets with no specific reporting requirements.

C. Evaluation

49. ADB will field an inception mission within 3 months after signing of the loan agreement. Review missions will be carried out every 4–6 months jointly by representatives of ADB, the Borrower, and PIU-PKHA. The review missions will assess the status of the project implementation and site visits are also required, whenever possible. ADB and the government will carry out a midterm review of project implementation before mid-2019. The review will focus on assessing likelihood to achieve project outcome, particularly those relating to institutional, administrative, organizational, technical, environmental, and social aspects and poverty reduction. The project's economic viability and other aspects that may have an impact on project performance will be assessed. The review will examine the implementation progress of policy reforms and compliance with assurances specified in the loan agreement. This will allow for any necessary mid-course corrections to ensure successful implementation and the achievement of the project outcome.

D. Reporting

50. The PIU-PKHA will provide ADB with (i) quarterly progress reports in a format consistent with ADB's project performance reporting system; (ii) consolidated 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, and (d) updated implementation plan for the next 12 months; and (iii) a project completion report within 6 months of physical completion of the project. To ensure that projects will continue to be both viable and sustainable, project accounts and the executing agency audited financial statement together with the associated auditor's report, should be adequately reviewed.

E. Stakeholder Communication Strategy

Project Documents	Means of Communication	Responsible Party	Frequency	Audience(s)
Project data sheet (PDS)	ADB's website	ADB	Initial project data sheet posted on the website no later than 2 weeks after approval of the concept paper; updated at least twice a year	General Public
Design and monitoring framework	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 Reports (IEE)	ADB's website, WSD's website	PIU-PKHA, ADB	Draft posted on the website before appraisal; and the final version no later than 2 weeks of receipt by ADB	General Public, project-affected people
Resettlement Plan (RP)	ADB's website, WSD's website	PIU-PKHA, ADB	Draft posted on the website before appraisal; and the final/updated version no later than 2 weeks of receipt by ADB	General Public, project-affected people
Loan Agreement	ADB's website	ADB	Posted on the website no later than 2 weeks from their signing, after removing any information falling within exceptions at the time of the negotiations	General Public
Report and Recommendation of the President (RRP)	ADB's website	ADB	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
Summary of Poverty Reduction and Social Strategy	ADB's website, WSD's website, Consultation	ADB, PIU-PKHA	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

Project Documents	Means of Communication	Responsible Party	Frequency	Audience(s)
Procurement requirements	ADB's website for procurement notice (ACN/SPN), invitation for bids (IFB), Local newspaper advertisement	ADB PIU-PKHA	Available online (current and archive)	General public, potential civil works contracting firms
Consulting services requirement	ADB's website for recruitment notice (CSRN) for expression of interest ADB's website for list of shortlisted firms	PIU-PKHA ADB	When required Always available	General public, consulting firms General public, consulting firms
Project Administration Manual	ADB's website	ADB	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
Environmental & Social Safeguard Monitoring Reports	ADB's website WSD's website	ADB PIU-PKHA	Within 14 days of receipt	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 2 weeks of circulation to the Board for information	General Public
Evaluation Report	ADB's website	ADB	Within 2 weeks of circulation to Management and the Board	General Public

X. ANTICORRUPTION POLICY

51. ADB reserves the right to investigate, directly or through its agents, any violations of the Anticorruption Policy relating to the project.¹³ All contracts financed by ADB shall include provisions specifying the right of ADB to audit and examine the records and accounts of the executing agency 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.¹⁴

52. To support these efforts, relevant provisions are included in the loan agreement and the bidding documents for the project. The Government will disclose to the public and update the current status of the Project and how the loan proceeds have been used through a website to be established for the purpose. For each contract financed under FERP, the EAs and IAs will disclose on the website the following information.

¹³ Anticorruption Policy: <http://www.adb.org/Documents/Policies/Anticorruption-Integrity/Policies-Strategies.pdf>

¹⁴ ADB's Integrity Office web site: <http://www.adb.org/integrity/unit.asp>

- (i) list of participating bidders,
- (ii) name of the winning bidder,
- (iii) basic details of the bidding procedures and procurement method adopted,
- (iv) amount of contract awarded,
- (v) list of goods/services, including consulting services procured, and
- (vi) intended and actual utilization of the loan.

XI. ACCOUNTABILITY MECHANISM

53. 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 an effort in good faith 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.¹⁵

XII. RECORD OF CHANGES TO THE PROJECT ADMINISTRATION MANUAL

PAM Version	Created Date	Revision Date	Reasons for Change	Main Contents of Change
Version 1	August 2018	NA	Initial	NA

¹⁵ Accountability Mechanism. <http://www.adb.org/Accountability-Mechanism/default.asp>.

TERMS OF REFERENCE

Construction Supervision of Mardan–Swabi Dualization Road Project (Additional Financing of Khyber Pakhtunkhwa Provincial Roads Improvement Project, Pakistan)

A. Introduction

1. The Government of Khyber Pakhtunkhwa (KP) has applied for a loan from the Asian Development Bank (ADB), and part of the loan will be used for supervisory consultancy services for Madan–Swabi Dualization Road Project (2 contracts covering 42 km Dualized Highway) of the KP Provincial Roads Improvement Project and one (1) contract of C&W House / Central Laboratory at Hayatabad Peshawar (the Project).
2. The KP Communication and Works Department is the executing agency for the Project, and a Project Implementation Unit (PIU) has been established under the Communication and Works Department headed by the Project Director (Client's representative) will be the Implementing Agency.
3. The consultancy services would be required for a period of forty-two (42) months including the defects notification period, which will be 12 months. Total input of 30-person months international and 242-person months national consultants would be required for the assignment.
4. The Consultants will perform the duties of the Engineer specified in the FIDIC conditions of contract and will be required to nominate Resident Engineers for the contract(s) that will be a full-time resident in the areas or located in the proximity of project areas.
5. A consultancy service (Consultant) will be recruited to provide services for the construction supervision of Mardan–Swabi dualization road project and construction of C&W House / Central Laboratory at Hayatabad Peshawar included in the Project.

