



Project Readiness Financing Project Administration Manual

Project Number: 55107-001
Loan and/or Grant Number(s): {PRFXXXX}
November 2021

Islamic Republic of Pakistan: Khyber Pakhtunkhwa
Cities Improvement Projects – Second Project
Readiness Financing

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Project Administration Manual for Project Readiness Financing: Purpose and Process

The project administration manual (PAM) for Project Readiness Financing (PRF) is an abridged version of the regular PAM of the Asian Development Bank (ADB) and describes the essential administrative and management requirements to implement the PRF following the policies and procedures of the government and ADB. The PAM should include references to all available templates and instructions either by linking to relevant URLs or directly incorporated in the PAM.

The executing agency, Planning and Development Department (P&DD), Government of Khyber Pakhtunkhwa; and implementing agencies, Transport Department (Khyber Pakhtunkhwa Urban Mobility Authority [KPUMA]), and Local Government, Elections, and Rural Development Department (LGERDD) are wholly responsible for the implementation of ADB-financed Second PRF (PRF 2) projects, as agreed jointly between the borrower and ADB, and following the policies and procedures of the government and ADB. ADB staff is responsible for supporting implementation, including compliance by P&DD, KPUMA, and LGERDD of their obligations and responsibilities for PRF 2 project implementation following ADB's policies and procedures.

In the event of any discrepancy or contradiction between the PAM and the PRF 2 loan agreement, the provisions of the PRF 2 loan agreement will prevail.

After ADB's approval of the PRF 2 proposal, 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 this PAM.

Abbreviations

ADB	–	Asian Development Bank
COBP	–	country operations and business plan
DP	–	displaced person
EA	–	executing agency
EAD	–	Economic Affairs Division
FMA	–	financial management assessment
GoKP	–	Government of Khyber Pakhtunkhwa
GoP	–	Government of Pakistan
GRM	–	grievance redress mechanism
IA	–	implementing agency
KP	–	Khyber Pakhtunkhwa
KPCIP	–	Khyber Pakhtunkhwa Cities Improvement Project
KPUMA		Khyber Pakhtunkhwa Urban Mobility Authority
LAA	–	land acquisition act
LGERDD	–	Local Government, Elections, and Rural Development Department
P&DD	–	Planning and Development Department
PAM	–	project administration manual
PMU	–	project management unit
PRF	–	project readiness financing
QCBS	–	quality- and cost-based selection
SPRSS	–	summary poverty reduction and social strategy
SRFP	–	standard request for proposal
TOR	–	terms of reference

I. IMPLEMENTATION PLAN

A. Overall PRF Project Implementation Plan

1. Table 1 presents the overall implementation plan for the PRF project and records key implementation, including project management activities (on quarterly basis) will be updated annually and submitted to ADB with updated contract and disbursement projections.

Table 1: Overall Second Project Readiness Financing Project Implementation Plan (Tentative)

	Advance Actions				PRF Year 1 (2022)				PRF Year 2 (2023)				PRF Year 3 (2024)				PRF Year 4 (2025)				PRF Year 5 (2026)			
Activities	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
A. Implementation																								
Consultants selection under PRP																								
Package 1 : DDEPS - KP sustainable urban transport project (Peshawar BRT phase 2)																								
Advertisement Selection																								
Contract Award																								
Output 1: Project management, Marketing, and Communications																								
Output 2: Initial review and update of conceptual design.																								
Output 3: Detailed Planning and Due Diligence																								
Output 4: Detailed Design																								
Output 5: Preparation of Bidding Documents																								
Output 6: Contractor selection																								
Package 2 : DDEPS - KP sustainable urban transport project 2																								
Advertisement Selection																								
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Output 4: Detailed Design																								
Output 5: Preparation of Bidding Documents																								
Output 6: Contractor selection																								
Package 3 : PFDCB - KPCP Project 2																								
Advertisement Selection																								
Contract Award																								
Output 1: Planning																								
Output 2: Feasibility and priority investments																								
Output 3: Capacity development																								
Output 4: Preparation of Bidding Documents																								
Output 5: Contractor selection																								
Individual Consultants (multiple)																								
Selection																								
Contract Award																								
Services																								
B. Procurement																								
Activities	Advance Actions				PRF Year 1 (2022)				PRF Year 2 (2023)				PRF Year 3 (2024)				PRF Year 4 (2025)				PRF Year 5 (2026)			
* Management Activities:	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
PRF negotiations																								
ACB Board approval																								
PRF Signing																								
Declaration of PRF effectiveness																								
Issue legal opinion																								
POC effectiveness																								
Develop PMMS																								
Provide various training including external training																								
Submission of semi-annual progress reports																								
Submission of ATPs																								
C. Ensuing Loan																								
Date of ensuing loan (1)																								
Date of ensuing loan (2)																								
Date of ensuing loan (3)																								
DOCS/Indue diligence, engineering and procurement support																								
PMSC/Developing, feasibility, detailed design and capacity building																								

II. PROJECT MANAGEMENT ARRANGEMENTS

A. Project Implementation Organizations: Roles and Responsibilities

Table 2: Roles and Responsibilities of Key Stakeholders

PRF 2 Project Implementation Organizations	Management Roles and Responsibilities
Project Steering Committee (PSC)	<p>The PSC, which is chaired by the Additional Chief Secretary, is established as oversight body for the PRF 2. The PSC will facilitate interdepartmental coordination and cooperation within government, and provide overall strategic guidance including the following:</p> <ul style="list-style-type: none"> – provide policy direction and decisions to facilitate timely execution of projects, including any major changes and variations; – review quarterly and annual performance reports; – accord principal approval of the investments and annual workplans of the project; – ensure that the project is implemented in line with loan/project agreements; – ensure provision of counterpart funding/budget approval for counterpart funding; and – approve monitoring and evaluation reports.
Executing agency Planning & Development Department (P&DD), GoKP	<ul style="list-style-type: none"> – Ensure coordination with Ministry of Finance and Economic Affairs Division for adequate allocation of annual budget to the project, as per recommendation of IAs. – Facilitate coordination and be the focal point for communication with all stakeholder consultations, including ADB. – Liaise with ADB to address any issues during detailed engineering, procurement, and institutional development works of consulting firm under PRF activities. – Conduct review, obtain required government approvals for subprojects, and approve the priority and scope for detailed engineering designs. Approve delegation of authorities to IAs. – Ensure adequate and timely release of counterpart funds.
Implementing agencies 1. Transport Department - KP Urban Mobility Authority (KPUMA) (IA for urban transport projects)	<p>Act as PSC Secretariat and provide the following support to the P&DD:</p> <ul style="list-style-type: none"> – hire and/or depute the necessary and qualified staff agreed with ADB in timely manner for management and implementation of the project;

PRF 2 Project Implementation Organizations	Management Roles and Responsibilities
2. Local Government, Elections, and Rural Development Department (LGERDD) – PMU (IA for urban services projects)	<ul style="list-style-type: none"> – hire individual consultants and firms included in the project scope using ADB guidelines in a timely manner and be responsible for managing and administering their contracts; – facilitate improved project readiness by preparing (through a consulting firm and individual consultants) detailed engineering designs; detailed project reports; and procurement, safeguards, and other documentations required to access financing from ADB; – prepare, through consulting firm, and recommend to the P&DD for approval of subproject to be detail designed and the scope of works and activities to be included in detailed project reports (PC-I), including procurement and safeguards documentation, and institutional strengthening and capacity building requirements and programs on training/workshops/ seminars/ conferences etc., after the necessary coordination with all stakeholders; – administer and monitor all consulting services contracts; – manage the day-to-day project implementation activities; – act as focal point for communication with ADB on project-related matters, and provide support to ADB missions; – ensure timely submission of adequately prepared withdrawal applications to ADB, including maintaining all financial/account records, and providing ADB with relevant disbursement documentation; – ensure financial and safeguards compliance and reporting, in line with loan agreement; – ensure timely submission of semi-annual progress reports to ADB, identifying issues and providing action plans, as needed; – manage safeguard due diligence requirements, including resettlement and environmental safeguards, and ensure timely disclosure of project-related information to the public through government website(s), in accordance with ADB's Safeguard Policy Statement (2009) and government requirements; – manage and ensure disclosure of the gender action plan and other safeguard and procurement documents that need disclosure according to ADB policies; – ensure submission of all (initial environment examination) IEE, land acquisition resettlement plan (LARP), safeguard due diligence reports, corrective action plans, and environmental monitoring plan (EMP) requirements as per law by responsible entities; and

PRF 2 Project Implementation Organizations	Management Roles and Responsibilities
Other stakeholders	<ul style="list-style-type: none"> – overall financial management of project activities including maintenance of project accounting records, preparation of periodic and annual project financial statements, maintaining internal audits function, and arrangement of annual audits for submission to ADB.
TransPeshawar (urban transport projects in Peshawar)	<ul style="list-style-type: none"> – Provide advice to KPUMA for urban transport project in the province. – Provide all available data and studies and required information to the consulting firms and individual consultants. – Provide functional/interface requirements for integration with Phase 1 BRT. – Provide support to KPUMA in the design of urban transport in Peshawar ensuing projects with respect to integration with the existing BRT system.
Urban Unit (P&D), Water and Sanitation Companies, Tehsil Municipal Administration and Development Authorities (Urban Services Component)	<ul style="list-style-type: none"> – Provide all available data and studies and required information for planning, feasibility, detailed design and safeguard due diligence of the ensuing loan related to their respective areas and mandate. – Be part of the technical review and operational level administration committees established for oversight and implementation of the projects and provide relevant advice/input as required by the PMU. – Facilitate the consultants in community consultations, surveys and studies to be conducted in their area of operations. – Provide counterpart support through intermittent staff inputs and temporary provision of office space as required.
ADB	<ul style="list-style-type: none"> – Provide guidance to P&DD, KPUMA, and LGERDD on PRF implementation. – Assist in the consulting services recruitment, as needed. – Conduct periodic review of the PRF and disclose related information as per ADB's Access to Information Policy.

B. Key Persons Involved in Implementation

Executing Agency

Planning & Development
Department (P&DD),
Government of Khyber
Pakhtunkhwa (GoKP)

Officer's Name: Mr. Shahab Ali Shah
Position: Additional Chief Secretary
Telephone:
+Email address:
Office Address: Civil Secretariat, Khyber Pakhtunkhwa,
Pakistan

ADB

Urban Development and Water
Division

Staff Name: Heeyoung Hong
Position: Officer-in-Charge
Telephone No.: +63 2 632 4444
Email address: hyhong@adb.org

Mission Leader

Staff Name: Mian Shafi
Position: Senior Project Officer, Pakistan Resident Mission
Telephone No.: +92 (51) 208 7300
Email address: mshafi@adb.org

III. COSTS AND FINANCING

A. Key Assumptions

2. The following key assumptions underpin the cost estimates and financing plan:
- (i) Exchange rate: PRs154.2344 = \$1.00 (as of 1 June 2021).
 - (ii) Price contingencies based on expected cumulative inflation over the implementation period are as follows:

Table 3: Escalation Rates for Price Contingency Calculation

Item	2022	2023	2024	2025	2026	Average
Foreign rate of price inflation	1.70%	1.70%	1.80%	1.80%	1.80%	1.72%
Domestic rate of price inflation	7.50%	7.00%	6.50%	6.50%	6.50%	7.24%

Source: Asian Development Bank

B. Allocation and Withdrawal of Loan and Grant Proceeds

Table 4: Allocation and Withdrawal of PRF Loan Proceeds

Number	Category	Total Amount Allocated for ADB Financing (\$)	Basis for Withdrawal from the Loan Account
1.	Consulting Services ^a	15,000,000	100% of total expenditure claimed ^b
	Total	15,000,000	

^a No withdrawals shall be made from the Loan Account until each PRF implementing Agency submits all the financial statements due for submission pursuant to PRF 1 Loan Agreement in form and substance satisfactory to ADB.

^b Exclusive of taxes and duties imposed within the territory of the Borrower.

Source: Asian Development Bank.

C. Detailed Cost Estimates by Expenditure Category and Financier

3. The PRF will finance consulting services only, including allocations for equipment and vehicles, workshops and training, studies, field surveys and other reimbursable expenses. Local indirect taxes and duties will be financed from the government resources.

Table 5: Detailed Cost Estimates by Expenditure Category and Financier
(\$ million)

Item	ADB Loan		Government		Total Cost		Taxes and Duties
	Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category	
A. Consulting Services							
1. Urban Transport Package 1	2.50	87%	0.38	13%	2.88	100%	0.37
2. Urban Transport Package 2	3.84	87%	0.58	13%	4.42	100%	0.57
3. Municipal Services	4.42	87%	0.66	13%	5.09	100%	0.66
4. Individual Consultants (multiple)	1.74	87%	0.26	13%	2.00	100%	0.51
Subtotal (A)	12.51	87%	1.88	13%	14.39	100%	2.12
B. Contingencies	1.62	0	0.24	0	1.86	0	0
C. Financial Charges During Implementation	0.87	0	0	0	0.87	0	0
Total Project Cost (A+B+C)	15.00	0	2.12	0	17.12	0	2.12
% Total Project Cost		88%		12%		100%	

ADB = Asian Development Bank.

Note: Numbers may not sum precisely because of rounding.

Source: Asian Development Bank

D. Detailed Cost Estimates by Year

Table 6: Cost Estimates by Year
(\$ million)

Item	Total Cost	2022	2023	2024	2025	2026
A. Consultant costs						
1. Urban Transport Package 1	2.88	0.06	0.32	0.69	0.83	0.98
2. Urban Transport Package 2	4.42	0.09	0.49	1.06	1.28	1.50
3. Municipal Services	5.09	0.10	0.56	1.22	1.48	1.73
4. Individual Consultants (multiple)	2.00	0.04	0.22	0.48	0.58	0.68
Subtotal (A)	14.39	0.29	1.59	3.45	4.17	4.89
B. Contingencies	1.86	0.04	0.20	0.45	0.54	0.63
C. Financial Charges During Implementation	0.87	0.02	0.10	0.21	0.25	0.29
Total Project Cost (A+B+C)	17.12	0.35	1.89	4.11	4.96	5.81
% Total Project Cost	100%	2%	11%	24%	29%	34%

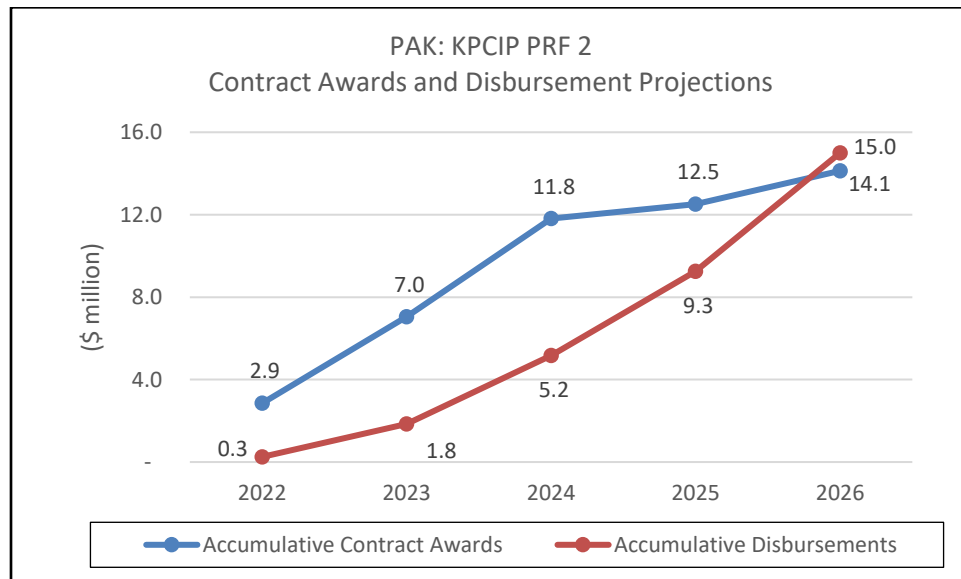
Note: Numbers may not sum precisely because of rounding.

Source: Asian Development Bank

E. Contract and Disbursement S-Curve

Baseline Projections

	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total
2022	0.00	0.00	2.50	0.35	2.85	0.00	0.00	0.00	0.25	0.25
2023	0.00	0.35	3.84	0.00	4.19	0.29	0.29	0.32	0.70	1.59
2024	0.00	0.35	4.42	0.00	4.77	0.70	0.70	0.74	1.18	3.33
2025	0.35	0.00	0.35	0.00	0.70	1.18	0.97	0.93	1.00	4.08
2026	1.62	0.00	0.00	0.00	1.62	1.41	1.02	1.02	2.30	5.75
	Total Contract Awards:				14.13	Total Disbursements:				15.00



IV. FINANCIAL MANAGEMENT

A. Financial Management Assessment

4. A financial management assessment (FMA) was conducted on P&DD, KPUMA and PMU/LGERDD, in accordance with ADB's Guidelines.¹ The objective of the FMA was to assess as to whether adequate FM arrangements are in place for the proposed project. The FMA considered the financial management capacities of the P&DD, KPUMA and PMU/LGERDD.² The FMA focused at assessing the financial management capacities in the areas of funds flow arrangements, governance, staffing, budgeting, internal control procedures, overall accounting, financial information and reporting system, and internal and external auditing arrangements. Details of the P&DD, KPUMA, and PMU/LGERDD FMA reports are provided in Appendices 1, 2, and 3 respectively.

5. The overall pre-mitigation financial management risk was assessed to be *Substantial*. It was concluded that although the financial management (FM) teams of KPUMA and PMU/LGERDD are adequately experienced in the management of ADB projects at similar levels and complexity, the finance departments at KPUMA and PMU/LGERDD are not adequately staffed. While the entities use Government policies and procedures, the project specific FM policies and procedures have been suitably developed and documented by the PMU/LGERDD while the specific FM policies and procedures are being documented by KPUMA. The external audit process of KPUMA for the ongoing ADB project remained significantly delayed since FY 2017 to FY 2020 while the external audit on the ongoing PRF³ being implemented by PMU/LGERDD, for the FY 2019–2020, highlighted issues in relation with utilization of ADB funds. External audits of KPUMA entity level financial statements, from the commencement of its operations in January 2019 to financial year ended 30 June 2020, have not been performed. While the management of KPUMA has initiated the recruitment of internal auditor, the internal audit functions are not currently effective at KPUMA and PMU/LGERDD. Manual accounting systems are currently in place. The pre-mitigation financial management risk of P&DD was assessed as “Low” since the department will not be involved in the Project financial management and funds flow activities. The P&DD, KPUMA and PMU/LGERDD were assessed to possess sufficient capacity to administer Advance Fund and SOE procedures. To mitigate the risks identified during the course of FMA, the financial management action plans were agreed with respective managements of KPUMA and PMU/LGERDD and are summarized in Tables 7a and 7b below:

¹ ADB. 2015. Financial Management Assessment *Technical Guide Note*, Manila: ADB. 2009. *Financial Due Diligence: A Methodology Note*. Manila.

² The PMU was formed for the implementation of the KPCIP PRF (approved in 2019) and placed under LGERDD after a minor change in executing agency was approved on 3 September 2020. During PRF implementation, PMU staff have gained project implementation experience and have participated in ADB trainings in financial management. Financial management of the KPCIP PRF (approved in 2019) is currently rated on track. At present, the PMU possesses sufficient experience of managing ADB projects, FM policies and procedures are developed and documented, however, the lack of sufficient FM staff, use of manual accounting systems, absence of a robust internal audit function are identified as risks. The PMU will also be the implementing agency for the KPCIP project (proposed for approval in 2021). The GOKP has agreed to an FM Action Plan in respect of the KPCIP project to strengthen the FM governance structure of the PMU which adequately address the risks identified. Table 7b specifies the action items relevant to PRF 2 which will be monitored during the project implementation.

³ Loan 6015-PAK and Grant 6016-PAK: Khyber Pakhtunkhwa Cities Improvement Projects: Project Readiness Financing.

Table 7a: KPUMA Financial Management Action Plan

Weakness	Risk Assessment	Mitigating Measure
The finance section is not adequately staffed. Two of the four sanctioned finance positions are currently vacant.	Substantial	<p>By no later than upon loan effectiveness, fill the two vacant positions in the finance section by hiring suitably qualified and experienced staff.</p> <p>By no later than 3 months from the date of loan effectiveness, hire an FM Specialist to support the project financial management and reporting activities, and support the performance of financial due diligence activities related to the ensuing urban transport and urban services projects.</p>
The internal audit department is currently not operational.	Substantial	<p>By no later than 3 months from the date of loan effectiveness, operationalize the internal audit department by: a) completing the process for hiring of internal auditor; b) approval of internal audit Charter by the Board of Directors (BoD); c) approval of a risk-based annual internal audit program by the BoD; and d) inclusion of the ADB project in the annual internal audit programs, during the course of project implementation period.</p> <p>A risk-based annual internal audit of the Project's systems, internal controls and financial transactions will be performed. The results shall be shared with ADB by no later than 3 months from the end of each financial year.</p>
While Government specified FM policies and procedures are being followed, the entity specific FM procedures and controls are being documented.	Moderate	By no later 3 months from the date of loan effectiveness, complete the process of documentation of the FM policies and procedures in the form of an FM Manual.
Manual systems are being used for the recording and reporting of financial transactions.	Substantial	By no later than 6 months from the date of loan effectiveness, complete the deployment of a suitable computerized accounting software.
The financial sustainability of KPUMA is dependent upon the inflow of sufficient revenues from the sources provided in the KPUMA Act. However, the expenses are currently being met	High	By no later than 3 months from the date of loan effectiveness, submit entity level business plan and financial projections, duly approved by the BoD.

Weakness	Risk Assessment	Mitigating Measure
<p>out of the initial capital injection of PRs 100 million provided by the Government.</p> <p>The external audits of the entity financial statements have not been arranged since the commencement of entity operations in January 2019 to the financial year ended 30 June 2020.</p>		<p>By no later than three months from the date of loan effectiveness, KPUMA shall submit its audited entity level financial statements for the period from January 2019 to 30 June 2020.</p>

Table 7b: PMU/LGERDD Financial Management Action Plan

Weakness	Risk Assessment	Mitigating Measure
The PMU does not have adequate staff to carry out increased scale of financial transactions and ensure adequate segregation of duties.	Substantial	By no later than upon loan effectiveness, the PMU's FM department will be structured to segregate the accounting and financial reporting sections, and strengthened with sufficient FM staff. A Finance Director will head the PMU's Accounting and Finance department (TORs to be developed and mutually agreed). Each section will be headed by a Finance & Accounts Officer. The Accounts section will staff two Accounts Assistants whereas the Reporting section will staff one Accounts Assistant. The incumbent FM Specialist shall be engaged to implement enhancement in FM systems and internal controls.
The internal audit function is not adequately structured and resourced.	Substantial	<ul style="list-style-type: none"> – By no later than 3 months from the date of loan effectiveness, the TORs/Charter of the internal audit shall be developed and notified by the LGERDD. – By no later than 6 months from the date of loan effectiveness, the LGERDD will appoint an internal audit team comprising of two audit officers, who will report directly to the Internal Auditor – LGERDD. – A risk-based annual internal audit of the Project's systems, internal controls and financial transactions will be performed. The results shall be shared with ADB by no later than 3 months from the end of each financial year.
Manual systems are being used for the recording and reporting of financial transactions.	Substantial	By no later than 6 months from the date of loan effectiveness, complete the deployment of a suitable computerized accounting software.
The external auditors have raised significant issues in their management letter issued in relation with audit of project financial statements of the ongoing ADB Loan/Grant no: 6015/6016.	Substantial	Prior to first disbursement, the PMU shall submit evidence of settling the audit observations raised by the AGP on the project (6015/6016) financial statements for the FY ended 30 June 2020.

B. Disbursement

6. KPUMA / LGERDD will disburse the project readiness loan proceeds following the Asian Development Bank (ADB) *Loan Disbursement Handbook* (2017, as amended from time to time),⁴ and detailed arrangements agreed 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 efficient disbursement and fiduciary control. The KPUMA MD/PMU Project Director will be responsible for (i) collecting and retaining supporting documents, and (ii) preparing and sending withdrawal applications to ADB.

7. **Direct payment procedure.** The direct payment procedure will be used to pay the consultant firms. The finance teams of the KPUMA/ PMU-LGERDD will be responsible for (i) preparing disbursement projections; (ii) requesting budgetary allocations for counterpart funds; (iii) collecting supporting documents; (iv) preparing the withdrawal applications for signature by the Project Director; and (v) uploading the signed withdrawal applications on ADB's Client Portal for Disbursements (CPD)⁶ system, or forwarding hardcopies to ADB, for payment.

8. **Advance fund procedure.** This procedure will be used for small payments of eligible project expenditures. An advance account will be established at a commercial bank in the name of the project. KPUMA/PMU-LGERDD will administer the advance account including preparation of applications for replenishment and liquidation. Separate advance account should be established and maintained by KPUMA/PMU-LGERDD. The currency of the advance account is in US dollar. The KPUMA/PMU-LGERDD is accountable and responsible for proper use of advances to the advance account.

9. 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 six (6) months. The KPUMA/PMU-LGERDD may request for initial and additional advances to the advance account based on an Estimate of Expenditure Sheet⁷ setting out the estimated expenditures to be financed through the account for the forthcoming 6 months. Supporting documents should be submitted to ADB or retained by the KPUMA/PMU-LGERDD in accordance with ADB's *Loan Disbursement Handbook* (2017, as amended from time to time) when liquidating or replenishing the advance account.

10. **Statement of expenditure procedure.** The statement of expenditure (SOE)⁸ 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 \$50,000 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

⁴ Available at: <https://www.adb.org/documents/loan-disbursement-handbook>

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

⁶ 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>.

⁷ Estimate of Expenditure sheet is available in Appendix 8A of ADB's *Loan Disbursement Handbook* (2017, as amended from time to time).

⁸ SOE forms are available in Appendix 7B and 7D of ADB's *Loan Disbursement Handbook* (2017, as amended from time to time).

C. Accounting

14. The EA and IAs will maintain separate PRF project accounts and records by funding source for all expenditures incurred on the PRF project, following IPSAS Cash Basis of Accounting. PRF project accounts will follow international accounting standards.

D. Auditing and Public Disclosure

15. The P&DD will cause the KPUMA/PMU-LGERDD to arrange project financial statements to be audited following the International Standards on Auditing/ International Standards of Supreme Audit Institutions, by an independent auditor acceptable to ADB.¹⁰ KPUMA/PMU-LGERDD will present the audited project financial statements (APFS) together with the auditor's opinion and management letter, in English, to ADB within 6 months of the end of each fiscal year. In addition to the project financial statements, the P&DD shall cause the KPUMA to submit annual audited entity financial statements, within one month from their authorization by the competent authority.

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

17. The ADB will monitor compliance with financial reporting and auditing requirements during review missions and normal program supervision and will follow up regularly with all concerned, including the external auditor.

18. ADB has made the government, EA, and IAs aware of ADB's approach to delayed submission and the requirements for satisfactory and acceptable quality of the audited project financial statements.¹¹ 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 its policies and procedures were followed when the share of ADB's financing was used.

¹⁰ Third party audits for public sector agencies in Pakistan are generally conducted by the Auditor General of Pakistan, which is acceptable to ADB.

¹¹ ADB's approach and procedures regarding delayed submission of audited project financial statements:

- (i) When ADB does not receive the audited project financial statements by the due date, ADB will write to the executing agency to inform it 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 ADB does not receive the audited project financial statements 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 inform the executing agency (a) of ADB's actions and (b) that the loan may be suspended if the audit documents are not received within the next 6 months.
- (iii) When ADB does not receive the audited project financial statements within 12 months after the due date, ADB may suspend the loan.

19. ADB's *Access to Information Policy* 2018 will guide the public disclosure of the audited project financial statements, including the auditor's opinion on the project financial statements. 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 its website. The management letter, additional auditor's opinions, and audited entity financial statements will not be disclosed.¹²

V. PROCUREMENT AND CONSULTING SERVICES

A. Advance Contracting

20. All advance contracting will follow *ADB Procurement Policy* (2017, as amended from time to time) and *Procurement Regulations for ADB Borrowers* (2017, as amended from time to time). The issuance of consulting service recruitment notices (CSRN) under advance contracting and will be subject to ADB prior approval. ADB has advised the Borrower, P&DD, KPUMA, and LGERDD that approval of advance contracting financing does not commit ADB to finance the PRF project.

21. It is expected that advance contracting for Urban Transport Package 1 will be undertaken from July 2021, using the latest version of ADB's standard request for proposals.¹³ The recruitment of selected individual consultants will be initiated a few months before loan effectiveness. Individual consultants subject to advance contracting are anticipated to provide the project management support and financial management support to KPUMA.

B. Procurement of Consulting Services

22. All consulting services will be recruited following *ADB Procurement Policy* (2017, as amended from time to time) and its associated project administration instructions and/or staff instructions. There are three (3) consulting services packages to be undertaken under the PRF: (i) Urban Transport Package 1 (due diligence, detailed engineering design, and procurement support, DDEPS); (ii) Urban Transport Package 2 (due diligence, detailed engineering design, and procurement support, DDEPS); and (iii) Municipal / Urban Services (Planning, feasibility, detail design and capacity building, PFDDCB). Moreover, individual consultants will also be hired under the PRF. Details are provided in Section E of the Procurement Plan.

23. Detailed engineering design consulting firms will be recruited to undertake planning and feasibilities (where required), completion of due diligence and engineering design and support activities related to capacity building and institutional development to strengthen implementation capacities required to implement the ensuing loans. An estimated 1,131 person-months of consulting services are required to undertake all project design work and procurement support. Consulting firms will be engaged using the quality- and cost-based selection (QCBS) method with a standard quality and cost ratio of 90:10. An estimated 288 person-months of individual consultants is required to support IAs in implementation the PRF 2. It is anticipated each IA will recruit its own individual consultants based on their actual needs in the course of the PRF 2 implementations.

¹² Such information generally falls under the information policy exceptions to disclosure. ADB. 2018. [Access to Information Policy](#). Chapter III.B.

¹³ <https://www.adb.org/documents/recruitment-firms-individual-consultants-executing-agencies>

24. An 18-month procurement plan indicating selection method of consulting services, review procedure, type of proposal is in Section C. The terms of reference for consulting services are detailed in Appendices 4 to 7. The terms of reference for designing the Khyber Pakhtunkhwa Sustainable Urban Mobility Project 2 (due diligence, detailed engineering design, and procurement support, DDEPS 2) will follow the same structure as the terms of reference for designing Khyber Pakhtunkhwa Sustainable Urban Mobility Project 1 (DDRPS 1) and be tailored to the actual project scope.

C. Procurement Plan

25. Except as ADB may otherwise agree, the following prior or post review requirements apply to various procurement and consultant recruitment methods used.

Basic Data

Project Name: Khyber Pakhtunkhwa Cities Improvement Project - Project Readiness Financing 2		
Project Number: 55107-001	Approval Number:	
Country: Pakistan	Executing Agency: Planning and Development Department, Government of Khyber Pakhtunkhwa	
Project Procurement Classification: B	Implementing Agencies:	
Project Procurement Risk: Low	Khyber Pakhtunkhwa Urban Mobility Authority Local Government, Elections, and Rural Development Department	
Project Financing Amount: US\$ ADB Financing (OCR): US\$ 15,000,000 Cofinancing: none Non-ADB Financing: Government of Khyber Pakhtunkhwa US\$ 2.12,000,000	Estimate PRF 2 Completion Date: 31 December 2026	
Date of First Procurement Plan: 14 June 2021	Date of this Procurement Plan:	14 June 2021
Procurement Plan Duration: 18 months	Advance contracting: Yes	eGP: No

D. Methods, Thresholds, Review and 60-Month Procurement Plan

26. Except as the Asian Development Bank (ADB) may otherwise agree, the following methods shall apply to procurement of goods and works, non-consulting services, and consulting services.

Procurement of Goods, Works, and Non-consulting Services		
Method	Applicability	Comments
None	None	None

Consulting Services	
Method	Comments
Quality- and Cost-Based Selection (QCBS) for Consulting Firms	Quality-Cost Ratio: 90:10 Prior review. Advertisement posted in the ADB consultant management system. ADB standard request for proposals.
Individual Consultants Selection (ICS) for Individual Consultants	Prior review. Advertisement posted in the ADB consultant management system.

E. List of Active Procurement Packages (Contracts)

27. The following table lists goods, works, non-consulting services, and consulting services contracts for which the procurement activity is either ongoing or expected to commence within the next 60 months.

Consulting Services							
Package Number	General Description	Estimated Value ^a	Selection Method	Review (Prior/ Post)	Type of Proposal	Advertisement Date (quarter/year)	Comments
KPCIP PRF2-UT1	DDEPS 1 - urban transport package 1 (Peshawar BRT phase 2)	2,877,708	QCBS	Prior	FTP	Q3 2021	Firm. Assignment: international Quality-Cost Ratio: 90:10 Advance contracting: Y
KPCIP PRF2-UT2	DDEPS 2 – urban transport package 2 (multiple cities)	4,419,577	QCBS	Prior	FTP	Q4 2022	Firm Assignment: international Quality-Cost Ratio: 90:10 Advance contracting: N
KPCIP PRF2-US	PFDDCB - Municipal / urban services (multiple cities)	5,087,497	QCBS	Prior	FTP	Q3 2022	Firm Assignment: international Quality-Cost Ratio: 90:10 Advance contracting: N
TBD	Individual consultants	2,003,760	Individual	Prior	ICS	Q4 2021 to Q2 2022	Multiple positions that will be advertised in phases. These positions including but are not limited to: project management; financial management; procurement; transport planning/BRT;

Consulting Services							
Package Number	General Description	Estimated Value ^a	Selection Method	Review (Prior/ Post)	Type of Proposal	Advertisement Date (quarter/year)	Comments
							social safeguard; environment; gender national / international Note: Advance contracting for selected positions.

^a Estimated contract values are inclusive of taxes and duties.

DDEPS=due diligence, engineering and procurement support; PFDDCB=planning, feasibility, detailed design and capacity building

F. List of Indicative Packages (Contracts) Required under the Project

28. The following table lists goods, works, non-consulting services, and consulting services contracts for which the procurement activity is expected to commence beyond the procurement plan duration and over the life of the project (i.e. those expected beyond the current procurement plan duration).

Goods, Works, and Non-consulting services						
Package Number	General Description	Estimated Value	Procurement Method	Review	Bidding Procedure	Comments
Nil						

Consulting Services						
Package Number	General Description	Estimated Value	Selection Method	Review	Type of Proposal	Comments
Nil						

G. List of Awarded and Completed Contracts

29. The following table lists the awarded contracts and completed contracts for goods, works, non-consulting services, and consulting services.

Goods, Works, and Non-consulting services					
Package Number	General Description	Contract Value	Date of ADB Approval of Contract Award	Date of Completion	Comments
Nil					

Consulting Services					
Package Number	General Description	Contract Value ⁹	Date of ADB Approval of Contract Award ¹⁰	Date of Completion ¹¹	Comments ¹²
Nil					

H. Non-ADB Financing

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

Goods, Works, and Non-consulting services				
General Description	Estimated Value (cumulative)	Estimated Number of Contracts	Procurement Method	Comments
Nil				

Consulting Services				
General Description	Estimated Value (cumulative)	Estimated Number of Contracts	Selection Method	Comments
Nil				

I. Consultant's Terms of Reference

31. Detailed terms of reference (TOR) have been prepared for the following packages:

- (i) **Due Diligence, Detailed Engineering, and Procurement Support (DDEPS 1), for Khyber Pakhtunkhwa Sustainable Urban Mobility Project 1(Firm)** – Project preparation, due diligence, engineering design, capacity development, bidding documents and support to procurement process for Peshawar BRT phase 2. IA is KPUMA. The main outputs in the TOR are the following: initial review and update of conceptual design; detailed planning and due diligence; detailed engineering Design; preparation of bidding documents; support for procurement and bid evaluation; and project management, marketing, and communications.
- (ii) **Due Diligence, Detailed Engineering, and Procurement Support (DDEPS 2), Khyber Pakhtunkhwa Sustainable Urban Mobility Project 2(Firm)** – Project preparation, due diligence, engineering design, capacity development, bidding documents and support to procurement process for Urban Transport Projects in KP cities. IA is KPUMA. The main outputs in the TOR are the following: initial review and update of conceptual design; detailed planning and due diligence; detailed engineering Design; preparation of bidding documents; support for procurement and bid evaluation; and project management, marketing, and communications.¹⁴
- (iii) **Planning, Feasibility, Detailed Design, and Capacity Building (PFDDCB) for Khyber Pakhtunkhwa Cities Improvement Project 2(Firm)** – The scope will include two city level land use and related subsector master plans, two regional integration plans and related subsector master plans in selected secondary cities (3/4 cities), including a short, medium and long terms investment plan and prefeasibility/conceptual designs of priority investments. The second part of the assignment would include feasibility of priority investment worth \$400 million across the portfolio, including the operational business models and detailed design

¹⁴ Terms of reference for DDEPS 2, is anticipated to have similar outputs as the TOR for DDEPS 1 and will be drafted after DDEPS 1.

of the most feasible and sustainable subproject worth \$250 million. The third component would include operational level support for the two new cities in strengthening their systems, procedures and operational performance, in addition to restructuring of the utilities (water and sanitation companies) in two regions and redefining the relationship and role of these companies and related TMA in regional context. The consultants within these three broad areas of support will also be responsible for preparing all social, environmental, gender and climate due diligence and assessment related documentation, bidding documents and provide support to procurement process to PMU-LGERDD.

- (iv) **Individual consultants (multiple)** – Multiple positions including but not limited to: project management, financial management, procurement, transport planning/BRT, social safeguard, environment, and gender. IA are KPUMA and PMU-LGERDD (depending on the contract).

32. Outline TOR for Municipal/Urban Services and for Individual Consultants are in Appendix 4. Detailed TOR for designing Khyber Pakhtunkhwa Sustainable Urban Mobility Project 1, are in Appendix 5 and TOR for Khyber Pakhtunkhwa Sustainable Urban Mobility Project 2 based on similar structure and outputs are in Appendix 7. Detailed TOR for designing Khyber Pakhtunkhwa Cities Improvement Project 2, are in Appendix 6.

VI. SAFEGUARDS

33. Since the proposed activities consist of consulting services only, activities have not been categorized in accordance with ADB's Safeguard Policy Statement (2009). The detailed design will be prepared with considerations to minimize impacts. The safeguard classification for the ensuing projects will be confirmed during the PRF 2 implementation. No adverse impacts from the ensuing projects are expected for indigenous peoples (*category C*). The PRF 2 will also help prepare environment and social safeguards planning instruments in line with ADB's SPS and aligned with the detailed engineering designs and procurement documents for the ensuing projects. The PRF 2 will finance the preparation of environment and social safeguards due diligence as well as detailed engineering designs-based environment and social planning instruments in full compliance with ADB's SPS.