B. Background

6. The project comprises the rehabilitation, dualization and upgrading of the Mardan–Swabi provincial highway (42 km dualized highway) in KP.
7. The Consultant will serve as the Engineer within the context of the conditions of the (i) Mardan–Swabi dualized road rehabilitation contracts; and (ii) C&W House / Central Laboratory at Hayatabad Peshawar. The Consultant will be required to designate full-time Resident Engineer for on-site works supervision, resident in the project area at specified locations. In addition, the Consultant will assist the Client (PIU) in the efficient administration and implementation of the works especially in Qa / Qc (quality assurance and quality control). The consultant will support and strengthen the PIU in the conduct of its functions and responsibilities such as monitoring physical progress, financial management, social and environmental safeguards and gender mainstreaming in the project. The Consultant will work under the overall guidance, coordination and direction of the Project Director (PD).

C. Objectives

8. The overall objectives of the consultancy are to:
- (i) Ensure that high quality construction is achieved in time within budget and that all work is carried out in full compliance with the approved engineering designs and sound engineering practices, technical specifications, agreed work schedule, and within the terms and conditions of the contract documents.
 - (ii) Demonstrate the efficacy of contract administration and supervision to independent external agencies.
 - (iii) Ensure safeguards management i.e. updating, and implementation of the LARPs, and incorporating EMPs in the works contracts, preparation and implementation of site-specific EMPs which are fully consistent with the ADB's safeguards requirements. Monitor and evaluate the implementation of environmental management plan, resettlement plan and other social safeguard measures to be taken by the contractor and Employer.
 - (iv) Promote technology transfer and the introduction of modern Contract Administration practices within C&W Department.
 - (v) Ensure effective work zone safety and implementation of the traffic management plan during the construction.

D. Scope of Services

9. General Duties and Responsibilities of the Consultant are given below:
- (i) Review (if required) Bid documents for the project and assist the PIU as required, in the evaluation of bids received and award of civil works contracts;
 - (ii) The civil works will be carried out based on the FIDIC Conditions of Contract for Construction, MDB Harmonized Edition – June 2010. The consultant will administer the civil works contracts, make engineering decisions, be responsible for quality assurance, provide general guidance and furnish timely responses to the contractors in all matters relating to the civil works, and ensure that all clauses of the contract agreement between the civil works contractors and PIU are adhered to and respected.
 - (iii) The Consultant will advise PIU on all matters relating to the efficient and successful execution of the civil works contracts, and will act at all times to protect the interests of the project and will take all reasonable steps to keep the construction costs to a minimum, consistent with sound economic and engineering practices; and will prepare a "Contract Administration and Construction Supervision Manual" outlining routines and standard operating procedures to be applied in contract administration and construction supervision, based on sound internationally recognized practice.
 - (iv) Based on the findings of the road safety audit, the Consultant will ensure that all safety measures are taken without any compromise in the design and recommend improvement/missing safety measures, if any, before execution of the works; and verify that the proposed work zone safety requirements are in accordance with best international practices;
 - (v) Base on the finding of Environment Impact Assessment (EIA), the Consultant will review the environment study report and ensure that adequate measures are incorporated in the design to mitigate any adverse impacts including those likely to be encountered during construction, and recommend any needed improvement;

- (vi) Prepare social due diligence reports confirming project road sections with and without LAR impacts, including clearly making LAR and non-LAR sections in the field and reflected in the construction plans, with timelines for updating of LARPs; and update the LARPs based on horizontal and vertical alignment adjustments proposed/incorporated (if any) on construction plans.
- (vii) Assist PIU in establishing a LAR database and operationalizing Grievance Redress Mechanism (GRM) with complaints recording, tracking, monitoring, and community outreach systems.

10. Contract Administration and Works Supervision. The Consultant while supervising construction works will make all necessary arrangements for quality control and implementation of the works. The task of the Consultant will include but not be limited to:

a. Contract Administration and Financial Management

- i. Prepare the Pre-construction meeting agenda and conduct the Pre-construction meeting, record and distribute the minutes, appoint various members of the Engineer's construction supervision team such as the Engineer's Assistants (Resident Engineers, Material Engineers, Inspectors, etc.) and notify the Contractor and the Employer, and approve the Contractor's Representative.
- ii. Verify whether, the Performance Security complies with the Form provided in the Contract, whether it is in the correct amount and currencies, and notify the Employer accordingly; advise the Employer whether to accept the Performance Security and if the Contractor does not submit the Performance Security on time, notify and advise the Employer of the appropriate contractual remedies;
- iii. Request the Contractor to increase the amount of the Performance Security if the Contract Price increases and monitor the validity of the Performance Security until the issuance of the Performance Certificate;
- iv. Verify whether the Bank Guarantee for advance payment is in the form specified under the Contract and in the amount and currencies stated in the Particular Conditions of the Contract;
- v. Verify whether the Bank Guarantee for advance payment conforms to the Contract requirements and that the guarantee is valid until the entire advance payment is recovered from the Contractor's certificates;
- vi. Interpret the specific provisions of the Contract related to the Employer's obligation to give possession of the Site, and the Contractor's Work Program, assess the contractual consequences of any specific land acquisition issue and advise the Employer on the appropriate mitigation measures;
- vii. Obtain the Parties' confirmation that all conditions in Sub-Clause 8.1 of the Conditions of Contract are fulfilled;
- viii. Issue instruction to the Contractor to commence the works and record the Parties agreement according to Sub-Clause 8.1 of the Conditions of Contract;
- ix. Verify whether the form and substance of the evidence of the Contractor's insurances is satisfactory, whether insurance premiums have been paid and the required insurances are effective on the dates required by the Contract;

- x. Verify that the terms of the Contractor's insurance policies fully comply with the requirements of the Contract (including: whether both the Employer and the Contractor are adequately covered as insured Principals; the amounts insured, and currencies of payment; validity of the insurance policies and special conditions; limits of insurance per event and in aggregate; deductibles, excess, and conditions related to locations; whether and which subcontractors are covered by the insurances, and whether additional insurances will be required if the Contractor engages new subcontractors);
- xi. Monitor whether the Contractor maintains adequate insurance in the course of performance of the Contract, particularly if the Contractor provides insurances for a fixed period which is shorter than the period required under the Contract;
- xii. Advise the Employer on the appropriate action and contractual remedies in case that the Contractor does not perform its insurance obligations in accordance with Contract;
- xiii. Establish and maintain an effective documents management system in the Engineers' office, which provides for separate filing of incoming and outgoing correspondence and documents, as well as the filing by subject matter;
- xiv. Maintain an Events Log starting at beginning of Contract;
- xv. Prepare standard Daily Diary forms and ensure that all supervision staff maintain daily diaries of Contractor's and its own activities;
- xvi. Undertake project performance monitoring and evaluation in accordance with the Project Framework and ADB's Project Performance Management System (PPMS) Handbook including baseline data survey and the following annual survey and reporting up to project completion;
- xvii. Advise PIU on need for effective liaison with local authorities, police, landowners, utility owners, complainants, the public and other organizations affected by the Works in order to minimize or avoid unnecessary delays or disputes;
- xviii. Maintain consolidated project accounts and be responsible for settlement of Audit Para's and objections raised, prepare replies related to project, and provide the entire relevant documents/papers/letters etc. to support the replies-until 1 year after completion of works. The cost to be incurred may be built in the rates;
- xix. Develop training programs for EA staff and develop on the job training on innovative construction methods, project management and value engineering;
- xx. For any laps in quality, quantity, or financial irregularity related to the performance of the Services, the Consultant will indemnify the Client.

b. Construction Supervision

- i. Without relieving the Contractors of their obligations under the Contract, review and approve the traffic management and safety plan, and ensure compliance such that the Works are carried out at all times in a safe and secure manner and damage or injury to persons or property is avoided;
- ii. Assess minimum construction equipment, plant and machinery requirements, by type and specification, and monitor, keep and regularly update a list of the Contractors' equipment, plant and machinery in order to keep check on the Contractors' mobilization. Inspect and evaluate the

- Contractors' establishments including in particular the laboratory facilities to ensure compliance with the terms and conditions of the Contract Agreement;
- iii. Obtain the bench marks and other information from the PIU as required for commencement of construction activities;
 - iv. Ensure that the Contractors have all necessary data for setting out and check the Contractors setting out including staking the right-of-way limits, centerline, and grade and confirm permanent monuments in the construction area;
 - v. Without relieving the Contractors of their obligations under the Contract, check and approve the contractors' Working Drawings, Method Statements and Temporary Works proposals;
 - vi. Review the Contractor's Works Program and notify the Contractor if the program does not comply with the Contract;
 - vii. Monitor the progress against the Work Program and the cash flow estimate and request revisions, if required.
 - viii. Report in the Consultant's Monthly Report the work progress against the Contractor's Work Program and the cash flow estimate;
 - ix. Verify whether the progress charts in the Contractor's Monthly Progress Report reflect the actual progress and correspond to the latest revision of the Work Program and the cash flow estimate, and instruct the Contractor to correct the report, if required;
 - x. If required, determine the Contractor's entitlements to time extensions on the basis of the Contractor's Work Program;
 - xi. Determine the Employer's entitlement to Delay Damages on the basis of the Work Program and advise the Employer of the relevant contractual remedies if the Contractor's progress is behind schedule;
 - xii. Verify the Contractor's Monthly Progress Reports and notify the Contractor of any incorrect or inconsistent information;
 - xiii. Conduct regular weekly site meetings and monthly progress review meetings, record and distribute the minutes;
 - xiv. Perform quantity take-offs from drawings to verify BoQ quantities;
 - xv. Issue regular notices to the Contractors of intended field measurements, measure the Works, compute the quantities for payment, and determine the amounts due to the Contractor within the period specified in the Contract;
 - xvi. Carry out any subsequent design changes, and expeditiously issue supplementary drawings, site instructions, variation orders and day work orders to avoid delay to the works and to ensure that the works are executed in accordance with Contract;
 - xvii. Establish and maintain throughout the works contracts a structured system of measurement records, supporting documents and calculations for the payment of all BOQ items, that is transparent for auditing purposes;
 - xviii. Provide all necessary assistance to the Employer and external auditors for conducting regular quarterly audits of the measurement records, supporting documents and calculations for the payment of all BOQ items and be responsible for any lapse if found by the audit reports;
 - xix. Verify the sources of indices or price for price adjustments, determine a provisional value of an index/reference price until it is published, but, if the index is not published in certain period(s), apply the last available published value;

- xx. Establish with the Contractor a standard format for the Contractor's Statement and the Interim Payment Certificates;
- xxi. Issue the interim certificates to PIU for payment to the Contractors in accordance with Clause 14 of the Conditions of Contract, having regard to any contractual provisions for advance payment, variation of price, and exchange rate fluctuation etc. Certify the completion of the Activities/Works or parts thereof and check and verify the final payments to the Contractors;
- xxii. Prepare and maintain the Estimates of Cost of Works to Completion continuously, update the Estimates after each Variation instruction or a Variation Order issue and after each IPC, and present the latest Estimate in the Consultant's Monthly Progress Reports;
- xxiii. Initiate and process variations promptly, when it is necessary for the construction of the works;
- xxiv. Request the Contractor's technical and cost proposal as required, consult both parties in all matters in connection to variation work;
- xxv. Value variations obtain the Employer's approval of any variation, issue variations under the Contract, keep record of all variations issued under the Contract and report the summary of the variations in the Consultant's Monthly Progress Reports;
- xxvi. Discharge fully the Engineer's obligations with respect to approval of materials and workmanship, approval and auditing of the Contractor's Quality Assurance System and the QA Personnel and the compliance testing by the Engineer;
- xxvii. Inspect quarries and borrow pits, and crushing plants, and order tests of materials and ensure adherence to specifications, and approve the source of materials;
- xxviii. Without relieving the Contractors of their obligations under the Contract, monitor the Contractors' laboratory testing, evaluate the Portland cement concrete and bituminous mixture designs prepared by the Contractors, and ensure improvements (if any) to deliver the desired performance, and accord approval thereof;
- xxix. Carry out independent testing in the field and/or in the laboratory of the "Engineer/Project Manager", and approve or disapprove and certify the works that conform with the specifications and maintain permanent records of results of all the tests made;
- xxx. Give notice to Contractors of any defects and deficiencies, and issue instructions for the removal and substitution of the improper works, where provided under the contract. If required, order suspension of the work(s) and/or recommend to PIU other recourse available under the Contract;
- xxxi. When the works are completed in accordance with the Contract, issue a Taking Over Certificate to the contractor(s);
- xxxii. Undertake an inspection of the works at the completion of the respective road sections, and certify the contractor(s)' final accounts;
- xxxiii. Obtain the Employer's specific approval before taking any action for determination of extension of time, additional costs and the Contractor's claims for additional time or costs for all events for which the Employer's express approval is required under the Conditions of Contract;
- xxxiv. Assess objectively the Contractor's claims and give professional and objective advise to the Employer, consult both parties before determining an extension of time;