34. **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 in Appendix 5 of the Safeguard Policy Statement.

35. **Land Acquisition and Resettlement Guiding Principles.** The guidelines define key principles and requirements for the screening and social due diligence work for the ensuing projects, and preparation of implementation-ready land acquisition and resettlement plans (LARPs) for projects that would have involuntary resettlement impacts.

36. Preparation and implementation of all KPCIP PRF 2 ensuing projects need to fulfill ADB Safeguard Policy Statement (SPS) 2009 requirements pertaining to involuntary resettlement (IR) safeguards and comply with Pakistan's Land Acquisition Act of 1894 (LAA), and KP provincial rules, regulations and guidelines for land acquisition and resettlement. Likewise, projects need to meet the involuntary resettlement safeguards readiness filters established by ADB-CWRD to facilitate project implementation. The likely IR impacts and risks from the ensuing projects are still to be determined. However, given that these projects will be implemented in urban areas, the risk of involuntary resettlement impacts is high. It is anticipated that the ensuing projects will be

category A or B for involuntary resettlement. This will be confirmed once the scope and components of the projects have been defined.

37. To facilitate the conduct of social safeguards due diligence and preparation and implementation of land acquisition and resettlement in ensuring projects, the following guidelines need to be observed:

- (i) Based on the feasibility study, an ensuing project will be screened for involuntary resettlement following ADB procedures. The screening will determine the requirement for the preparation of a land acquisition and resettlement plan (LARP) and screen out projects/subprojects that may have IR legacy issues. The screening will be reconfirmed following the finalization of the project alignment or location and detailed design;
- (ii) The IA shall ensure that the required expertise and staff are on board in a timely manner and sufficient resources for the required assessments carefully planned. ADB shall review TORs and qualifications of all relevant safeguards experts prior to their engagement. The IA should also closely coordinate with the concerned revenue district and agencies and ensure that they are fully oriented on the ADB SPS requirements, especially those provisions that may not be fully covered under the LAA and existing regulations in KP Province;
- (iii) Land may only be acquired through the normal process of the LAA or negotiated settlement. Land for project/subproject sites should not be acquired under Section 17 of the LAA. Similarly, project sites with unresolved issues or complaints, including those with ongoing litigation put project implementation at risk. Unless resolved or is likely to be resolved, such sites need to be avoided to avoid the risk of delays in project implementation. Related to this, all proposed project/subproject sites need to be assessed for legacy issues, including those sites which have already been acquired prior to ADB's consideration of the project;
- (iv) For projects, subprojects or components that are assessed as having no IR or IP impacts, a social due diligence report (SDDR) will be prepared to confirm that (a) the subproject has or has no land acquisition or resettlement impacts; (b) there are no outstanding land acquisition or resettlement legacy issues (i.e. site was not acquired using the Land Acquisition Act-Section 17 urgency clause, no pending complaints that may escalate or no ongoing litigation), and (c) no-objection has been obtained from the concerned agency or site has been handed over to the implementing agency, etc.). The SDDR will also document consultations conducted with key stakeholders and actions in case impacts emerge during construction;
- (v) Before ADB launches its fact-finding mission for projects that involve land acquisition, a formal notification that a particular land is needed for public purpose under Section 5 of the LAA and inquiries for objections or concerns from persons interested have been made under Section 5a of the LAA is required. Likewise, a LARP based on the list of affected assets and persons linked to the Section 5 notification is needed. To meet this requirement, the project IA may need to secure an advanced PC-1 focused on land acquisition to allow the early allocation of funds and notification of Section 5 of the LAA;

- (vi) ADB SPS 2009 requires that the rate of compensation for acquired housing, land and other assets will be calculated at full replacement costs. The calculation of full replacement cost will be based on the following elements: (i) fair market value; (ii) transaction costs; (iii) interest accrued, (iv) transitional and restoration costs; and (v) other applicable payments, if any. To ensure that this requirement is met, an independent valuation study (IVS) will be conducted to independently establish the replacement cost of the acquired land and other assets. A licensed valuer accredited with the State Bank of Pakistan will be engaged to undertake the IVS. The valuer will be oriented on the replacement cost principles of the SPS. The valuation should also not deduct for depreciation of structures. To the extent possible, results of the IVS will be integrated into the land award. If not, the IA will arrange for the disbursement of the additional amount needed to meet the replacement cost of ADB. Results of the IVS will be reflected in the LARP;
- (vii) When feasible, the project will adopt negotiated purchase of land as the first preferred option for land acquisition. Negotiated settlement based on meaningful consultation with affected persons, including those without legal title to assets is encouraged in the SPS. However, for this type of land acquisition, the project will engage an independent external party to document the negotiation and settlement processes;
- (viii) Displaced persons (DPs) may include (a) persons or legal entities with formal legal rights to acquired land and/or structures in entirety or in part, (b) persons who have no formal legal rights to land and/or structures lost wholly or in part but who have claims to such lands that are recognized or recognizable under national law, and (c) persons who lost the land or structure they occupy in entirety or in part who have neither formal legal rights nor recognized or recognizable claims to such land. DPs without formal legal rights or recognizable claims under national law and customs and may include all squatters, tenants, sharecroppers, and wage labourers. DPs occupying the public ROW or acquired land (on or before cut-off date), without legally recognizable claims to land will be entitled for compensation of affected assets other than land, as well as relocation and rehabilitation support. IAs should ensure that all categories of DPs are included in the LARP. IAs should ascertain that no demolition or anti-encroachment works are undertaken in project sites so that DPs are not displaced physically or economically before payment of compensation and other entitlements for their lost assets and income and livelihood restoration program is in place;
- (ix) An effective grievance redress mechanism (GRM) for land acquisition and resettlement will be established early, preferably following the notification of Section 5 of the LAA. The GRM will be kept intact and functional throughout implementation period to address the social issues related to project design, resettlement planning and implementation, restriction of access to resources and basic amenities during construction and any other social matter that arises during implementation of the project. Issues/disputes on land titles, land valuation, enhancement or apportionment of awarded compensation could be dealt under the LAA 1894 provisions. The project based GRM will assist and facilitate the aggrieved parties to seek remedy through available legal recourse. The project based GRM will maintain an updated record of issues/disputes being dealt under LAA provisions;

- (x) Compensation eligibility will be limited to cut-off date announced as such by the government. In case of land acquisition under law, the notification under Section-5 of LAA 1894. For compensation entitlement not covered under LAA, cut-off date will be the day of completion of social impacts assessment survey and census of DPs. To streamline the cut-off date announced under LAA provisions and the for ADB IR requirements, efforts will be ensured to coincide the dates for publication of notification under Section-5 of LAA and completion of social impact assessment surveys and census of DPs; and
- (xi) All projects should comply with the consultation, disclosure and monitoring requirements of ADB SPS. For IR-category A projects, an external monitoring report will also be required. Throughout the project implementation, semi-annual social monitoring reports will be submitted to ADB for review and disclosure. For projects with LAR issues, sites for civil works will not be handed over until the LARP has been fully implemented and verified in a LARP implementation compliance report.

VII. PERFORMANCE MONITORING

A. Monitoring

38. **Project readiness financing project performance monitoring.** The IAs will monitor PRF project performance semiannually and provide consolidated reports to ADB. These reports will include (i) each activity's progress measured against the implementation schedule, (ii) key implementation issues and solutions, (iii) an updated procurement plan, and (d) an updated implementation plan for the next 12 months. To ensure PRF 2 projects continue to be both viable and sustainable, the IAs should adequately review PRF 2 project financial statements and the associated auditor's report. In the event that an ensuring loan is not approved, the EA will submit a PRF 2 project completion report to ADB within 6 months of physical completion of the PRF project.¹⁵

39. **Compliance monitoring:** Loan and grant covenants on policy and regulations, legal, and financial will be monitored regularly through various reports (semi-annual reports) and discussions during review missions. Progress with regards to the undertakings will be included in the monitoring report.

B. Reporting

40. The IAs will provide ADB with:
- (i) PRF 2 project's semi-annual progress reports in a format consistent with ADB's project performance reporting system, including (a) progress achieved by output as measured through the performance targets, (b) key implementation issues and solutions; (c) updated procurement plan and (d) updated implementation plan for next 12 months;¹⁶ and
 - (ii) PRF 2 project accounts, IA's audited financial statements, together with the associated auditor's report.

¹⁵ ADB. 2018. Project Completion Report for Sovereign Operations. *Project Administration Instructions*. PAI 6.07A. Manila.

¹⁶ The regional departments will present the performance of the completed PRF in the project completion report of the ensuing loan. See para. 51 of ADB. 2013. Project Design Advance. *Staff Instruction*. Manila.

VIII. ANTICORRUPTION POLICY

41. ADB reserves the right to investigate, directly or through its agents, any violations of the Anticorruption Policy (1998, as amended to date) relating to the PRF project following ADB's Integrity Principles and Guidelines. All contracts financed by ADB will include provisions specifying ADB's right to audit and examine the records and accounts of the executing agency and all PRF 2 project contractors, suppliers, consultants, and other service providers. This includes the examination of project outputs, assets, and all other information that may be considered relevant for audit or inspection by ADB regardless of project completion, termination, or cancellation. Firms or individuals on ADB's anticorruption debarment list are ineligible to participate in activities that are financed, supported, or administered by ADB; and may not be awarded any contracts under the PRF 2 project.¹⁷

42. To support these efforts, ADB included relevant provisions in the loan agreement and grant agreement and the bidding documents for the PRF project. Project risk assessments will be prepared by the consulting firms and highlight the governance risks. Specific mitigation measures will be implemented under the PRF 2 project to mitigate these risks, as recommended by ADB's Second Governance and Anticorruption Action Plan.¹⁸ Notably, the consultant teams under PRF 2 will put in place probity guidelines that will apply to all parties involved in the project, based on ADB anticorruption guidelines and any anticorruption laws and regulation that pertain to the project. These guidelines will clearly establish the anticorruption role and responsibility of staff of IAs, CIUs, contracted operating companies, and contracted consultants. These guidelines will address at least the following items: staff hiring, staff relations, handling of gifts and favors, tendering process, and contract development processes.

IX. ACCOUNTABILITY MECHANISM

43. People who are, or may in the future be, adversely affected by the PRF 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 PRF projects can voice, and seek a resolution of their problems, as well as report alleged violations of ADB's operational policies and procedures. Before submitting a complaint to the Accountability Mechanism, affected people should make a good faith effort to solve their problems by working with the concerned ADB operations department. Only after doing that, and if they are still dissatisfied, should they approach the Accountability Mechanism.¹⁹

X. RECORD OF PAM CHANGES

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

¹⁷ ADB's Integrity Office web site is available at: <http://www.adb.org/integrity>

¹⁸ ADB. 2006. *Second Governance and Anticorruption Action Plan (GACAP II)*. Manila; ADB. 2008. *Guidelines for Implementing ADB's Second Governance and Anticorruption Action Plan (GACAP II)*. Manila; and ADB. 2008. *Sourcebook: Diagnostics to Assist Preparation of Governance Risk Assessments*. Manila (draft).

¹⁹ For further information see: <https://www.adb.org/site/accountability-mechanism/main>.

LIST OF APPENDIXES

1. Financial Management Assessment: Planning and Development Department (P&DD)
2. Financial Management Assessment Report: Khyber Pakhtunkhwa Urban Mobility Authority (KPUMA)
3. Financial Management Assessment: Project Management Unit – Local Government, Elections & Rural Development Department (PMU – LGERDD)
4. Terms of Reference for Individual Consultants
5. Terms of Reference for Due Diligence, Detailed Design, and Procurement Support for Khyber Pakhtunkhwa Sustainable Urban Mobility Project 1
6. Terms of Reference for Planning, Feasibility, Detailed Design, and Capacity Building (PFDDCB) Consultant for Khyber Pakhtunkhwa's Cities Improvement Project 2
7. Terms of Reference for Due Diligence, Detailed Design, and Procurement Support for Khyber Pakhtunkhwa's Sustainable Urban Mobility Project 2

Financial Management Assessment

Planning and Development Department (P&DD)

Project Number: 55107-001
June 2021

CURRENCY EQUIVALENTS
(as of 30 June 2021)

Currency unit Pakistan Rupee (PKR)

PKR 1.00 = US\$0.0063
US\$1.00 = PKR158.3500

ABBREVIATIONS

ADB	Asian Development Bank
AEFSs	audited entity financial statement
APFSs	audited project financial statement
BOD	Board of Directors
CPS	country partnership strategy
EA	executing agency
FMA	financial management assessment
GoP	Government of Pakistan
GoKP	Government of Khyber Pakhtunkhwa
GRAMP	governance risk assessment and management plan
IA	implementing agency
IED	Independent Evaluation Department
IPSAS	International Public Sector Accounting Standards
ISAs	International Standards on Auditing
IT	information technology
KPCIP	Khyber Pakhtunkhwa Cities Improvement Projects
LGE&RDD	Local Government Elections & Rural Development Department
PAM	project administration manual
PEFA	public expenditure and financial accountability
P&DD	Planning and Development Department
PFM	public financial management
PMU	Project Management Unit
PPP	public-private partnership
SBP	State Bank of Pakistan

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Table 2: Process flow for supplier payments/ withdrawal application

Table 3: Key FM risks

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Annexure 1: Proposed funds flow

A. Executive Summary

1. The Asian Development Bank (ADB) intends to support the Government of Khyber Pakhtunkhwa (GoKP) in the implementation of Khyber Pakhtunkhwa Cities Improvement Project (KPCIP/ or the Project) PRF 2. The Planning and Development Department (P&DD) is proposed to be the executing agency (EA) of the Project.

2. A financial management assessment (FMA) was carried out to review the financial management (FM) capacity, systems and procedures of the EA. The FMA report (the Report) provides results of the FMA.

3. The overall pre-mitigation FM risk was assessed to be **Low**. It was concluded that the EA uses GoKP PFM systems for the day-to-day financial management activities which are assessed as satisfactory in terms of planning and budgeting, expenditure authorization, funds flow, accounting and reporting, while the internal audit function is weak and external audit process remains generally delayed, as prevalent in other government departments in the Country. However, the EA will not be involved in the FM aspects of the Project including planning and budgeting, accounting, reporting, auditing and internal controls.

B. Introduction

4. The FMA was carried out in June 2021, and was performed in accordance with ADB Guidelines.¹ The FMA was performed to update the assessment of P&DD carried out in April 2018, in relation with processing of PRF 1, with a view to update the assessment of the sufficiency and appropriateness of the P&DD's financial management capacity in the context of ADB's requirements for the financial management of the Project.

5. The principal objective of the FMA was to evaluate the suitability of the P&DD's systems and capacities to effectively manage risks to ADB's project funds and to ensure that the Project funds are used economically and efficiently for the purposes intended. This FMA focused at assessing the design and effectiveness of P&DD's financial management and related governance systems including planning, budgeting, accounting, internal control, governance, financial reporting, internal audit, and external audit. The FMA also assessed the financial management capacity of the P&DD with reference to the proposed funds flow arrangement and selected disbursement procedures for the Project. FM systems of the GoKP considered relevant to the Project FM and funds flow were also reviewed.

6. This assessment is based on the results of: information obtained through desk review of relevant policy and other documentation, consultation with stakeholders and interviews performed with government counterparts. An overview of the key FMA activities is provided as follows:

- (i) reviewing P&DD's budgetary framework, external and internal audit documents, policy and procedural documents, sufficiency and appropriateness of FM staff, funds flow mechanism, financial accounting and reporting systems, management information systems, and detailed internal control activities (payments, payroll, maintenance of bank balances, imprest accounts, advances, fixed assets, completeness of liabilities, etc.);

¹ ADB. 2015. Financial Management Assessment Technical Guidance Note. Manila; and ADB. 2009. Financial Due Diligence: A Methodology Note.

- (ii) identifying and recommending appropriate funds flow mechanism for all sources of the Project;
- (iii) identifying and assessing FM and internal control risks and proposing risk mitigation measures/management strategies to address identified risks, on the basis of degree of impact and likelihood of occurrence; and
- (iv) summarizing the findings in the Report.

C. Project Description

7. The PRF will support quality and readiness of ensuing urban services projects in Province of Khyber Pakhtunkhwa. The Project estimated cost is US\$ 15 million and will finance detailed design and readiness of sustainable urban mobility (SUT) and other municipal services projects (such as water supply and sanitation and solid waste management) in KP Cities in the next 5 years.

D. Country and Provincial FM Context

8. The overall fiduciary risk at provincial level is assessed to be Moderate to High with some positive progress observed within individual Public Expenditure and Financial Accountability Assessment (PEFA) dimensions. Federal as well as provincial governments over the years has made some improvements in the overall budget management. Budgeting, reporting, and introduction of medium-term planning tools and use of a risk-based audit methodology by the office of the Auditor General of Pakistan (AGP) are some of the key reforms implemented over the past few years.

9. Key PFM functions i.e. budgeting, expenditure management, accounting, and external auditing, are split between federal and provincial institutions. Budgeting and expenditure management, which directly affect the provincial governments' capacity for service delivery, are the responsibility of provincial governments (finance departments and line departments/agencies). Accounting and external auditing are federal mandates and managed by the Controller General of Accounts (CGA) and the Auditor General of Pakistan (AGP), respectively. While the provinces have Accountants General who are responsible for processing payments, payroll and pensions, they are employed by the CGA.

10. In view of above, a review of the PFM systems at both the federal as well as provincial level to assess the PFM environment within which the Project will be implemented.

1. Federal PFM Systems

11. The results of PFM assessment of the federal government, using the public expenditure and financial accountability (PEFA) framework, has been conducted in 2019, however, the results are not yet publicly available. Latest publicly available assessment was carried out in 2012.² Some of the key findings remain relevant and are summarized below:

- (i) **Budget credibility.** There are high expenditure deviations between budgeted and actual expenditures at the disaggregated level. This was due to substantial re-appropriations under individual expenditure heads undertaken by the Executive during the fiscal year (approved only ex-post by the legislature as supplementary

² Government of Pakistan and Development Partners. 2012. Pakistan, Federal Government–Public Financial Management and Accountability Assessment. Report No. 69185-PK.June.

- budgets). Also, management of arrears has not improved, and reliable arrears data are not available;
- (ii) **Comprehensiveness and transparency.** Some improvements in budget transparency have taken place. Classifications used for budget formulation and accounting are uniform. Systematic procedures for monitoring consolidated fiscal risk are not in place;
 - (iii) **Policy-based budgeting.** A well-defined budget preparation process is in place, which includes the medium-term budgeting framework (MTBF) as well as sector strategies and preparation of a Budget Strategy Paper (BSP). However, linkages between multi-year estimates in the MTBF and annual budgetary ceilings remain to be improved;
 - (iv) **Predictability and control in budget execution.** Improvements in some areas have taken place (e.g., payroll controls and treasury functions), but many aspects continue to have poor performance. These include tax administration (especially the discretionary powers of tax authorities), procurement, internal controls on non-salary expenditures,³ and internal audit;
 - (v) **Accounting, recording, and reporting.** There is a large backlog of unresolved accounts reconciling differences. In-year budget reports are timely and accurate, but do not capture the commitment stage. Likewise, the annual financial statements are timely but lack complete information on financial assets and liabilities; and
 - (vi) **External scrutiny and audit.** The timeliness and quality of audit is strong, and the Public Accounts Committee (PAC) has made progress in addressing a large backlog of audit reports. However, the scope of the legislature's budget review is undermined by the short time available, and charged expenditure (75% of outlays) is not submitted to vote.

12. ADB's Pakistan Country Partnership Strategy (CPS) for 2015–2019 noted that inadequate PFM systems, vulnerability to corruption and lack of capacity in government entities, particularly related to decentralization, could pose a risk to CPS implementation.⁴ In the 2019 Governance Risk Assessment (GRA) for Pakistan, ADB noted that the routine revenue shortfalls at the Federal level adversely affected the provincial governments because of their dependence on fiscal transfers. Also, the role of internal audit was not well-developed and the provinces had difficulties introducing the function. Furthermore, the AGP's work focused mainly on compliance audit and was limited as regards performance audit.

13. According to ADB's Country Partnership Strategy (CPS 2021 - 2025)⁴ key objectives are to support Pakistan's efforts to lift growth, build resilience, and foster competitiveness. A focus in these areas will help the country mitigate the impact of the COVID-19 pandemic and tackle structural problems to reduce poverty and vulnerability and create jobs. These broad areas allow for exercising a certain amount of flexibility in determining operational sectors given Pakistan's position as a large borrower, and in view of the given COVID-19 pandemic-related uncertainty, the need to remain responsive to changing country needs and expectations. Sector flexibility is also important because an individual operation can relate to multiple sectors and themes. Within these parameters, however, ADB's assistance will remain selective and focused, built on a

³ A recent World Bank diagnostic report notes that the GoP has a sophisticated Financial Management Information System (FMIS), but that payments are not automated and therefore spending units must provide documentation to the CGA, which then issues payments. This process is cumbersome, open to discretion and also creates opportunities for unofficial payments (R. Muhula. 2019. [Pakistan@100 Governance & Institutions](#). Policy Note. World Bank Group.)

⁴ ADB. 2015a. Pakistan Country Partnership Strategy 2015-2019. Manila.

prudent choice of subsectors, and carefully prioritized specific projects and programs within ADB's finite resource envelope. Explicit recognition of ADB's comparative advantages and the division of labor between development partners will be key guiding principles.

14. Pakistan has extensive legislative and institutional structures for public financial management (PFM). However, effective, and efficient implementation of these structures is challenged by a decentralized service delivery system while the PFM remains highly centralized. While there has been significant progress in reforming the PFM systems with implementation of financial accounting and budgeting system (FABS), introduction of mid-term budgetary framework and output-based budgeting, yet budget credibility and execution remain a key area of weakness. In a relatively recent timeframe, supported by key development partners including ADB and the World Bank, the Government of Pakistan has embarked upon a six pillar PFM Reforms Strategy (2018-2027) to address the risks and system inefficiencies. A robust monitoring and course correction mechanism is needed to ensure that envisaged benefits from recent initiatives for PFM reforms are achieved in a timely and effective manner.

15. Accounting and auditing are federal mandates which are performed by offices of Auditor General of Pakistan (AGP) and Controller General of Accounts (CGA), respectively, while budgeting and expenditure management is performed by provincial governments. The constitutionally independent office of AGP conducts external audits of public funds. Pakistan has adopted a unified PFM system, which is provisioned under the Constitution of Pakistan, setting out the management of federal consolidated fund and public account.

16. The GoP's Finance Division in 2017 published a PFM reform strategy which set out planned activities for the ten-year period up to 2026.⁵ It focuses on improving budget reliability by enacting a PFM Law, eliminating discretion by standardizing internal controls and modernizing the internal audit set-up, and improving cash management to reduce borrowing costs. It also aims to make key fiscal data more readily available, automate salary and pension payments, implement an external audit management information system, strengthen legislative scrutiny, and improve reporting by and oversight over state-owned enterprises. These efforts are being supported mainly by the World Bank, which is implementing several projects to promote PFM reforms,⁶ and the European Union (EU) through its PFM Support Programme for Pakistan (SPP). Support for the GoP's broader governance reform agenda is provided by ADB, Gesellschaft für Internationale Zusammenarbeit (GIZ), United States Agency for International Development (USAID), as well as several United Nations (UN) agencies.

17. The National Assembly approved the Public Financial Management Act, 2019. It addresses key gaps in the current regulatory PFM framework and introduces some new practices. The latter include limitations on supplementary grants (to curb the previous almost unlimited power of the Executive to amend the budget without prior parliamentary approval), preparing a budget manual, restricting transferring public funds into scheduled banks' accounts, developing the scope of special purpose funds, creating the position of Chief Internal Auditor (CIA), improving treasury management, and changing the definition and operation of public entities.

⁵ Finance Division. 2017. PFM Reform Strategy of the Federal Government – Strategy for reforms in support of fiscal sustainability and efficient public service delivery. October.

⁶ On-going World Bank-funded projects include the (i) Debt Management Strengthening Programme at Ministry of Finance (2017-2019), (ii) Strengthening Tax Systems and Building Tax Policy Analysis Capacity Project (2017-2019), (iii) PFM and Accountability to Support Service Delivery Program (2017-2021), (iv) Strengthening of External Debt Management in the External Affairs Division (2018-2019), and (v) Pakistan Raises Revenue Project (2019-2024).

18. It is understood that the GoP's Finance Division, in order to facilitate the implementation of the PFM Act, 2019, plans to prepare an updated PFM reform strategy for taking into account the results of the new PEFA-based PFM assessment (currently being finalized by the World Bank).

2. GoKP PFM Systems

19. GoKP follows disintegrated budgeting where the current budget is the responsibility of the Provincial Finance Department. The Planning and Development Department (P&DD) administers the development budget.

20. The Controller General of Accounts (CGA) is tasked with the production of timely and accurate financial statements according to the form and method prescribed by the AGP. The promulgation of the Controller General of Accounts Ordinance, 2001 and the Auditor General Ordinance, 2001, separated the roles and responsibilities of the offices of CGA and the AGP regarding accounting and auditing, respectively. In the KP province, the AG represents the CGA and functions with independent staff and budget. The Provincial AG reports to the CGA at the federal level. The CGA carries out policy formulation, coordination, and administration responsibilities.

21. The DG Provincial Audit conducts external audit of the accounts on behalf of the office of the AGP, and the audited accounts and audit reports are submitted to the Governor of the province for tabling them at the Provincial Assembly for legislative scrutiny. The Directorate General District Audit, audits the local governments and the DG Commercial Audit audits public sector entities. The PAC of KP Provincial Assembly conducts the legislative oversight of the provincial financial operations. The PAC is headed by the Speaker of the Assembly and comprises the members of the Provincial Assembly (legislators) with dedicated staff in the Provincial Assembly providing the secretarial support.

22. The KPK Public Financial Management Assessment Report published in October 2017⁷ based on PEFA framework 2016 was considered for the purposes of this FMA. The 2017 PEFA-based PFM assessment of the GoKP provides an up-to-date review of the functioning and performance of the PFM systems in GoKP. The assessment highlighted the inadequacies in fiscal discipline evidenced in the expenditure and revenue out-turns, eventuated by fluctuations in the federal transfers and aggravated with the deficiencies in PFM practices in KP. The weaknesses in pillars (II-VII) weigh in on the overall performance of Pillar I (Budget reliability), but gaps exist in the revenue and expenditure management.

23. The PFM Assessment report indicates that overall, only 8 indicators, about 25 percent of total indicators for PFM system of KPK, score well as shown in Table 1 below.

24. The overall budgeting process remained well organized and participatory with extensive guidance to line departments and the general adherence to budget calendar by the line departments. The multiyear perspective in fiscal planning, expenditure policy, and budgeting improved with the approval and implementation of the KP Integrated Development Strategy. Public access to key fiscal information improved with the release of in-year, budget execution reports. The promulgation of KP Public Procurement Regulatory Authority (KP-PPRA) Act 2012

⁷ Government of Khyber Pakhtunkhwa and Development Partners. Pakistan: KPK – Public Financial Management Assessment Report October 2017

and KP-PPRA Rules 2014 yielded improvements in the procurement regime. The comprehensive rollout of the GFMS enhanced the quality of information in the budget execution reports.

Table 1: KPK Public Financial Management Assessment - 2017

Indicators	Dimension	Indicator Score	Risk Rating
	I. BUDGET RELIABILITY		
PI-1	Aggregate expenditure out-turn	C	Substantial
PI-2	Expenditure composition out-turn	D+	High
PI-3	Revenue out-turn	D	High
	II. TRANSPARENCY OF PUBLIC FINANCES		
PI-4	Budget Classification	A	Low
PI-5	Budget Documentation	B	Moderate
PI-6	Provincial Government operations outside financial reports	D	High
PI-7	Transfers to Subnational Government (SNG)	B	Moderate
PI-8	Performance information for service delivery	B	Moderate
PI-9	Public access to key fiscal information	D	High
	III. MANAGEMENT OF ASSETS AND LIABILITIES		
PI-10	Fiscal risk reporting	D	High
PI-11	Public investment management	C	Substantial
PI-12	Public asset management	D+	High
PI-13	Debt management	C	Substantial
	IV. POLICY-BASED FISCAL STRATEGY AND BUDGETING		
PI-14	Macroeconomic and fiscal forecasting	C	Substantial
PI-15	Fiscal strategy	D	High
PI-16	Medium-term perspective in expenditure budgeting	C	Substantial
PI-17	Budget preparation process	B	Moderate
PI-18	Legislative scrutiny of budgets	C+	Substantial
	V. PREDICTABILITY AND CONTROL IN BUDGET EXECUTION		
PI-19	Revenue administration	D	High
PI-20	Accounting for revenue	C	Substantial
PI-21	Predictability of in-year resource allocations	C+	Substantial
PI-22	Expenditure arrears	D	High
PI-23	Payroll controls	C+	Substantial
PI-24	Procurements	B	Moderate
PI-25	Internal controls on non-salary expenditure	B+	Moderate
PI-26	Internal audit	D+	High
	VI. ACCOUNTING AND REPORTING		
PI-27	Financial data integrity	B	Moderate
PI-28	In-year budget reports	C+	Substantial
PI-29	Annual financial reports	C+	Substantial
	VII. LEGISLATIVE SCRUTINY AND AUDIT		
PI-30	External audits	D+	High
PI-31	Legislative scrutiny of audit reports	C+	Substantial

25. Deficiencies were noted in oversight of fiscal policy and tax administration. The institutional mechanism for fiscal reporting did not improve in capturing the extra-budgetary operations and information on off-budget donor-funded projects. Neither was improvement noted in the oversight of aggregate fiscal risk from public sector entities/autonomous entities. The report noted no significant improvement in tax administration performance, particularly in the areas of

transparency of taxpayer obligations and liabilities, registration, and assessment and collection of taxes. In 2013, the GoKP established the Khyber Pakhtunkhwa Revenue Authority (KPRA) to collect sales tax on services, which is now the largest provincial tax but is still in the process of developing systems and capacity for revenue-compliance risk management. The predictability regarding availability of funds declined because of the practices followed in the cash releases for development budget, significant in-year budgetary adjustments and the absence of commitment accounting. Internal controls were assessed to posing challenges for the GoKP. The performance with regards to the scope and coverage of the payroll audit declined and non-salary expenditure commitment controls deteriorated largely owing to the lack of commitment accounting. Although the GoKP piloted internal audit, the focus of internal audit on financial compliance and lack of management response was assessed to undermine the deepening of fiduciary controls.

26. It was concluded that the Project is exposed to following risks due to weaknesses in the Provincial PFM systems:

- (i) **Delay in timely and adequate release of counterpart funding:** Counter-part funding for payment of GoP taxes and releases are made on a quarterly basis. Delay in release of counterpart funds may affect Project due to delayed payments to suppliers and service providers against counter-part funds.
- (ii) **Weak internal audit function:** The scope of GoKP Provincial Internal Audit Cell (PIAC) is not extended to cover P&DD. Whereas, the internal audit committee of P&DD is marred by low capacity and independence besides a scope limited to financial review of only projects directly implemented by the department. Overall the internal audit functions are not sufficiently developed to ensure adequate governance, risk management and control support to the governing bodies of the Government departments.
- (iii) **Delay in resolution of audit observations:** The ADB has accepted project audit reports prepared by the Auditor General of Pakistan (AGP) which are submitted to ADB through the Economic Affairs Division of the GoP on a timely basis. However, observations by audit officers of AGP are not resolved within due time resulting in long outstanding paras pending with Departmental Accounts Committee or Provincial Accounts Committee.

E. Entity/ Project Level FM Systems

1. Contextual Background to the Project

27. Asian Development Bank (ADB) funded PRF has already approved financing for the preparation and engineering design of Khyber Pakhtunkhwa Cities Improvement Projects (KPCIP) and possible future urban projects in KP. The main focus of KPCIP is centered on investment subprojects related to Water Supply, Sewerage and Drainage, Solid Waste Management and select Urban Green sub-projects in the targeted five cities. The KPCIP is being managed by LGE&RDD as the Executing Agency through a PMU, established to support LGE&RDD and coordinate the project implementation at the provincial level.

2. Governance Structure

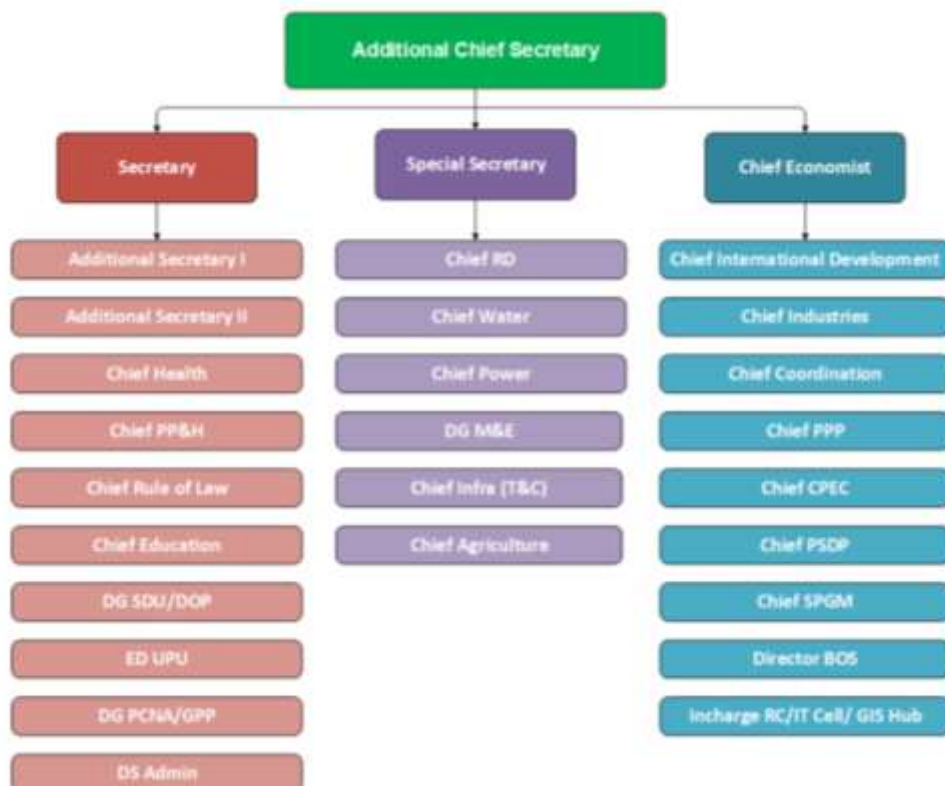
28. A Project Steering Committee (PSC) has been established at the GoKP level to provide governance oversight on the Project. The PSC is headed by the Additional Chief Secretary and its members are Secretary P&DD, Secretary LGE&RDD, Secretary Finance, Secretary Public Health Engineering, Executive Director Urban Policy Unit (UPU) P&DD, Director General Peshawar Development Authority, Director General Environmental Protection Agency, Chief

Executive Officers of Water & Sanitation Services Companies of Peshawar, Mardan, Kohat, Abbottabad and Mingora, and Project Director KPCIP.

29. The PSC provides policy direction and strategic oversight, policy level decisions to facilitate timely execution of projects. It reviews quarterly and annual performance reports. The PSC is empowered to give principal approval of the investment projects and ensure that projects are implemented in line with loan/project agreements. The PSC also ensures provision of counterpart funding/budget approval for counterpart funding. The PSC is also mandated to act as governance oversight over other implementing units within the Project (for instance, annual operational and business plans of the WSSCs and their annual operational allocation is approved by the PSC).

30. PSC meetings are conducted on a need as well as on a quarterly basis, where decisions taken in previous meetings are discussed, progress is reviewed on various aspects of projects including, but not limited to, selecting the investment subprojects for the preparing detailed engineering design and project preparedness, approval of variation orders for design consultants and allocation of budget for land acquisitions. The progress update is also reviewed by the Chief Minister of the province.

31. At the P&DD level, the Secretary – P&DD is the administrative head of the department and is supported by a team, as depicted in the below organogram:



3. Staffing

32. As per the government structure, the accounting and finance function is mandated to the Deputy Secretary – Admin. The DS Admin is further supported by an Assistant Chief (Budget & Accounts), a superintendent (B&A), two assistants, a computer operator and a junior clerk besides support staff. The accounting team is adequately staffed and experienced in managing the accounting and recording activities in line with GOKP procedures and applicable policies, however, they do not possess adequate understanding of ADB policies and procedures. However, the deficiency is not expected to affect the project financial management since the P&DD will not be involved in the FM activities of the Project.

4. Policies and Procedures – Internal Controls

33. Pakistan has a three-tier governance infrastructure for PFM that comprises the federal, provincial, and district governments. The Finance Ministry/Department and Line Ministries/Departments at the federal and provincial levels have well-defined roles and responsibilities for budget formulation and execution. The Controller General of Accounts, a representative of the Federal Government, through its associated offices across the country, pre-audits the transactions, makes payments, and thereafter prepares financial statements. The Auditor General of Pakistan (AGP) being the Supreme Audit Institution of the country, is mandated by the Constitution to conduct audit of federal, provincial, and district government entities.

34. The accounting and reporting framework of P&DD is governed by following GOKP policy and procedural documents:

- (i) Manual of Accounting Practices complemented with guidelines, handbook, and manuals for accounting and reporting;
- (ii) General Financial Rules;
- (iii) Supplementary and Treasury Rules;
- (iv) Delegation of financial power rules;
- (v) Procedure for Assignment Account and revolving fund accounts; and
- (vi) Public procurement rules.

5. Planning and Budgeting

35. The planning and budgeting processes related to preparation and periodic budget reporting are integrated with the governmental processes. The budget is compiled by the Assistant Chief (B&A) and DS Admin and finalized under the supervision of the Secretary – P&DD. The budget preparation follows the provincial Budget Call Circular issued by the Finance Department. Budget proposals are submitted to the Finance Department and subject to the approval of the Provincial Legislature. Once approved, the annual budget is allocated to the P&DD.

6. Expenditure Management

36. The expenditure authorization is made in accordance with the delegation of financial powers, approved by the Provincial Government. All payments are processed by the Office of the Accountant General of the Province. Expenditure are recorded by the Accountant General against the Government Chart of Accounts, on account of the P&DD. The DDO maintains records of the expenditure incurred, the budget utilization and performs monthly and quarterly reconciliations with the Office of the Accountant General.