- xxxv. Determine Contractor's claims on the basis of the Contractor's Work Program, the impact of the delay(s) event on the Critical Path and the particulars submitted by the Contractor, and not act as the Contractor's advisor in this matter;
- xxxvi. Assist the parties establish Dispute Board, provide all necessary information to DB members and attempt to facilitate amicable settlement of the dispute between the Employer and the Contractor;
- xxxvii. Ensure that the contractor(s) provide a safe workplace for their workforce, supervisory personnel and for members of the public requiring access through the sites in full conformity with Health and Safety regulations;
- xxxviii. Ensure that the contractor(s) comply fully with contractual obligations relating to care of the environment (both specified and legislated) and provide all reports and obtain all permits and permissions required in relation to spoil areas, borrow areas quarries and the like;
- xxxix. Keep and maintain daily records of labor, equipment and weather conditions on the site along with records of activity, progress and other events happening on the site and having relevance to the works;
- xl. Ensure the receipt of and maintain as permanent records of all warranties required under terms and conditions of the Contract Agreement for materials including their source and equipment accepted and incorporated in the project;
- xli. Carry out detailed inspections of the works during the Defects Notification Period and prepare detailed inspection and recommendation reports for the Employer after each inspection;
- xlii. Inspect the completed works periodically during the Defects Notification Period within the term covering the Consultant's Agreement, prepare lists of deficiencies (if any), and carry out supervision of the remedial works, and issue the Defects Liability certificates after the rectification of notified defects by the contractors; and
- xliii. Jointly inspect with PIU the completed civil works and assist in formal taking over and review and approve or prepare "as built" drawings and plans (as case may be) and provide report(s) testifying to the satisfactory completion of the contracts.

c. Safeguards Compliance

- i. Ensure that all land and all rights-of-way required for the Project and all Project facilities are made available to the Works contractor in accordance with the schedule agreed under the related Works contract and all land acquisition and resettlement activities are implemented in compliance with (a) all applicable laws and regulations of the Borrower relating to land acquisition and involuntary resettlement; (b) the Involuntary Resettlement Safeguards; and (c) all measures and requirements set forth in the LARP, and any corrective or preventive actions plan set forth in a Safeguards Monitoring Report;
- ii. Assist the PIU in notifying the contractors on LAR and non-LAR sections and ensuring that works are conducted only in LAR-free areas and areas where LARP implementation has been completed;
- iii. Submit semi-annual reports during construction and annual reports thereafter with separate environmental and social Safeguards Monitoring

- Reports to ADB, and disclose relevant information from such reports to affected people promptly upon submission;
- iv. If any unanticipated environmental and/or social risks and impacts arise during construction, implementation or operation of the Project that were not considered in the EIA, the CEIA, the EMP, the SSEMP or the LARP, promptly inform ADB of the occurrence of such risks or impacts, with detailed description of the event and proposed corrective action plan;
 - v. Report any actual or potential breach of compliance with the measures and requirements set forth in the EMP, the SSEMP or the LARP promptly after becoming aware of the breach provide PIU with a written notice of any unanticipated environmental, or resettlement or indigenous peoples risks or impacts that arise during construction, implementation or operation of the Project that were not considered in the EIA, the CEIA, the EMP, the SSEMP or the LARP;
 - vi. Carry out the following duties related to environmental management with particular reference to the technical requirements of sound environmental standards on the basis of the Environmental Assessment and Review Framework (EARF), the Initial Environmental Examinations (IEEs), and the Environmental Management Plans during construction: (a) review and endorse site specific Environmental Management Plans (EMPs) for the project sections, prepared by the Contractors; (b) ensure that all the environmental mitigation measures required to be implemented are incorporated into the contract documents; (c) ensure that the Contractors comply with the measures and requirements relevant to the contractors set forth in each IEE and EMP, and any corrective or preventive actions set out in Environment Monitoring Reports; (d) conduct environmental monitoring and ensure that the day-to-day construction activities are carried out in an environmentally sound and sustainable manner; (e) prepare and submit semi-annual environmental monitoring reports on the implementation of the Environmental Management Plan (EMP) to PIU within 14 days after completion of the monitoring period; (f) prepare additional environmental impact assessments, if required, compliant with ADB SPS, 2009 and ensure that all required mitigation measures are identified and acceptable; (g) in the event of unanticipated environmental and/or social risks and impacts that were not considered in the applicable IEE, or EMP, promptly inform PIU and ADB of the occurrence of such risks or impacts, with detailed description of the event and proposed corrective action plan; (h) report to ADB/PIU of any actual or potential breach of compliance with the measures and requirements set forth in the applicable EMP promptly after becoming aware of the breach;
 - vii. With respect to the prevention of HIV/AIDS and Human Trafficking, monitor that the contractors comply and carry out required actions as provided in the respective contract documents, such as awareness and education of laborers and works; and
 - viii. Endure that the contractors do not involve child labor for the execution of the civil works contracts in accordance with the provisions of the contract agreement.

E. Staffing

10. A total consultancy input of 30 person-months international and 242 person-months national staff are required for the (i) Mardan–Swabi Dualization and rehabilitation; and (ii) construction of C&W House/Central Laboratory at Hayatabad Peshawar to assist in works supervision/contract administration, safeguard compliance and overall project management and implementation. The consultancy services would be required for a period of forty-two (42) months including the defects notification period, which will be 12 months for the rehabilitation component. There will be one “site supervision team” for two contract packages of Mardan–Swabi dualization road project and one contract of construction of C&W House/Central Laboratory at Hayatabad Peshawar. The staffs are expected to mobilize on the date of actual commencement of works by the contractors.

11. Consulting Services will be engaged using Full Technical Proposal (FTP) procedures based on quality and cost-based selection (QCBS) method following ADB’s Guidelines on the Use of Consultants (2013, as amended from time to time). The provisions of ADB’s Anticorruption Policy will be included in all invitation documents and contracts for consultants. The tentative composition for the construction supervision for the rehabilitation component are given below:

12. Staffing Details for the Assignment:

S/No	Expertise	Positions	Input (Person- Months)
A. International Experts			
1	Chief Resident Engineer / Team Leader	1	30
	Sub-total	1	30
B. National Experts			
1	Senior Resident Engineer	1	34
2	Contract Specialist	1	4
3	Environmental Specialist	1	4
4	Resettlement Specialist	1	4
5	Architect / Landscape Architect	1	4
6	Traffic / Road Safety Specialist	1	4
7	Assistant Resident Engineer (ARE)	3	90
8	Material Engineer	1	30
9	Chief Quantity Surveyor	1	34
10	Chief Surveyor	1	24
	Sub-total	12	242

Note:

- All the Staff appointed for the above project may be terminated or replaced at any time during the project at the request of the Project Director, PIU for justified cause.
- In the budget, the experts (International and National) charge rates includes Airfare, Per Diem, visa and visa renewal fee (International Personnel) etc.

13. Qualification descriptions of each expert are as follows:

- Chief Resident Engineer / Team Leader (TL) [International, 30 Person-months]** Shall hold a bachelor’s degree in civil engineering and preferably a master’s degree holder in civil engineering / highway engineering / transportation engineering / construction management / project management or equivalent. With minimum 15 years international experience as a chief resident engineer and 10

years as team leader on major road projects. He/she will have the overall responsibility for the organization, conduct and delivery of consultancy services, and reporting to PIU, KP PRIP. He/she will head the Consultants' team and will work directly to manage the project and will maintain liaison with PIU, KP PRIP. His responsibilities will include but not limited to the following:

- (i) Assist the PIU in Project implementation
- (ii) Assume full responsibility for the consulting team and performance of services under the consultancy contract.
- (iii) Ensure that the consulting team undertakes comprehensive review of the designs and specifications which were prepared by the design consultant.
- (iv) Ensure that the consulting team undertakes comprehensive construction supervision and contract administration of the inescapable civil works.
- (v) Oversee consultants' activities ensuring compliance to details provided in the construction drawings and strict adherence to construction specifications.
- (vi) Oversee and supervise construction of works in accordance with details provided in the construction drawings ensuring strict adherence to construction specifications.
- (vii) Ensure preparation of detailed and quantitative progress reports to support the contractor's requests for progress payments.
- (viii) Keep the Employer informed of technical issues and progress of all works both by informal and formal meetings and correspondence and assist in any project issue which the Employer may require.
- (ix) Participate in the Dispute Board meetings to explain and discuss issues raised by the Contractor/Employer or dispute board.
- (x) Ensure implementation of environmental and social safeguards requirements.
- (xi) Assist the Employer in preparing responses to audit objections and queries of the financiers or other Government Authorities.
- (xii) Coordinate with all concerned Employer's organizations on project issues.
- (xiii) At the end of the construction activities, guide and ensure that the team prepares a comprehensive Construction Completion Report inclusive of "as-built drawings" as appropriate.

- b. Senior Resident Engineer (SRE) / Deputy Team Leader [National, 34 Person-months]** Shall hold bachelor's degree in civil engineering, preferably has master's in civil engineering / highway engineering / transportation engineering / construction management / project management or equivalent. With 15 years' experience as SRE/Deputy Team Leader on major road projects in contract management, processing of claims and implementation of road projects. He/she will be responsible for construction supervision and ensuring that the project is implemented in accordance with the required specifications and approved drawings. Assist Team Leader for issues relating to Highway Geometry etc. when required. Responsibilities of the Deputy Team Leader will include, but are not limited to the following:

- (i) Act as the TL during the absence of the TL.
- (ii) Assist the TL in ensuring that the consulting team undertakes comprehensive review of designs and specifications and carries out construction supervision and contract administration of the civil works for the Project assuming the role of "the Engineer" and undertake all tasks as defined under FIDIC General Conditions of Contract for Construction.

- (iii) Assist the TL in overseeing the consultants' activities ensuring compliance to detail provided in the construction drawings and strict adherence to construction supervisions.
- (iv) Assist the TL in overseeing quality control methodology put in place, confirming its adequacy and ensuring that its employment is satisfactorily carried out.
- (v) Render necessary advice and assist the TL in contract administration and procurement issues/assignments/contractual claims.
- (vi) Assist the TL in resolving any contractual issues.
- (vii) Determine extension of time for completion and other claims in accordance with the conditions of contract in consultation with the TL.
- (viii) Provide assistance to the Employer in dispute resolution as per provisions in the conditions of contract.
- (ix) Assist the TL in keeping the Employer informed of contractual and claims issues by direct contacts and through discussions or correspondence.
- (x) Assist the TL in holding meetings with the contractor on contract and claims issues. and
- (xi) Assist the TL in preparing a comprehensive Project Completion Report (PCR) and any other duty/assignment the TL may entrust.

c. Contract Specialist [National, 4 Person-months]

Holds bachelor's degree with major in civil engineering, law, contracts, purchasing, or management, preferably has master's degree in civil engineering, law, contracts, procurement or equivalent. With 12 years' experience as Procurement and Contract Specialist on major road projects based on FIDIC conditions of contract. Experience and knowledge of ADB's procurement procedures is essential. Proven credentials in contract administration, evaluating contractor's claims and dispute resolution, preferable experience/track record of an arbitrator, mediator, adjudicator and/or dispute resolution adviser. He/she will be responsible for assistance in procurement and contract administration, taking timely contractual actions related to cost, time and quality controls and closure of the contracts, and in case of dispute its referral to the adjudication and arbitration in case of dispute. He/she will be responsible in assisting in all the activities pertaining to procurement and contract administration, early warning of key contractual actions, schedule and document contract management meetings and evaluating/resolving contractor's claims and contractual disputes. He/she will assist the implementing agency (IA) in procurement and management of civil works contracts. He/she will be responsible for procurement oversight. His/her responsibilities will include, but not limited to the following:

- (i) Assist in coordinating procurement and contract administration and planning activities for the work package with Engineering, Project Controls and Construction;
- (ii) Assist to organize meetings for negotiating and resolving technical and contract completion issue;
- (iii) Assist in effect the timely distribution of reports and pertinent commercial information to and from Contractors in accordance with agreed schedule;
- (iv) Assist in schedule turnover meetings with Site Personnel, where required;
- (v) Assist to check timesheets for contract conformance (rates, backup, and extensions);
- (vi) Assist in reviewing Contractors' invoices and prepare Progress Payment Certificates with Cost Control;