7. Accounting and Reporting

37. The Government uses Cash Basis IPSAS for accounting and financial reporting.

38. GoKP has adopted the budget classification, accounting, and reporting framework⁸ of the Government of Pakistan. The Provincial AG Office, an extension of the Controller General Accounts (CGA), provides the accounting and financial reporting support to the GoKP. The Provincial AG Office is supported by the District Accounts Offices (DAOs).

39. The P&DD accounts are maintained according to the chart of accounts prescribed by the Auditor General of Pakistan. The books of accounts are maintained using Government Financial Management Information System (*a SAP based accounting software*) through the support of the AG Office. Each transaction is entered into the GFMIS recording all relevant details of the transaction including; profit center, grant no, fund no, fund center, major object, minor object, detailed object description, function codes, date of transaction, budget head and expenditure amounts etc. This helps in generation of entity wise/DDO wise/activity wise budget execution/ financial reports in real time.

40. The project level activities, if any, would be structured and a Chart of Accounts, which will be compliant with the New Accounting Model (NAM) Chart of Accounts (CoA) prepared to capture project financial activities in order to also allow the PFM of the project to be able to submit the monthly accounts to the Accountant General, KPK. These reports would cover all the expenditure from direct payments by ADB and payments made from counter-part share.

41. **Reconciliation and reporting with Provincial Accountant General and Finance Department:** P&DD conducts monthly and quarterly reconciliation with the Accountant General Office of GoKP and annual reconciliation of budget and expenditure with Finance Dept. of GoKP. The purpose of reconciliation is to report project receipts and expenditure against approved budget allocations into the SAP System (PIFRA) of the Government so that the project accounts are reported through Govt. Accounting System New Accounting Model (NAM). The reconciliation includes budget allocation for the year (as already incorporated in SAP System through the Finance Department of GoKP), expenditure incurred during the period and balance funds available against budget allocations. All cheques for payment from ADB Advance Account (Revolving fund foreign currency Account managed by SBP / NBP) are first punched in SAP System by the Accountant General Office of the GoKP and then presented to the National Bank. The purpose of annual reconciliation with the Finance Department of GoKP is to obtain re-authorization of funds against budget allocation, receipts and expenditure during the year and carry forward of balance funds to the next financial year.

8. Treasury and Cash Management, and Information Systems

42. Payments are processed as follows: crossed cheque is issued in the name of payee; recorded by the Deposit & Loan Section (SAP – PIFRA) of Accountant General Office of GoKP which is then submitted to National Bank of Pakistan (NBP) for payment to the payee's account. No cash withdrawal and advances are allowed for processing of payments from these accounts.

⁸ Article 170 of the Constitution of the Islamic Republic of Pakistan (1973) empowers the AGP to prescribe the principles, forms, and methods for maintenance of accounts with the approval of the President of Pakistan. In December 2000, the AGP with the approval of the President of Pakistan prescribed the NAM. It also replaces the previous Chart of Classification notified in 1981 with the new Chart of Accounts to improve budgeting, accounting, reporting and auditing. The preparation and maintenance of accounts and related functions were separated with the promulgation of Controller General of Accounts (Appointment, Functions and Powers) Ordinance, 2001.

Payments are allowed only against available budget provisions. For recording of budget provisions in the GFMS (PIFRA SAP system), the P&DD processes budget releases through the Finance Dept. of GoKP. Monthly & Quarterly reconciliations are carried out with AG Office of GoKP of receipt and expenditure against these accounts and annual reconciliation is also carried out with Finance Dept. of GoKP.

9. Asset Management

43. Administrative assets are recorded by the DDO using a government specified stock register. However, since cash basis IPSAS is used, the assets are not recorded in the accounting information.

10. Internal Audit

44. The Accountant General KP's tasks include performing pre-audit while processing payments. This process comprises of checking availability of corresponding budget, funds availability, sufficiency and appropriateness of supporting documentation, and approval by the competent authority. However, this process is not seen as a substitute for an internal audit function.

45. The Provincial Internal Audit Cell (PIAC) established within the Finance Department is mandated to carry out independent internal audit of the Government Departments. The PIAC however is not extended to cover internal audit of the P&DD. The P&DD however has constituted an internal audit committee comprising of 1) DS Admin, 2) Assistant Chief (B&A), 3) Section Officer (General), and 4) Accounts Officer, mandated to carry out internal audit of all development projects administered/implemented by P&DD. This Committee being internal however cannot ensure independence of the internal audit function besides the fact that its recommendations are rarely escalated to the top management. Overall, the internal audit function of P&DD is weak, however, the FMAP includes various action items to strengthen the internal audits of respective IAs i.e. KPUMA and PMU/LGERDD.

11. External Audit

46. Articles 169 and 170 of the Constitution of Pakistan govern the audits of the annual financial statements of the federal and provincial governments, performed by the AGP. In KP Province, the audits are undertaken by the office of Director General – Audit, KP.

47. The AGP carries out its audit activities in accordance with the standards of the International Organization of Supreme Audit Institutions and international good practice.⁹ The AGP has developed a large number of guidelines, including a comprehensive manual to guide the process of carrying out external audit of foreign-funded projects.¹⁰

48. Audit reports are laid before the Assembly by the Governor through the Finance Minister. This is usually done around 9 months after fiscal year-end. Auditees are informed about the audit

⁹ Auditor General of Pakistan. 2018. Annual Report 2017-2018, p. 6. ("The Financial Audit Manual (FAM) and twenty Audit Guidelines prepared and adopted for public sector auditing in Pakistan are consistent with the International Standards of Supreme Audit Institutions (ISSAIs) and cover all stages of audit cycle. The Guidelines for Performance Audit used by the AGP are comprehensive and these are being revised to be consistent with international best practices. The ASOSAI Guidelines on AQMS are practiced by the AGP in its Audit Reports.")

¹⁰ AGP. 2018. Audit Manual for Foreign Funded Projects. January. The manual was developed with the support of a firm as part of an ADB technical assistance (TA) operation (TA 8697-REG).

observations and a formal response is required within a defined time period. Unresolved audit observations are sent to the Public Accounts Committee (PAC) for consideration. All departments have a Departmental Accounts Committee (DAC) which discusses the audit findings of the AGP as regards compliance audits. Special Departmental Accounts Committees (SDACs) are set up for project-specific audits.

49. Generally delays have been noticed in the annual external audit of the P&DD such that the DG Audit is currently conducting external audit of P&DD for the FY2019-20 i.e. external audit is delayed by a year. Whereas, audit paras related to last three years are still to be resolved. The risk of delayed project audit will however will be managed through ADB ensuring timely inclusion of the project in the AGP audit schedule and including an FM covenant related to timely preparation and submission of APFS to the auditors for audit (*refer section – I for proposed FM covenant related to “submission of APFSs by the IAs”*).

F. Funds Flow

50. P&DD will not be involved in the funds flow of the Project. However, the following funds flow is suggested, if P&DD is involved in funds flow while the proposed funds flow diagram is provided at Annexure 1 of the Report.

51. The P&DD will be responsible for implementing the project according to the legal agreements and other implementation arrangements described in the Project Administration Manual (PAM). ADB will monitor the project and review its progress to ensure that the loan proceeds are spent as agreed upon. Upon effectiveness, a loan account in the name of the borrower will be opened in ADB's books where the loan proceeds will be credited for use of the project. All disbursements will be carried out in accordance with ADB's Loan Disbursement Handbook (2017, as amended from time to time).

52. The structure of the Project's proposed funds flow arrangement is provided at Annexure 1 to the Report. Based on the FMA, it is recommended that P&DD uses direct payment and advance fund account loan disbursement procedures. A brief of each procedure of loan disbursement method is given below. Detailed procedures are outlined in ADB's Loan Disbursement Handbook 2017.

53. **Direct Payment.** Under the direct payment procedure, ADB loan proceeds will be directly credited to a nominated bank account of a supplier, contractor, firm or consultant at the request of P&DD.

54. **Advance Fund Account:** Under the advance fund account procedure, ADB makes an advance disbursement from the loan account for deposit to an advance account to be used exclusively for ADB's share of eligible expenditure. In Pakistan, ADB's advance fund procedure is managed through Revolving Fund Accounts (Foreign Aid Assignment Accounts).

55. On approval of the project by the Government of Pakistan, a revolving fund assignment account will be opened by the P&DD for receipt of advance funds under the project from ADB loan account. These funds will be used by the P&DD for meeting eligible expenditure under the project. For accounting of these funds, separate books of accounts will be maintained for project/loan activities. The Secretary – P&DD and Deputy Secretary – Admin will act as the joint signatories of the revolving fund assignment account. The authorized signatories will have to be communicated by the P&DD to the ADB. Any subsequent change in the joint signatories will also follow the same suit.

56. The loan proceeds from ADB will initially be transferred to the GoP's 'Central Government Account No. 1 (non-food)', and from there to the GoKP's 'Provincial Consolidated Fund Account No. 1 (non-food)'.¹¹ The GoKP's Finance Department provides debit /credit heads to State Bank of Pakistan (SBP) and SBP transfer loan proceeds directly to the revolving fund account established under the project.¹² The P&DD will be responsible for maintenance and operation of the revolving fund account as per prevailing Revised Accounting Procedure for Revolving Fund Accounts.

57. Counterpart funding from the GoKP will be received through a separate assignment account which will be part of Provincial Consolidated Fund.¹³ The P&DD will also be responsible for maintenance of the assignment account in respect of transfer of funds on the basis of allocations by the GoKP as per approved procedures governing assignment accounts.

58. The loan proceeds will be disbursed in accordance with ADB's Loan Disbursement Handbook (2017, as amended from time to time), and detailed arrangements agreed upon between the GoKP and the ADB.

59. **Statement of expenditure procedure.** The statement of expenditure (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 \$50,000 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.

60. Before submitting the first withdrawal application, the government 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 withdrawal application is stipulated in ADB's *Loan Disbursement Handbook*. Individual payments below this amount should be paid by the P&DD and subsequently claimed from ADB through reimbursement, 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) system is encouraged for submission of withdrawal applications to ADB.

61. Proposed process flow for consultants/supplier payments/ withdrawal application: The following process flow will be used for processing of payments by the P&DD under the project.

¹¹ Funds received from ADB in \$ are converted into PRs by the State Bank of Pakistan (SBP) based on the relevant exchange rate on the date of transfer of funds.

¹² The opening and maintenance of assignment accounts is governed by GoP's Office Memorandum 'Revised Accounting Procedure for Revolving Fund Accounts (Foreign Aid Assignment Accounts)', dated 2 August 2013 as amended. Revised accounting procedure for revolving fund accounts (foreign aid assignment account) vide no. F.2.(1)BR-II/2007-949 dated 2nd August 2013. Assignment accounts are set up in the National Bank of Pakistan (NBP), which is a government-owned commercial bank and a subsidiary of the SBP.

¹³ As per prevailing GoP requirements, the receipts from and payments out of counterpart funding sources in assignment accounts is governed by the CGA's 'Revised Procedure for Operation of Assignment Accounts of Federal Government', dated 24 September 2008 as amended.

Table 2: Process Flow for Consultants/Supplier Payments/ Withdrawal Applications

Step no.	Description of process
1	Consultants and suppliers will submit deliverables completed/goods & services delivered to the P&DD along with accompanying bills/invoices.
2	Relevant section at P&DD will review the deliverables completed and/or goods and services delivered against respective Terms of Reference/ list of deliverables agreed under respective contracts and/or the technical specification of goods delivered and will certify the completeness and quality of services rendered and goods delivered and send the same to the DDO for processing.
3	The DDO will verify contractual obligations and perform financial review and seek PD's approval for payment processing. Once approved, the DDO will submit withdrawal application to the ADB for direct payment and if bill/invoice is under SOE limit (\$50,000) then make payment from the ADB Advance fund account. All tax payments will be made through GoKP counter-part funds assignment account.

G. Risk Analysis

62. The financial management risks include: (i) inherent risks, and (ii) control risks. Inherent risk is the susceptibility to factors arising from the P&DD's environment, such as country rules and regulations and working environment. Control risk is the susceptibility that the P&DD's accounting and internal controls framework will be inadequate to ensure Project funds are used economically and efficiently and for the purpose intended, and that the use of funds is properly reported.

63. A Financial Management Internal Control and Risk Management Assessment was conducted which considered existing arrangements, staffing and procedures, and includes recommendations for risk mitigation measures. Key fiduciary risks and mitigating measures are summarized in Table 3 below. Based on the assessment, it is concluded that the overall project financial management pre-mitigation risk is **Low**.

Table 3: Key FM Risks

Risk Type	Risk Description	Risk Assessment	Mitigation Measures / Risk Management Plan
Inherent Risk			
Country/ province-level risks	Governmental departments have adequate organizational and functional structures. Segregation of duties is provided in systems and APPM/GFRs, however, it is compromised in-practice due to shortage of staff. Risk assessment processes are weak or non-existent. Budget preparation is strong, however, budget outturns remain significant. GoKP's Finance and P&D departments' systems lack a mechanism to determine exact size of expenditure data outside financial reports. Controls over recording and management of non-financial assets is weak. Internal audit functions are established but lack effectiveness. External audit process remains substantially delayed.	Substantial	<p>Project level controls will be strengthened to ensure the FM activities remain free from the external inefficiencies within the GOKP FM systems. Specific measures will include:</p> <p>Strengthening of internal audit function over the Project activities.</p> <p>Ensuring rigorous liaison with the EA and IAs over timely conduct of external audits of the Project financial statements and timely resolution of audit issues, if any.</p> <p>The loan agreement will include a clause requiring the Borrower to ensure timely release of sufficient funds to the Project.</p>
<i>Overall Inherent Risk</i>		<i>Substantial</i>	
Project Risk			
FM structure and staffing	The P&DD staff is adequately experienced in GOKP procedures but do not possess experience of managing accounting and reporting of ADB funded projects.	Low	The P&DD will not be involved in the project FM activities. Accordingly, no risk is expected to the project accounting, reporting and funds flow.
Planning and budgeting, and expenditure management	P&DD uses Government systems which are sufficiently designed to review, validate and process the Project's financial transactions related to implementation activities.	Moderate	P&DD has adopted GOKP procedures which are satisfactory for budget preparation and monitoring, with due integration with the Governmental budgeting cycle and processes.

Risk Type	Risk Description	Risk Assessment	Mitigation Measures / Risk Management Plan
Funds flow	The funds flow might not be adequately designed and/or includes necessary controls.	Low	The P&DD uses Government treasury systems for authorization and processing of payments. However, the P&DD will not be involved in the project funds flow. Accordingly, no risk is expected to the project funds flow.
Asset management	The Project does not involve procurement of assets.	Low	None.
Policies and procedural guidance	The Project might not possess adequate policy and procedural guidance.	Low	P&DD uses GOKP finance policies and procedures, which are extensive and cover all aspects of the Project activities. Accordingly, no risk is expected to the project accounting, financial reporting and funds flow.
Financial reporting and information systems	Financial reporting and information systems may not be adequate having adverse implications for project accounting, recording and timely reporting of financial transactions.	Low	P&DD has adopted Government Financial Management Information system for accounting, recording and financial reporting of its transactions. All financial transactions are recorded in GOKP's integrated FMIS maintained in SAP environment through the AG Office. However, the P&DD will not be involved in the project FM activities. Accordingly, no risk is expected to the project accounting, reporting and funds flow.
Internal audit	Internal audit function is not adequately structured and resourced.	Moderate	The internal audit function of P&DD is weak and not fully independent, however, the FMAP includes various action items to strengthen the internal audits of respective IAs i.e. KPUMA and PMU/LGERDD.

Risk Type	Risk Description	Risk Assessment	Mitigation Measures / Risk Management Plan
External audit	Due to general delays in the AGP's audit process, the Project audits might be delayed.	Moderate	To reduce the risk of delayed project audit by DG Audit, the ADB will ensure that the project external audit is timely included in the audit schedule of AGP and audit reports are issued in a timely manner through inclusion of an FM covenant in the loan covenants.
<i>Overall Project Risk</i>		<i>Low</i>	
Overall Risk		Low	

ADB = Asian Development Bank, AEFS = Audited Entity Financial Statements, APFS = annual project financial statements, APP = annual procurement plan, FM = financial management, GoKP = Government of Khyber Pakhtunkhwa, LGE&RDD = Local Government, Elections and Rural Development Department, PDA = Peshawar Development Authority, PFM = public financial management, PMU = project management unit, PRF = project readiness financing.

H. Proposed Financial Management Action Plan

64. The financial management action plans of the respective IAs cover aspects aimed at strengthening the accounting and finance functions, governance and accountability. Since P&DD will not be involved in the financial management of the Project, a financial management action plan specific to P&DD is not considered necessary.

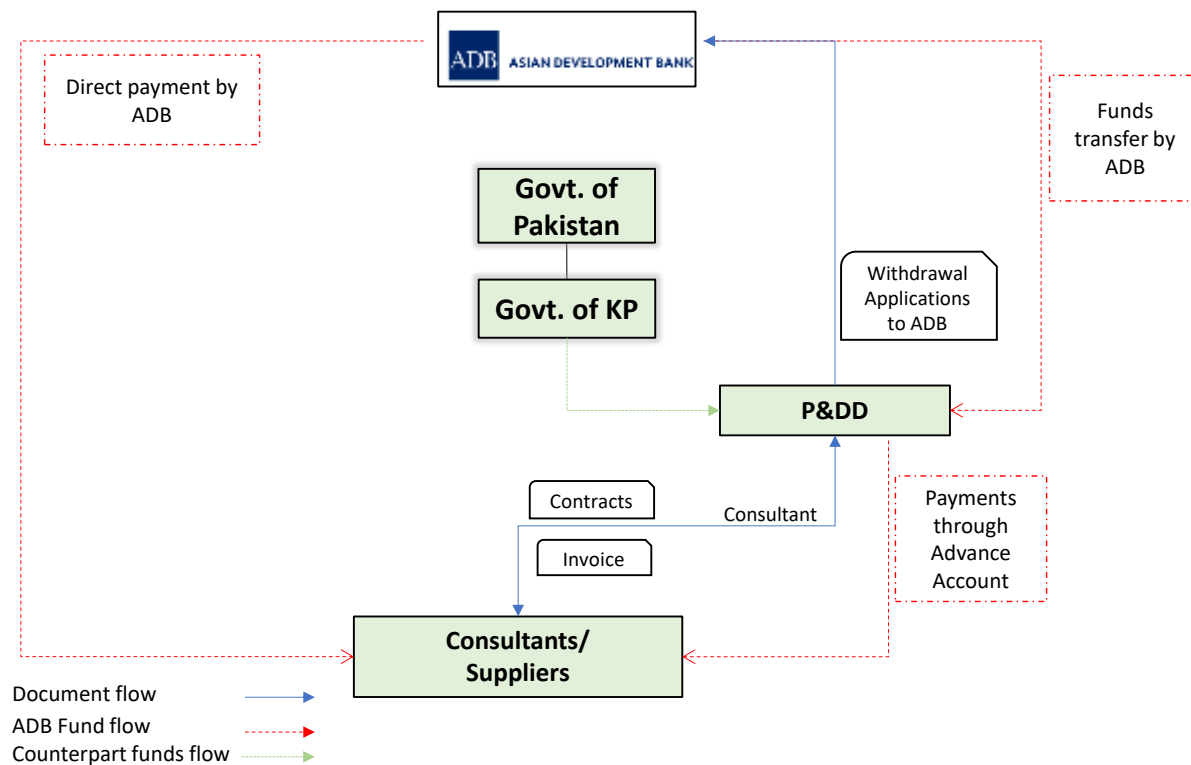
I. Proposed FM Covenants

65. Following FM covenants are proposed for the Project:

- (i) **Submission of APFSs by the IAs:** The EA shall ensure that the IAs (i) maintain separate accounts and records for the Project; (ii) prepare annual project financial statements (APFS) in accordance with accounting principles acceptable to ADB; (iii) have such statements audited annually by independent auditors whose qualifications, experience and terms of reference are acceptable to ADB, in accordance with auditing standards acceptable to ADB; (iv) as part of each such audit, have the auditors prepare a report, which includes the auditors' opinion on the financial statements and the use of the proceeds under the Project, and a management letter (which sets out the deficiencies in the internal control of the Project that were identified in the course of the audit, if any); and (v) furnish to ADB, no later than 6 months after the close of the fiscal year to which they relate, copies of such audited financial statements, audit report and management letter, all in the English language, and such other information concerning these documents and the audit thereof as ADB shall from time to time reasonably request.
- (ii) **Disclosure of APFSs:** ADB shall disclose the APFSs and the opinion of the auditors thereon within 14 days of the date of ADB's confirmation of their acceptability by posting them on ADB's website;
- (iii) **Facilitation in discussions with auditors:** The EA shall facilitate ADB to discuss the financial statements of the Project with the auditors, and shall authorize and require any representative of such auditors to participate in any such discussions requested by ADB. This is provided that such discussions shall be conducted only

in the presence of authorized officer of the PMU, unless the EA shall otherwise agree.

Annexure 1



Financial Management Assessment Report

Khyber Pakhtunkhwa Urban Mobility Authority (KPUMA)

Project Number: 55107-001

June 2021

CURRENCY EQUIVALENTS

(as of 1st June 2021)

Currency unit Pakistan Rupee (PKR)

PKR 1.00 = US\$0.0065

US\$1.00 = PKR154.4000

ABBREVIATIONS

ADB	Asian Development Bank
P&DD	Planning and Development Department
CoA	chart of accounts
APFSs	audited project financial statement
BoD	Board of Directors
CPS	country partnership strategy
EA	executing agency
FMA	financial management assessment
GoP	Government of Pakistan
GoKP	Government of Khyber Pakhtunkhwa
GRAMP	governance risk assessment and management plan
IA	implementing agency
IED	Independent Evaluation Department
IPSAS	International Public Sector Accounting Standards
ISAs	International Standards on Auditing
IT	information technology
KPCIP	Khyber Pakhtunkhwa Cities Improvement Projects
TMTD	Transport and Mass Transit Department
NAM	new accounting model
PAM	project administration manual
PEFA	public expenditure and financial accountability
PFM	public financial management
PIFRA	Project to Improve Financial Reporting and Auditing
NBP	National Bank of Pakistan
SBP	State Bank of Pakistan
APPM	accounting policies and procedures manual
GFR	general financial rules

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A. Executive Summary

1. The Asian Development Bank (ADB) intends to support the Government of Khyber Pakhtunkhwa (GoKP) in the implementation of Khyber Pakhtunkhwa Cities Improvement Project PRF 2 (KPCIP/ or the Project). The KP Urban Mobility Authority of the GoKP (hereinafter referred to as the Authority/ KPUMA) is proposed to be the implementing agency (IA) of the Project.

2. A financial management assessment (FMA) was carried out to review the financial management (FM) capacity, systems and procedures of the Authority.¹ The FMA report (the Report) provides results of the FMA.

3. The overall pre-mitigation FM risk was assessed to be **Substantial**. The FMA concluded that the Authority has developed adequate governance and FM structure, however, the existing staff strength is not sufficient to manage the enhanced scale of FM activities. manual accounting systems are currently being used for accounting and reporting. The internal audit function is not yet operationalized. The Authority is in the process of filling the position of internal auditor. Operationalization of internal audit function would require development of Charter, internal audit manual and tools, and a mechanism for annual audit planning and its implementation. The Authority has not prepared its annual entity level financial statements and thus, an external audit of those entity level financial statements has not yet been arranged since the commencement of entity operations. The Authority has also remained non-compliant with the annual project financial reporting covenant under the ongoing Loan (48289-003) for the period from FY 2017 to FY 2020. The new management has taken steps to address the delay as the draft qualified audit reports have been issued by the external auditors which are currently under the authorization process.

4. The financial sustainability of the Authority is exposed to substantial risks due to absence of actual receipt of revenues, as envisaged in the KPUMA Act, and its dependence on the seed money of Rs. 100 million injected by the Government. The financial analysis concluded that increase in operating costs due to planned hiring of staff would likely result in funding deficit for the entity.

5. The Report proposes a financial management action plan (FMAP) in the areas of staffing, internal controls, information systems, funds flow, and internal and external audit arrangements, and financial sustainability of the Authority. *Please refer section H of the Report for the proposed FMAP.*

¹ The FMA provides assessment of certain systems and functions of the KPUMA that are considered relevant in the FM of the Project.

B. Introduction

6. The FMA was completed in June 2021, and was performed in accordance with ADB's Guidelines.¹ The FMA was performed to assess the sufficiency and appropriateness of the authority's financial management capacity in the context of ADB's requirements for the financial management of the Project.

7. The principal objective of the FMA was to evaluate the suitability of the PMU's systems and capacities to effectively manage risks to ADB's project funds and to ensure that the Project funds are used economically and efficiently for the purposes intended. This FMA focused at assessing the design and effectiveness of authority's financial management and related governance systems including governance & management structures, planning, budgeting, accounting and financial reporting, internal controls, internal audit, and external audit arrangements in place. The FMA also assessed the financial management capacity of the authority with reference to the proposed funds flow arrangement and selected disbursement procedures for the Project. FM systems of the GoKP considered relevant to the Project FM and funds flow were also reviewed.

8. This assessment is based on the results of: information obtained through desk review of relevant policy and other documentation, consultation with stakeholders and interviews performed with government counterparts. An overview of the key FMA activities is provided as follows:

- (i) reviewing authority's budgetary framework, external and internal audit reports, policy and procedural documents, sufficiency and appropriateness of FM staff, funds flow mechanism, financial accounting and reporting systems, management information systems, and detailed internal control activities (payments, payroll, maintenance of bank balances, imprest accounts, fixed assets, completeness of liabilities, etc.);
- (ii) identifying and recommending appropriate funds flow mechanism for all sources of the Project;
- (iii) identifying and assessing FM and internal control risks and proposing risk mitigation measures/management strategies to address identified risks, on the basis of degree of impact and likelihood of occurrence; and
- (iv) summarizing the findings in the Report.

C. Project Description

9. The PRF will support quality and readiness of ensuing urban services projects in Province of Khyber Pakhtunkhwa. The Project estimated cost is US\$ 15 million and will finance sustainable

¹ ADB. 2015. Financial Management Assessment Technical Guidance Note. Manila; and ADB. 2009. Financial Due Diligence: A Methodology Note.

urban transport (SUT) and other municipal services (such as water supply and sanitation and solid waste management) in KP Cities in the next 5 years.

D. Country and Provincial FM context

10. The overall fiduciary risk at provincial level is assessed to be Moderate to High with some positive progress observed within individual Public Expenditure and Financial Accountability Assessment (PEFA) dimensions. Federal as well as provincial governments over the years has made some improvements in the overall budget management. Budgeting, reporting, and introduction of medium-term planning tools and use of a risk-based audit methodology by the office of the Auditor General of Pakistan (AGP) are some of the key reforms implemented over the past few years.

1. Federal PFM systems

11. The results of PFM assessment of the federal government, using the public expenditure and financial accountability (PEFA) framework, has been conducted in 2019, however, the results are not yet publicly available. Latest publicly available assessment was carried out in 2012² which provides the most recent comprehensive analysis of PFM systems in Pakistan. The report noted positive progress as a result of ongoing reforms for improving PFM. Budgeting, accounting and financial reporting have been automated at the federal, provincial and district level through the nation-wide implementation of National Financial Management Information System (National FMIS) using the sophisticated SAP application with a uniform chart of accounts that is compliant with international classification standards namely UN COFOG and IMF GFSM. Connectivity is in place for all line ministries/departments to monitor budget execution in real time. Government has introduced a Medium Term Budgetary Framework (MTBF) to bring a multi-year perspective in planning and budgeting. Annual audits are completed in time using international standards and audit reports are presented to the legislature within eight months of the end of the fiscal year. Progress on transparency through public availability of financial information is also noteworthy.

12. The 2012 PEFA assessment, however, identified certain areas for improvement to achieve better PFM outcomes. On the budgeting side, the main area in need of improvement is budget credibility, which could be achieved by institutionalizing the MTBF. On the expenditure side, there is a need to strengthen expenditure controls, which could be achieved by utilizing the commitment accounting functionality available within National FMIS. The Government also needs to develop an effective internal audit function and continue efforts to improve tax collection and the management of cash balances, which are impacting the predictability of availability of funds.

² Government of Pakistan and Development Partners. 2012. *Pakistan, Federal Government–Public Financial Management and Accountability Assessment*. Report No. 69185-PK.June.

13. ADB's Pakistan Country Partnership Strategy (CPS) for 2015–2019 noted that inadequate PFM systems, vulnerability to corruption and lack of capacity in government entities, particularly related to decentralization, could pose a risk to CPS implementation.³ In the 2019 Governance Risk Assessment (GRA) for Pakistan, ADB noted that the routine revenue shortfalls at the Federal level adversely affected the provincial governments because of their dependence on fiscal transfers. Also, the role of internal audit was not well-developed and the provinces had difficulties introducing the function. Furthermore, the AGP's work focused mainly on compliance audit and was limited as regards performance audit.

14. The GoP's Finance Division in 2017 published a PFM reform strategy which set out planned activities for the ten-year period up to 2026.⁴ It focuses on improving budget reliability by enacting a PFM Law, eliminating discretion by standardizing internal controls and modernizing the internal audit set-up, and improving cash management to reduce borrowing costs. It also aims to make key fiscal data more readily available, automate salary and pension payments, implement an external audit management information system, strengthen legislative scrutiny, and improve reporting by and oversight over state-owned enterprises. These efforts are being supported mainly by the World Bank, which is implementing several projects to promote PFM reforms,⁵ and the European Union (EU) through its PFM Support Programme for Pakistan (SPP). Support for the GoP's broader governance reform agenda is provided by ADB, Gesellschaft für Internationale Zusammenarbeit (GIZ), United States Agency for International Development (USAID), as well as several United Nations (UN) agencies.

15. The National Assembly approved the Public Financial Management Act, 2019. It addresses key gaps in the current regulatory PFM framework and introduces some new practices. The latter include limitations on supplementary grants (to curb the previous almost unlimited power of the Executive to amend the budget without prior parliamentary approval), preparing a budget manual, restricting transferring public funds into scheduled banks' accounts, developing the scope of special purpose funds, creating the position of Chief Internal Auditor (CIA), improving treasury management, and changing the definition and operation of public entities.

16. It is understood that the GoP's Finance Division, in order to facilitate the implementation of the PFM Act, 2019, plans to prepare an updated PFM reform strategy for taking into account

³ ADB. 2015a. *Pakistan Country Partnership Strategy 2015-2019*. Manila.

⁴ Finance Division. 2017. *PFM Reform Strategy of the Federal Government – Strategy for reforms in support of fiscal sustainability and efficient public service delivery*. October.

⁵ On-going World Bank-funded projects include the (i) Debt Management Strengthening Programme at Ministry of Finance (2017-2019), (ii) Strengthening Tax Systems and Building Tax Policy Analysis Capacity Project (2017-2019), (iii) PFM and Accountability to Support Service Delivery Program (2017-2021), (iv) Strengthening of External Debt Management in the External Affairs Division (2018-2019), and (v) Pakistan Raises Revenue Project (2019-2024).

the results of the new PEFA-based PFM assessment (currently being finalized by the World Bank).

2. GoKP PFM systems

17. GoKP follows disintegrated budgeting where the current budget is the responsibility of the provincial Finance Department. The Planning and Development Department (P&DD) administers the development budget.

18. The Controller General of Accounts (CGA) is tasked with the production of timely and accurate financial statements according to the form and method prescribed by the AGP. The promulgation of the Controller General of Accounts Ordinance, 2001 and the Auditor General Ordinance, 2001, separated the roles and responsibilities of the offices of CGA and the AGP regarding accounting and auditing, respectively. In the KP province, the AG represents the CGA and functions with independent staff and budget. The Provincial AG reports to the CGA at the federal level. The CGA carries out policy formulation, coordination, and administration responsibilities.

19. The DG Provincial Audit conducts external audit of the accounts on behalf of the office of the AGP, and the audited accounts and audit reports are submitted to the Governor of the province for tabling them at the Provincial Assembly for legislative scrutiny. The Directorate General District Audit, audits the local governments and the DG Commercial Audit audits public sector entities. The PAC of KP Provincial Assembly conducts the legislative oversight of the provincial financial operations. The PAC is headed by the Speaker of the Assembly and comprises the members of the Provincial Assembly (legislators) with dedicated staff in the Provincial Assembly providing the secretarial support.

20. The KPK Public Financial Management Assessment Report published in October 2017⁶ based on PEFA framework 2016 was considered for the purposes of this FMA. The 2017 PEFA-based PFM assessment of the GoKP provides an up-to-date review of the functioning and performance of the PFM systems in GoKP. The assessment highlighted the inadequacies in fiscal discipline evidenced in the expenditure and revenue out-turns, eventuated by fluctuations in the federal transfers and aggravated with the deficiencies in PFM practices in KP. The weaknesses in pillars (II-VII) weigh in on the overall performance of Pillar I (Budget reliability), but gaps exist in the revenue and expenditure management.

21. The PFM Assessment report indicates that overall, only 8 indicators, about 25 percent of total indicators for PFM system of KPK, score well as shown in Table 1.

⁶ Government of Khyber Pakhtunkhwa and Development Partners. Pakistan: KPK – Public Financial Management Assessment Report October 2017

22. The overall budgeting process remained well organized and participatory with extensive guidance to line departments and the general adherence to budget calendar by the line departments. The multiyear perspective in fiscal planning, expenditure policy, and budgeting improved with the approval and implementation of the KP Integrated Development Strategy. Public access to key fiscal information improved with the release of in-year, budget execution reports. The promulgation of KP Public Procurement Regulatory Authority (KP-PPRA) Act 2012 and KP-PPRA Rules 2014 yielded improvements in the procurement regime. The comprehensive rollout of the GFMS enhanced the quality of information in the budget execution reports.

Table 1: Results of PEFA financial management assessment on KP Province – 2017

Indicators	Dimension	Indicator Score	Risk Rating
	I. BUDGET RELIABILITY		
PI-1	Aggregate expenditure out-turn	C	Substantial
PI-2	Expenditure composition out-turn	D+	High
PI-3	Revenue out-turn	D	High
	II. TRANSPARENCY OF PUBLIC FINANCES		
PI-4	Budget Classification	A	Low
PI-5	Budget Documentation	B	Moderate
PI-6	Provincial Government operations outside financial reports	D	High
PI-7	Transfers to Subnational Government (SNG)	B	Moderate
PI-8	Performance information for service delivery	B	Moderate
PI-9	Public access to key fiscal information	D	High
	III. MANAGEMENT OF ASSETS AND LIABILITIES		
PI-10	Fiscal risk reporting	D	High
PI-11	Public investment management	C	Substantial
PI-12	Public asset management	D+	High
PI-13	Debt management	C	Substantial
	IV. POLICY-BASED FISCAL STRATEGY AND BUDGETING		
PI-14	Macroeconomic and fiscal forecasting	C	Substantial
PI-15	Fiscal strategy	D	High
PI-16	Medium-term perspective in expenditure budgeting	C	Substantial
PI-17	Budget preparation process	B	Moderate
PI-18	Legislative scrutiny of budgets	C+	Substantial
	V. PREDICTABILITY AND CONTROL IN BUDGET EXECUTION		
PI-19	Revenue administration	D	High
PI-20	Accounting for revenue	C	Substantial
PI-21	Predictability of in-year resource allocations	C+	Substantial

Indicators	Dimension	Indicator Score	Risk Rating
PI-22	Expenditure arrears	D	High
PI-23	Payroll controls	C+	Substantial
PI-24	Procurements	B	Moderate
PI-25	Internal controls on non-salary expenditure	B+	Moderate
PI-26	Internal audit	D+	High
	VI. ACCOUNTING AND REPORTING		
PI-27	Financial data integrity	B	Moderate
PI-28	In-year budget reports	C+	Substantial
PI-29	Annual financial reports	C+	Substantial
	VII. LEGISLATIVE SCRUTINY AND AUDIT		
PI-30	External audits	D+	High
PI-31	Legislative scrutiny of audit reports	C+	Substantial

23. Deficiencies were noted in oversight of fiscal policy and tax administration. The institutional mechanism for fiscal reporting did not improve in capturing the extra-budgetary operations and information on off-budget donor-funded projects. Neither was improvement noted in the oversight of aggregate fiscal risk from public sector entities/autonomous entities. The report noted no significant improvement in tax administration performance, particularly in the areas of transparency of taxpayer obligations and liabilities, registration, and assessment and collection of taxes. In 2013, the GoKP established the Khyber Pakhtunkhwa Revenue Authority (KPRA) to collect sales tax on services, which is now the largest provincial tax but is still in the process of developing systems and capacity for revenue-compliance risk management. The predictability regarding availability of funds declined because of the practices followed in the cash releases for development budget, significant in-year budgetary adjustments and the absence of commitment accounting. Internal controls were assessed to posing challenges for the GoKP. The performance with regards to the scope and coverage of the payroll audit declined and non-salary expenditure commitment controls deteriorated largely owing to the lack of commitment accounting. Although the GoKP piloted internal audit, the focus of internal audit on financial compliance and lack of management response was assessed to undermine the deepening of fiduciary controls.

24. It was concluded that the Project is exposed to following risks due to weaknesses in the Provincial PFM systems:

- (i) **Delay in timely and adequate release of counterpart funding:** Counter-part funding for payment of GoP taxes and releases are made on a quarterly basis. Delay in release of counterpart funds may affect Project due to delayed payments to suppliers and service providers against counter-part funds.
- (ii) **Weak internal audit function:** The internal audit functions are not sufficiently developed to ensure adequate governance, risk management and control support to the governing bodies of the Government departments.

- (iii) **Delay in resolution of audit observations:** The ADB has accepted project audit reports prepared by the Auditor General of Pakistan (AGP) which are submitted to ADB through the Economic Affairs Division of the GoP on a timely basis. However, observations by audit officers of AGP are not resolved within due time resulting in long outstanding paras pending with Departmental Accounts Committee or Provincial Accounts Committee.

E. Entity/ Project level FM systems

1. Contextual background to the Project

25. The Project is supported by an ADB funded PRF project with KPUMA as the implementing entity. DG CWRD has already endorsed the processing of the PRF (up to US\$ 15 million, OCR) on 23rd April, 2021. The project will be included in the GoKP's Annual Development Program (ADP; provincial budget document) and to be approved by CDWP, Planning Commission, Government of Pakistan. Implementation period of the PRF is 60 months.

26. The project will be managed by KPUMA as the Implementing Agency through a PMU, to be established to support KPUMA and coordinate the project implementation at the provincial level.