- (vii) Assist in reviewing Contractors' costs, forecasts, and request for extras;
- (viii) Assist in review and issue for approval and post Substantial Performance documents;
- (ix) Participate in contract cost review meetings and regular Project progress and assist with preparation of monthly contracts and Project progress reports;
- (x) Assist in procurement and contracts administration and assistance actions such as contracts, solicitations, modifications, delivery schedules, plans and coordination with relevant departments;
- (xi) Assist in preparation of procurement and contract documents;
- (xii) Assist in the review of procedural aspects of contracts actions. Participates in contracts administration sufficient to ensure contract terms and conditions are met and that the contractor delivers the required services in a timely manner to achieve the objectives of the project.
- (xiii) Assist in termination of contracts for the convenience of the Project by the contractor. The incumbent is responsible for the preparation of all documentation necessary to support and defend termination decisions.
- (xiv) Recommend actions when the contractor is not in compliance with contract provisions;
- (xv) Coordinate with contractors to determine and recommend alternative courses of action, such as extension of delivery schedule;
- (xvi) Conduct contract reviews to evaluate contractors' performance, and monitor contractor activity to ensure compliance;
- (xvii) Monitor such matters as payments, claims, and contractual changes to insure requirements of the contract are met;
- (xviii) Review completed contract file to ensure routine administrative matters are resolved or completed; and
- (xix) Support to TL in drafting, for submittal to ADB through Employer, any requests for consent to extension of time/variation orders.

d. Environmental Specialist [National, 4 Person-months]

Shall hold bachelor's degree in environmental engineering, preferably with master's in environmental sciences or equivalent. With 12 years' experience as Environmental Specialist supervising and monitoring environmental management plans on donor financed road projects and familiarity with the ADB's Safeguards policies. Specific experience in a similar position on road projects in accordance with GoKP and ADB's Environmental Guidelines will be preferred. He/she will be responsible for preparing environmental screening check list and classifying sub projects that have not been yet classified, preparing and obtaining IEEs Environmental Management Plans (EMP), ensuring prior clearance, monitoring course correction, consultations, due diligence and disclosure. His/her responsibilities will include but not limited to the following:

- (i) Assist TL in reviewing the site-specific environmental management plan (SSEMP) for each sub-project and ensure its effective implementation;
- (ii) Assist TL in preparing and executing required appropriate actions to mitigate any negative environmental impacts associated with construction activities in collaboration with PIU and all concerned stakeholders;
- (iii) Ensure that any environmental impact assessments, if required, fully comply with ADB Guidelines Safeguards Policy Statement (SPS, 2009) and ensure that all required mitigation measures are identified and acceptable.

- (iv) Besides assisting in finalizing the biannual environmental monitoring report, assist the PIU in finalization of environmental part of quarterly progress report, annual progress report and any specific report asked by the PIU;
- (v) Review all relevant documents, particularly the environmental impact assessment (EIA) study;
- (vi) Prepare/update a cost-effective environmental management and monitoring plan for rehabilitation of the road works, which is in line with IEE/EMP recommendations to ensure minimal environmental effects both during and following the construction period;
- (vii) Review the site-specific environmental management plan (SSEMP for each sub-project and ensure its effective implementation;
- (viii) Prepare and execute required appropriate actions to mitigate any negative environmental impacts associated with construction activities in collaboration with PIU and all concerned stakeholders;
- (ix) Prepare a detailed reforestation plan for the Project and supervise its implementation during construction process as required in the IEE/EMP;
- (x) Develop training materials for PIU staff to support environmental protection measures and to monitor and mitigate potential environmental impacts;
- (xi) Ensure that any environmental impact assessments, if required, fully comply with SPS (2009) and ensure that all required mitigation measures are identified and acceptable. Ensure that the environmental management and monitoring plans reflecting full details regarding the estimated mitigation costs are in place through the SSEMP; and
- (xii) Besides assisting in finalizing the biannual environmental monitoring report, he/she will also assist the PIU in finalization of quarterly progress report, annual progress report and any specific report asked by the PIU.

e. Resettlement Specialist [National, 4 Person-months]

Shall hold master's in social sciences or relevant field with 12 years' experience in planning preparation, implementation and monitoring of social safeguards (involuntary resettlement) and indigenous peoples) as resettlement specialist on IFI financed development projects and familiarity with ADB's SPS (2009). He/she will be responsible to support PIU to ensure compliance to social safeguards (involuntary resettlement indigenous peoples) while planning, preparation, implementation and monitoring of resettlement plans for the sub-projects as required under SPS (2009). During the event, he/she will facilitate PIU, KP PRIP in screen of subprojects for IR/IP requirements, identify, assess and update impact inventory linked to the DPs based on design review; conduct consultations with construction limits; establish updated LAR database and grievance redress system for social safeguards. Monitor day to day RP implementation and consolidate RP implementation progress in monthly progress reports, facilitate PIU in recording and redress of grievances of project affected people and prepare social monitoring (internal monitoring) reports biannually or as provided in ADB cleared LARPs and project documents for ADB's review as well as final report on social safeguards implementation at completion of project. Responsibilities will include but not limited to the following:

- (i) Screen subprojects for involuntary resettlement impacts to determine IR/IP impact significance and eligibility of the subproject for social safeguards due diligence and preparation/updating of LARPs/IPPs under the project;

- (ii) For subprojects with involuntary resettlement impacts, prepare/update resettlement plans in accordance with provisions outlined the resettlement framework for the project;
- (iii) Coordinate with design review team during review of detailed design to discuss and explore design measure/options to avoid/minimize the resettlement impacts of subprojects and ensure involuntary resettlement impacts are minimized, if not avoided;
- (iv) Based on detailed design review, prepare social safeguards due diligence reports confirming subprojects/project road sections with and without LAR impacts including linear plans with clearly marked KAR and non-LAR sections and assist PIU and the Engineer in notifying the LAR sections to contractors that are not open for construction;
- (v) Assist and supervise in conducting detailed measurement survey of impacted assets, updating of the impact inventory, census of DPs and shall prepare updated LARPs for ADB's review and clearance in accordance with provisions outlined in the Resettlement Framework for the Project;
- (vi) Assist in organizing and conducting meaningful consultations with affected/displaced people to ensure the concerns raised and adequately addressed during design review, the LARP have been fully disclosed and the DPs are informed on the eligibility criteria entitlements, compensation payment mechanism and project-based grievance redress system;
- (vii) Assist PIU and field staff to maintain updated LAR database and in implementation of resettlement plans in the subproject areas before physical or economical displacement and subsequent commencement of works;
- (viii) Assist PIU to establish and operationalize the project-based grievance redress system and coordinate (on regular basis) with the grievance redress committee and assist the GRC in delivery of its functions including but not limited to recording, review and tracking of progress on complaints, information, dissemination and consultations with the complainants during complains resolution process.
- (ix) Assist PIU in review of LAR issues that may emerge during executing of civil works, prepare and implement corrective actions/measure consistent with project safeguards requirements as outlined in the LARF and LARPs;
- (x) Track and monitor day to day LAR implementation progress and make adjustments in implementation schedule to achieve the targeted timelines and provide safeguards related input in project implementation monthly progress reports.
- (xi) Develop and conduct training sessions for PIU staff involved in project LAR management to improve their understanding on the ADB's safeguards requirements and ensure proper understanding and implementation of resettlement plans;
- (xii) Monitor implementation of resettlement plans, consolidate LARP implementation progress and prepare quality social monitoring reports periodically (biannual or as provided in the ADB cleared LARPs and other project documents) and share with ADB for review, clearance and disclosure.

f. Architect / Landscape Architect [National, 4 Person-months]

Shall hold bachelor's degree in Architect with major course work in landscape architecture or related field. Possession of a California certificate of registration as

a professional landscape architect. 12 years relevant experience preferably three major road projects specially landscape architect in the design and preparation of plans of landscape architectural projects. The responsibility shall include but not limited to:

- (i) Prepare landscape design and construction plans and cost estimates for proposed alignment;
- (ii) Assist in preparation/finalization/supervision of C&W House (Office) /C&WD Central Laboratory building;
- (iii) Respond to citizen inquiries and complains on landscape requirement;
- (iv) Recommend and assist in the implementation of goals and objectives approved policies and produces along the propose route;
- (v) Perform related duties as required;
- (vi) To calculate angular, linear and area measurements shall identify the problematic areas in specific to landslide area and suggest proper mitigation measures;
- (vii) Identify problematic areas as regard to deposition of sand dunes and to address shifting of sand dune with cost effect remedial measure;
- (viii) Prepare architectural drawing of toll plaza associated building and rest area;
- (ix) Landscaping of intersections.

g. Traffic/Road Safety Specialist [National, 4 Person-months]

Shall hold bachelor's degree in civil engineering, preferably has master's in civil engineering / transportation engineering / highway engineering / traffic engineering and certification as safety auditor or equivalent. With 15 years relevant international experience with proven credential as traffic engineer / road safety specialist on major road projects. He/she will be part of the services team and will be providing all necessary assistance to the construction supervision team with respect to work zone safety, and implementation of safety audit recommendations. He/she will assist to the TL in review and approve the safety plans of the contractor and he/she will monitor the safety of the works and the safety of the traffic diversions and ensure compliance with the regulations. He/she will review hazardous location(s) and conditions, evaluate audit results, and safety and operational deficiencies, identify potential safety and operational improvement and recommend appropriate improvements. The Road safety specialist will train the national staff on the team.

h. Assistant Resident Engineers (ARE) [National, 30 Person-months]

Shall bachelor's degree in civil engineering, preferably master's in civil engineering / highway engineering / structure engineering / transportation engineering / construction management / project management or equivalent. With 12 years' experience as assistant resident engineer on highways or major road projects. ARE will be responsible for construction supervision of the road and ensuring that the subject project is implemented in accordance with the required specification and approved drawings. He/she will be responsible for construction supervision and review and approval of contractor's bills. ARE will assist the SRE in the performance of his tasks. The main responsibilities of the position will include but not limited to the following:

- (i) Inspect the site and collect the condition data for the design review and necessary changes if any;

- (ii) Assist the SRE in preparation of technical details such as specifications and estimates;
- (iii) Provide details about existing pavement, damages and assessment;
- (iv) Assist the SRE and recommend approval of contractor's work program, method statements, material sources, etc.;
- (v) Assist the SRE in preparing and issuing reports as defined subsequently;
- (vi) Review and recommend approval and/or issuing working drawings, approval of the setting out of the works, and instruction to the contractor;
- (vii) Taking measurements and keep measurement records;
- (viii) Maintaining records, correspondence, and diaries;
- (ix) Certifying work volume and recommending interim certificates for progress payments;
- (x) Assist in maintaining consolidated project accounts, and preparing of financial statements and withdrawal applications for submission to ADB;
- (xi) Provide feedback to the SRE on the certification of completion of part or all the works;
- (xii) Processing the contractor's possible claims;
- (xiii) Ensuring minimum disruption/damage to the environment by approval of contractor's work statement/methodology, including monitoring the impact of construction works on the environment and local settlements and providing information to PIU, KP PRIP and the ADB on the monthly progress reports;
- (xiv) Providing the employer with complete records and reports, and recommend the contractors' as – built drawings for the works;
- (xv) Assist in the compilation of a project completion report data, providing details of project implementation, problems encountered, and solutions adopted, and detailing and explaining any variation in project costs and implementation schedules from the original estimates.

i. Material Engineer [National, 30 Person-months]

Shall hold bachelor's degree in civil engineering or master's in engineering geology or equivalent. With 12 years' experience as material engineer on five major road projects preferably with experience of asphalt concrete mix design in countries having similar climate and/or truck over loading problems like Pakistan. He/she will assist and will be responsible for quality of materials used in construction by performing field and laboratory tests and certifying their acceptance based on recommended specifications for the materials, will also identify the sources of material and query sites. Main responsibilities of the position will include but not limited to the following:

- (i) Stipulate material testing procedures and specifications;
- (ii) Identify sources of materials, quarry sites and borrow areas;
- (iii) Confirm the suitability and availability of material in the borrow pits and quarries for pavement;
- (iv) If required, identify and evaluate additional sources of materials;
- (v) Undertake field and laboratory testing of the materials to determine their suitability for various components of the work;
- (vi) Prepare mass haul diagram for haulage purposes giving quarry charts indicating the location of selected borrow areas, quarries and the respective estimated quantities;
- (vii) Make suitable recommendations regarding making good the borrow and quarry areas after the exploitation of materials for construction of works;

- (viii) Be responsible for material testing and specification and certification of material quality;
- (ix) Preparation and testing of concrete mixes of different design mix grades using suitable materials (binders, aggregates, sand filler, etc.) as identified during material investigation to conform to specification applicable in Pakistan; and
- (x) Preparation of JMF.

j. Chief Quantity Surveyor [National, 34 Person-months]