2. Governance and management structure

a. Entity Level

27. KPUMA is a body corporate having perpetual succession and a common seal and can by its name sue or be sued. The Authority was established on 24th October, 2016 under the Khyber Pakhtunkhwa Urban Mass Transit Act, 2016 (Khyber Pakhtunkhwa Act No. XXVII OF 2016) after having received the assent of the Governor of the Khyber Pakhtunkhwa in the Gazette of Khyber Pakhtunkhwa.

28. The Authority is governed by the Board of Directors (BoD) Chaired by the Chief Minister of Khyber Pakhtunkhwa with members from TMTD, Finance, P&D and ex-office experts. (See composition of the KPUMA BoD at Annexure 1). The general direction and administration of the Authority and its affairs vests with the Board. The Board is required to meet on a quarterly basis or even frequently where required. Over the last two years the KPUMA Board has met 10 times i.e. at minimum once every quarter which is effective. A review of the Board meeting minutes concluded that the Board thoroughly discuss the agenda items placed before it with timely decisions which have been well implemented by the KPUMA management.

29. The day to day management of the KPUMA is entrusted to the Managing Director who is a qualified engineer deputed by the Government for a period of three years as envisaged in the KPUMA act. The MD has thorough understanding of the operations of the authority and of the urban transport companies operating under it. The MD is assisted by three Directors i.e. Director Admin/HR and Finance, Director Policy, Planning and Projects and Director Compliance, Monitoring & Accreditation which is further supported by eight Deputy Directors, 26 managerial and 23 support staff positions. Though the authority has sufficient sanctioned staff which are adequate to dispense with the mandate assigned to it. However, this is limited by the number of staff that is currently on board. Review of the current staffing strength revealed that 52 out of the 61 sanctioned posts are currently lying vacant. Ten posts have been recently advertised while the remaining 42 positions are to be advertised in the near future. The large number almost 85% of the total sanctioned posts lying vacant could jeopardize smooth dispensation of the mandate assigned to the Authority under the KPUMA ACT which need immediate management attention and has been identified as significant risk to the smooth operations of the affairs of the Authority.

b. Project Level

30. The proposed PRF 2 financing will be governed by the Provincial Steering Committee (PSC) Chaired by the Additional Chief Secretary and having members from TMTD, P&DD, Finance departments and MD KPUMA acting as member/secretary of the Committee. The Committee will act as the principal policy and decision making forum to ensure smooth implementation of the project and be responsible for overall monitoring of its implementation activities. The Committee will meet on a quarterly basis or more frequently where needed. (See composition of the Project Steering Committee and ToRs at Annexure 2).

31. The MD KPUMA will act as the Project Director and will be responsible for the day to day management of the project to be assisted through individual consultants and firms (financed under the Project) that will augment the capacity of the KPUMA for better project management and implementation. The recruitment process for the specialist staff/consultants can be completed prior to the loan effectiveness with contracts awarded once the loan effectiveness conditions are met. The specialist staff will be hired on performance based contracts with training of the KPUMA regular staff as being one of the critical deliverables included in their contracts. This will support KPUMA build internal staffing capacity and help institutionalize project expertise for long term benefit of the organization.

32. All administrative decisions of the Project are approved by the Secretary – TMTD who is supported by a Special Secretary, Additional & Deputy Secretaries and Chief Planning Officer of TMTD. The administrative decisions taken by the Secretary TMTD relating to financial management of the project include:

- (i) Nomination of signatories of ADB withdrawal applications (Direct payment and advance account);

- (ii) Authorization for opening of revolving fund assignment account / designated account and nomination of authorized signatories;
- (iii) Authorization of requests for budget allocations under Annual Development Programme (foreign and local components), submitted to the Planning and Development Department of GoKP;
- (iv) Nominate MD KPUMA as the Project Director and delegate financial powers in respect of authorization of certification of claims, payments to consultants/ consulting firms and operational costs of the project.

3. FM Staffing

33. Director HR/Admin & Finance, a BPS-19 officer heads the KPUMA finance function supported by a Deputy Director Finance (BPS-18) and two Budget and Accounts Officers (BPS-17). Currently the Budget and Accounts officer's posts are lying vacant. The Director HR/Admin & Finance and Deputy Director Finance are suitably qualified and experienced. Deputy Director Finance also has donor funded projects experience and remained Financial Management Specialist for World Bank Assisted projects for a period of seven years prior to joining KPUMA. KPUMA plans to fill vacant posts of Budget and Accounts officers in its next iteration through government testing agency (ETEA). This process has remained delayed. The existing staff strength is assessed to be insufficient to manage expected scale of activities besides ensuring adequate segregation of duties. This is particularly because the Director Finance is also the Director HR/Admin responsible for procurement, receiving, accounting for, and paying for goods and services. Please refer proposed FMAP for additional staffing requirements to augment KPUMA FM capacity.

4. Accounting Policies and procedures – internal controls

34. The Provincial PFM systems are extensive and guided by sound PFM policies and procedures documented in the Accounting Policies and Procedures Manual (APPM), Government Chart of Accounts (CoA), Drawing and Disbursement Guidelines (DDO Handbook) and General Financial Rules. These policies and procedures integrate adequate segregation of duties controls over payments through a well-established pre-audit system performed by the Provincial Accountant General office.

35. KPUMA is required under the ACT to ensure the establishment of a proper system of internal control, consisting of such policies and procedures to be adopted by the Authority, to assist in achieving the objectives of the Act and for ensuring, as far as practicable, the orderly and efficient conduct of its activities, including adherence to the policies, the safeguarding of assets, the prevention and detection of fraud and error, the accuracy and completeness of the accounting records and the timely preparation of reliable financial and operational information. Progress on development and/or adoption of an appropriate system of internal control is

underway. Several policies including HR and Admin Policy, Financial policy, travel policy, cash management policy/petty cash policy etc. are in the process of being formulated and is expected to be approved by the Board by September 2021.

36. The MD derives its power to incur expenditure from the 'Delegation of Financial Powers of the Provincial Government' delegated under the KPUMA Act. The MD acts as the Principal Accounting Officer of the Authority and is responsible for authorization of payments under the Authority. The transactions/invoice/bills are first vetted by the relevant Technical wings, followed by a pre-audit by Deputy Director Finance. Deputy Director Finance forwards the transactions to Director HR/Admin & Finance for payments processing. In case, Director HR/Admin & Finance, finds any missing/incomplete documentary evidence supporting the transaction, the case is reverted to the relevant Technical wing for compliance and resubmission. Once cleared by the Director HR/Admin & Finance, payments are approved for processing by the MD.

37. For the project, FMM developed by ADB for projects financed by ADB will be tailored to fit in the Authority's payment processes. The FMM entails detailed procedures and internal controls on planning & budgeting, funds withdrawal and management, bank account management, expenditure management, accounting and book keeping (chart of accounts), financial reporting, fixed asset management and internal & external audit. In addition, other relevant internal controls are enshrined in GFRs and the Accounting Policies and Procedures Manual (APPM) of the Government. All these sums up to a robust internal control framework for the project.

5. Planning and budgeting

38. The planning and budgeting processes related to preparation and periodic budget reporting at the Project level are enshrined in the KP budget manual which is comprehensive and provides step by step guidance and user friendly budgeting proformas that are well explained through foot notes.

39. **Budget preparation:** The authority follow government budgeting process which is initiated on receipt of the Integrated Budget Call Circular issued by the GoKP Finance and P&D Departments. The authority follow a methodical process for preparation of its budget which includes the following steps:

- (i) Respective unit heads set annual targets for their units concerned which are approved by the MD,
- (ii) The individual targets of the units are submitted to the Director HR/Admin & Finance for translation into financial terms,
- (iii) The finance unit discusses annual targets with the respective technical units and translates the same into financial budgets,
- (iv) All individual unit budgets are consolidated into overall KPUMA budget,

- (v) The budget once consolidated is reviewed with MD and respective unit heads for concurrence prior to its being placed before the Board for approval,
- (vi) Once approved the same is forwarded to the P&DD through the TMTD for allocation in the ADP.

40. The budgeting process in vogue is assessed as being comprehensive. However, it has been noted that the authority is still being budgeted on the development side, which is a temporary arrangement, usually agreed for temporary time bound project activities. This makes the authority as being a temporary structure as opposed to a long term entity as envisaged under the KPUMA ACT and has implications for its financial sustainability as well as implementation of the long term declared projects of the GoKP. (see FMAP for appropriate mitigation measures)

41. The project budget will be compiled by the FMS, under the supervision of the Managing Director. Cost estimates will be prepared according to the annual work plan which will be submitted to the TMTD for review and inclusion in the Annual Development Programme (ADP) of the GoKP, the provincial level developmental budget directory. Once approved, the annual project budget is allocated to the TMTD under the title of KPCIP PRF 2.

42. **Budget monitoring:** FMS will provide quarterly financial reports for budget monitoring to the Project Steering Committee and Foreign Aid Section of the Planning & Development Dept. (P&DD) of GoKP. The reports will be prepared on the formats specified by the FAS – P&DD. The reports will be prepared by the Project FMS, checked by the Director Finance and approved by the Managing Director. The reports provide comparison of budget allocation, disbursements during the period and balance funds available for project funding for the reporting period. An explanation of physical targets against financial disbursement will also be provided. These reports will be submitted to the PSC and FAS – P&DD at the close of each quarter along with monthly progress reports.

6. Accounting and reporting

43. KPUMA is following cash basis of accounting which comply to the international standards issued by the IPSAS board for use by public sector entities. This is acceptable to ADB. Same basis of accounting will be used for project accounting. KPUMA will maintain separate books of accounts to record transactions of the project. These books of accounts shall also be segregated for recording of the ADB and Government counterpart funding and shall include, vouchers, withdrawal application register, consultant ledger, cheque register, bank reconciliation (both for ADB and for Accountant General Office and Finance Dept. of GoKP) and monthly receipt and expenditure statements along with manual cash book and expense ledger (as required by Govt. Auditors).

44. KPUMA is required under the ACT to prepare and submit to the Government, its annual entity level financial statements. Till date, the Authority has not prepared its annual financial statements. The Authority is cognizant of its statutory responsibility related to preparation of annual financial statements and is in the process of preparing combined financial statements of the entity since its operationalization on 22 January, 2019 to 30 June, 2021.

45. KPUMA will prepare entity level and Project Financial Statements (PFS) annually using IPSAS Cash Basis of Accounting. These entity and project annual financial statements will include appropriate notes to the financial statements to ensure adequate explanation of the financial transactions for the reporting period and be handed over to the office of the AGP/DG Provincial Audit within one month of the end of the financial year for audit.

46. Currently KPUMA does not use Chart of Accounts to classify its expenditure against various Heads of Accounts. There is a risk that expenditure will not be recorded accurately. This will also lead to delays in generating various financial reports in a timely fashion. It is recommended that Government Chart of Accounts are adopted to the project needs.

7. Treasury and cash management

47. At KPUMA payment transactions are recorded in the MS Excel spread sheets along with manual cash book and ledgers by the Deputy Director Finance (in the absence of Budget & Accounts Officers, posts of which are lying vacant). Vouchers are checked by the Director HR/Admin & Finance and approved by the Managing Director. Invoices are serial numbered and stamped paid to avoid duplicate payments. Payments are made through crossed cheques except for petty expenses which are met out of the petty cash maintained by the Deputy Director Admin. Petty cash limits have been set and petty cash transactions are properly recorded in petty cash register. Daily reconciliation between cash in hand and petty cash registers are carried out and petty cash balances replenished once the balance reaches Rs. 5,000 after proper approval of the MD. Bank accounts are operated through dual signatories. MD and Director HR/Admin & Finance act as the authorized signatories for the authority. Payments are made through crossed cheques and properly recorded in bank books. Monthly bank reconciliations are completed to ensure that the authority cash records are correct.

48. For the project existing treasury and cash management practices in vogue at KPUMA will apply. Besides the authority will conduct monthly reconciliation with the Accountant General Office of GoKP and annual reconciliation of budget and expenditure with Finance Dept. of GoKP. The purpose of reconciliation is to report project receipts and expenditure against budget allocations into the Government Financial Management Information System (PIFRA SAP) so that the project accounts are reported through Govt. Accounting System. The reconciliation will include budget allocation for the year (as already incorporated in PIFRA SAP System through the Finance Department of GoKP), expenditure incurred during the period and balance funds available against

budget allocations. The FMS has to ensure that all cheques for payment from ADB Advance Fund Account (Revolving fund foreign currency assignment account managed by SBP / NBP) are first punched in SAP System by the Accountant General Office of the GoKP and then presented to the National Bank for payment. The purpose of annual reconciliation with the Finance Department of GoKP is to obtain re-authorization of funds against budget allocation of project, receipts and expenditure during the year and carry forward of balance funds to the next financial year. These reconciliations will be prepared by the Project FMS, checked by the Director Finance and approved by the Managing Director.

8. Asset management

49. Detailed policies and procedures on assets management is contained in Chapter 13 of the Accounting Policies and Procedures Manual (APPM) of the Government. The controls defined in the APPM vis-à-vis receipt of assets, recording of assets, segregation of duties, stocktaking, accounting for assets, disposals and reporting of assets is comprehensive.

50. At the project level, it is proposed that the fixed assets management policies enshrined in the APPM are adopted if required as the PRF does not involve procurement of assets.

9. Information systems for financial reporting

51. Financial reports are currently generated using MS Excel spread sheets. This is considered sufficient in view of current level of activities which mainly comprise preparation of ledgers, cash and bank books, monthly statement of expenditures (SOEs) and annual financial statements.

52. KPUMA plans to deploy accounting software for recording financial transactions, maintaining proper books of accounts and generating financial reports for effective FM of the entity and Project activities. *Please refer the proposed FMAP for the Project specific action item.*

10. Internal audit

53. Internal audit mandate at the Provincial level is assigned to the Internal Audit wing of the Finance Department which is governed by a comprehensive internal audit policy approved by the Provincial Government. The internal audit wing is currently covering 26 departments across KP however its mandate has not been extended to the TMTD. Keeping in view of the foregoing internal audit of the TMTD and its entities is not covered by the provincial internal audit function.

54. The internal audit function at KPUMA is assigned to the internal auditor. Presently the internal audit position is lying vacant as such internal audit at KPUMA is non-existent. The post has been advertised and is expected to be filled in the near future. Internal audit of the project will

be covered under the annual internal audit plan of the KPUMA to be approved by the Board. This has to be sufficiently covered under the scope of work reflected in the internal charter. *Please refer the proposed FMAP for the Project specific action item.*

11. External audit

55. Audit of the annual financial statements of the federal and provincial governments are undertaken by the Auditor General of Pakistan duly mandated by the Constitution of the Islamic Republic of Pakistan in this respect. At the provincial level the office of the Director General Audit supports the Auditor General of Pakistan to dispense with its constitutional responsibility.

56. Audit reports are laid before the Assembly by the Governor through the Finance Minister. This is usually done around 9 months after fiscal year-end. Auditees are informed about the audit observations and a formal response is required within a defined time period. Unresolved audit observations are sent to the Public Accounts Committee (PAC) for consideration. All departments have a Departmental Accounts Committee (DAC) which discusses the audit findings of the AGP as regards compliance audits. Special Departmental Accounts Committees (SDACs) are set up for project-specific audits.

57. The entity level accounts of KPUMA are required to be audited annually by the Auditor General of Pakistan as per KPUMA ACT. Since its inception in January 2019, the entity level financial statements have not been prepared and their audits by the AGP have not been arranged. The management is cognizant of its statutory responsibility as regards preparation and audit of KPUMA accounts under the ACT and has written to the TMTD for onward communication to the AGP/DG Provincial Audit for inclusion of KPUMA entity level audit in its current year audit plan.

58. The Office of the Auditor General of Pakistan (AGP) will also conduct annual audit of the Project. AGP will carry out the audit of the project in accordance with International Standards of Supreme Audit Institution (ISSAI).

59. KPUMA will timely submit entity level and project annual financial statements to the AGP for audit. AGP will initiate field work and will provide annual audit reports and management letters highlighting any weaknesses in the financial reporting system and the overall systems of internal control in respect of the entity and the project.

60. The annual audited financial statements will be submitted to the ADB as follows:

Sr. #	Audited Financial Statements	Target Date
1	Submission of audited project financial statements – <i>effective from date of loan effectiveness</i>	By no later than six months from end of each financial year
2	Submission of audited entity financial statements	By no later than one month from the date of their authorization by competent authority.

61. As of now, there are four overdue ADB Project audit reports related to “Project Management Coordination and Capacity Building (PMCCB) and Individual consultants for independent third party review” project. These project audits are now being completed by a firm of chartered accountants. The auditors have issued qualified audit opinions on the draft financial statements and have reported the following limitations in the scope of work making basis of their opinion:

- (i) There has been a change in the scope of work with Halcrow Pakistan (Pvt.) Ltd as evident from Technical Review Committee (TRC) meeting dated February 27, 2020. We were not provided with any documents, information or any other evidence to enable us to ascertain the financial impact, of this change on the scope of work, if any, on the financial statements of the project.
- (ii) During the financial year ending June 30, 2018, Halcrow Pakistan (Pvt.) Ltd (the consultant) submitted six reports against deliverables. Subsequently, payments were made against aforesaid deliverables as per the decision of the TRC which held six meetings to review and approve the deliverables. We were not provided with 4 out of the 6 TRC meetings minutes. Consequently, we were unable to obtain sufficient appropriate audit evidence as to whether relevant deliverables were approved in the meetings. Due to lack of this information we have been unable to verify the completeness of deliverables and payments made thereof (as outcome of aforementioned 4 meetings) amounting to Rs. 62.975 million (USD 577,648) to the consultant.

62. These outstanding ADB project audit reports are yet to be presented before the Board for its approval and be subsequently signed by the auditors. Significant delays in the project audits and qualified opinion of the auditors coupled with non- preparation and audit of the KPUMA entity level financial statements have implications for project risk rating. (*see project risk rating matrix below*)

F. Disbursement arrangements and funds flow mechanism

63. KPUMA will be responsible for implementing the project according to the legal agreements and other implementation arrangements described in the Project Administration Manual (PAM). ADB will monitor the project and review its progress to ensure that the loan proceeds are spent as agreed upon. Upon effectiveness, a loan account in the name of the borrower will be opened

in ADB's books where the loan proceeds will be credited for use of the project. All disbursements will be carried out in accordance with ADB's Loan Disbursement Handbook (2017, as amended from time to time).

64. The structure of the Project's proposed funds flow arrangement is provided at Annexure 4 to the Report. Based on the FMA it is recommended that KPUMA use direct payment and advance fund account loan disbursement procedures. A brief of each procedure of loan disbursement method is given below. Detailed procedures are outlined in ADB's Loan Disbursement Handbook 2017.

65. **Direct Payment.** Under the direct payment procedure, ADB loan proceeds will be directly credited to a nominated bank account of a supplier, contractor, firm or consultant at the request of KPUMA.

66. **Advance Fund Account:** Under the advance fund account procedure, ADB makes an advance disbursement from the loan account for deposit to an advance account to be used exclusively for ADB's share of eligible expenditure. In Pakistan, ADB's advance fund procedure is managed through Revolving Fund Accounts (Foreign Aid Assignment Accounts).

67. On approval of the project by the Government of Pakistan and hiring of the FMS, a revolving fund assignment account will be opened by KPUMA for receipt of advance funds under the project from ADB loan account. These funds will be used by KPUMA for meeting eligible expenditure under the project. For accounting of these funds, separate books of accounts will be maintained for project/loan activities. The Project Director/MD KPUMA and the FMS will act as the joint signatories of the revolving fund assignment account. The authorized signatories will have to be communicated by the TMTD/KPUMA to the ADB through the Provincial P&DD/EAD. Any subsequent change in the joint signatories will also follow the same suit.

68. The loan proceeds from ADB will initially be transferred to the GoP's 'Central Government Account No. 1 (non-food)', and from there to the GoKP's 'Provincial Consolidated Fund Account No. 1 (non-food)'.⁷ The GoKP's Finance Department provides debit /credit heads to State Bank of Pakistan (SBP) and SBP transfer loan proceeds directly to the revolving fund account established under the project.⁸ KPUMA will be responsible for maintenance and operation of the

⁷ Funds received from ADB in \$ are converted into PRs by the State Bank of Pakistan (SBP) based on the relevant exchange rate on the date of transfer of funds.

⁸ The opening and maintenance of assignment accounts is governed by GoP's Office Memorandum 'Revised Accounting Procedure for Revolving Fund Accounts (Foreign Aid Assignment Accounts)', dated 2 August 2013 as amended. Revised accounting procedure for revolving fund accounts (foreign aid assignment account) vide no. F.2.(1)BR-II/2007-949 dated 2nd August 2013. Assignment accounts are set up in the National Bank of Pakistan (NBP), which is a government-owned commercial bank and a subsidiary of the SBP.

revolving fund account as per prevailing Revised Accounting Procedure for Revolving Fund Accounts.

69. Counterpart funding from the GoKP will be received through a separate assignment account which will be part of Provincial consolidated fund.⁹ KPUMA will also be responsible for maintenance of the assignment account in respect of transfer of funds on the basis of allocations by the GoKP as per approved procedures governing assignment accounts.

70. The loan proceeds will be disbursed in accordance with ADB's Loan Disbursement Handbook (2017, as amended from time to time), and detailed arrangements agreed upon between the GoKP and the ADB.

71. **Statement of expenditure procedure.** The statement of expenditure (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 \$50,000 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.

72. Before submitting the first withdrawal application, the government 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 withdrawal application is stipulated in ADB's *Loan Disbursement Handbook*. Individual payments below this amount should be paid by the KPUMA and subsequently claimed from ADB through reimbursement, 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) system is encouraged for submission of withdrawal applications to ADB.

73. **Proposed process flow for consultants/supplier payments/ withdrawal application:** The following process flow will be used for processing of payments by KPUMA under the project.

⁹ As per prevailing GoP requirements, the receipts from and payments out of counterpart funding sources in assignment accounts is governed by the CGA's 'Revised Procedure for Operation of Assignment Accounts of Federal Government', dated 24 September 2008 as amended.

Table 2: Process flow for consultants/supplier payments/ withdrawal applications

Step no.	Description of process
1	Consultants and suppliers will submit deliverables completed/goods & services delivered to the KPUMA along with accompanying bills/invoices.
2	Technical wings and/or the specialists concerned at KPUMA will review the deliverables completed and/or goods & services delivered against respective Terms of Reference/ list of deliverables agreed under respective contracts and/or the technical specification of goods delivered and will certify the completeness and quality of services rendered and goods delivered and send the same to the Finance Wing of the KPUMA for processing.
3	The Finance wing/ FMS will verify contractual obligations and perform financial review and seek MD approval for payment processing. Once approved, the FMS will submit withdrawal application to the ADB for direct payment and if bill/invoice is under SOE limit (\$50,000) then make payment from the ADB Advance fund account. All tax payments will be made through GoKP counter-part funds assignment account.

G. Financial Analysis

74. A limited financial analysis of the KPUMA was performed to identify potential risk(s), if any, to the sustainability of entity and its operations.

75. The FSA identified that:

- (i) The IA is currently dependent on the Government for providing funds to finance its operations. In this respect, Rs. 100 million were provided by the Provincial Government on 22 January, 2019 as seed money into the fund established for IA as envisaged under the ACT.
- (ii) The seed money has been kept in a Profit and Loss Sharing (PLS) account with a Government owned bank namely “Bank of Khyber” on which the IA earns monthly profit/interest.
- (iii) The interest earned till date is Rs. 18.5 million (or 18.5% of the total fund amount) which remained sufficient to fully fund the Authority’s current level of operations (i.e. total operational costs of the KPUMA since inception to date are Rs. 14.55 million which is 79% of the interest earned on the fund balances to date) see Annexure 3 for IA Brief update on consolidated receipts and payments.
- (iv) The operating expenses of the IA remained low because it became operational in January 2021 and is operating with a limited number of staff such that 85% (i.e. 52 out of 61 positions) of the sanctioned staff positions are lying vacant.
- (v) As at 03 June, 2021 the bank balance of the IA stood at Rs. 103.95 million whereas its current operational costs (*i.e. salary and non-salary expenditures*¹⁰ - Annexure - 2) stands at Rs. 1.64 million per month. At the current level of operations, the

¹⁰ Current operating expenditures of IA include vehicles maintenance costs, office utilities cost, POL, building repairs, newspaper & periodicals, office security and meeting & conferences/ entertainment expenditure etc.

existing funds are estimated to be sufficient to finance 63 months (or 5 years 3 months operations), at the current scale of operations and with no additional sources of funding and revenues.

- (vi) The IA has advertised 10 positions including 2 Directors, 6 Deputy Directors, 1 Internal Auditor and an executive assistant. These positions are expected to be filled by November 2021 which would have additional financial burden of Rs. 2.1 million per month. In addition, the IA plans to fill the remaining 42 positions by March 2022 which would add monthly expense of Rs. 6.67 million to the operating costs of the Authority. Assuming that all posts are filled by the Authority by March 2022 and no additional sources of revenue, the existing funds will be sufficient to finance only 9 months of operations which is a serious risk to its sustainability.
- (vii) However, it may be noted that the Board of Directors of the IA in its 10th Board meeting held on 12 January, 2021 has approved the following two sources from which IA will be generating approximately Rs. 9.85 million per month:
 - Route permits (application fee, annual renewal fee and late annual renewable penalties)¹¹.
 - Monthly rental charge to TransPeshawar against the utilized/occupied floors of KPUMA building for its operations based on C&W Department assessment of monthly per square feet rent, survey for which is underway.
- (viii) In addition to the above revenue sources, the IA expects additional revenue from the following sources:
 - Rentals from Hayatabad, Dabgari Garden and Chamkani commercial plazas/ malls which are near completion stage and will be a host to around 1,500 shops and business centers with convenient parking area;
 - Fee collected by transit compliance officers; and
 - Investment of surplus funds in accordance with the investment policy approved by the Board.
- (ix) These additional known sources of revenue coupled with any other avenues explored by the IA management will make its operations financially sustainable and will enable it to implement and maintain future projects.
- (x) The IA though confident that the additional expected revenues will flow to it which will make its operations fully sustainable, however, it does not have any concrete

¹¹ The Board of Directors of KPUMA in its 10th board meeting approved the following rates for route permits:

- Route permit application fee (18 meter buses) per bus – Rs. 20,000
- Route permit fee annual renewable (18 meter buses) per bus – Rs. 5,000
- Route permit application fee (12 meter buses) per bus – Rs. 15,000
- Route permit fee annual renewable (12 meter buses) per bus – Rs. 5,000
- Multiple route permit fee annual renewable (12 meter buses) per bus – Rs. 30,000
- Per month late annual renewable penalty – Rs. 5,000

strategic or business plan that elicit or otherwise provide reasonable assurance that the same will happen.

Proposed Financial Management Action Items:

76. IA to develop and submit entity level business and financial projections, duly approved by the BoD by no later than three months from the date of the loan effectiveness.

H. Risk analysis

77. A financial management internal control and risk management assessment was conducted, while considering the present circumstances of being IA new to ADB systems and requirements. Factors of staffing, country systems and autonomous nature of the authority were also considered. Based on the assessment, it is concluded that the overall project financial management pre-mitigation risk is 'Substantial', considering IAs' management style, experience, supervisory, technical and financial capability.

Table 3: Key FM Risks

Risk Type	Risk Description	Risk Assessment	Proposed Mitigating Measures
Country/ Province – Specific	Provincial internal audit has not yet been fully established. Further it is not being extended to the TMTD and its underlying entities.	Substantial	Operationalize the internal audit function at the KPUMA level.
	Volatile economic outlook and week revenue mobilization mechanisms have implications for timely releases of funds under the counterpart funding thus delaying payments for suppliers/consultants particularly relating to tax liabilities.	Substantial	The loan agreement will include a legal covenant requiring the Borrower to ensure adequate allocation and timely release of counterpart funds to the Project.
	Budget Execution Risk – Actual Expenditure deviates from budget estimates.	Moderate	IA will be required to prepare monthly budget monitoring reports for review by the PSC and FAS-P&DD. Deploy a suitable accounting system with in-built facility of generating real time budget monitoring reports for the management's review and timely decision making.

Risk Type	Risk Description	Risk Assessment	Proposed Mitigating Measures
	Delayed Legislative Scrutiny of Audit Observations (External Audit Reports). Departmental Accounts Committee (DAC) is not convened within reasonable time frame to discuss / settle audit observations.	Substantial	IA will follow up with Administrative Department (TMTD) and DG Provincial Audit for timely convening of DAC/ SDAC meetings. ADB will follow up with IA on settlement of audit observations.
Entity Specific	<i>FM Staffing:</i> The existing Finance staff of the IA may not be able to bear the workload, while discharging Authority's day to day operations simultaneously.	Moderate	Vacant posts of B&A Officers shall be filled.
	<i>Segregation of Duties Controls:</i> Lack of adequate segregation of duties can lead to compromise on fraud and errors. Presently this is particularly the case with Director Admin/HR and Finance who is responsible for hiring/procurement, receiving, accounting for, recording and paying for goods and services.	Substantial	IA will ensure appropriate segregation of duties controls.
	<i>Policies & Procedures manuals:</i> Absence of comprehensive policies and procedure manuals embodying appropriate internal controls will increase likelihood of errors and omissions.	Moderate	Manuals outlining policies and procedures, roles and responsibilities for smooth functionality of the authority are being developed and expect to complete by September 2021.
	<i>Budgeting and long term sustainability:</i> Currently IA is being funded out of the development budget of the GoKP which is a temporary arrangement agreed for	Substantial	IA will be required to submit a board approved business plan and financial projections, evidencing measures taken by the Government to ensure financial sustainability of KPUMA.

Risk Type	Risk Description	Risk Assessment	Proposed Mitigating Measures
	time bound project entities. This is not commensurate with the long term mandate assigned to the IA and has implications for its long term sustainability.		
	Accounting and Financial Reporting: Lack of automated financial management information system and chart of accounts will compromise the ability of IA to accurately record financial transactions and generate timely financial reports. Entity level financial statements are not being prepared in violation of statutory requirement. This will result in IA being unable to submit its entity level financial statements to ADB under the project audit requirements.	Substantial	IA will deploy a comprehensive accounting software.
	Internal Audit: Absence of internal audit at the IA may affect the effectiveness of risk management, control, and governance processes.	Substantial	The Authority will be required to operationalize the internal audit department.
	External Audit: Delays in timely audit of public funds by IA has derailed the whole accountability process (Entity level audit has not happened. Also ADB project audit has been significantly delayed for which the audit firm has issued a qualified audit opinion.	Substantial	Annually IA will audit its entity level and project financial statements through the AGP in accordance with international auditing standards, with audit reports provided to ADB by 31 st December every year. IA will arrange external audit of its entity level financial statements from January 2019 to June 2021.
Overall Assessment of Inherent Risk		Substantial	

I. Proposed Financial Management Action Plan (FMAP)

78. Based on the risk assessment and proposed risk mitigating measures, a time bound financial management action plan (FMAP) is proposed as follows:

Table 4: Financial Management Action Plan

Weakness	Risk Assessment	Mitigation Measure
The finance section is not adequately staffed. Two of the four sanctioned finance positions are currently vacant.	Substantial	By no later than upon loan effectiveness, fill the two vacant positions in the finance section by hiring suitably qualified and experienced staff.
The internal audit department is currently not operational.	Substantial	By no later than three months from the date of loan effectiveness, operationalize the internal audit department by: a) completing the process for hiring of internal auditor; b) approval of internal audit Charter by the Board of Directors (BoD); c) approval of a risk-based annual internal audit program by the BoD; and d) inclusion of the ADB project in the annual internal audit programs, during the course of project implementation period. A risk-based annual internal audit of the Project's systems, internal controls and financial transactions will be performed. The results shall be shared with ADB by no later than three months from the end of each financial year.
While Government specified FM policies and procedures are being followed, the entity specific FM procedures and controls are being documented.	Moderate	By no later three months from the date of loan effectiveness, complete the process of documentation of the FM policies and procedures in the form of an FM Manual.
Manual systems are being used for the recording and reporting of financial transactions.	Substantial	By no later than six months from the date of loan effectiveness, complete the deployment of a suitable computerized accounting software.
The financial sustainability of KPUMA is dependent upon the inflow of sufficient revenues from the sources provided in the KPUMA Act. However, the expenses are currently being met out of the initial capital injection of	High	By no later than three months from the date of loan effectiveness, submit entity level business plan and financial projections, duly approved by the BoD. By no later than nine months from the date of loan effectiveness, submit the entity level

Weakness	Risk Assessment	Mitigation Measure
Rs. 100 million provided by the Government. The external audits of the entity financial statements have not been arranged since the commencement of entity operations in January 2019 to current financial year.		audited financial statements of the Authority for the period from January 2019 to 30 June 2021.

J. Suggested Financial Management Covenants

79. Following Financial Management covenants are suggested for the Project:

Sr. #	Action Item	Target Date
1	Submission of audited project financial statements – <i>effective from date of loan effectiveness</i>	By no later than six months from end of each financial year
2	Submission of audited entity financial statements	By no later than one month from the date of their authorization by competent authority.

K. Suggested Legal Covenant

80. The borrower shall remain under legal obligation to ensure adequate allocation and timely release of counterpart funds for the project.

81. IA to develop and submit entity level business and financial projections, duly approved by the BoD by no later than 1 year of the loan effectiveness.

COMPOSITION OF KPUMA BOD

The KPUMA board comprises of the following members:

- (i) Chief Minister, Khyber Pakhtunkhwa; Chairman
- (ii) Minister for Transport and Mass Transit, Khyber Pakhtunkhwa; Co-Chairman
- (iii) Additional Chief Secretary, to Government Planning and Development Department; Member
- (iv) Secretary to Government Local Government, Elections and Rural Development Department; Member
- (v) Secretary to Government Transport and Mass Transit Department; Member
- (vi) Secretary to Government Finance Department; Member
- (vii) Cantonment Executive Officer of the concerned Cantonment Board; Member
- (viii) Deputy Inspector General (Traffic Police) of the concerned district; Member
- (ix) three Members of Provincial Assembly, including at least one female member to be nominated by the Speaker, Provincial Assembly; Member
- (x) three eminent persons, including at least one female, one from civil society and two from corporate sector, to be nominated by the Chairman in consultation with the Secretary, Transport and Mass Transit Department; Member
- (xi) a technical expert (transport) from private sector, to be nominated by the Secretary, Transport and Mass Transit Department; Member
- (xii) The Managing Director. Member-cum secretary

Annexure 2

KPUMA FINANCIAL ANALYSIS

Unaudited Receipt and Payment Statement	
For the Period	
22 January 2019 to 03 June, 2021	
Receipts	Figures in Rs.
Seed money received from Government of KP (Note 1)	100,000,000
Interest earned on bank balances in PLS account (Note 2)	18,496,145
Total Receipts	118,496,145
Payments	
Staff salaries (Note 3)	5,116,000
Vehicles purchased	8,675,000
Office equipment	21,900
<u>Operating expenses (Note 4)</u>	734,000
Total Payments	14,546,900
<u>Surplus of receipts over payments - (A)</u>	103,949,245
Reconciliation with Bank Account	
Bank balances as at 03 June, 2021 - (B)	103,949,245
Difference (A – B)	Nil

Notes:

- 1) The seed money was received from the Government on 22 January 2019.
- 2) The interest earned is over the period from 22/01/2019 till 03/06/2021 on Rs.100 Million seed money kept in Profit and Loss Sharing (PLS) account at Bank of Khyber.
- 3) Salaries costs relates to 5 month's salary of the MD and 8 other staff members (i.e. Director Admin/HR & Finance, Deputy Director Finance, HR Officer, Admin Officer and three office assistants hired in January 2021, plus salaries/ deputation allowances of the Ex-MD.
- 4) The operational expenditure include vehicles maintenance, office utilities cost, POL, building repairs, newspaper & periodicals, office security and meeting & conferences/ entertainment expenditure etc.

Annexure 2 (Contd...)

KPUMA FINANCIAL ANALYSIS

Operational Costs per Month	Figures in Rs.
1) Existing per month operational costs	
Current monthly payroll (9 staff positions)	1,453,879
Current monthly non-salary costs	188,975
Current Monthly Operational Costs	1,642,854
2) Projected costs per month should IA operate at full staff strength	
Staff Payroll per month (all 61 staff positions) – (W-1)	10,454,879
Expected non-salary costs per month (W-2)	1,280,831
Projected Operational cost per month	11,735,710

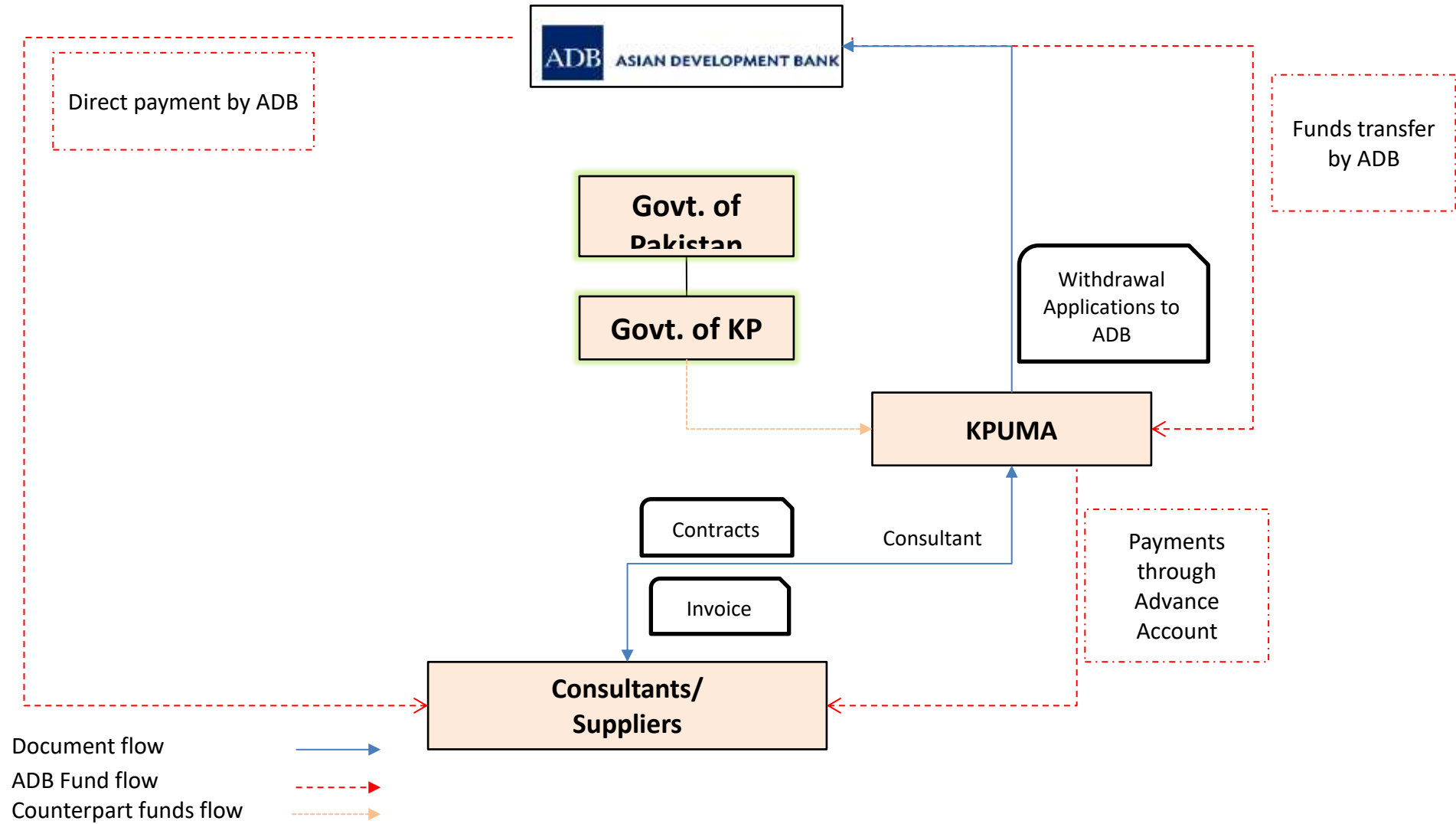
W-1

Designation	No.	BPS	Per Month Salary	Total Payroll
MD	1	21	613,879	613,879
Specialists	10	20	400,000	4,000,000
Directors	3	19	280,000	840,000
Experts	5	19	280,000	1,400,000
Deputy Director	8	18	200,000	1,600,000
Officers	11	17	96,000	1,056,000
Office Assistants	6	15	64,000	384,000
Support staff	17	5	33,000	561,000
Total Payroll per month	61			10,454,879

<u>W-2</u>	Figures in Rs.
Current non-salary costs per month (A)	188,975
Current hired staff of the IA (B)	9
Total sanctioned staff of IA (C)	61
Expected non-salary costs per month (A/B*C)	1,280,831

Annexure 3

PROPOSED FUNDS FLOW DIAGRAM



Financial Management Assessment

PMU – Local Government, Elections & Rural Development Department

Project Number: 55107-001

April 2021

CURRENCY EQUIVALENTS

(as of 28th April 2021)

Currency unit	Pakistan Rupee (PKR)
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PKR 1.00	=	US\$0.0064
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US\$1.00	=	PKR154.3500
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ABBREVIATIONS

ADB	Asian Development Bank
AoA	Articles of Association
AEFSs	Audited Entity Financial Statements
APFSs	Audited Project Financial Statements
BOD	Board of Directors
CPS	Country Partnership Strategy
EA	Executing Agency
FMA	Financial Management Assessment
GoP	Government of Pakistan
GoKP	Government of Khyber Pakhtunkhwa
GRAMP	Governance Risk Assessment and Management Plan
IA	Implementing Agencies
IED	Independent Evaluation Department
IPSAS	International Public Sector Accounting Standards
ISAs	International Standards on Auditing
IT	Information Technology
KPCIP	Khyber Pakhtunkhwa Cities Improvement Projects
LGE&RDD	Local Government Elections & Rural Development Department
PMU	Project Management Unit
PAM	Project Administration Manual
PEFA	Public Expenditure and Financial Accountability
PFM	Public Financial Management
PMU	Project Management Unit
PPP	Public-Private Partnership
SBP	State Bank of Pakistan

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Annexure 2:	Synopsis of development and contents of SOPs for Project FM
Annexure 3:	Proposed funds flow diagram
Annexure 4:	PMU response to AGP audit observations

A. Executive Summary

1. The Asian Development Bank (ADB) intends to support the Government of Khyber Pakhtunkhwa (GoKP) in the implementation of Khyber Pakhtunkhwa Cities Improvement Project (KPCIP/ or the Project) PRF 2. The Local Government Elections & Rural Development Department of the GoKP (LGE&RDD) is proposed to be the implementing agency (EA) of the Project represented by the project management unit (PMU) established under ADB's project readiness financing (PRF 1).

2. A financial management assessment (FMA) was carried out to review the financial management (FM) capacity, systems and procedures of the IA.¹The FMA report (the Report) provides results of the FMA.

3. The overall pre-mitigation FM risk was assessed to be **Substantial**. It was concluded that while the existing FM staff of the PMU is suitably qualified and experienced to manage the existing level of operations, the incremental volume and nature of FM transactions and processes will necessitate strengthening of the human and infrastructural resources to ensure PMU effectively delivers its envisioned FM role under the Project. Further, while an unqualified audit opinion has been issued, the critical audit observations raised by the Auditor General of Pakistan (AGP) in its management letter on the project financial statements of L-6015/G-6016 for FY 30 June 2020 are being addressed by the PMU.

4. The Report proposes a financial management action plan (FMAP) in the areas of staffing, internal controls, information systems, funds flow, and internal and external audit arrangements. Please refer section H of the Report for the proposed FMAP.

B. Introduction

5. The FMA was completed in April 2021, and was performed in accordance with ADB Guidelines.² The FMA was performed to assess the sufficiency and appropriateness of the PMU's financial management capacity in the context of ADB's requirements for the financial management of the Project.

6. The principal objective of the FMA was to evaluate the suitability of the PMU's systems and capacities to effectively manage risks to ADB's project funds and to ensure that the Project funds are used economically and efficiently for the purposes intended. This FMA focused at

¹ The FMA provides assessment of certain systems and functions of the LGE&RDD that are considered relevant in the FM of the Project.

² ADB. 2015. Financial Management Assessment Technical Guidance Note. Manila; and ADB. 2009. Financial Due Diligence: A Methodology Note.

assessing the design and effectiveness of PMU's financial management and related governance systems including planning, budgeting, accounting, internal control, governance, financial reporting, internal audit, and external audit. The FMA also assessed the financial management capacity of the PMU with reference to the proposed funds flow arrangement and selected disbursement procedures for the Project. FM systems of the GoKP considered relevant to the Project FM and funds flow were also reviewed.

7. This assessment is based on the results of: information obtained through desk review of relevant policy and other documentation, consultation with stakeholders and interviews performed with government counterparts. An overview of the key FMA activities is provided as follows:

- (i) reviewing PMU budgetary framework, external and internal audit reports, policy and procedural documents, sufficiency and appropriateness of FM staff, funds flow mechanism, financial accounting and reporting systems, management information systems, and detailed internal control activities (payments, payroll, maintenance of bank balances, imprest accounts, advances, fixed assets, completeness of liabilities, etc.);
- (ii) identifying and recommending appropriate funds flow mechanism for all sources of the Project;
- (iii) identifying and assessing FM and internal control risks and proposing risk mitigation measures/management strategies to address identified risks, on the basis of degree of impact and likelihood of occurrence; and
- (iv) summarizing the findings in the Report.

C. Project Description

8. The PRF will support quality and readiness of ensuing urban services projects in Province of Khyber Pakhtunkhwa. The Project estimated cost is US\$ 15 million and will finance sustainable urban transport (SUT) and other municipal services (such as water supply and sanitation and solid waste management) in KP Cities in the next 5 years

D. Country and Provincial FM context

9. The overall fiduciary risk at provincial level is assessed to be Moderate to High with some positive progress observed within individual Public Expenditure and Financial Accountability Assessment (PEFA) dimensions. Federal as well as provincial governments over the years has made some improvements in the overall budget management. Budgeting, reporting, and introduction of medium-term planning tools and use of a risk-based audit methodology by the office of the Auditor General of Pakistan (AGP) are some of the key reforms implemented over the past few years.

10. Key PFM functions i.e. budgeting, expenditure management, accounting, and external auditing, are split between federal and provincial institutions.³ Budgeting and expenditure management, which directly affect the provincial governments' capacity for service delivery, are the responsibility of provincial governments (finance departments and line departments/agencies). Accounting and external auditing are federal mandates and managed by the Controller General of Accounts (CGA) and the Auditor General of Pakistan (AGP), respectively. While the provinces have Accountants General who are responsible for processing payments, payroll and pensions, they are employed by the CGA.

11. In view of above, a review of the PFM systems at both the federal as well as provincial level to assess the PFM environment within which the Project will be implemented.

1. Federal PFM systems

12. The results of PFM assessment of the federal government, using the public expenditure and financial accountability (PEFA) framework, has been conducted in 2019, however, the results are not yet publicly available. Latest publicly available assessment was carried out in 2012.⁴ Some of the key findings remain relevant and are summarized below:

- (i) **Budget credibility.** There are high expenditure deviations between budgeted and actual expenditures at the disaggregated level. This was due to substantial re-appropriations under individual expenditure heads undertaken by the Executive during the fiscal year (approved only ex-post by the legislature as supplementary budgets). Also, management of arrears has not improved, and reliable arrears data are not available;
- (ii) **Comprehensiveness and transparency.** Some improvements in budget transparency have taken place. Classifications used for budget formulation and accounting are uniform. Systematic procedures for monitoring consolidated fiscal risk are not in place;
- (iii) **Policy-based budgeting.** A well-defined budget preparation process is in place, which includes the medium-term budgeting framework (MTBF) as well as sector strategies and preparation of a Budget Strategy Paper (BSP). However, linkages between multi-year estimates in the MTBF and annual budgetary ceilings remain to be improved;
- (iv) **Predictability and control in budget execution.** Improvements in some areas have taken place (e.g., payroll controls and treasury functions), but many aspects

³ The PMU will be responsible for: (i) preparing disbursement projections; (ii) requesting budgetary allocations for counterpart funds; (iii) collecting supporting documents, and, (iv) preparing and sending withdrawal applications to ADB with a copy to the provincial Finance Department.

⁴ Government of Pakistan and Development Partners. 2012. *Pakistan, Federal Government–Public Financial Management and Accountability Assessment*. Report No. 69185-PK.June.

continue to have poor performance. These include tax administration (especially the discretionary powers of tax authorities), procurement, internal controls on non-salary expenditures,⁵ and internal audit;

- (v) **Accounting, recording, and reporting.** There is a large backlog of unresolved accounts reconciling differences. In-year budget reports are timely and accurate, but do not capture the commitment stage. Likewise, the annual financial statements are timely but lack complete information on financial assets and liabilities; and
- (vi) **External scrutiny and audit.** The timeliness and quality of audit is strong, and the Public Accounts Committee (PAC) has made progress in addressing a large backlog of audit reports. However, the scope of the legislature's budget review is undermined by the short time available, and charged expenditure (75% of outlays) is not submitted to vote.

13. ADB's Pakistan Country Partnership Strategy (CPS) for 2015–2019 noted that inadequate PFM systems, vulnerability to corruption and lack of capacity in government entities, particularly related to decentralization, could pose a risk to CPS implementation.⁶ In the 2019 Governance Risk Assessment (GRA) for Pakistan, ADB noted that the routine revenue shortfalls at the Federal level adversely affected the provincial governments because of their dependence on fiscal transfers. Also, the role of internal audit was not well-developed and the provinces had difficulties introducing the function. Furthermore, the AGP's work focused mainly on compliance audit and was limited as regards performance audit.

14. The GoP's Finance Division in 2017 published a PFM reform strategy which set out planned activities for the ten-year period up to 2026.⁷ It focuses on improving budget reliability by enacting a PFM Law, eliminating discretion by standardizing internal controls and modernizing the internal audit set-up, and improving cash management to reduce borrowing costs. It also aims to make key fiscal data more readily available, automate salary and pension payments, implement an external audit management information system, strengthen legislative scrutiny, and improve reporting by and oversight over state-owned enterprises. These efforts are being supported

⁵ A recent World Bank diagnostic report notes that the GoP has a sophisticated Financial Management Information System (FMIS), but that payments are not automated and therefore spending units must provide documentation to the CGA, which then issues payments. This process is cumbersome, open to discretion and also creates opportunities for unofficial payments (R. Muhula. 2019. [Pakistan@100 Governance & Institutions](#). Policy Note. World Bank Group.)

⁶ ADB. 2015a. *Pakistan Country Partnership Strategy 2015-2019*. Manila.

⁷ Finance Division. 2017. *PFM Reform Strategy of the Federal Government – Strategy for reforms in support of fiscal sustainability and efficient public service delivery*. October.

mainly by the World Bank, which is implementing several projects to promote PFM reforms,⁸ and the European Union (EU) through its PFM Support Programme for Pakistan (SPP). Support for the GoP's broader governance reform agenda is provided by ADB, Gesellschaft für Internationale Zusammenarbeit (GIZ), United States Agency for International Development (USAID), as well as several United Nations (UN) agencies.

15. The National Assembly approved the Public Financial Management Act, 2019. It addresses key gaps in the current regulatory PFM framework and introduces some new practices. The latter include limitations on supplementary grants (to curb the previous almost unlimited power of the Executive to amend the budget without prior parliamentary approval), preparing a budget manual, restricting transferring public funds into scheduled banks' accounts, developing the scope of special purpose funds, creating the position of Chief Internal Auditor (CIA), improving treasury management, and changing the definition and operation of public entities.

16. It is understood that the GoP's Finance Division, in order to facilitate the implementation of the PFM Act, 2019, plans to prepare an updated PFM reform strategy for taking into account the results of the new PEFA-based PFM assessment (currently being finalized by the World Bank).

2. GoKP PFM systems

17. GoKP follows disintegrated budgeting where the current budget is the responsibility of the provincial Finance Department. The Planning and Development Department (P&DD) administers the development budget.

18. The Controller General of Accounts (CGA) is tasked with the production of timely and accurate financial statements according to the form and method prescribed by the AGP. The promulgation of the Controller General of Accounts Ordinance, 2001 and the Auditor General Ordinance, 2001, separated the roles and responsibilities of the offices of CGA and the AGP regarding accounting and auditing, respectively. In the KP province, the AG represents the CGA and functions with independent staff and budget. The Provincial AG reports to the CGA at the federal level. The CGA carries out policy formulation, coordination, and administration responsibilities.

19. The DG Provincial Audit conducts external audit of the accounts on behalf of the office of the AGP, and the audited accounts and audit reports are submitted to the Governor of the

⁸ On-going World Bank-funded projects include the (i) Debt Management Strengthening Programme at Ministry of Finance (2017-2019), (ii) Strengthening Tax Systems and Building Tax Policy Analysis Capacity Project (2017-2019), (iii) PFM and Accountability to Support Service Delivery Program (2017-2021), (iv) Strengthening of External Debt Management in the External Affairs Division (2018-2019), and (v) Pakistan Raises Revenue Project (2019-2024).

province for tabling them at the Provincial Assembly for legislative scrutiny. The Directorate General District Audit audits the local governments and the DG Commercial Audit audits public sector entities. The PAC of KP Provincial Assembly conducts the legislative oversight of the provincial financial operations. The PAC is headed by the Speaker of the Assembly and comprises the members of the Provincial Assembly (legislators) with dedicated staff in the Provincial Assembly providing the secretarial support.

20. The KPK Public Financial Management Assessment Report published in October 2017⁹ based on PEFA framework 2016 was considered for the purposes of this FMA. The 2017 PEFA-based PFM assessment of the GoKP provides an up-to-date review of the functioning and performance of the PFM systems in GoKP. The assessment highlighted the inadequacies in fiscal discipline evidenced in the expenditure and revenue out-turns, eventuated by fluctuations in the federal transfers and aggravated with the deficiencies in PFM practices in KP. The weaknesses in pillars (II-VII) weigh in on the overall performance of Pillar I (Budget reliability), but gaps exist in the revenue and expenditure management.

21. The PFM Assessment report indicates that overall, only 8 indicators, about 25 percent of total indicators for PFM system of KPK, score well as shown in Table 1 below.

22. The overall budgeting process remained well organized and participatory with extensive guidance to line departments and the general adherence to budget calendar by the line departments. The multiyear perspective in fiscal planning, expenditure policy, and budgeting improved with the approval and implementation of the KP Integrated Development Strategy. Public access to key fiscal information improved with the release of in-year, budget execution reports. The promulgation of KP Public Procurement Regulatory Authority (KP-PPRA) Act 2012 and KP-PPRA Rules 2014 yielded improvements in the procurement regime. The comprehensive rollout of the GFMS enhanced the quality of information in the budget execution reports.

⁹ Government of Khyber Pakhtunkhwa and Development Partners. Pakistan: KPK – Public Financial Management Assessment Report October 2017

Table 1: KPK Public Financial Management Assessment - 2017

Indicators	Dimension	Indicator Score	Risk Rating
	I. BUDGET RELIABILITY		
PI-1	Aggregate expenditure out-turn	C	Substantial
PI-2	Expenditure composition out-turn	D+	High
PI-3	Revenue out-turn	D	High
	II. TRANSPARENCY OF PUBLIC FINANCES		
PI-4	Budget Classification	A	Low
PI-5	Budget Documentation	B	Moderate
PI-6	Provincial Government operations outside financial reports	D	High
PI-7	Transfers to Subnational Government (SNG)	B	Moderate
PI-8	Performance information for service delivery	B	Moderate
PI-9	Public access to key fiscal information	D	High
	III. MANAGEMENT OF ASSETS AND LIABILITIES		
PI-10	Fiscal risk reporting	D	High
PI-11	Public investment management	C	Substantial
PI-12	Public asset management	D+	High
PI-13	Debt management	C	Substantial
	IV. POLICY-BASED FISCAL STRATEGY AND BUDGETING		
PI-14	Macroeconomic and fiscal forecasting	C	Substantial
PI-15	Fiscal strategy	D	High
PI-16	Medium-term perspective in expenditure budgeting	C	Substantial
PI-17	Budget preparation process	B	Moderate
PI-18	Legislative scrutiny of budgets	C+	Substantial
	V. PREDICTABILITY AND CONTROL IN BUDGET EXECUTION		
PI-19	Revenue administration	D	High
PI-20	Accounting for revenue	C	Substantial
PI-21	Predictability of in-year resource allocations	C+	Substantial
PI-22	Expenditure arrears	D	High
PI-23	Payroll controls	C+	Substantial
PI-24	Procurements	B	Moderate
PI-25	Internal controls on non-salary expenditure	B+	Moderate
PI-26	Internal audit	D+	High
	VI. ACCOUNTING AND REPORTING		
PI-27	Financial data integrity	B	Moderate
PI-28	In-year budget reports	C+	Substantial
PI-29	Annual financial reports	C+	Substantial
	VII. LEGISLATIVE SCRUTINY AND AUDIT		
PI-30	External audits	D+	High
PI-31	Legislative scrutiny of audit reports	C+	Substantial

23. Deficiencies were noted in oversight of fiscal policy and tax administration. The institutional mechanism for fiscal reporting did not improve in capturing the extra-budgetary operations and information on off-budget donor-funded projects. Neither was improvement noted in the oversight of aggregate fiscal risk from public sector entities/autonomous entities. The report noted no significant improvement in tax administration performance, particularly in the areas of transparency of taxpayer obligations and liabilities, registration, and assessment and collection of taxes. In 2013, the GoKP established the Khyber Pakhtunkhwa Revenue Authority (KPRA) to collect sales tax on services, which is now the largest provincial tax but is still in the process of developing systems and capacity for revenue-compliance risk management. *The predictability regarding availability of funds declined because of the practices followed in the cash releases for development budget, significant in-year budgetary adjustments and the absence of commitment accounting.* Internal controls were assessed to posing challenges for the GoKP. The performance with regards to the scope and coverage of the payroll audit declined and non-salary expenditure commitment controls deteriorated largely owing to the lack of commitment accounting. Although the GoKP piloted internal audit, the focus of internal audit on financial compliance and lack of management response was assessed to undermine the deepening of fiduciary controls.

24. It was concluded that the Project is exposed to following risks due to weaknesses in the Provincial PFM systems:

- (i) **Delay in timely and adequate release of counterpart funding:** Counter-part funding for payment of GoP taxes and releases are made on a quarterly basis. Delay in release of counterpart funds may affect Project due to delayed payments to suppliers and service providers against counter-part funds.
- (ii) **Weak internal audit function:** The internal audit functions are not sufficiently developed to ensure adequate governance, risk management and control support to the governing bodies of the Government departments.
- (iii) **Delay in resolution of audit observations:** The ADB has accepted project audit reports prepared by the Auditor General of Pakistan (AGP) which are submitted to ADB through the Economic Affairs Division of the GoP on a timely basis. However, observations by audit officers of AGP are not resolved within due time resulting in long outstanding paras pending with Departmental Accounts Committee or Provincial Accounts Committee.

E. Entity/ Project level FM systems

1. Contextual background to the Project

25. Supported by the ADB funded KPCIP PRF 1 project, a Project Management Unit (PMU) has been established under the LGE&RDD to implement the PRF. The PRF is included in the GoKP's Annual Development Program (ADP; provincial budget document) and approved on 15th February 2019 by Central Development Working Party (CDWP), Planning Commission,

Government of Pakistan at a cost of \$9.5 million (ADB financing \$9 million and GoP funding of \$0.5 million). Financing Agreement was signed on 29 March 2019 between the GoP and the ADB through loan no. 6015-PAK of US\$ 7 million and ADB Grant of US\$ 2 million. Implementation period of the PRF is 60 months (July 2019 to June 2024), with the first two years designated as engineering design phase (2019-21) followed by construction management phase (2021-24).

26. Key stakeholders of the Project include LGE&RDD as the EA, the project management unit (PMU) under the LGE&RDD as the IA, respective City Governments of Abbottabad, Kohat, Mardan, Mingora and Peshawar, and WSSCs of respective cities as implementing units.

27. Asian Development Bank (ADB) funded PRF has already approved financing for the preparation and engineering design of Khyber Pakhtunkhwa Cities Improvement Projects (KPCIP) and possible future urban projects in KP. The main focus of KPCIP is centered on investment subprojects related to Water Supply, Sewerage and Drainage, Solid Waste Management and select Urban Green sub-projects in the targeted five cities. The KPCIP is being managed by LGE&RDD as the Executing Agency through the PMU, established to support LGE&RDD and coordinate the project implementation at the provincial level.

2. Governance structure

28. A Project Steering Committee (PSC) has been established at the GoKP level to provide governance oversight on the Project. The PSC is headed by the Additional Chief Secretary and its members are Secretary P&D Department, Secretary LGE&RDD, Secretary Finance, Secretary Public Health Engineering, Executive Director Urban Policy Unit (UPU) P&DD, Director General Peshawar Development Authority, Director General Environmental Protection Agency, Chief Executive Officers of Water & Sanitation Services Companies of Peshawar, Mardan, Kohat, Abbottabad and Mingora, and Project Director KPCIP.

29. The PSC provides policy direction and strategic oversight, policy level decisions to facilitate timely execution of projects. It reviews quarterly and annual performance reports. The PSC is empowered to give principal approval of the investment projects and ensure that projects are implemented in line with loan/project agreements. The PSC also ensures provision of counterpart funding/budget approval for counterpart funding. The PSC is also mandated to act as governance oversight forum over other implementing units within the Project (for instance, annual operational and business plans of the WSSCs and their annual operational allocation is approved by the PSC).

30. PSC meetings are conducted on a need as well as on a quarterly basis, where decisions taken in previous meetings are discussed, progress is reviewed on various aspects of projects including, but not limited to, selecting the investment subprojects for the preparing detailed engineering design and project preparedness, approval of variation orders for design consultants

and allocation of budget for land acquisitions. The progress update is also reviewed by the Chief Minister of the province.

31. The Secretary – LGE&RDD is the administrative head of the Project. The management structure of the PMU is authorized by the Secretary – LGE&RDD, who provides guidance and direction through fortnightly review meetings to ensure that agreed milestones and timelines are met and issues are resolved.

3. Management structure

32. The PMU is headed by the Project Director and supported by seven specialist staff positions, including an FM Specialist under the Due Diligence and Climate Resilience component (financed under ADB 6016-PAK). Please refer Annexure 1 for the PMU organogram. The recruitment of specialist staff was completed in August 2019 and is effective till 31 December 2021, with extendable terms as agreed by the management. In addition, support staff has also been contracted to facilitate tasks of experts and for PMU activities.

33. All administrative decisions of PMU are approved by the Secretary – LGE&RDD who is supported by one Special Secretary, one Additional Secretary and Chief Planning Officer of LGE&RDD. The administrative decisions taken by the Secretary LGE&RDD relating to financial management include:

- (i) nomination of signatories of ADB withdrawal applications (Direct payment and advance account),
- (ii) authorization for opening of revolving fund account / designated account and nomination of signatories,
- (iii) authorization of requests for budget allocations (foreign and local components), submitted to the Finance Department of GoKP from time-to-time and onward release of budget request for foreign component and counter-part funding.

34. Financial powers have been delegated by the Secretary LGE&RDD to the Project Director in respect of authorizing of certification of claims, payments to consultants/ consulting firms and operational costs of the PMU.

4. Staffing

35. The PMU currently employs one accountant (Project Associate – Finance), performing day-to-day financial management activities under the supervision of the Project Director. Internal controls and ADB FM compliance is managed by an FM Specialist, hired under the PRF. The existing staff strength is not sufficient to manage the expected scale of activities to be performed by the FM team and adequate segregation of duties. *Please refer proposed FMAP for assessment of additional staff positions required in the Project FM team.*

5. Policies and procedures – internal controls

36. The Provincial level PFM systems are extensively documented and integrate adequate controls over payments through the pre-audit performed by the Provincial Accountant General office.

37. At project level, a documented set of procedural guidance has been developed to carry out day-to-day and periodic FM activities. Please refer Annexure 2 for synopsis of SOPs for Project specific FM policies and procedures.

38. The design of procedural requirements ensures adequate segregation of duties, however, lack of FM staff resources is likely to adversely affect the Project's ability to ensure adequate segregation of controls during the implementation.

6. Planning and budgeting

39. The planning and budgeting processes related to preparation and periodic budget reporting at the Project level are integrated with the governmental processes.

40. **Budget preparation:** The budget is compiled by the Project Associate – Finance, under the supervision of the Project Director. Cost estimates are prepared according to the annual work plan which are submitted to the LGE&RDD for review and inclusion in the Annual Development Programme (ADP) of the GoKP, the provincial level developmental budget directory. Once approved, the annual project budget is allocated to the LGE&RDD under the title of KPCIP.

41. **Budget monitoring:** PMU provides quarterly financial reports for budget monitoring to the LGE&RDD and Foreign Aid Section of the Planning & Development Dept. (P&DD) of GoKP (FAS – P&DD). The reports are prepared on the formats specified by the FAS – P&DD. The reports are prepared by the Project Associate – Finance, checked by the FM Specialist and approved by the Project Director. The reports provide comparison of budget allocation, disbursements during the period and balance funds available for project funding for the reporting period. An explanation of physical targets against financial disbursement is also provided. These reports are submitted to the FAS – P&DD and LGE&RDD at the close of each quarter along with monthly progress reports.

7. Accounting and reporting

42. **Reconciliation and reporting with provincial Accountant General and Finance Department:** PMU conducts monthly reconciliation with the Accountant General Office of GoKP and annual reconciliation of budget and expenditure with Finance Dept. of GoKP. The purpose of reconciliation is to report project receipts and expenditure against budget allocations into the SAP

System (PIFRA) of the government so that the project accounts are reported through Govt. Accounting System New Accounting Model (NAM). The reconciliation includes budget allocation for the year (as already incorporated in SAP System through the Finance Department of GoKP), expenditure incurred during the period and balance funds available against budget allocations. All cheques for payment from ADB Advance Account (Revolving fund foreign currency Account managed by SBP / NBP) are first punched in SAP System by the Accountant General Office of the GoKP and then presented to the National Bank. The purpose of annual reconciliation with the Finance Department of GoKP is to obtain re-authorization of funds against budget allocation of project, receipts and expenditure during the year and carry forward of balance funds to the next financial year. These reconciliations are prepared by the Project Associate – Finance, checked by the FM Specialist and approved by the Project Director.

43. **Accounting systems at the Project level:** Books of account maintained by the PMU, include: a) withdrawal application register, consultant ledger, cheque register, bank reconciliation (both for ADB and for Accountant General Office and Finance Dept. of GoKP) and monthly receipt and expenditure statements along with manual cash book and expense ledger (as required by Govt. Auditors). Please refer Annexure 2 for a synopsis of accounting and bookkeeping systems, specified in the SOPs.

44. Project financial statements are prepared using IPSAS Cash Basis of Accounting. Notes to the project financial statements are provided to ensure adequate explanation of the financial transactions for the reporting period.

45. The first annual project financial statements for the year ended 30 June 2020 were prepared using Cash Basis IPSAS and were audited by the AGP.

8. Treasury and cash management

46. Payment transactions are recorded in the MS Excel spread sheets along with manual cash book and ledger by the Project Associate – Finance, who has limited access to the system. Vouchers are checked by the FM Specialist and approved by the Project Director. Invoices are numbered to avoid duplicate payments and follow serial numbering. Approving authorities are specified in the limit authority matrix, laid down in the SOPs.

47. The PMU uses ADB's Client Portal Disbursement (CPD) for processing of withdrawal applications (direct payment and replenishment). Payments are processed as follows: crossed cheque is issued in the name of payee; recorded by the Deposit & Loan Section (SAP – PIFRA) of Accountant General Office of GoKP which is then submitted to National Bank of Pakistan (NBP) for payment to the payee's account. No cash withdrawal and advances are allowed for processing of payments from these accounts. Payments are allowed only against available budget provisions of KPCIP. For recording of budget provisions in the SAP (PIFRA) system, PMU processes these

payments through Finance Dept. of GoKP. Monthly reconciliation is carried out with AG Office of GoKP of receipt and expenditure against these accounts and annual reconciliation is also carried out with Finance Dept. of GoKP.

48. The PMU currently maintains one revolving fund account (RFA) for ADB funds with NBP and one separate designated assignment account for GoKP counter-part funding. RFA is maintained for ADB Advance account for financing from ADB. No cash transactions are allowed from ADB Advance Account.

9. Asset management

49. SOPs provide format for an assets register, however, detailed policy and procedural guidance is not available since the PRF does not involve procurement of assets.

10. Information systems for financial reporting

50. Financial reports are currently generated using MS Excel spread sheets. This is considered sufficient in view of current level of activities which mainly comprise preparation of monthly receipt and expenditure report and annual financial statements, along with reconciliation reports with AG Office and Finance Dept. GoKP.

51. PMU plans to deploy accounting software for recording financial transactions, maintaining proper books of accounts and generating financial reports for effective FM of the Project activities. *Please refer the proposed FMAP for the Project specific action item.*

11. Internal audit

52. The Accountant General KP's tasks include performing pre-audit while processing payments. This process comprises of checking availability of corresponding budget, funds availability, sufficiency and appropriateness of supporting documentation, and approval by the competent authority. However, this process is not seen as a substitute for an internal audit function.

53. The internal audit function currently comprises of an internal auditor at the LGE&RDD level, while no internal audit position is currently budgeted under the PRF. The PMU hired Financial Management Specialist for monitoring of internal control functions of present activities of KPCIP. The internal audit function requires significant strengthening to ensure that adequate governance, risk management and controls framework is enabled at the departmental and the Project levels. *Please refer the proposed FMAP for the Project specific action item.*

12. External audit

54. Articles 169 and 170 of the Constitution of Pakistan govern the audits of the annual financial statements of the federal and provincial governments, performed by the AGP. In KP province, the audits are undertaken by the office of Director General – Audit, KP.

55. The AGP carries out its audit activities in accordance with the standards of the International Organization of Supreme Audit Institutions and international good practice.¹⁰ The AGP has developed a large number of guidelines, including a comprehensive manual to guide the process of carrying out external audit of foreign-funded projects.¹¹

56. Audit reports are laid before the Assembly by the Governor through the Finance Minister. This is usually done around 9 months after fiscal year-end. Auditees are informed about the audit observations and a formal response is required within a defined time period. Unresolved audit observations are sent to the Public Accounts Committee (PAC) for consideration. All departments have a Departmental Accounts Committee (DAC) which discusses the audit findings of the AGP as regards compliance audits. Special Departmental Accounts Committees (SDACs) are set up for project-specific audits.

57. External audit of the PMU's first annual project financial statements (FY 2019-20) was completed by the AGP. While issuing an unqualified audit opinion on project financial statements, the AGP has provided ten advance audit paras (observations). The PMU has submitted the replies (Annexure 4) to the LGE&RDD, requesting convening of a Departmental Accounts Committee (DAC) meeting for discussion and settlement of audit observations. The PMU is in the process of addressing the audit observations.

F. Funds flow

58. The PMU will be responsible for implementing the project according to the legal agreements and other implementation arrangements described in the Project Administration Manual (PAM). ADB will monitor the project and review its progress to ensure that the loan proceeds are spent as agreed upon. Upon effectiveness, a loan account in the name of the borrower will be opened in ADB's books where the loan proceeds will be credited for use of the

¹⁰ Auditor General of Pakistan. 2018. Annual Report 2017-2018, p. 6. ("The Financial Audit Manual (FAM) and twenty Audit Guidelines prepared and adopted for public sector auditing in Pakistan are consistent with the International Standards of Supreme Audit Institutions (ISSAIs) and cover all stages of audit cycle. The Guidelines for Performance Audit used by the AGP are comprehensive and these are being revised to be consistent with international best practices. The ASOSAI Guidelines on AQMS are practiced by the AGP in its Audit Reports.")

¹¹ AGP. 2018. Audit Manual for Foreign Funded Projects. January. The manual was developed with the support of a firm as part of an ADB technical assistance (TA) operation (TA 8697-REG).

project. All disbursements will be carried out in accordance with ADB's Loan Disbursement Handbook (2017, as amended from time to time).

59. The structure of the Project's proposed funds flow arrangement is provided at Annexure 3 to the Report. Based on the FMA, it is recommended that PMU uses direct payment and advance fund account loan disbursement procedures. A brief of each procedure of loan disbursement method is given below. Detailed procedures are outlined in ADB's Loan Disbursement Handbook 2017.

60. **Direct Payment.** Under the direct payment procedure, ADB loan proceeds will be directly credited to a nominated bank account of a supplier, contractor, firm or consultant at the request of PMU.

61. **Advance Fund Account:** Under the advance fund account procedure, ADB makes an advance disbursement from the loan account for deposit to an advance account to be used exclusively for ADB's share of eligible expenditure. In Pakistan, ADB's advance fund procedure is managed through Revolving Fund Accounts (Foreign Aid Assignment Accounts).

62. On approval of the project by ECNEC, a revolving fund assignment account will be opened by the PMU for receipt of advance funds under the project from ADB loan account. These funds will be used by the PMU for meeting eligible expenditure under the project. For accounting of these funds, separate books of accounts will be maintained for project/loan activities. The Project Director and the FMS will act as the joint signatories of the revolving fund assignment account. The authorized signatories will have to be communicated by the LGE&RDD to the ADB through the Provincial P&DD/EAD. Any subsequent change in the joint signatories will also follow the same suit.

63. The loan proceeds from ADB will initially be transferred to the GoP's 'Central Government Account No. 1 (non-food)', and from there to the GoKP's 'Provincial Consolidated Fund Account No. 1 (non-food)'.¹² The GoKP's Finance Department provides debit /credit heads to State Bank of Pakistan (SBP) and SBP transfer loan proceeds directly to the revolving fund account established under the project.¹³ The PMU will be responsible for maintenance and operation of

¹² Funds received from ADB in \$ are converted into PRs by the State Bank of Pakistan (SBP) based on the relevant exchange rate on the date of transfer of funds.

¹³ The opening and maintenance of assignment accounts is governed by GoP's Office Memorandum 'Revised Accounting Procedure for Revolving Fund Accounts (Foreign Aid Assignment Accounts)', dated 2 August 2013 as amended. Revised accounting procedure for revolving fund accounts (foreign aid assignment account) vide no. F.2.(1)BR-II/2007-949 dated 2nd August 2013. Assignment accounts are set up in the National Bank of Pakistan (NBP), which is a government-owned commercial bank and a subsidiary of the SBP.

the revolving fund account as per prevailing Revised Accounting Procedure for Revolving Fund Accounts.

64. Counterpart funding from the GoKP will be received through a separate assignment account which will be part of Provincial consolidated fund.¹⁴ The PMU will also be responsible for maintenance of the assignment account in respect of transfer of funds on the basis of allocations by the GoKP as per approved procedures governing assignment accounts.

65. The loan proceeds will be disbursed in accordance with ADB's Loan Disbursement Handbook (2017, as amended from time to time), and detailed arrangements agreed upon between the GoKP and the ADB.

66. **Statement of expenditure procedure.** The statement of expenditure (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 \$50,000 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.

67. Before submitting the first withdrawal application, the government 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 withdrawal application is stipulated in ADB's *Loan Disbursement Handbook*. Individual payments below this amount should be paid by the LGERDD and subsequently claimed from ADB through reimbursement, 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) system is encouraged for submission of withdrawal applications to ADB.

68. Proposed process flow for consultants/supplier payments/ withdrawal application: The following process flow will be used for processing of payments by the PMU under the project.

¹⁴ As per prevailing GoP requirements, the receipts from and payments out of counterpart funding sources in assignment accounts is governed by the CGA's 'Revised Procedure for Operation of Assignment Accounts of Federal Government', dated 24 September 2008 as amended.

Table 2: Process flow for consultants/supplier payments/ withdrawal applications

Step no	Description of process
1	Consultants and suppliers will submit deliverables completed/goods & services delivered to the PMU along with accompanying bills/invoices.
2	Technical wings and/or the specialists concerned at PMU will review the deliverables completed and/or goods & services delivered against respective Terms of Reference list of deliverables agreed under respective contracts and/or the technical specification of goods delivered and will certify the completeness and quality of services rendered and goods delivered and send the same to the Finance Wing of the PMU for processing.
3	The Finance wing/ FMS will verify contractual obligations and perform financial review and seek PD's approval for payment processing. Once approved, the FMS will submit withdrawal application to the ADB for direct payment and if bill/invoice is under SOE limit (\$50,000) then make payment from the ADB Advance fund account. All tax payments will be made through GoKP counter-part funds assignment account.

G. Risk analysis

69. The financial management risks include: (i) inherent risks, and (ii) control risks. Inherent risk is the susceptibility to factors arising from the PMU's environment, such as country rules and regulations and working environment. Control risk is the susceptibility that the PMU's accounting and internal controls framework will be inadequate to ensure Project funds are used economically and efficiently and for the purpose intended, and that the use of funds is properly reported.

70. A Financial Management Internal Control and Risk Management Assessment was conducted which considered existing arrangements, staffing and procedures, and includes recommendations for risk mitigation measures. Key fiduciary risks and mitigating measures are summarized in Table 3 below. Based on the assessment, it is concluded that the overall project financial management pre-mitigation risk is **Substantial**.