Shall hold bachelor's degree in civil engineering – preferably master's in civil engineering / highway engineering / structure engineering / transportation engineering / construction management / project management or equivalent. With 12 years relevant experience on preferably six major road projects. He/she will be responsible for measurement of all type of quantities and preparation of measurement sheet in accordance with approved drawings for the purpose of preparing interim and final payment certificates. He/she will be responsible for preparing the Bills of Quantities and the Engineer's Estimates for the individual subprojects. The quantity surveyors shall review detailed estimates for quantities (considering designs and mass haul diagram) and project cost for the entire project (civil packages wise), including the cost of environmental and social safeguards proposed and market rate for the inputs or the local schedule of rates. He/she will ensure correctness of documentation, IPCs and quantities during the construction and confirming the computation and processing of interim payment certificate, producing details of the final bill and total quantities consumed during the project. The quantity surveyors prepare quantitative estimates for any suggested variation with its cost impact on the project.

k. Chief Surveyor [National, 34 Person-months]

Shall hold bachelor's degree in civil engineering – preferably master's in civil engineering / highway engineering / structure engineering / transportation engineering / construction management / project management or equivalent. With 12 years relevant experience on preferably three major road projects. He/she will carry out joint surveys with contractors' staff before commencement, assist the resident engineer in checking the correctness of layout drawn at site by the contractors during executing for the road construction, and maintain all documentation on survey works, record of control points and bench marks and ensure that works commences according to the working drawings approved by the resident engineer.

F. Reporting and Documents Requirements

14. **Reporting requirements.** The consultant will prepare and submit to PIU five copies of each of the under mentioned reports. The format of these reports shall be mutually agreed with the PIU. One copy shall be sent directly to ADB together with softcopy.

- a. **Inception Report.** The consultant will submit an Inception Report at within one month after mobilization. This will contain full detail of the consultant's supervision, and contract administration methodology and staff plan with supporting CVs of professional staff and projected monthly billing.
- b. **Monthly contract administration reports.** The consultant will, no later than the 10th of each month, prepare a narrative progress report summarizing:

- (i) Construction progress during the month and cumulative to date for each individual contract drawing specific attention to any major causes of delay (administrative, technical or financial) with details of remedial action taken or recommended to the Employer.
 - (ii) A comparison of actual and forecast expenditure both during the month and cumulative to date for each individual contract, and a record of the status of payment of the Contractors' monthly invoices, of all claims for cost or time extensions, and of actions required of PIU to permit unconstrained works implementation. The consultant will also advise on the final estimated cost for each individual contract and draw attention to any major changes in the project budget including details of remedial action taken or recommended to the Employer.
 - (iii) Brief on all correspondence exchanged with the contractors particularly relating to contractual clauses, with financial and time implications.
 - (iv) Technical appreciation of any design or quality control problems for each individual contract including details of remedial action taken or recommended to the Employer.
 - (v) Status of compliance with the Environmental and Resettlement Plans.
 - (vi) Review the monthly documents with audit prospects.
- c. **Annual Management Information Report at the end of each Financial Year.** The consultant will prepare a comprehensive report summarizing all activities under the services at the end of each fiscal year, and also at other times when considered warranted by either the consultant or PIU because of delay of the construction works or because of the occurrence of technical or contractual difficulties. Such reports shall summarize not only activities of the Project Engineer/Manager but also the progress of the contracts including all contract variations and change orders, the status of the contractor claims, and brief descriptions of the technical and contractual problems being encountered and other relevant information for each of the ongoing contracts.
- d. **Resettlement Monitoring Reports.** A quarterly report highlighting the progress on implementation of resettlement, documenting all activities including formal and informal consultation, gender issues, socio economic aspects, child labor, drug trafficking, hygiene and safety and other social aspects.
- e. **Technical Reports.** The consultant will produce as necessary technical/due diligence reports and position papers dealing with project matters during implementation.
- f. **Interim Contract Completion Reports.** The consultant will prepare completion report for each contract within 30 days of issuance of taking-over certificate/certification of completion. This report shall summarize the implementation and financial history of the project. The defects list provided to the contractor and all outstanding claims pending resolution.
- g. **Final Project Completion Report.** The consultant will prepare a comprehensive final completion report within 90 days after issuance of taking over certificate of the last civil works contract. The consultant will prepare a comprehensive final completion report for the project including each of the contracts and shall summarize the method of construction, as built record showing the location and details of all works carried out, all defects and certification of the satisfactory correction of such defects for each of the construction contracts, the construction supervision performed, and recommendations for future projects of similar nature to be undertaken by PIU.

- h. **Project Documentary Report.** The consultant has to make documentary of all major activities during constructions as well as that of completed project sections to be submitted towards the end of the project. These should also pertain:
 - Laying and compaction of various pavement layers
 - Operation of asphalt and concrete plants
 - Quarry sites and laboratory activities
 - Road after completion showing road furniture
 - Various important stages in construction of structures
 - Framing/reviewing of mix design for concrete and asphalt
 - Any other major activity involved **requiring** specific mention
- i. **Roughness Survey Report.** The roughness surveys will be carried out at substantial completion in coordination with Client, before the end of the defect liability period. The consultant is required to submit his findings along with data in this report.
- j. **Revised PC-1.** The consultant shall prepare the revised PC-1 of the project, before completion of the project, if required by incorporating all changes in the scope of work and, prepare completion report (PC-IV) at the completion of the project.
- k. **Revised Technical Sanction.** The consultant shall prepare the revised technical sanction of the project (if required), before completion of the project by incorporating all changes in the scope of work.

15. Documents and Manuals Required. The consultants will prepare following documents to be approved by the client for efficient contract administration and construction supervision.

- a. Contract administration manual
- b. Quality control and assurance manual
- c. Laboratory manual
- d. Environmental monitoring checklist
- e. Safeguard monitoring checklist

G. Training Requirement

16. The consultants will organize 2-3 days seminars and workshops, arranged every 6 months on the following subjects for PIU, KP PRIP / C&W staff, consultants and contractors with a view to introduce best international practices and standards. Reputed resources persons will be arranged under the provision of this contract.

- a. Project management
- b. Contract administration
- c. Quality control and assurance
- d. Role of the engineers and engineers' representative
- e. Preparation, monitoring, and evaluation of work programs
- f. Preparation and scrutiny of interim payment certificates
- g. Asphalt paving techniques
- h. Job mix formula of asphalt
- i. Environmental and social issues management

H. Miscellaneous

17. Facilities. The construction contractor shall provide, operate and maintain the following facilities for the exclusive use of the consultants:

- a. Laboratory and testing equipment
- b. Site office and residential accommodation (adequately furnished)
- c. Site transport
- d. Survey equipment

18. The consultants are encouraged to familiarize with construction work before submitting their proposals. Draft bidding documents and the environmental management plans can be inspected at PIU.