Table 3: Key FM risks

Risk Type	Risk Description	Risk Assessment	Mitigation Measures / Risk Management Plan
Inherent Risk			
Country/ province-level risks	Governmental departments have adequate organizational and functional structures. Segregation of duties is provided in systems and APPM/GFRs, however, it is compromised in-practice due to shortage of staff. Risk assessment processes are weak or non-existent. Budget preparation is strong, however, budget outturns remain significant. GoKP's Finance and P&D departments' systems lack a mechanism to determine exact size of expenditure data outside financial reports. Controls over recording and management of non-financial assets is weak. Internal audit functions are established but lack effectiveness. External audit process remains substantially delayed.	Substantial	<p>Project level controls will be strengthened to ensure the FM activities remain free from the external inefficiencies within the GOKP FM systems. Specific measures will include:</p> <p>Strengthening of internal audit function over the Project activities.</p> <p>Ensuring rigorous liaison with the EA and PMU over timely conduct of external audits of the Project financial statements and timely resolution of audit issues, if any.</p> <p>The loan agreement will include a clause requiring the Borrower to ensure timely release of sufficient funds to the Project.</p>
<i>Overall Inherent Risk</i>		<i>Substantial</i>	
Project Risk			
FM structure and staffing	The PMU does not have adequate staff to carry out increased scale of financial transactions and ensure adequate segregation of duties.	Substantial	FM department will be adequately structured and staff strength increased to effectively deliver PMU's FM mandate under the Project.
Planning and budgeting, and expenditure management	PMU's systems are sufficiently designed to review, validate and process the Project's financial transactions related to implementation activities.	Moderate	PMU has deployed satisfactory budget preparation and monitoring process, with due integration with the Governmental budgeting cycle and processes. Budgets are endorsed by the LGE&RDD and ADB.
Funds flow	The draft audit report issued by the AGP on PRF has identified issues in the management of project funds.	Substantial	The PMU will be required to settle the pending audit observations raised by the AGP, prior to loan effectiveness.
Asset management	The Project does not involve procurement of assets.	Low	None.

Risk Type	Risk Description	Risk Assessment	Mitigation Measures / Risk Management Plan
Policies and procedural guidance	The SOPs developed by the PMU are adequate to cater for the needs of the Project.	Low	SOPs have been developed for the day-to-day and periodic FM functions to be performed by the PMU under the PRF.
Financial reporting and information systems	Books of account and financial reports are prepared using manual systems.	Substantial	Adequate manual controls are in place to manage the bookkeeping of PFR. The PMU will be required to deploy a computerized accounting software to ensure efficient and accurate bookkeeping and financial reporting.
Internal audit	Internal audit function is not adequately structured and resourced.	Substantial	Currently, the Financial Management Specialist under the PRF provides oversight on internal control functions of KPCIP PRF. The internal audit department will be strengthened to periodically perform independent physical inspections on project implementation activities.
External audit	Due to general delays in the AGP's audit process, the Project audits might be delayed.	Moderate	External audits of foreign aided projects are performed in a timely manner, however, delays in their conduct by the AGP remain beyond the control of the Project management. ADB will ensure that the external audit by AGP is timely included in the audit schedule and audit reports are issued in a timely manner.
<i>Overall Project Risk</i>		<i>Substantial</i>	
Overall Risk		Substantial	

ADB = Asian Development Bank, AEFS = Audited Entity Financial Statements, APFS = annual project financial statements, APP = annual procurement plan, FM = financial management, GoKP = Government of Khyber Pakhtunkhwa, LGE&RDD = Local Government, Elections and Rural Development Department, PDA = Peshawar Development Authority, PFM = public financial management, PMU = project management unit, PRF = project readiness financing.

H. Proposed financial management action plan

71. Based on the risk assessment and proposed risk mitigating measures, a timebound financial management action plan (FMAP) is proposed as follows:

Table 4: Financial Management Action Plan

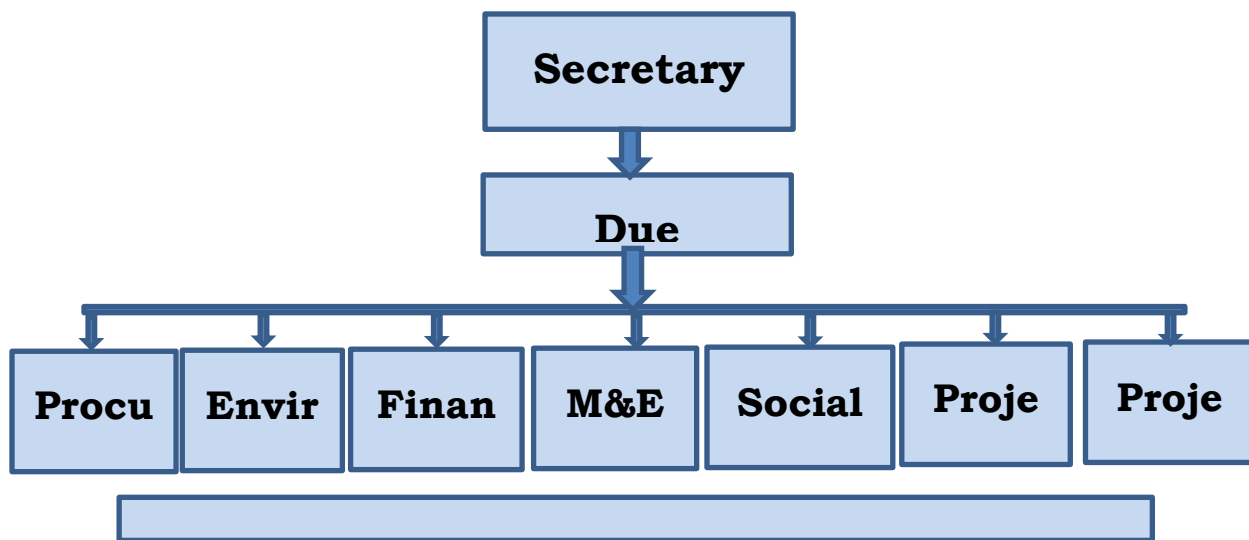
S. no.	Mitigating measure	Action item	Responsibility
1	FM department will be adequately structured and staff strength increased to effectively deliver PMU's FM mandate.	By no later than upon loan effectiveness, the PMU's FM department will be structured to segregate the accounting and financial reporting sections, and strengthened with sufficient FM staff. A Finance Director will head the PMU's Accounting and Finance department. Each section will be headed by a Finance & Accounts Officer. The Accounts section will staff two Accounts Assistant whereas the Reporting section will staff one Accounts Assistant. The incumbent FM Specialist shall be engaged to implement enhancement in FM systems and internal controls.	LGE&RDD
2	Internal audit department at the LGE&RDD will be strengthened.	<ul style="list-style-type: none"> By no later than three months from the date of loan effectiveness, the TORs/Charter of the internal auditors shall be developed and notified by the LGE&RDD. By no later than six months from the date of loan effectiveness, the LGE&RDD will either: 1: appoint an internal audit team comprising of two audit officers, who will report directly to the Internal Auditor – LGE&RDD; or 2) Hire services of a professional audit firm to conduct internal audit on the PMU. A risk-based annual internal audit of the Project's systems, internal controls and financial transactions will be performed. The results shall be shared with ADB by no later than three months from the end of each year. 	LGE&RDD LGE&RDD/ PMU LGE&RDD/ PMU
3	PMU shall deploy a computerized accounting software to ensure efficient and accurate bookkeeping and financial reporting.	By no later than six months from the date of loan effectiveness, the PMU (LGE&RDD) will deploy an accounting software, sufficient to meet the FM accounting and reporting requirements under the Project.	Project Director
4	The audit observations raised by the AGP shall be settled and/ or appropriate risk mitigation will be undertaken.	Prior to first disbursement, the PMU shall submit evidence of settling the audit observations raised by the AGP on the project (6015/6016) financial statements for the FY ended 30 June 2020.	LGE&RDD/ PMU

I. Proposed FM covenants

72. Following FM covenants are proposed for the Project:

- (i) **Submission of APFSs by the PMU:** The PMU shall (i) maintain separate accounts and records for the Project; (ii) prepare annual project financial statements (APFS) in accordance with accounting principles acceptable to ADB; (iii) have such statements audited annually by independent auditors whose qualifications, experience and terms of reference are acceptable to ADB, in accordance with auditing standards acceptable to ADB; (iv) as part of each such audit, have the auditors prepare a report, which includes the auditors' opinion on the financial statements and the use of the proceeds under the Project, and a management letter (which sets out the deficiencies in the internal control of the Project that were identified in the course of the audit, if any); and (v) furnish to ADB, no later than 6 months after the close of the fiscal year to which they relate, copies of such audited financial statements, audit report and management letter, all in the English language, and such other information concerning these documents and the audit thereof as ADB shall from time to time reasonably request.
- (ii) **Disclosure of APFSs:** ADB shall disclose the APFSs and the opinion of the auditors thereon within 14 days of the date of ADB's confirmation of their acceptability by posting them on ADB's website;
- (iii) **Facilitation in discussions with auditors:** The PMU shall facilitate ADB to discuss the financial statements of the Project with the auditors, and shall authorize and require any representative of such auditors to participate in any such discussions requested by ADB. This is provided that such discussions shall be conducted only in the presence of authorized officer of the PMU, unless the PMU shall otherwise agree.

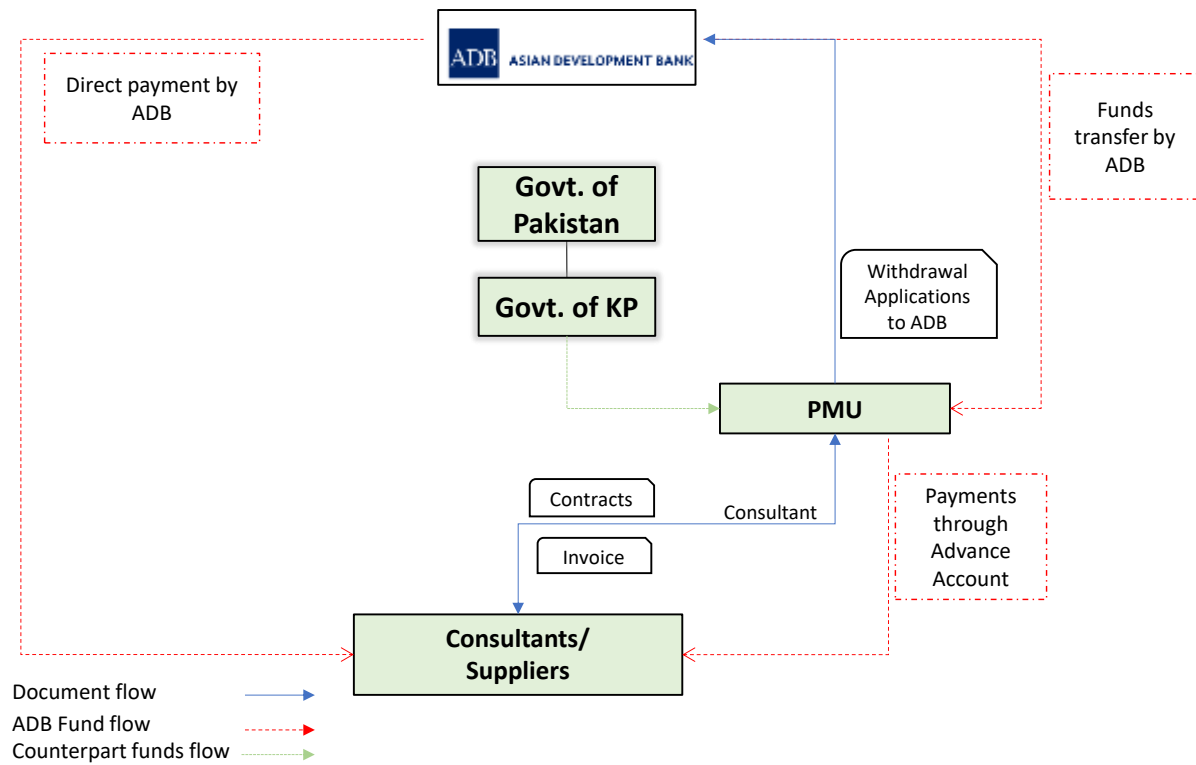
ORGANOGRAM OF PMU (LGE&RDD) KPCIP



Annexure 2**SYNOPSIS ON DEVELOPMENT AND CONTENTS OF SOPS FOR PROJECT FM**

1. The SOPs provides the foundation for the financial management of the Khyber Pakhtunkhwa Cities Improvement Project (KPCIP – PRF). The principles that are widely accepted as underlying strong financial management system is; (i) Comprehensiveness and discipline, (ii) Flexibility, (iii) Information access and (iv) Transparency and accountability. These principles serve as the bedrock for a typical financial management system that includes following elements: (i) Budgeting, (ii) Budget execution, (iii) Accounting and Reporting, (iv) Internal controls; and (v) External Audit and legislative scrutiny.
2. As a result, the SOPs aim at strengthening internal controls environment, underscore the importance of cash book controls and use of control check list at the time of pre-audit. Similarly, framework includes roles and responsibility matrix for PMU FM staff in line with government rules and regulations. A set of financial reports have been developed keeping in view the requirements of Auditor General of Pakistan and Loan covenants.
3. These SOPs also provide arrangements for external audit, keeping in view ADB requirements for external audit report will include auditor's opinion on financial statement audit (including the auditors' opinion on the use of the loan proceeds and compliance with the financial covenants of this Loan Agreement as well as on the use of the procedure for advance accounts and statement of expenditure). The audit report shall be accompanied by the Management Letter highlighting the weak areas needing management attention.

Annexure 3



Annexure 4

**KHYBER PAKHTUNKHWA CITIES IMPROVEMENT PROJECT - LOCAL GOVERNMENT ELECTION AND RURAL DEVELOPMENT
DEPARTMENT PESHAWAR
WORKING PAPER FOR ADVANCE PARAS CERTIFICATION AUDIT 2019-20**

S. No	A.P. No	PARA No	Brief of the Advance Audit Para	Reply by Project Director - Khyber Pakhtunkhwa Cities Improvement Project												
1	140	1	<p>SUBJECT: Loss due to non deduction of Sales Tax on Services from the Consultant-Rs.11.936 million</p> <p>According to the contract agreement, clause-39 "Taxes and Duties" the consultant and expert are responsible for meeting any and all tax liabilities arising out of the contract.</p> <p>According to Rule 28 & 37 of the Government of Khyber Pakhtunkhwa Khyber Pakhtunkhwa Revenue Authority (KPRA) working tariff taxable services as per second schedule to the Khyber Pakhtunkhwa Finance Act, 2013, 15 % sales tax is to be recoverable on the services provided by Consultants.</p> <p>The Consultancy of Project was awarded to Minconsult Sdn Bhd in association with M/S Creative Engineering Consultant (JV) with a contract cost of US \$ 941,500 and Rs 281,010,000/-</p> <p>While checking the accounts record of Khyber Pakhtunkhwa Cities Improvement Project for the financial year 2019-20, it was observed that a sum of Rs79,579,800 /- were paid to the Consultant up to last Payment Certificate but sale tax on services @ of 15% was not recovered from the consultant, resulted loss of Rs 11,936,970 /- which needs recovery. Details of payment to local consultant M/S Creative Engineering Consultant are tabulated below.</p> <table><tr><th>Name of consultant</th><th>1st payment (in Rs)</th><th>2nd payment (in Rs)</th><th>3rd payment (in Rs)</th><th>Total payment (in Rs)</th><th>15% Tax on Services required to be deducted</th></tr><tr><td>Creative Engineering Consultants</td><td>26,526,600</td><td>26,526,600</td><td>26,526,600</td><td>79,579,800</td><td>11,936,970</td></tr></table> <p>The lapse occurred due to weak internal controls and non observance Contract agreement.</p>	Name of consultant	1 st payment (in Rs)	2 nd payment (in Rs)	3 rd payment (in Rs)	Total payment (in Rs)	15% Tax on Services required to be deducted	Creative Engineering Consultants	26,526,600	26,526,600	26,526,600	79,579,800	11,936,970	<p>Reference is solicited to the Khyber Pakhtunkhwa Revenue Authority (KPRA) letter dated 20th August 2019, exemption is granted to all projects initiated or under taking under Government Annual Development Plan (ADP) provided either such projects have been initiated or completed on or before 30th June 2019 and payment whether fall or in part in respect thereof have been made on or before the said date (the on-going projects in respect of which agreement or contracts signed before said date, or also entitled to this exemption regardless of the schedule of payments relating there too. (Annexure-I)</p> <p>In this regard, it is worthy to mention here that the contract agreement between the UPU, P&D Government of Khyber Pakhtunkhwa and M/S Creative Engineering Consultants have been signed on 7th day of May 2019. (Annexure-II)</p> <p>As the contract has been initiated before 30th June 2019, therefore the consultant M/S Creative Engineering is exempt from KP Sales tax on services under serial no. 14 of the Schedule 2.</p> <p>In view of the above para may kindly be settled.</p>
Name of consultant	1 st payment (in Rs)	2 nd payment (in Rs)	3 rd payment (in Rs)	Total payment (in Rs)	15% Tax on Services required to be deducted											
Creative Engineering Consultants	26,526,600	26,526,600	26,526,600	79,579,800	11,936,970											

S. No	A.P. No	PARA No	Brief of the Advance Audit Para	Reply by Project Director - Khyber Pakhtunkhwa Cities Improvement Project												
			<p>When pointed out in October 2020,the Management replied that after verification of the record detailed reply would be submitted.</p> <p>Audit recommends deduction of Sale tax on Services and fixing responsibility against the person(s) at fault.</p>													
2	141	2	<p>SUBJECT: Illegal and unauthorized drawl of project funds due to violation of approved mechanism for signing withdrawal application - Rs.86.035 million</p> <p>According to Government of KP Local Government, Elections and Rural Development Department letter No. SO(B)/LG/KPCIP/2019-20 dated 03.03.2020, any two of following persons were jointly authorized on behalf of borrower to sign withdrawal application under Loan and Grant Agreements.</p> <table><tr><th>S.No.</th><th>Name</th><th>Designation</th></tr><tr><td>1</td><td>Mr. Vasif Shinwari</td><td>Project Director Khyber Pakhtunkhwa Cities Improvement LG,ERDD</td></tr><tr><td>2</td><td>Mr. Yasir Qayyum Khan</td><td>Deputy Secretary (Admin) LG,ERDD</td></tr><tr><td>3</td><td>Mr.Faisal Anwar</td><td>Project Coordinator Pakhtunkhwa Cities Improvement Project LG,ERDD</td></tr></table> <p>Project Director drawn funds pf Rs.86, 035,799/- from Project account on his single signature during 2019-20.</p> <p>Audit observed that the requirement of any two authorized signatories,responsible for signing the withdrawal application, was not fulfilled and exercised because the funds were drawn on the mere signature of the Project Director only.The action of the Project Director was in Violation of approved mechanism for drawl of funds hence,the withdrawal of funds was held unauthorized.</p> <p>The lapse occurred due to financial miss-management and weak internal controls.</p> <p>When pointed out in October 2020, the Management replied that after verification of record detailed reply would be submitted.</p>	S.No.	Name	Designation	1	Mr. Vasif Shinwari	Project Director Khyber Pakhtunkhwa Cities Improvement LG,ERDD	2	Mr. Yasir Qayyum Khan	Deputy Secretary (Admin) LG,ERDD	3	Mr.Faisal Anwar	Project Coordinator Pakhtunkhwa Cities Improvement Project LG,ERDD	<p>The stance of Audit Party i.e. funds were drawn on the single signature of Project Director, is not justified because each payment was made through joint signatories of Project Director and Project Coordinator and record of each cheque is available with Project , Accountant General Office and National Bank of Pakistan.</p> <p>The Administrative Department of KPCIP Project i.e. Local Govt; Elections & Rural Development Department vide letter dated 3rd March 2020 (Annexure-I) authorized / authenticated the specimen signatures of three members (with liberty of signing any two of three) to sign the Withdrawal application under the loan and grant.</p> <p>The same authorization was further communicated to the Country Director of Asian Development Bank by the Economic Affair Division vide letter dated 7th April 2020. (Annexure-II)</p> <p>Furthermore, the LGE&RDD being Administrative Department of the Project vide letter dated 3rd March 2020 Authorized Mr. Faisal Anwar, Project Coordinator to act co-signatory with Mr. Vasif Shinwari, Project Director for revolving fund account maintained in National Bank of Pakistan. (Annexure-III)</p> <p>In view of the above clarification, the para may kindly be settled.</p>
S.No.	Name	Designation														
1	Mr. Vasif Shinwari	Project Director Khyber Pakhtunkhwa Cities Improvement LG,ERDD														
2	Mr. Yasir Qayyum Khan	Deputy Secretary (Admin) LG,ERDD														
3	Mr.Faisal Anwar	Project Coordinator Pakhtunkhwa Cities Improvement Project LG,ERDD														

S. No	A.P. No	PARA No	Brief of the Advance Audit Para	Reply by Project Director - Khyber Pakhtunkhwa Cities Improvement Project
			Audit recommends to inquire the matter for fixing responsibility.	
3	142	3	<p>SUBJECT: Delay in completion of project owing to late submission of required deliverables by Consultant -USD 94,150 Us and Rs 26,526,600/- million</p> <p>According to contract agreement (M) Reporting Requirement 26, Milestone-2 and table -5, second payment of 20% payment shall be made to consultant within 4 months of signing of the contract, upon the submission of complete project assessment, including review of data availability objectives schedule and outputs, confirmation of scope/approach/methodology including assessment for associated infrastructure and detailed work plan covering all activities finalized the agreed priority list. According to Contract agreement clause-41 "mode of billing and Payment" the Client shall pay the consultant within 60 days after the receipt by the client of the Deliverable s.</p> <p>The Project management executed contract agreement for the consultancy services with M/S Minconsultant Sdn.Bhd-Malaysia in Joint Venture with M/S Creative Engineering Consultants-Pakistan in May, 7th 2019 and a sum of USD 94,150 and Rs.26,526,600 was made up to December, 2019 as 10% payment against the required 20% payment.</p> <p>According to Contract agreement clause-41 "Mode of Billing and Payment" the client shall pay the consultant within 60 days after the receipt by the client of the deliverable.</p> <p>Audit observed that partial payment to consultant exhibited that the required deliverable report was not satisfactory hence, instead of agreed 20% payment, 10% payment was allowed. The remaining 10% payment which was required in December, 2019 was made to the Consultant in April 2020.</p> <p>The overall pace of work was noticed as very slow because up to 30th June 2020, 50% payment was required to be made whereas only 20% payment was made so far. The late submission of deliverable by consultant caused a delay in completion of Project.</p>	<p>Reference is solicited to the Contract Agreement Clause 41.2.2. (Annexure-I) contract agreement between the UPU, P&D Government of Khyber Pakhtunkhwa and M/S Creative Engineering Consultants, which is reproduced as below:</p> <p><i>"the client shall pay the consultant within 60 days after the receipt by the client of the deliverable(s) and the cover invoice for the related Lumps Sum installment payment. The payment can be withheld if the client does not approve the submitted deliverables as satisfactory"</i></p> <p>In view of the contract clause stated above, the P&D Department, Government of Khyber Pakhtunkhwa constituted a Technical Committee vide Notification dated 25/09/2019 (Annexure-II) for evaluation and approval of deliverable by the consulting firms engaged in the KPCIP project.</p> <p>The consultant had submitted Milestone-I i.e. draft inception report on 14th September 2019 and the same was sent in soft to all the stakeholders of the technical committee (Emails enclosed Annexure-III) The inception report was revised and comments of all the stakeholders were incorporated (Annexure-IV). The report is then finally approved by the Project Officer ADB. (Annexure-V) The payment of Milestone-I has then released to the consultant.</p> <p>As regard to the Milestone-II, the same was submitted by the consultant on 6th December 2019. (Annexure-VI) The same has been shared with the all stakeholder of the Technical Committee on 7th December 2019 (Annexure-VII). After discussion on the 2nd deliverable, the Secretary P&DD recommended 50% payment, and withheld the remaining payment in the light of contract clause mentioned above. The payment of 2nd Milestone at the rate 10%</p>

S. No	A.P. No	PARA No	Brief of the Advance Audit Para	Reply by Project Director - Khyber Pakhtunkhwa Cities Improvement Project
			<p>The lapse occurred due to weak internal controls and non-adherence to strict compliance of provision of the Contract Agreement.</p> <p>When pointed out in October 2020, the Management replied that after verification of the record detailed reply would be submitted.</p> <p>Audit recommends to inquire the matter for fixing responsibility.</p>	<p>was released to the consultant vide WA dated 17th December 2019. (Annexure-VIII).</p> <p>Furthermore, the Milestone-III was required to be submitted by the Consultant on 29th of March 2020 as per contract agreement, but the same was delayed due to COVID-19 pandemic throughout the country. As the delay of 30% payment was due to Covid-19 pandemic, which is beyond the control of either party.</p> <p>In view of the above para may kindly be settled.</p>
4	143	4	<p>Subject: Unauthentic payment to consultant for non-provision of details of key experts in invoices Rs. 79.579 million</p> <p>According to clause 25.1 of the contract agreement, the consultant shall keep and shall make all reasonable efforts to cause its sub-consultants to keep accurate and systematic accounts and in respect of the services and in such form and detail as will clearly identify relevant time changes and costs. The Project Management paid an amount of Rs. 79,579,800/- was paid to M/S Creative Engineering Consultant on account of consultancy services.</p> <p>Audit observed that payment was made in lump sum without mentioning in the invoice of consultant, details of key experts names, man months allowed, remuneration paid to each expert in the invoices of consultant, In absence of details in the consultants invoices it could not be ascertained whether the amount had actually been paid according to the agreement or otherwise.. Therefore audit could not authenticate that the payment.</p> <p>The lapse occurred due to weak internal controls and non keeping accurate and systematic accounts in violation of Contract Agreement.</p> <p>When pointed out in October 2020, the Management replied that after verification of the record detailed reply would be submitted.</p> <p>Audit recommends provision of details of the key experts in invoices for authentication of the expenditure incurred.</p>	<p>The lump-sum contract based on deliverable was signed between the UPU, P&D Government of Khyber Pakhtunkhwa and M/S Creative Engineering Consultants.</p> <p>Reference contract agreement clause 41.2 (Annexure-I) which is reproduced as below</p> <p><i>“ the payments under this contract shall be made in lump sum installments against deliverables specified in Appendix A. the payments will be made according to the payment schedule sated in the SCC.”</i></p> <p>Since the contract is based on LUMP SUM deliverable(s), and Special Conditions of the Contract allows payments based on deliverable milestones , therefore details of key experts' names, and man-months of each expert cannot be mentioned.</p> <p>In view of the above para may kindly be settled.</p>

S. No	A.P. No	PARA No	Brief of the Advance Audit Para	Reply by Project Director - Khyber Pakhtunkhwa Cities Improvement Project										
5	144	5	<p>Subject: Un-authorized credit of operational cost of the Project in the account of Project Director Rs 3.255 million</p> <p>According to PC-II, scope of services of the Project Director “(68), the Project Director will plan, coordinate and lead activities of Khyber Pakhtunkhwa Cities Improvement Project to ensure that goals, objectives and all elements of the Project are accomplished within the prescribed time frame, quality and funding parameters.</p> <p>The Project Management drawn a sum of Rs.3,255,793/- for operational expenditure of the project during 2019-20, as per detail given below:</p> <table border="1"> <thead> <tr> <th>Traveling of (Rental Vehicles)</th><th>Vehicle POL</th><th>PMU Operation (Stationery)</th><th>Other (Project Allowance LGRD staff)</th><th>Total</th></tr> </thead> <tbody> <tr> <td>Rs 666,600</td><td>Rs 194,267</td><td>Rs 1,945,426</td><td>Rs 449,500</td><td>Rs 3,255,793</td></tr> </tbody> </table> <p>Audit observed that funds drawn for operating charges of the project were credited to Project Director Account instead of concerned suppliers, firms etc. Even utilities charges were not paid to PESCO, PTCL and credited to the Project Director Bank Account. Audit also observed that:</p> <ol style="list-style-type: none"> 1. Details of further disbursement to the supplier firms were not available on the record. 2. Stock register for stationary items were not maintained. 3. Indents for the stationary items were not available. 4. Majority of the payments were made without proper vouchers and invoices. 5. Sales tax and income tax was not deducted from the concerned suppliers. <p>Therefore, audit held that the payments were neither only irregular/un-authorized but seemed also doubtful. The lapse occurred due to financial mismanagement and weak administration.</p> <p>When pointed out in October 2020, the Management replied that after verification of the record detailed reply would be submitted.</p>	Traveling of (Rental Vehicles)	Vehicle POL	PMU Operation (Stationery)	Other (Project Allowance LGRD staff)	Total	Rs 666,600	Rs 194,267	Rs 1,945,426	Rs 449,500	Rs 3,255,793	<p>The budget of US\$ 2 million for Due Diligence Climate Resilience Component of PRF was approved in November 2019 by Additional Chief Secretary, Government of Khyber Pakhtunkhwa (GoKP). This budget provides all types of ceilings in each head of expenditure.</p> <p>The budget for this component of PRF was approved because no allocations (PC-II) were available for operational expenses of Project Management Unit of KPCIP. Further executing agency P&DD and LGE&RDD authorize based on approved budget through Project Director to use of contingencies allocations available in his contract for operational expenses and it was also endorsed by Asian Development Bank (ADB)</p> <p>Para-wise replies to the audit observation raised in the instant para are as below:</p> <ol style="list-style-type: none"> 1. All the payments made to the Project Director on account of Rental of Vehicle, PMU Stationary and other has been further made to the suppliers. (Annexure-I) 2. Stock register for all the stationary items have been maintained. (Annexure-II) 3. Indents are also available in the Stock Register, according to which the stationary items have been recorded. (Annexure-III) 4. Cash memos and proper vouchers of all payments are available (Annexure-IV). 5. The income tax has been paid by the concern suppliers and CPRs are enclosed for ready reference. (Annexure-V) <p>In view of the above, para may kindly be dropped.</p>
Traveling of (Rental Vehicles)	Vehicle POL	PMU Operation (Stationery)	Other (Project Allowance LGRD staff)	Total										
Rs 666,600	Rs 194,267	Rs 1,945,426	Rs 449,500	Rs 3,255,793										

S. No	A.P. No	PARA No	Brief of the Advance Audit Para	Reply by Project Director - Khyber Pakhtunkhwa Cities Improvement Project
			The matter is reported to higher ups for taking appropriate action.	
6	145	6	<p>Subject: Non achievement of project objectives due to Non utilization of funds- Rs.48 million</p> <p>According to PC-II, scope of services of the Project Director “(68), the Project Director will plan, coordinate and lead activities of Khyber Pakhtunkhwa Cities Improvement Project to ensure that goals, objectives and all elements of the Project are accomplished within the prescribed time frame, quality and funding parameters.</p> <p>According to withdrawal application No.UP001 and UP002 dated 30.09.2019 and 07.04.2020 respectively for withdrawal of \$ 843,293.79 on accounts of running cost of the project.</p> <p>The Project Management drawn funds US \$ 843,293.79 from ADB vide withdrawal application No-UP001 and UP002 for period from October, 2019 to January, 2020.</p> <p>The Audit observed that at the end of the financial year the Project Management could not utilized the full amount and a balance amounting to Rs.48 million was remained un-utilized as per the Bank Statement of the project till June 2020.</p> <p>Audit held that due to ill planning the amount could not utilized which causing delay in completion of the project activities.</p> <p>The lapse occurred due to financial mismanagement.</p> <p>When pointed out in October 2020, the Management replied that after verification of the record detailed reply would be submitted.</p> <p>Audit recommends inquiring the matter for fixing responsibility and utilization of funds according to approved time lines.</p>	<p>it is worthy to inform the forum that the Project Management was planned to hire the individual consultant approved by the Competent Authority in the approved budget estimate i.e. Urban Planner, Public Private Partnership Specialist, Smart Cities Developer, Climate change expert, and others (Annexure-II). Therefore, provision of funds was required. However, the recruitment of consultant was delayed due to Covid-19.</p> <p>Moreover, there is no interest/commitment charges applicable on the Grant amount, so the balance funds remained i.e. 48 Million were further utilized in the best interest of the Project. No delay has been occurred due to the excess funds.</p> <p>In view of the above para may kindly be settled.</p>
7	146	7	<p>Subject: Irregular expenditure on account of rent of building -Rs 2.040 million</p> <p>According to Finance Department Letter No.So(A/cs)FD/2-5/93 dated 14-05-1996, NOC for non-availability of Government building to be obtained from communication & works Department. Moreover rent assessment certificate both from C&W and Excise and Taxation Department to be obtained. After getting these documents, an agreement for a period of 03 years as per Government approved terms and</p>	<p>Para-wise replies to the observation are as under:</p> <ol style="list-style-type: none"> 1. Reference is solicited to the KP Delegation of Financial Power Rules 2018 section 2 (e), and Schedule II , that the Excise and Taxation Department Urban Immovable Property tax rates, the rent paid for the office accommodation is on lower side. The rent assessed and compared is attached. (Annexure-I)

S. No	A.P. No	PARA No	Brief of the Advance Audit Para	Reply by Project Director - Khyber Pakhtunkhwa Cities Improvement Project
			<p>condition with no commitments for advance payment may be entered into.</p> <p>The Project Management paid a sum of Rs.2,040,000/- on the accounts of rent of building to their owner during 2019-20. Audit observed that:</p> <ol style="list-style-type: none"> 1. Rent assessment certificate from C&W and Excise and Taxation Department was not obtained as required under the above quoted orders of Finance Department. Payment of Rs 170,000/- per month seems on very higher rent for only two flats having 3 to 4 rooms each. 2. Non-availability of building/ rental building certificate from P&D Department and LGE&RDD. 3. The amount was credited in to the Project Director Account instead direct payment to the owner of the flats. No details of its further disbursement was available except Actual Payee Receipts Certificate prepared by the Project Management. <p>According to rent agreement, two flats 401 and 402 at 4th floor, Afzal Apartments, Jamrod Road, Phase-3 Hayatabad were hired but actually the Project staff and record was available at 2nd floor in the same building which is not understandable and seems fictitious.</p> <p>Audit held that the entire process of rent of building including payment to the owner is not only irregular but doubtful. The lapse was occurred due to non-observance of government Rules/procedure.</p> <p>When pointed out in October 2020, the Management replied that after verification of the record detailed reply would be submitted.</p> <p>Audit recommends investigation in the matter besides regularization of expenditure incurred under intimation to Audit.</p>	<ol style="list-style-type: none"> 2. The non-availability certificates are available from the Urban Policy Unit P&DD and LGE&RDD Department and attached. . (Annexure-II) 3. The payment is made under the contingency head of the Project Direct contract to the Project Director account. The same is further disbursed to the lesser as per detail (Annexure-III) 4. As per rental agreement till 30th June 2020 the office was located at Flats No. 401 and 402, whereas at the time of Audit i.e. October 2020 the office was shifted to the Ground Floor and accordingly the new rental agreement was signed with the lesser. <p>In view of the above para may kindly be settled.</p>
8	147	8	Subject: Irregular Un-justified payment to individual Consultants on account of rent of vehicles Rs -3.319 million	The budget of US\$ 2 million for Due Diligence Climate Resilience Component of PRF was approved in November 2019 by Additional

S. No	A.P. No	PARA No	Brief of the Advance Audit Para	Reply by Project Director - Khyber Pakhtunkhwa Cities Improvement Project																																
			<p>According to the Rent Agreement for vehicle, executed between the Project and M/S Shah Rent A Car Peshawar, clause1 (a) the rent of vehicle inclusive of all taxes shall beRs 72,600/- per month. Payment will be made after receiving monthly invoice bearing details of vehicle. The invoiced amount will be paid through cross cheque on account of Mr Shah Saud Khan (Account No-00169779008236030) or through Cash payment.</p> <p>The Project management Credited an amount of Rs. 3,319,800/- in the bank account of following individual consultants on account of hiring of vehicles during 2019-20.</p> <table><tr><th>Name</th><th>Designation</th><th>Monthly Rent</th><th>Total Rent Paid</th></tr><tr><td>Vasif Shinwari</td><td>Project Director</td><td>72,600</td><td>666,600</td></tr><tr><td>Kashif Bashir</td><td>Environmental Specialist</td><td>72,600</td><td>666,600</td></tr><tr><td>Faisal Anwar</td><td>Project Coordinator</td><td>72,600</td><td>290,400</td></tr><tr><td>Abdul Hamid</td><td>Social Safeguard Specialist</td><td>72,600</td><td>666,600</td></tr><tr><td>Atif Masud</td><td>Monitoring and Evaluation Specialist</td><td>72,600</td><td>666,600</td></tr><tr><td>Kiran Farhan</td><td>Project Officer</td><td>72,600</td><td>363,000</td></tr><tr><td colspan="3">Total</td><td>3,319,800</td></tr></table> <p>Audit observed that payment should have been made to the firm M/S Shah Saud Khan through Cross Cheques on his account No.or through cash payment but payment of rent of vehicles were credited to individual consultant in their monthly remuneration, hence the expenditure was held irregular and un-justified.</p> <p>The lapse occurred due to non observance of agreement. When pointed out in October 2020, the Management replied that after verification of the record detailed reply would be submitted.</p> <p>Audit recommends inquiring the matter for fixing responsibility.</p>	Name	Designation	Monthly Rent	Total Rent Paid	Vasif Shinwari	Project Director	72,600	666,600	Kashif Bashir	Environmental Specialist	72,600	666,600	Faisal Anwar	Project Coordinator	72,600	290,400	Abdul Hamid	Social Safeguard Specialist	72,600	666,600	Atif Masud	Monitoring and Evaluation Specialist	72,600	666,600	Kiran Farhan	Project Officer	72,600	363,000	Total			3,319,800	<p>Chief Secretary, Government of Khyber Pakhtunkhwa (GoKP). This budget provides all types of ceilings in each head of expenditure.</p> <p>The budget for this component of PRF was approved because no allocations (PC-II) were available for operational expenses of Project Management Unit of KPCIP. Further executing agency P&DD and LGE&RDD authorize based on approved budget through Individual Experts to use of contingencies allocations available in their contract for operational expenses and it was also endorsed by Asian Development Bank (ADB)</p> <p>As mentioned in the criteria of the instant para, the payment in respect of rent of vehicle have been made to Mr. Shah Saud Khan by the Individual Consultant via crossed cheques and through Bank Transfer. Detail enclosed Annexure-I. Further tax payment is properly deposited and CPR is attached. (Annexure-II)</p> <p>In view of the above para may kindly be settled.</p>
Name	Designation	Monthly Rent	Total Rent Paid																																	
Vasif Shinwari	Project Director	72,600	666,600																																	
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S. No	A.P. No	PARA No	Brief of the Advance Audit Para	Reply by Project Director - Khyber Pakhtunkhwa Cities Improvement Project										
9	148	9	<p>Subject: Ineligible / Irregular payment to Financial Management Specialist of Rs. 4.479 million</p> <p>Financial Management Specialist having 1 position to revised PC-II, Page-64 (Table-5) “ shall be allowed 5 person months. The Project management paid an amount of Rs.4,479,845/- to Financial Management specialist on accounts of remuneration during 2019-20.</p> <p>Audit observed that the Financial Management Specialist against the agreed terms of the 05 person- months of PC-II were allowed to draw remuneration beyond 5 months up to 30.06.2020, resulting into an excess payment of Rs.4,479,845/-.</p> <p>The lapse occurred due to non-observance of PC-II.</p> <p>When pointed out in October 2020, the Management replied that after verification of the record detailed reply would be submitted.</p> <p>Audit recommend of recovery of over payment from the Financial Management Specialist Under intimation to audit.</p>	<p>The contract agreement between Financial Management Specialist and UPU, P&D Government of Khyber Pakhtunkhwa was signed for duration 12 person-month input and it was endorsed by Asian Development Bank (ADB) and all payment made by project authorities according to contractual arrangement (Annexure-I).</p> <p>In addition to above the position of Financial Management Specialist was approved for duration of 18 person-month under approved budget Due Diligence Climate Resilience Component of PRF by Additional Chief Secretary, Government of Khyber Pakhtunkhwa (GoKP).</p> <p>The revision of PC-II was submitted to LGE&RDD by project authorities for regularization of changes in implementation of KPCIP.</p>										
10	149	10	<p>Over payment to the project associates on accounts of pay and allowances amounting Rs.21.843 million</p> <p>According to the notification No.SO(Policy)/E&AD/1-25/2017 Dated 06-12-2017 of Government of Khyber Pakhtunkhwa Establishment Department Regulation Wing the revised standard pay package for officer/staff directly recruited from open market on contract basis for the execution of development project will be as follows.</p> <table border="1"> <thead> <tr> <th>S.No</th><th>Pay scale</th><th>Minimum Rs.</th><th>Increment @ 5%</th><th>Maximum Rs.</th></tr> </thead> <tbody> <tr> <td>1</td><td>BPS 16</td><td>60,000</td><td>3,000</td><td>96,000</td></tr> </tbody> </table> <p>The Project Management paid of Rs.10,233,216 on account of remuneration to the Project Associates (BPS-16) during 2019-2020</p> <p>Audit observed that the incumbent of the post were required to pay @ 96000 per month in accordance with approved pay package for project staff as per project Policy but they were</p>	S.No	Pay scale	Minimum Rs.	Increment @ 5%	Maximum Rs.	1	BPS 16	60,000	3,000	96,000	<p>Project Associates are paid according to Project Policy of GoKP which provides ceilings for BPS-17 of PKR 144,000/- per month, however audit party consider these position under BPS-16 having maximum ceiling of PKR 96,000/- per month.</p> <p>The project associates were paid according to approved budget of Due Diligence Climate Resilience Component of PRF by Additional Chief Secretary, Government of Khyber Pakhtunkhwa (GoKP). This budget provides ceiling of the remuneration of the Project Associates.</p> <p>Furthermore consent for ceiling of the remuneration of Project Associates was also endorsed from Asian Development Bank (ADB) .</p>
S.No	Pay scale	Minimum Rs.	Increment @ 5%	Maximum Rs.										
1	BPS 16	60,000	3,000	96,000										

S. No	A.P. No	PARA No	Brief of the Advance Audit Para	Reply by Project Director - Khyber Pakhtunkhwa Cities Improvement Project
			<p>paid @ Rs.142128 per month which resulted an over payment of Rs,3,321,216(Annex-A)</p> <p>The lapse occurred due to non observance of project policy. When pointed out in October 2020, the Management replied that after verification of the record detailed reply would be submitted. Audit recommends recovery of overpaid amount from the person(s) at fault under intimation to audit.</p>	

TERMS OF REFERENCE FOR INDIVIDUAL CONSULTANTS

A. Project Management Specialist (national, intermittent)

1. Background, Objective, and Purpose of the Assignment

1. Asian Development Bank (ADB) is financing the Khyber Pakhtunkhwa Cities Improvement Projects (KPCIP) – Second Project Readiness Financing (PRF 2) to support a systematic approach to planning, higher quality of project readiness for urban projects, and increased focus on sustainable project operations. The PRF 2 will support the preparation of planning, due diligence, detailed engineering design, and procurement activities of projects in KP cities. *[KPUMA/PMU-LGERDD]* is the implementing agency (IA) for KPCIP PRF 2 for *[urban transport projects/water supply and sanitation projects and solid waste management projects]*.

2. A Project Management Specialist will be recruited to provide hands-on assistance for strengthening the IA capacity and facilitating the smooth implementation of the PRF 2 and preparation of these projects.

3. The assignment will ensure adherence to latest best practice in the urban sector as well as to all applicable ADB standards and Guidelines.

2. Scope of Work

4. The scope of the assignment is to provide project management support to the IA for the development of projects and assistance to strengthen the IAs capacity on Project Management.

5. The Specialist will assist the IA in reviewing all project documentation and reports, and provide inputs to improve the performance and efficiency of the IA. The purpose is to ensure quality projects are developed and consistent with selection criteria for projects prepared under PRF 2.

6. The Specialist will be responsible for ensuring full compliance with applicable ADB policy, regulations and/or guidelines and provisions in the Project Administration Manual (PAM) for the PRF. The specialist will also develop plans and recommend actions to ensure smooth and timely implementation of the PRF activities.

3. Detailed Tasks and Expected Outputs

7. The specialist will, among other tasks, provide guidance and inputs to the IA as follows:
- (i) provide project management support and guidance to the IA as needed;
 - (ii) support the IA in all PRF 2 implementation aspects;
 - (iii) prepare, participate, and assist the IA in relevant meetings with consulting firms and government officials;
 - (iv) provide guidance to the IA and advice for sound decision making and informed project selection (in compliance with the criteria agreed with ADB for KPCIP PRF 2);
 - (v) monitor the recruitment and administration of consulting services contracts;
 - (vi) monitor and update Gantt chart for the PRF 2 implementation;
 - (vii) monitor the progress of consultant against their terms of reference (TORs);
 - (viii) proactively flag issues and risks, propose mitigation measures and provide problem solving;

- (ix) review and track submission of technical reports;
- (x) provide detailed review of all deliverables by consulting firms, identify gaps, and make recommendation for improvement;
- (xi) coordinate inputs and prepare periodic progress reports for ADB;
- (xii) ensure comments/recommendations received from ADB review are addressed satisfactorily and in a timely manner;
- (xiii) conduct periodic field visits as needed and provide report to the IA;
- (xiv) ensure the IA keeps relevant project records updated at all times;
- (xv) ensure on-the-job training and capacity development is provided to IA permanent staff;
- (xvi) support the IA for timely and effective communications with ADB;
- (xvii) review and ensure full quality and completeness of the documentation submitted by the IA to ADB for review; and
- (xviii) provide other relevant support to IA and ADB as required.

4. Minimum Qualification Requirements

8. The Specialist shall possess a bachelor's degree in engineering, or similar, and preferably with a master of management or equivalent. The Specialist will possess at least fifteen (12) years of general professional experience in the transport sector, including management of large transport infrastructure projects. English language, and excellent verbal and written communication skills are required.

Minimum General Experience	12 Years
Minimum Specific Experience (relevant to assignment)	12 Years
Regional/Country Experience in similar project:	Required

B. Transport Planning and Bust Rapid Transit Specialist (national, intermittent)

5. Background, Objective, and Purpose of the Assignment

9. ADB is financing the Khyber Pakhtunkhwa Cities Improvement Projects – Second Project Readiness Financing (PRF 2) to support a systematic approach to planning, higher quality of project readiness for urban projects, and increased focus on sustainable project operations. The PRF 2 will support the preparation of planning, due diligence, detailed engineering design, and procurement activities of projects in KP cities. KPUMA is the implementing agency (IA) for KPCIP PRF 2 for urban transport projects.

10. A Transport Planning and Bus Rapid Transit (BRT) Specialist will be recruited to provide hands-on assistance for strengthening the IA capacity and facilitating the smooth implementation of the PRF and preparation of these projects.

11. The assignment will ensure adherence to updated and latest best practice in the urban transport sector in project preparation.

6. Scope of Work

12. The scope of the assignment is to provide technical support to the IA for the development of projects and assistance to strengthen the IA's capacity on urban transport planning and BRT project design.

13. The Specialist will assist the IA in reviewing all project documentation and reports, and provide inputs to improve the performance and efficiency of the IA. The purpose is to ensure quality projects are developed and consistent with selection criteria for projects prepared under KPCIP PRF 2.

14. The specialist will also recommend actions to ensure informed decision making in the selection of project and subprojects.

7. Detailed Tasks and Expected Outputs

15. The specialist will, among other tasks, provide guidance and inputs to the IA as follows:
- (i) provide technical inputs, support, and guidance to the IA as needed;
 - (ii) support the IA in all technical aspects relating to urban transport and BRT projects;
 - (iii) provide guidance and advise for sound decision making and informed project selection (in compliance with the criteria agreed with ADB for KPCIP PRF 2);
 - (iv) ensure sound methodologies are used, and best recent practices and technologies are envisaged for the projects while tailored to project environment;
 - (v) conduct field visits to ensure in-depth understanding of the project site and specifics;
 - (vi) provide detailed review of all deliverables by consulting firms, identify gaps, and make recommendation for improvement;
 - (vii) participate and assist the IA in relevant meetings with consulting firms and government officials;
 - (viii) ensure all solutions and project designs are optimized;
 - (ix) review and track submission of technical reports;
 - (x) provide support in ensuring comments/recommendations received from ADB review are addressed satisfactorily;
 - (xi) conduct periodic field visits as necessary and provide report to the IA;
 - (xii) ensure the IA keeps relevant project records updated at all times;
 - (xiii) ensure on-the-job training and capacity development is provided to IA permanent staff;
 - (xiv) assist the IA for timely and effective communications with ADB;
 - (xv) assist the IA in related sections of periodic reports to ADB;
 - (xvi) review and ensure full quality and completeness of the documentation submitted by the IA to ADB for review; and
 - (xvii) provide other relevant support to IA and ADB as required.

8. Minimum Qualification Requirements

16. The Specialist shall possess a bachelor's degree in urban planning, in civil engineering, or similar, and preferably with a master of science degree or equivalent. The Specialist will possess at least fifteen (12) years of general professional experience in the urban transport sector, including integrated BRT infrastructures along with non-motorized transport components. English language, and excellent verbal and written communication skills are required.

Minimum General Experience	12 Years
Minimum Specific Experience (relevant to assignment)	12 Years
Regional/Country Experience in similar project:	Required

C. Social Safeguard Specialist (national, intermittent)

1. Objective and Purpose of the Assignment

17. ADB is financing the Khyber Pakhtunkhwa Cities Improvement Projects – Second Project Readiness Financing (PRF 2) to support a systematic approach to planning, higher quality of project readiness for urban projects, and increased focus on sustainable project operations. The PRF 2 will support the preparation of planning, due diligence, detailed engineering design, and procurement activities of projects in KP cities. *[KPUMA/PMU-LGERDD]* is the implementing agency (IA) for KPCIP PRF 2 for *[urban transport projects/water supply and sanitation projects and solid waste management projects]*.

18. A Social Safeguard Specialist will be recruited to provide hands-on assistance for strengthening the IA capacity and facilitating the smooth implementation of the PRF 2 and preparation of these projects.

19. The assignment will ensure adherence to ADB's requirements under Safeguard Policy Statement (SPS) (2009), as part of the preparatory work for proposed ADB loan to Pakistan to be financed in KP under the urban Sector.

2. Scope of Work

20. The scope of the assignment is to provide technical support to the IA for the development of projects and assistance to strengthen the IAs capacity on social safeguards.

21. The specialist is tasked with ensuring ADB's requirements under SPS (2009) are fully adhered to. The specialist will ensure that all necessary environmental assessments for investment projects and required reports as specified by the SPS (2009) are timely and adequately produced with the required quality.

22. The Specialist will assist the IA in reviewing all project documentation and reports, and provide inputs to improve the performance and efficiency of the IA and to ensure compliance with ADB policies and procedures.

23. The specialist will also recommend actions to avoid or minimize social impacts and risks.

3. Detailed Tasks and/or Expected Output

24. The specialist will, among other tasks, provide guidance and inputs to the IA as follows:
- (i) review/complete/update ADB's environmental, involuntary and indigenous people categorization forms/screening checklists;
 - (ii) assess involuntary resettlement safeguards through field visits/desk review to confirm that all potential social risks are identified and adequately planned in resettlement plan;
 - (iii) The Expert would be responsible for carrying out the social due diligence on sites for all proposed subprojects, conduct stakeholder consultation and identify the resettlement issues, prepare and update resettlement plans or due diligence reports if needed, following the guidelines of ADB and Government and the guidelines provided and agreed with ADB, and assist in the implementation of the plans should it be required.

- (iv) provide support to the IA for ensuring that relevant plans are included in tender documents, ensuring prior clearance, monitoring, course corrections, consultations, due diligence, and disclosures;
- (v) conduct field visits to ensure that people are informed as per ADB's communication requirements and consulted during project preparation/design and implementation;
- (vi) review and track submission of safeguard monitoring reports and compliance with disclosure requirements;
- (vii) provide support in ensuring comments/recommendations received during ADB internal review of safeguard documents are addressed satisfactorily;
- (viii) ensure that no physical displacement or economic displacement will occur until (i) compensation at full replacement cost has been paid to each displaced person for project components or sections that are ready to be constructed; (ii) other entitlements listed in the resettlement plan have been provided to displaced persons; and (iii) a comprehensive income and livelihood rehabilitation program, supported by an adequate budget, is in place to help displaced persons improve, or at least restore, their incomes and livelihoods;
- (ix) assist in the disclosure of safeguard documents on ADB website;
- (x) assess project team to ensure appropriate resources and capacity are deployed to effectively cover social and environmental safeguards policies of project during preparation and implementation;
- (xi) conduct periodic field visits as necessary and provide report to the IA;
- (xii) ensure the IA keeps relevant project records updated at all times;
- (xiii) participate and assist the IA in relevant meetings with consulting firms;
- (xiv) ensure on-the-job training and capacity development is provided to IA permanent staff;
- (xv) assist the IA for timely and effective communications with ADB;
- (xvi) assist the IA in related sections of periodic reports to ADB;
- (xvii) review and ensure full quality and completeness of the documentation submitted by the IA to ADB for review; and
- (xviii) provide other relevant support to IA and ADB as required.

4. Minimum Qualification Requirements

25. A graduate, preferably master's degree or equivalent, in anthropology, sociology, applied social science, environmental sciences/environmental engineering, or other related fields. Fifteen (12) years professional experience in environmental and social safeguard management and monitoring of projects, environmental/social assessment and/or design and implementation of mitigation measures, preferably in urban infrastructures and water and sanitation projects in accordance with ADB's environmental assessment guidelines will be preferred.

Minimum General Experience	12 Years
Minimum Specific Experience (relevant to assignment)	12 Years
Regional/Country Experience in similar project:	Required

D. Environment Safeguard Specialist (national, intermittent)

1. Objective and Purpose of the Assignment

26. ADB is financing the Khyber Pakhtunkhwa Cities Improvement Projects – Second Project Readiness Financing (PRF 2) to support a systematic approach to planning, higher quality of

project readiness for urban projects, and increased focus on sustainable project operations. The PRF 2 will support the preparation of planning, due diligence, detailed engineering design, and procurement activities of projects in KP cities. *[KPUMA/PMU-LGERDD]* is the implementing agency (IA) for KPCIP PRF 2 for *[urban transport projects/water supply and sanitation projects and solid waste management projects]*.

27. An Environment Specialist will be recruited to provide hands-on assistance for strengthening the IA capacity and facilitating the smooth preparation of these projects.

28. The assignment will ensure adherence to ADB's requirements under Safeguard Policy Statement (SPS) (2009), as part of the preparatory work for proposed ADB loan to Pakistan to be financed in KP under the urban Sector.

2. Scope of Work

29. The scope of the assignment is to provide technical support to the IA for the development of projects and assistance to strengthen the IAs capacity on environment safeguards.

30. The specialist is tasked with ensuring ADB's requirements under SPS (2009) are fully adhered to. The specialist will ensure that all necessary environmental assessments for investment projects and required reports as specified by the SPS (2009) are timely and adequately produced with the required quality.

31. The specialist will assist the IA in reviewing all project documentation and reports, and provide inputs to improve the performance and efficiency of the IA and to ensure compliance with ADB policies and procedures.

32. The specialist will also recommend actions to avoid or minimize adverse environmental impacts and risks.

3. Detailed Tasks and/or Expected Output

33. The specialist will, among other tasks provide guidance and inputs to the IA as follows:
- (i) review/complete/update ADB's environmental, involuntary resettlement, and indigenous people categorization forms/screening checklists;
 - (ii) prepare/update safeguard documents as described in the ADB Board-approved safeguard documents;
 - (iii) work closely with the engineering firm and other consultants to prepare relevant safeguard documents for civil work components;
 - (iv) ensure that any environmental impact assessments, if required, fully comply with ADB Safeguards Policy Statement (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 site-specific environmental management plan (SSEMP);
 - (v) review/update environmental management and monitoring plan for the project/subprojects which is in line with IEE/ EIA recommendations so as to ensure minimal environmental effects both during and following the construction period;
 - (vi) review/update the SSEMP for each subproject and ensure their effective implementation, undertaking remedial action in close consultation with respective

- EPA and ADB to handle unexpected environmental impacts and submitting the monitoring report on EMP to the relevant agencies and ADB;
- (vii) provide support to the IA for ensuring that environmental management plans are included in tender documents, ensuring prior clearance, monitoring, course corrections, consultations, due diligence, and disclosures;
 - (viii) prepare required appropriate actions to mitigate any negative environmental impacts associated with construction activities in collaboration with IA and all concerned stakeholders;
 - (ix) review draft domestic environmental safeguard reports, as needed and obtain any additional information needed to comply with ADB's requirements;
 - (x) review all documentation prepared by the consulting firms for the projects, such as assessments of possible environmental impacts, including stakeholder consultations, and review consolidated environmental impact assessment report and environmental management plan to meet ADB's requirements, including mitigation measures and cost estimates, environmental monitoring plan;
 - (xi) provide inputs as necessary support the finalization of the documentation prepared by the consulting firms for the projects, such as assessments of possible environmental impacts, including stakeholder consultations, and review consolidated environmental impact assessment report and environmental management plan to meet ADB's requirements, including mitigation measures and cost estimates, environmental monitoring plan;
 - (xii) review and provide guidance on institutional arrangements, implementation schedule, and public consultations;
 - (xiii) assess whether the project will cause any environmental impacts, resulting from physical and non-physical investments;
 - (xiv) work with the consultants to assess other potential environment impacts;
 - (xv) confirm and verify presence or absence of complaints in relation to the project and selected sites;
 - (xvi) provide support in ensuring comments/recommendations received during ADB internal review of safeguard documents are addressed satisfactorily;
 - (xvii) assist in the disclosure of safeguard documents on ADB website;
 - (xviii) assess project team to ensure appropriate resources and capacity are deployed to effectively cover social and environmental safeguards policies of project during preparation and implementation.
 - (xix) conduct periodic field visits as necessary and provide report to the IA;
 - (xx) ensure the IA keeps relevant project records updated at all times;
 - (xxi) participate and assist the IA in relevant meetings with consulting firms;
 - (xxii) ensure on-the-job training and capacity development is provided to IA permanent staff;
 - (xxiii) assist the IA for timely and effective communications with ADB;
 - (xxiv) assist the IA in related sections of periodic reports to ADB;
 - (xxv) review and ensure full quality and completeness of the documentation submitted by the IA to ADB for review; and
 - (xxvi) provide other relevant support to IA and ADB as required.

4. Minimum Qualification Requirements

34. The National Environment Safeguards Specialist will have a degree in environmental science or another relevant field and at least 5 years of work experience with 3 previous projects of similar size and complexity, and in applying ADB's requirements under SPS (2009), and conducting environmental assessments for investment projects accordingly.

∴

Minimum General Experience:	5 Years
Minimum Specific Experience (relevant to assignment):	5 Years
Regional/Country Experience in similar project:	Required

E. Gender Specialist (national, intermittent)

1. Objective and Purpose of the Assignment

35. ADB is financing the Khyber Pakhtunkhwa Cities Improvement Projects – Second Project Readiness Financing (PRF 2) to support a systematic approach to planning, higher quality of project readiness for urban projects, and increased focus on sustainable project operations. The PRF 2 will support the preparation of planning, due diligence, detailed engineering design, and procurement activities of projects in KP cities. *[KPUMA/PMU-LGERDD]* is the implementing agency (IA) for KPCIP PRF 2 for *[urban transport projects/water supply and sanitation projects and solid waste management]* projects.

36. A Gender Specialist will be recruited to provide hands-on assistance for strengthening the IA capacity and facilitating the smooth preparation of these projects.

37. The assignment will ensure adherence to ADB's requirements for project categorized *effective gender mainstreaming*, as part of the preparatory work for proposed ADB loan to Pakistan to be financed in KP under the urban Sector.

2. Scope of Work

38. The scope of the assignment is to provide technical support to the IA for the development of projects and assistance to strengthen the IA's capacity on gender related activities.

39. The consultant will assist the IA in monitoring the preparation of relevant due diligence and reports to improve the performance and efficiency of the IA and to ensure compliance with ADB policies and procedures.

3. Detailed Tasks and/or Expected Output

40. The specialist will, among other tasks provide guidance and inputs to the IA as follows:
- (i) assist IA in the development of gender mainstreaming strategy and gender action plans for the ensuing and ongoing projects;
 - (ii) assist in developing and operationalizing the social inclusion and gender and anti-harassment policies and ensuring compliance with these policies;
 - (iii) assist in strengthening capacities of EA and IA on issues related to social inclusion and gender, and provide technical support to IA-based Gender Officer;
 - (iv) support EA and IA in establishing a system to collect and analyze sex-disaggregated data gender- and social inclusion-related qualitative and quantitative data on subproject participants and beneficiaries;
 - (v) ensure women's participation in consultation meetings and customer satisfaction surveys;
 - (vi) conduct periodic field visits as necessary and provide report to the IA;
 - (vii) ensure the IA keeps relevant project records updated at all times;
 - (viii) participate and assist the IA in relevant meetings with consulting firms;

- (ix) ensure on-the-job training and capacity development is provided to IA permanent staff;
- (x) assist the IA for timely and effective communications with ADB;
- (xi) assist the IA in related sections of periodic reports to ADB;
- (xii) review and ensure full quality and completeness of the documentation submitted by the IA to ADB for review; and
- (xiii) provide other relevant support to IA and ADB as required.

4. Minimum Qualification Requirements

41. The incumbent must have bachelor's or master's degree in urban and community development, social sciences, development or related field. The assignment requires 5 years of general professional experience and at least three (3) years of experience in social assessment and community development consultations, conduct of social and gender analysis preparation of poverty, social, and gender analysis report/s, gender action plan, and monitoring reports for urban development projects. The consultant should also have experience in mainstreaming gender and social inclusion in projects. Technical knowledge of gender and social inclusion approaches is required.

Minimum General Experience	5 Years
Minimum Specific Experience (relevant to assignment)	3 Years
Regional/Country Experience in similar project:	Required

F. Procurement and Contract Specialist (national, intermittent)

1. Objective and Purpose of the Assignment

42. ADB is financing the Khyber Pakhtunkhwa Cities Improvement Projects – Second Project Readiness Financing (PRF 2) to support a systematic approach to planning, higher quality of project readiness for urban projects, and increased focus on sustainable project operations. The PRF 2 will support the preparation of planning, due diligence, detailed engineering design, and procurement activities of projects in KP cities. *[KPUMA/PMU-LGERDD]* is the implementing agency (IA) for KPCIP PRF 2 for *[urban transport projects/water supply and sanitation projects and solid waste management projects]*.

43. A Procurement Specialist will be recruited to provide hands-on assistance for strengthening the IA capacity and facilitating the smooth implementation of the PRF 2 and preparation of these projects.

44. The assignment will ensure full adherence to ADB procurement guidelines.

2. Scope of Work

45. The specialist shall support the IA in all procurement related matter and will be responsible for ensuring compliance with the ADB policy, regulations and/or guidelines on procurement of goods and works, nonconsulting, and consulting services.

46. The expert will assist and provide inputs in procurement planning, preparation of bid documents (goods, works, and consulting services), in managing the procurement process, bid/proposal evaluations and support during project implementation in contract administration.

3. Detailed Tasks and/or Expected Output

47. The overall responsibilities of the Consultant will include but not limited to the following:
- (i) provide assistance, technical guidance and capacity development to the IA to ensure compliance with ADB's procurement (goods, works, and consulting services) policies and procedures;
 - (ii) assist the IA in undertaking recruitment of consulting firms and individual consultants as per the PFR 2 procurement plan following ADB policies and procedures;
 - (iii) ensure recruitment of consulting firms and individual consultants is conducted in compliance with ADB Guidelines on the Use of Consultants and Procurement Guidelines and other requirements;
 - (iv) assist in preparing terms of reference for all assignments;
 - (v) prepare EOIs and RFPs using ADB standard documents and guidelines;
 - (vi) assist in convening the recruitment process for consulting services and in the preparation of requisite consultant recruitment submissions to ADB;
 - (vii) ensure quality of completeness of all consultant recruitment submissions and provide all clarification requested by ADB;
 - (viii) provide inputs for procurement strategy for the projects and prepare/update procurement plan including packaging of services, and goods with estimated cost and time schedule;
 - (ix) monitor recruitment and contract administration activities, reflect any red flags and propose remedial actions;
 - (x) assist in reviewing and assessing any contract variations and processing them as required by the contract provisions and ADB procedures;
 - (xi) provide support for loan/grant review missions to assess IA procurement awards and achievements, identify any noncompliance with ADB procurement guidelines and loan/grant agreements, and recommend measures for improving procurement processes, as applicable;
 - (xii) assist in any other task assigned by the IA in the domain of procurement and contract administration;
 - (xiii) ensure the IA keeps relevant project records updated at all times;
 - (xiv) participate and assist the IA in relevant meetings with consulting firms;
 - (xv) ensure on-the-job training and capacity development is provided to IA permanent staff;
 - (xvi) assist the IA for timely and effective communications with ADB;
 - (xvii) assist the IA in related sections of periodic reports to ADB;
 - (xviii) review and ensure full quality and completeness of the documentation submitted by the IA to ADB for review; and
 - (xix) provide other relevant support to IA and ADB as required.

4. Minimum Qualification Requirements

48. The assignment requires 10 years' experience in procurement and/or contract management for 3 infrastructure and similar project management. The specialist shall possess a bachelor's degree in engineering, or similar, and preferably with a master degree in management or relevant field.

Minimum General Experience:	10 Years
Minimum Specific Experience (relevant to assignment):	7 Years
Regional/Country Experience in similar project:	Required

G. Financial Management Specialist (national, intermittent)

1. Objective and Purpose of the Assignment

49. ADB is financing the Khyber Pakhtunkhwa Cities Improvement Projects – Second Project Readiness Financing (PRF 2) to support a systematic approach to planning, higher quality of project readiness for urban projects, and increased focus on sustainable project operations. The PRF 2 will support the preparation of planning, due diligence, detailed engineering design, and procurement activities of projects in KP cities. *[KPUMA/PMU-LGERDD]* is the implementing agency (IA) for KPCIP PRF 2 for *[urban transport projects/water supply and sanitation projects and solid waste management projects]*.

50. A Financial Management Specialist will be recruited to provide hands-on assistance for strengthening the IA capacity and facilitating the smooth implementation of the PRF 2 and preparation of these projects.

51. The assignment will ensure full adherence to ADB Financial Management guidelines and procedures.

2. Scope of Work

52. The specialist shall support the IA in all financial management related matter and will be responsible for ensuring compliance with the ADB policy, regulations, and/or guidelines on financial management and provisions in the Project Administration Manual (PAM) for the PRF 2.

3. Detailed Tasks and/or Expected Output

53. The main tasks of the Financial Management Specialist will include, but not limited to the following:

- (i) support the IA for sound financial Management of the PRF, in full compliance with the provisions of the PAM;
- (ii) support the IA in disbursing the PRF loan proceeds following the ADB Loan Disbursement Handbook (2017, as amended from time to time);
- (iii) support the IA in implementing all actions in the financial management action plan agreed with ADB;
- (iv) support the IA in maintaining separate PRF project account (following international standards) and records by funding source for all expenditures incurred on the PRF project, following either cash or accrual basis of accounting;
- (v) support the IA in the timely submission of the audited project financial statements (APFS) together with the auditor's opinion and management letter, in English, to ADB within 6 months of the end of each fiscal year.
- (vi) support the preparation and agreement of cost estimates and a financing plan for ensuing loans, which are based on verifiable data and are sufficient to support project implementation;
- (vii) review/prepare financial evaluations (financial cost-benefit analyses) including sensitivity analyses of project components that have a cost-recovery objective;
- (viii) where significant risks are identified to project financial sustainability or viability, propose relevant financial performance indicators to be incorporated in financial covenants;
- (ix) assist in any other task assigned by the IA in the domain of financial management;

- (x) participate and assist the IA in relevant meetings;
- (xi) ensure on-the-job training and capacity development is provided to IA permanent staff;
- (xii) assist the IA for timely and effective communications with ADB;
- (xiii) assist the IA in related sections of periodic reports to ADB;
- (xiv) review and ensure full quality and completeness of the documentation submitted by the IA to ADB for review; and
- (xv) provide other relevant support to IA and ADB as required.

4. Minimum Qualification Requirements

54. The Financial Management Specialist will have a degree in accounting, finance, or a related field, and will have an IFAC recognized professional accountancy qualification. At least 10 years of relevant work experience is required in financial management, financial management assessments (including in financial due diligence) or related work such as auditing, financial analysis and evaluation, preparation and review of cost estimates, preferably with ADB or other multilateral development institutions.

Minimum General Experience	10 Years
Minimum Specific Experience (relevant to assignment)	10 Years
Regional/Country Experience in similar project:	Required

TERMS OF REFERENCE

**Engineering Design and Procurement Support
Khyber Pakhtunkhwa Sustainable Urban Mobility Project
(Project 1)**

**KPUMA
Government of Pakistan**

October 2021

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ABBREVIATIONS

ADB	Asian Development Bank
BER	bid evaluation report
BoQ	bill of quantity
BRT	bus rapid transit
CCA	climate change assessment
EA	executing agency
EIA	environmental impact assessment
EMP	environmental management plan
EPA	Environmental Protection Agency
FAQ	frequently asked questions
GAP	gender action plan
GDP	gross domestic product
GoP	Government of Pakistan
GRM	grievance redress mechanism
IA	implementing agency
ICB	international competitive bidding
IEE	initial environmental examination
IS	international shopping
ITS	intelligent transportation system
IVS	independent valuation study
KPK	Khyber Pakhtunkhwa Province
KPUMA	Khyber Pakhtunkhwa Urban Mobility Authority
LARP	land acquisition and resettlement plan
LRP	livelihood restoration plan
MIS	management information system
NMT	non-motorized transport
PPP	public–private partnership
PRF	project readiness financing
REA	rapid environmental assessment
RP	resettlement plan
SDDR	social due diligence report
SEMP	strategic environmental management plan
SPN	special procurement notices
SPS	Safeguards Policy Statement
TMTD	Transport and Mass Transit Department
TOR	terms of reference

TERMS OF REFERENCE

Detailed Design and Procurement Support Peshawar Bus Rapid Transit (Phase 2A)

I. INTRODUCTION

A. Project Background

1. Peshawar is the capital city of Khyber Pakhtunkhwa (KPK) Province in Pakistan. Located two-hour drive from the national capital of Islamabad, it sits in the Indus valley near the Afghan border. Based upon the 2017 Pakistan census, the population of Peshawar is 4.27 million inhabitants. Rapid population growth has been impacted by Afghan refugee migration and internal displacement, resulting in 280,000 Afghan refugees and 100,000 displaced persons currently living in Peshawar and housed in 18 informal settlements. As many of these people have limited resources and opportunities, the pressure to maintain infrastructure development and service provision in accordance with the demand for housing, transport and basic urban services is high. Car and motorcycle ownership is still low but increasing with a growing middle class. Combined with other factors such as inefficient public transport and weak traffic management to organize competing modes, the motorization exacerbates congestion and leads to increased air and noise pollution. Declining traffic conditions on key arterials have become unmanageable. With limited infrastructure, the city fails to provide mobility for all.¹

2. Poverty is widespread in Peshawar. If almost 90% of men are employed, only 10% of women are employed due to fewer opportunities for economic independence. Until 2020, the poorest and women traveled mostly on foot or use the existing and informal public transport facilities composed mainly of large and medium-size buses, and the popular pickups, which altogether serve around 70% of the total transport demand but represent only 43% of the total traffic. Responding to the high market demand, many operators were plying along the city's key corridors, without necessary permits and in a disorganized and inefficient manner. The bus fleet was in decay; bus stops were rudimentary, without information on schedule or itinerary; the ticketing system was obsolete; operators competed for passengers, worsening congestion and impairing safety. Traffic-based collisions were increasing, mainly affecting pedestrians. Surveyed, 84% of passengers complained about crowded and unsafe conditions during the rush period, and about the humiliating and bad behavior of drivers and conductors.

3. In August 2020, with support from the Asian Development Bank (ADB), public operations of the new Peshawar bus rapid transit (BRT) project commenced (partial commissioning) and the first phase of the project is anticipated to be fully completed and operational by the end of 2021. This first phase (BRT phase 1, or Phase 1) consists of a 28 km busway corridor with stations, improved mixed traffic lanes, cycle ways, and pedestrian facilities. Approximately 80-kilometers of direct feeder services link the system to communities and destinations outside of the main busway corridor. The project has also featured the creation of a public company to operate and manage the system and its associated private sector contracts. This entity, TransPeshawar, is now staffed and overseeing the gradual opening and operation of the system. An urban mobility authority (KPUMA) was also established. KPUMA is responsible for developing policies and regulations, planning, coordinating, and funding for urban transport at the provincial level. The

¹ The current bus fleet is dominated with vehicles from the 1980's and 1990's. There is no effective Government oversight on fleet quality or supply against demand. There has not been a noticeable investment in public transport for decades. In contrast, recent large investments in various flyovers reflect the priority for private road transport.

BRT system also includes a fleet of plug-in hybrid diesel-electric buses, two depots and one staging facility, with park-and-ride facilities and commercial areas, and 155 off-corridor bus stops. The project addresses Non-Motorized-Transport (NMT) and is designed to achieve universal accessibility. A bicycle sharing system was launched in March 2021. The total project cost for this project is \$590 million.

4. The Government of Pakistan has requested a project readiness financing (PRF) loan from the ADB to prepare the Khyber Pakhtunkhwa Sustainable Urban Mobility Project. The PRF (ADB approval planned in 2021) will support the preparation of the ensuing project (ADB planned in 2023) which consists of the second phase of the Peshawar BRT system (Peshawar BRT phase 2) as well as other projects in KP cities. These terms of reference (TOR) are focused upon the first project (Project 1) of the Khyber Pakhtunkhwa Sustainability Urban Mobility Project. Overall, the upcoming PRF will finance activities such as refinement of project due diligence, engineering design and preparation of bidding documents and procurement support.

5. For Project 1 of the Khyber Pakhtunkhwa Sustainable Urban Mobility Project, the second phase of the project (BRT Phase 2A) will build on the BRT system already deployed to: (i) include a new trunk corridor to increase system ridership and profitability, (ii) provide additional infrastructure to improve (accessibility, performance, integration, equipment) and expand the system, and (iii) include high-impact low-cost investments and measures. The ADB loan (ensuing project) is anticipated to amount to \$100 million and the total project cost is expected to be approximately \$150-200 million (including counterpart funding and possible co-financing by other institutions). Individual consultants are already on board to carry out initial consultations, scoping, operational recommendations, and conceptual design for this phase of the project. This work will result in the “Peshawar BRT Phase 2a Feasibility Study.” It includes the following: (i) a list of proposed components and subcomponents, (ii) the main project outputs, relevant analysis, details and justification, (iii) rough cost estimates and breakdown, (iv) a project conceptual design; and (v) recommendations and further studies to be developed at design stage. The Feasibility Study for Peshawar BRT Phase 2a is expected to be completed by Q2-2022.² The Feasibility Study results will form the basis for the activities under the scope of work defined in this document.

² Supported by grant funding from: ADB, F-TRTA. TA 9839-PAK: Preparing Urban Development Projects.

II. PROJECT OUTPUTS

6. The principal outputs of the assignment are:

7. **Output 1. Dalazak Road trunk BRT corridor.** The Consultant will conduct project management, engineering surveys, preliminary and detailed design, due diligence, and procurement support for the development of a new trunk BRT corridor, along with the associated NMT and mixed traffic infrastructure, on Dalazak Road and a spur on Eid-Gah Road.

8. **Output 2. Kohat Road Trunk Corridor.** The Consultant will conduct project management, engineering surveys, preliminary and detailed design, due diligence, and procurement support for the development of a new trunk BRT corridor, along with the associated NMT and mixed-traffic infrastructure, on Kohat Road. The Consultant will also carry out microsimulation for four design alternatives at the Kohat Road / Ring Road interchange.

9. **Output 3. Direct Service Routes.** The Consultant will conduct project management, engineering surveys, preliminary and detailed design, due diligence, and procurement support for the improvement of approximately 60 kilometers of roads on which new direct service routes will operate.

10. **Output 4. NMT upgrades around Phase 1 stations.** The Consultant will conduct project management, engineering surveys, preliminary and detailed design, due diligence, and procurement support for NMT upgrades within a 400m radius of 10 Phase 1 BRT stations and along the 80 kilometers of Phase 1 direct service routes.

11. **Output 5. Upgrade of Kohat Adda intercity terminal to multimodal terminal.** The Consultant will conduct project management, engineering surveys, preliminary and detailed design, due diligence, and procurement support for the upgrade of the Kohat Adda intercity bus terminal to a multimodal terminal.

12. **Output 6. Direct access to Chamkani BRT Station from GT Road.** The Consultant will conduct project management, engineering surveys, preliminary and detailed design, due diligence, and procurement support for the development of a direct access mixed traffic and pedestrian connection between GT Road and Chamkani Road to/from point west.

13. **Output 7. Parking Management.** The Consultant will develop specifications, contracts, and tender documents for the procurement of a parking management firm, parking management equipment, and a parking levy firm. The Consultant will also provide procurement support through to the hiring of the firms.

14. **Output 8. Commercial property upgrading.** The Consultant will conduct project management, engineering surveys, preliminary and detailed design, due diligence, and procurement support for the upgrading of commercial property to include new revenue raising potential as well as public space.

III. IMPLEMENTATION ARRANGEMENTS

15. KPUMA will be the implementing agency (IA) for the PRF. TransPeshawar will be involved in all technical aspects of the project and is anticipated to be the IA for the implementation of the BRT Phase 2A project (ensuing ADB loan). The Transport and Mass-Transit Department (TMTD) of GoKP will be the executing agency (EA) for the project.

IV. SCOPE OF WORK, TASKS, AND DELIVERABLES

A. Objectives of assignment

16. The overall primary objective of this project is to conduct surveys, provide preliminary and detailed engineering design, and bidding document preparation and bid evaluation support for the construction of Phase 2A of the Peshawar BRT System. The Consultant is to hold a fundamental role in ensuring the overall project implementation process is delivered in a timely and efficient manner. A separate consultant team is currently preparing the Phase 2a Feasibility Study, which will further elaborate the tasks and responsibilities detailed in this document and will form the basis for the Consultant's activities.

B. Scope of system network

17. The existing BRT system (BRT phase 1), known as TransPeshawar, encompasses 27 kilometers of dedicated busway infrastructure and 30 stations. It runs from Chamkani to Hayatabad.

18. The system includes two trunk BRT routes – a local and an express – which travel the length of the corridor. However, TransPeshawar is a Third-Generation BRT system, meaning that it also includes multiple routes that come from different areas and directly enter the busway without the need for a transfer. As of May 2021, TransPeshawar includes five such routes coming from different directions and entering the dedicated busway. New services are being gradually introduced. Figure 1 outlines the full network coverage upon BRT phase 1 completion, showing clearly the trunk busway corridor, as well as the five routes which leave the busway and travel into various neighborhoods.

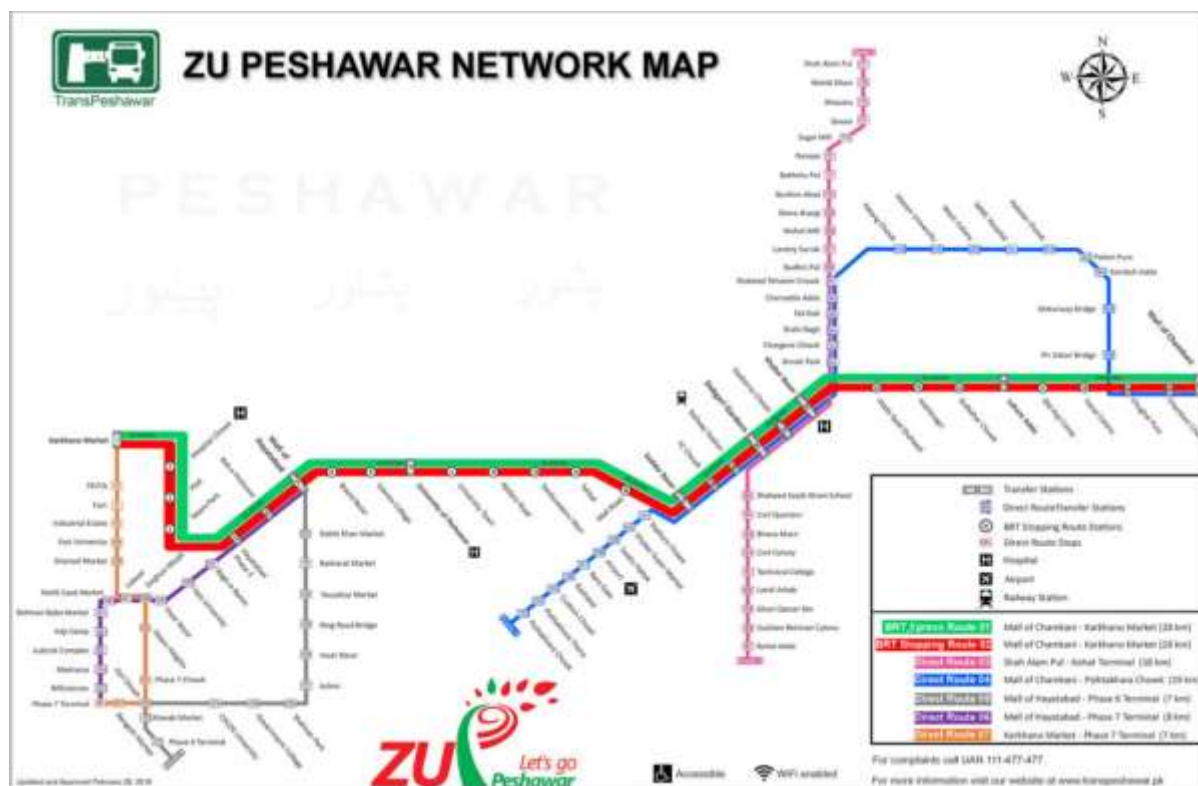


Figure 1. TransPeshawar network map

19. TransPeshawar is currently carrying approximately 171,000 daily passengers on its fleet of 158 buses. The passenger ridership is anticipated to be significantly higher once BRT Phase 1 is fully completed, when the entire fleet of 220 buses are introduced. There are two bus depots, located in Chamkani and Hayatabad, and one staging area in Dabgari. The bus depot in Chamkani is already open and operating while the bus depot in Hayatabad is currently under construction.

20. There is currently one vehicle operating company operating the BRT routes. When the Hayatabad depot is complete, a second vehicle operating company will be contracted to operate those routes which originate out of the Hayatabad depot.

21. There are also separate companies as follows: System Control Company (fare collection, ITS, and statement management) and a Fund Management Company (a bank).

C. BRT Phase 2A

22. Phase 2A of the Zu Peshawar BRT system will build on and expand the Phase 1 system. The main components of Phase 2A are meant to be financially sustainable and include:

- (i) **Preliminary design for Dalazak Road trunk BRT corridor:** The Dalazak Road BRT corridor, between Jinnah Park Stop and the Ring Road / Dalazak Road intersection, has been identified as a principal additional corridor under Phase 2A. The Phase 2A Feasibility Study will examine the potential for at-grade trunk BRT, as well as grade-separated infrastructure. Additionally, a trunk BRT spur, along Eid-Gah Road, for access to the cricket stadium will also be designed, and may turn east along the canal to connect back with Dalazak Road, or may connect to the north with Charsadda Road.
- (ii) **Kohat Road Trunk Corridor:** Existing BRT direct services route 3 currently exits the Phase 1 trunk BRT corridor at the intersection of Railroad Road and Adjab Khan Afridi Road/ The route soon joins Kohat Road which it follows past the Ring Road to the Kohat Adda terminus near the intercity Kohat Bus Terminal. This route frequently faces delays causing irregularity due to traffic congestion along the route. This component will center around upgrading this corridor to a BRT trunk, or at least mitigate the congestion along the route with site-specific measures, as to be determined during the Phase 2A Feasibility Study.
- (iii) **Direct Service Routes:** The Peshawar BRT system is designed as a Third-Generation BRT system. That means that many of the routes operate both on the trunk BRT corridors, and off the corridors in mixed traffic. It is estimated that Phase 2a will include approximately 60 kilometers of direct services routes operating off-trunk; the location of these direct services will be determined in the Phase 2a Feasibility Study. While full BRT infrastructure will not be built on these roads, curbside bus shelters, similar to those operating on Phase 1 direct service roads, will be built roughly every 450 meters. Additionally, bicycle and pedestrian infrastructure will be upgraded along these roads, and parking locations will be provided, where appropriate. Any site-specific bottlenecks, such as poorly timed or congested intersections, will be addressed with localized measures. The pavement may be upgraded, depending on the current state of the pavement.

- (iv) **Non-Motorized Transport (NMT) upgrades:** Pedestrian facilities and bicycle infrastructure will be upgraded for a distance of 400 meters from the existing Phase 1 feeder and direct services routes (approximately 150 stops on 7 routes), and along the new Dalazak corridor.
- (v) **Upgrade of Kohat Adda intercity terminal to multimodal terminal:** Currently the Kohat Adda Intercity Bus Terminal is located at the end of BRT direct service route 03 on Kohat Road. The inter-city bus terminal is little more than a parking lot and has no formal connection with BRT direct service route 03. This terminal will be upgraded to a multimodal intercity terminal with a parking area for easy transfers between BRT and intercity buses, and an indoor facility which includes rest areas and water closets for drivers, as well as for customers.
- (vi) **Direct access to Chamkani BRT Station from GT Road:** Currently, the Chamkani BRT station and depot, which in addition contains the KPUMA/TransPeshawar Offices and a park-and-ride facility, are only accessible by BRT buses from the cityside (west) through a dedicated BRT flyover, and general traffic can only access the Chamkani Depot facilities through a flyover on for Peshawar Bound Traffic on G.T. Road. There is no connection for eastbound mixed traffic into the depot or westbound mixed traffic out of the depot; nor is there any reasonable pedestrian access from the surrounding neighborhoods. Motorists wishing to enter the area from the Grand Trunk Road coming from the east currently must make a u-turn to reach the access ramp. A more direct connection into and out of the depot will be designed.
- (vii) **Parking management:** An on- and off-street parking management strategy will be conducted by a separate consultant. This strategy will include provisions for the contracting of a firm to manage on-street parking and a firm to manage the off-street parking levy. Under this component, the equipment for the on-street parking management system will be specified and the contracts and tender documents will be written to hire the firms.
- (viii) **Commercial property upgrading:** Revenue from retail at three locations - Chamkani depot, Dabgari station, and Hayatabad Depot – goes to TransPeshawar to help reduce any operational subsidy required for the BRT system. However, the malls either remain incomplete or at much lower level of quality than originally planned, which in turn affects the amount of revenue potential. These properties will be upgraded to increase revenue potential.

23. Design options will avoid land acquisition and minimize social and environmental impacts. Innovative technologies will be explored to achieve climate change resilience. Financial sustainability will be one of the driving goals.

24. It is estimated that the total project cost, including construction, will be in the range of \$100 million.

25. A consultant team is currently completing the Peshawar BRT Phase 2a Feasibility Study which will include details on the above components. The Consultant selected to implement this TOR will bring the recommendations in the Feasibility Study through preliminary engineering design, all the way to detailed design.

D. Tasks

Output 1. Dalazak Road trunk BRT corridor

26. The Dalazak Road BRT corridor, between the Jinnah Park Stop and Ring Road / Dalazak Road Interchange, has been identified as the Phase 2A corridor of the TransPeshawar BRT. An additional trunk BRT spur will be built along Eid-Gah Road, starting at the Phatak flyover at Dalazak Road and either connecting to Charsadda Road, or turning east along the canal at Afghan Colony Road and connecting back to Dalazak Road further to the east.



Figure 2. BRT Phases 1 & 2A. The Dalazak Road corridor is Phase 2A in red.

27. The Phase 2A Feasibility Study will determine whether the corridor could be operated successfully with at-grade infrastructure, considering the present constraints, demand and connectivity with Phase 1 BRT infrastructure. The initial feasibility work will also explore the possibility of grade separation (either elevated or underground). A recommendation for at-grade, underground, or elevated will be made and a design concept will be included in the Phase 2a Feasibility Study which will guide the preliminary design. The basic characteristics of the planned infrastructure are described below.

28. The corridor begins with a short section of Malik Saad Shahid Road between the Grand Trunk Road and Dalazak Road where there is currently the Jinnah Park BRT station (No. 142) serving BRT Direct Routes 3 and 4. This station is at grade. From there, the road crosses a railroad track at-grade, which causes a disruption of service and traffic periodically throughout the day. The planned new trunk BRT corridor will likely be grade-separated to avoid conflicts with railway operations. The need for grade separation over or under the railway tracks which may require some reconstruction of the existing BRT station on Malik Saad Shahid Road.

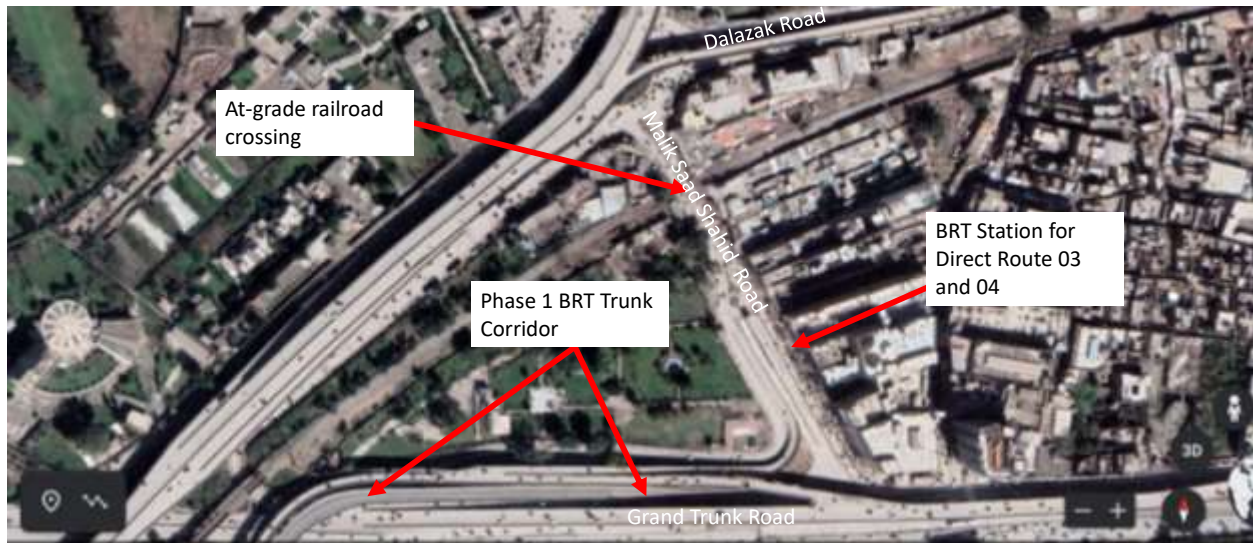


Figure 3. Dalazak Road connection from GT road will require a grade-separated crossing at the railroad tracks.

29. As the initial section of the BRT Phase 2A corridor will need to accommodate both the Dalazak Road BRT service (shown in red below) and the existing Direct Services 3 and 4 (shown in pink below), the interchange at Malik Saad Shahid Road and Dalazak Road will need allow for Direct Services 3 and 4 to join the existing traffic towards Charsadda Road while also providing a two-way dedicated BRT-only connection between Malik Saad Shahid Road and Dalazak Road. This may be accomplished by constructing grade-separated infrastructure, but the actual configuration will be defined in the Phase 2a Feasibility Study.



Figure 4. The Dalazak Road BRT corridor must serve the existing direct service BRT Routes 3 and 4 (pink) and new Dalazak Road BRT services (red). The elevated structure will also need to be constructed for grade separation at the Phatak Flyover.

30. The BRT will continue along Dalazak Road, and cross grade-separated at the existing Phatak Flyover (see above). At this point, the Dalazak Road services and trunk infrastructure will continue beyond the Phatak Flyover, while the Eid-Gah Road spur will turn to the north. The Consultants developing the Phase 2a Feasibility Study will explore options for designing the

Phatak Road interchange to accommodate trunk infrastructure in both directions. The consultant is expected to explore all options of future connectivity and feasibility for different options particularly for the Cricket Stadium, Faqirabad and extension of service to Peshawar EidGah. The consultant must explore all options of at-grade, elevated or a combination scenario at this interchange facility. This BRT station will need to be built as close as possible to the Phatak Flyover to accommodate travel in all directions.

31. There will be seven (7) additional BRT stations on the Dalazak Road corridor. The roadway for mixed traffic will also be improved and reconfigured to define any allowed parking and to ensure safe movement by pedestrians and cyclists.

32. All water, sewer, electric, and telecommunications utilities on or under the roadbed shall be evaluated by the Consultant for relocation requirements. Any of the above-mentioned utilities under the roadbed will also be brought to a state of good repair so as to ensure that the corridor does not need to be torn up soon after the completion of the BRT infrastructure.



Figure 5. Dalazak Road BRT corridor from the Phatak flyover to the Peshawar Ring Road

33. While the trunk corridor will terminate at the interchange between the Peshawar Ring Road and Dalazak Road, BRT direct services will continue on Dalazak Road well beyond the interchange. For this reason, if grade-separated, the infrastructure shall continue to the north side of the roundabout junction (see below). In addition, there is another existing direct service (mixed traffic) BRT also intersecting the corridor at this location. A seamless transfer between these two services shall be provided at this location.

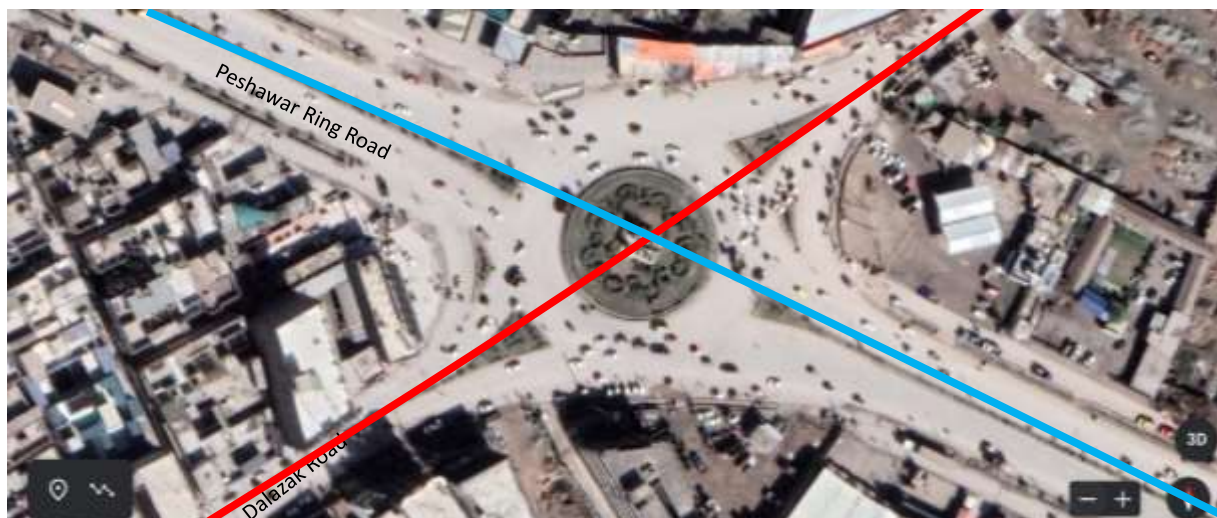


Figure 6. The Dalazak Road BRT services will continue beyond the Peshawar Ring Road. A transfer station must allow for the seamless transfer of passengers between the Dalazak Road BRT services and the existing BRT Direct Route 4 service on the Peshawar Ring Road.

34. In the medium term, some direct service BRT routes on Dalazak Road will continue beyond the terminus of the BRT infrastructure on Dalazak Road near the Peshawar Ring Road. Approximately two to three direct service routes will continue for up to five kilometers; the actual number and length of these direct services will be determined in the Phase 2a Feasibility Study. The Consultant shall design the grade-separated infrastructure that will link trunk services to the northern side of Dalazak Road at the Peshawar Ring Road. This infrastructure will also allow: i) Trunk vehicles to turnaround at Peshawar Ring Road; and ii) Ease of customer transfers from the existing direct services on the Peshawar Ring Road to the Dalazak Road trunk service.

35. A trunk BRT spur on Eid-Gah Road, with a station in front of the cricket stadium, will also be designed. At the southern end of the spur, two options are currently being considered by the consultants responsible for the Phase 2a Feasibility Study:

- (i) The spur will turn north through the Phatak Flyover, onto Eid-Gah Road;
- (ii) The spur will bypass the Phatak Flyover by using Govt College Road to connect Dalazak Road to Eid-Gah Road.

36. At the northern end of the spur, three options are currently being considered by the consultants responsible for the Phase 2a Feasibility Study:

- (i) The spur will directly connect with Charsadda Road;
- (ii) The spur will turn to the west along either Shahi Bagh or Jilani Abad Rd and connect with Charsadda Road;
- (iii) The spur will turn to the east along Afghan Colony Road, which has a canal in its center, and will join back up with Dalazak Road.

37. Alignment along Eid-Gah Road is still to be determined and will either be at-grade, tunneled, or elevated. The recommended alignment will be included in the Phase 2a Feasibility Study.

38. The Consultant will prepare the preliminary and detailed engineering design that will form the basis for the subsequent construction specifications under the construction tender document. These designs should be fully consistent with the existing Phase 1 designs and improved as

required and possible. In particular, all efforts should be made to adopt climate resilient design options, consistent with the recommendations & findings of the climate change assessment (CCA), and mindful of recent innovations in resilient design.

Project Management

39. The Consultant will carry out all project management activities in accordance with Annex A.

Engineering Surveys

40. The Consultant will carry out all engineering surveys in accordance with Annex B.

Preliminary Design

41. The Consultant will produce drawings with the following scales:
- 1:500 - General horizontal alignment and overall layout;
 - 1:200 - Vertical alignments (typical cross-sections);
 - 1:200 - Horizontal and vertical alignments for zooms on stations sites, restructured junctions, and elevated or underground sections;
 - 1:50 - Detailed engineering solutions and relevant details for sidewalks, stairways, pedestrian crossings, station arrangements and proposed structures, if any; and
 - 3D Renderings of each project component and major sections of the Dalazak corridor “before and after”.
42. The specific sub-components include, but are not limited to, the following:
- BRT station architecture:** The Consultant will develop the detailed station designs for new stations along the Dalazak Road corridor and the Eid-Gah spur, based on sizing and conceptual design provided by the Phase 2a Feasibility Study. These designs should be consistent with the existing Phase 1 station designs and improved as required and possible. Core design components of the stations will include, but are not limited to, the following: pedestrian access ramps to the station platform (the BRT is elevated) and their placement on the surface road, bicycle parking and e-pedicab staging on the surface road, staff toilets, balustrades, station shutters (for shutting the stations at non-operational times), fare sales kiosk (including space for commercial sales), gate area, base structure, top structure, flooring materials, ceiling, energy-efficient lighting, ventilation, universal power box, cash drop box, vehicle-platform interface, doorways, gutters, totem, etc. The station design should also fully consider energy efficiency measures (e.g., LED lighting), renewable energy generation, recycling facilities, and grey water collection and water conservation. Station area footprints should also include integration with pedestrian crossing facilities on the surface road.

The design of the stop platform-to-vehicle interface should be given particular attention. Consistent with BRT phase 1, the Consultant will develop the docking assist measures to ensure the platform-to-vehicle gap is minimized to the extent possible. Alignment roadway markers will be utilized to guide the vehicle as it approaches the station. Roadway channels shall be used to provide rapid and accurate alignment of the tire footprints relative to the station. In addition, boarding bridge extensions from the stop platform will effectively eliminate the gap problem in its entirety, but the platform design must accommodate the dimensions of these

boarding bridges. The Consultant shall pursue all of these techniques through a comprehensive design of the vehicle-platform interface.

- (ii) **Roadway and grade-separated busway preliminary design (all roads):** Along the Dalazak Road BRT and Eid-Gah spur corridors, the Consultant will prepare preliminary roadway designs for the BRT infrastructure. Where the BRT is at-grade, the Consultant will design the full street, building wall-to-building wall, including NMT, parking, structured vending, mixed traffic, BRT lanes, and stations. Where the BRT is grade-separated, the Consultant will design both the busway (elevated or underground) and the surface road (underneath or above). Roadway designs for the surface road must include upgraded footpaths, structured parking, dedicated cycle tracks, and any structured vending locations. A conceptual design for the non-motorized components will be included in the Phase 2a Feasibility Study and will indicate the basic design and locations for cycle and pedestrian facilities.
- (iii) **Dalazak Road / Ring Road Transfer Station:** The Consultant will prepare a preliminary design for BRT station where the Dalazak Road BRT intersects with the direct service on the Ring Road, as shown in Figure 6 above. This station will need to provide for a seamless connection between the BRT and existing direct service and may be elevated, at-grade, or submerged, as defined in the Phase 2a Feasibility Study.
- (iv) **Dalazak/Malik Saad Shahid interchange and railroad track crossover:** The Consultant will prepare a preliminary design for a dedicated BRT connection between the existing Jinnah Park BRT Station serving BRT Direct Service 3 and 4, and the BRT running along Dalazak Road. As shown in Figure 3, the Dalazak Road BRT corridor connects to the GT Road Phase 1 BRT corridor at grade on a section of Malik Saad Shahid Road. The existing Jinnah Park BRT Station is on the surface and only about 80 meters from an at-grade railroad crossing. Due to traffic and BRT conflicts with the railway services, the trunk BRT corridor will be grade-separated from the railroad tracks. Full clearance of the tracks and any trains which operate on the tracks must be provided. This may require some reconstruction of the existing BRT station at Jinnah Park. As shown in Figure 4, the existing Direct Service 03 and 04 currently stay at grade and pass under the Saddar Rd. flyover. As these services should also be grade-separated from the railroad tracks, they will need to eventually continue on Charsadda Road. The Dalazak Road Phase 2a BRT corridor, meanwhile, needs to turn right onto Dalazak Road. The Consultant will prepare a preliminary design that satisfies these conditions based on the recommendation made in the Phase 2a Feasibility Study.
- (v) **Roadway signage and pavement markings:** The Consultant will design roadway signage and pavement markings. Specifically, there will be markings at station areas to assist in guiding the buses to a consistent and close docking position with the bus stop platforms, as well signage and pavement markings for pedestrian and cycle facilities.
- (vi) **Physical connection with direct service route entry/exit points:** The Consultant will design a physical connection where each direct service route enters/exits the trunk BRT corridor. The Phase 2a Feasibility Study will include preliminary concepts.

- (vii) **Intersections:** All intersections should include pedestrian crossings. Tabletop crossings should be considered, where possible, as well as cycle tracks that continue through intersections. On the portions of the trunk corridor and spur, where the BRT is at-grade, the Consultant must ensure priority for buses, reducing or eliminating any conflict with turning vehicles. This may mean eliminating right turns across the busway and designing u-turns beyond the intersections.
- (viii) **Traffic signals:** Where traffic signals are proposed, the Consultant will propose specific traffic signal timings. Two-phase intersections are recommended. A pedestrian walk phase must be included. The Consultant will develop the specifications for the traffic signals.
- (ix) **Pavement analysis:** The Consultant will conduct an analysis of the roadway pavement options on the trunk and spur corridors where the buses will operate at-grade. Most likely, new pavement will only be required at station locations, but the Consultant will make a final determination on the requirements. This analysis will include an emphasis on the life-cycle costs of the pavement section designs based on the expected operations plan. This exercise should consider a range of pavement surfacing options (e.g., asphalt, jointed concrete, continuously reinforced concrete, etc.), as may be relevant, and some uniformity with the pavement options of BRT Phase 1 as well as consideration for lessons learned from BRT Phase 1.
- (x) **Complete streets elements:** The Consultant will include the following complete streets elements in the design.
 - Street lighting: This is required for the full cross section of the corridor, covering the BRT busway, parallel all-purpose roads, side roads, and footpaths. The Consultant will develop the specifications for the street lighting, with a particular emphasis on energy-efficient lighting systems (i.e. LED street lighting).
 - Bicycle parking: Bicycle racks should be provided at every BRT station and shelter, as well as every 500 meters throughout the Dalazak Road, Eid-Gah spur corridor, and at major destinations. The Consultant will develop specifications for the bike racks.
 - Street furniture: The Consultant will design street furniture along the Dalazak Road and Eid-Gah spur corridor. This will include such things as benches, child play equipment (where appropriate and where space allows), pocket parks, art installations, etc. The Consultant will develop specifications for the street furniture.
 - Landscaping: The Consultant will prepare preliminary landscape designs along Dalazak Road and Eid-Gah spur corridor. The landscape design should maximize the use of bioswales to improve corridor drainage. Along the cycleways and foot paths, the landscaping should assist in providing shading to enhance weather protection. To the extent possible, plant and tree species that are indigenous to the local area and that are sufficiently robust and resilient should be utilized.
- (xi) **Preliminary design of signage:** The Consultant will prepare the preliminary design and plan for customer information signage at the BRT stations and way-

finding information at key points of the pedestrian network around the stations. These designs should be consistent with the existing Phase 1 designs and improved as required and possible. The Consultant will ensure the customer information signage demonstrates a high degree of visual clarity. Among the forms of signage and customer information to be provided within the bus stop area are:

- Stop name
- Full network maps
- Route maps above for the routes that stop there
- Local area maps
- Totem signage
- Special needs signage
- Prohibitions
- Fare system instructions (including height-based free fare standard)
- Way-finding signage on streets accessing the stop
- Braille signage for the sight impaired.

Preliminary project bill of quantity and engineer's cost estimate

43. As the preliminary design work proceeds, the Consultant will determine the required quantity of each project cost component. The Consultant will also prepare a preliminary budget and cost estimate of all project costs related to each project component. These costs shall also include all costs related to safeguard issues. The costs shall also be broken out by individual procurement under this TOR, and also totaled. Among the key cost components to be itemized (as applicable) are:

- Roadway civil works
- Flyover and bridges
- BRT stations
- Non-motorized civil works (pedestrian and cycling facilities)
- Utility relocation and provision
- Drainage and bioswales
- Traffic signals
- Traffic management works (signalization, intersection / junction civil works)
- Signage and road markings
- Street lighting
- Street furniture
- Bike racks
- Landscaping.

Final detailed engineering design

44. For each of the project's physical components, the Consultant will prepare the detailed engineering design that will form the basis for the subsequent construction specifications under the construction tender document. The detailed engineering design will encompass detailed component descriptions, detailed drawings, and the associated detailed technical specifications. The detailed engineering design will incorporate the agreed upon comments and modifications provided from the presentation of the preliminary detailed engineering design.

Detailed bus industry restructuring plan

45. Existing bus and paratransit operators that are affected by new BRT corridor are to be compensated through two mechanisms: i) Livelihood restoration payments; and, ii) Scrapping value of vehicles to be retired. The Consultant shall produce a detailed plan for compensation payments to existing bus operators affected by the new BRT corridor. The Consultant shall detail the names of each operator that owns public transport vehicles on the corridor. The information collected shall also include the following: i) Number and type of vehicles operators; ii) Age of each vehicle; and, iii) Value of vehicle by general vehicle class. The Consultant shall work with TransPeshawar to identify the process and mechanisms to compensate the affected operators. Any implementation of the bus industry restructuring plan will be the responsibility of TransPeshawar.

Fare System and ITS specifications and bid documents

46. The Consultant shall prepare the technical specifications for the procurement of the fare system and intelligent transportation system (ITS) equipment components required for operation of the new corridor. Among the fare system components required are: security metal detectors, fare gates, fare validators, and fare vending machines. Among the ITS components are the real-time information displays at both the platform and station concourse. The consultant will utilize the existing Phase 1 specifications and bid documents as a starting point in order to ensure technological compatibility between the project phases. The Consultant shall also prepare the full bid documents for the tendering of the equipment and the associated services.

Final bill of quantity and engineer's cost estimate

47. After the approval of all preliminary designs, including the incorporation of all accepted review comments and considerations, the Consultant will prepare and then finalize the BoQ for all design components.

48. The Consultant will prepare the final detailed engineer's cost estimate for each of the components to be tendered. Both a price contingency and physical contingency shall be calculated for the project, based on the contingency calculation procedures of the Government of Pakistan.

Due Diligence

49. The Consultant will carry out all due diligence activities in accordance with Annex C.

Procurement Support

50. The Consultant will provide procurement support in accordance with Annex D.

Deliverables

51. The Consultant shall produce the following deliverables for Output 1:

- (i) Project management plan
 - a. Project Management Information System (MIS)
 - b. Master project schedule
 - c. Precedents chart
 - d. Master budget
 - e. Risk registry

- f. Quality assurance plan
 - g. Project governance plan.
- (ii) Communications and stakeholder engagement plan
 - a. Project stakeholder directory
 - b. Stakeholder engagement plan
 - c. Public participation workshop schedule
 - d. Program and information package for public participation workshops.
- (iii) Preliminary design report
 - a. Engineering Survey Report including all memoranda prepared for each survey, as well as accompanying maps
 - b. Preliminary design specifications, drawings, and renderings
 - c. Preliminary BOQ and cost estimates.
- (iv) Final design report
 - a. Final design specifications, drawings, and renderings
 - b. Final BOQ and cost estimates
 - c. Bus industry restructuring plan
 - d. ITS and fare system specifications and bid documents.
- (v) Environmental safeguards reports
 - a. Rapid Environmental Assessment (REA)
 - b. Environmental Impact Assessment / Initial Environmental Evaluation (EIA/IEE)
 - c. Environmental Management Plan (EMP)
 - d. Climate Change Assessment Linked Document
 - e. Detailed Climate Risk Assessment Supplementary Document.
- (vi) Social due diligence reports (SDDR)
 - a. Land acquisition and resettlement plans (LARP)
 - b. Gender pre-assessment and methodology report
 - c. Gender Assessment Report.
- (vii) Grievance redress mechanism (GRM)
- (viii) Economic and financial assessment report
- (ix) Institutional capacity reports
 - a. Procurement capacity assessment action plan and mitigation measures
 - b. Financial management assessment action plan
- (x) Guidance manual on permits, clearances, and licenses
- (xi) PC-1 document
- (xii) Procurement support documents
 - a. Procurement plan
 - b. Specifications, tender documents, and contracts for construction services
 - c. Maintenance specifications and protocols
 - d. Bid evaluation report (BER).

Output 2: Kohat Road Trunk Corridor

52. Existing BRT direct services route 3 currently exits the Phase 1 trunk BRT corridor at the intersection of Railroad Road and Adjab Khan Afridi Road (where the blue line below intersects the green line below). The route soon joins Kohat Road which it follows past the Ring Road to the Kohat Adda terminus near the intercity Kohat Bus Terminal.



Figure 7. BRT Phases 1 & 2A. The Kohat Road corridor is a possible Phase 2A (in blue).

53. Direct Route 3 frequently faces delays causing irregularity due to traffic congestion along the route. TransPeshawar and KPUMA would like to upgrade this corridor to a BRT trunk, or at least mitigate the congestion along the route with site-specific measures, as to be determined during the Feasibility Study.

Project Management

54. The Consultant will carry out all project management activities in accordance with Annex A.

Engineering Surveys

55. The Consultant will carry out all engineering surveys in accordance with Annex B.

Ring Rd/Kohat Rd interchange

56. The most severe congestion along the corridor is at the Kohat Rd/ Ring Road interchange (see Figure 8). This interchange has a flyover running east-west along the Ring Road, and an unsignalized intersection under the ring road allowing turns in all directions.



Figure 8. Kohat Road is most congested at the approaches to the Ring Road

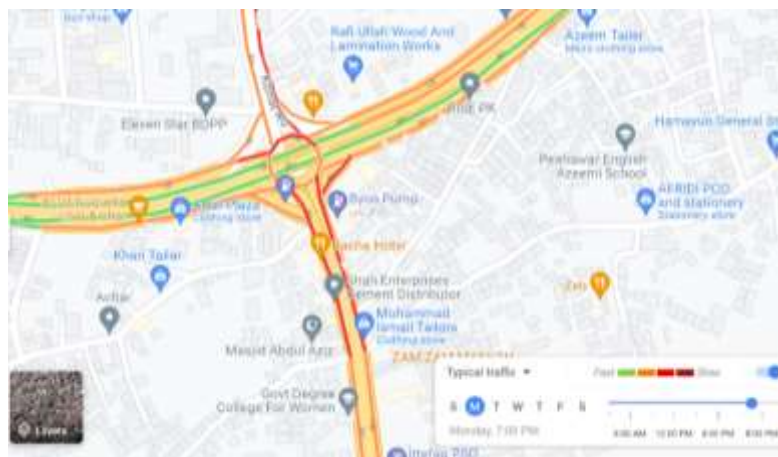


Figure 9. Congestion is on the approaches to the junction under the flyover and not on the flyover

57. The Phase 2A Feasibility Study will provide four alternatives to be tested in greater detail by the Consultant. These four options may include:

- (i) Simple signalization of the intersection under the flyover
- (ii) Creating a traffic circle under the flyover of a size that will not saturate in the near term.
- (iii) Creating a 'square-about' two-phase junction under the flyover
- (iv) Dedicated BRT down the central median of Kohat Road, with all right turning movements forbidden and converted to U-turns on the Ring Road. East-west through movements on the Ring Road are restricted to the flyover which is not congested.



Figure 10. Peshawar Ring Road and Kohat Rd. Interchange shown with two possible BRT alternatives on Kohat Rd.

58. The Consultant will test each of the four alternatives suggested in the Feasibility Study using microsimulation. It will then propose a preferred alternative.

Preliminary design

59. The Consultant will prepare the preliminary and detailed engineering design that will form the basis for the subsequent construction specifications under the construction tender document. These designs should be fully consistent with the existing Phase 1 designs and improved as required and possible. In particular, all efforts should be made to adopt climate resilient design options, consistent with the recommendations and findings of the climate change assessment (CCA), and mindful of recent innovations in resilient design.

60. The Consultant will produce drawings with the following scales:

- 1:500 - General horizontal alignment and overall layout;
- 1:200 - Vertical alignments (typical cross-sections);
- 1:200 - Horizontal and vertical alignments for zooms on stations sites, restructured junctions, and elevated or underground sections;
- 1:50 - Detailed engineering solutions and relevant details for sidewalks, stairways, pedestrian crossings, station arrangements and proposed structures, if any; and
- 3D Renderings of each project component and major sections of the Dalazak corridor “before and after”.

61. The specific sub-components include, but are not limited to, the following:

- BRT station architecture:** The Consultant will develop station designs for new stations along the Kohat Road and Adjab Khan Afridi Road BRT corridor, based on sizing and conceptual design provided by the Phase 2a Feasibility Study. These

designs should be consistent with the existing Phase 1 station designs and improved as required and possible. Core design components of the stations will include, but are not limited to, the following: pedestrian access ramps to the station platform (the BRT is elevated) and their placement on the surface road, bicycle parking and e-pedicab staging on the surface road, staff toilets, balustrades, station shutters (for shutting the stations at non-operational times), fare sales kiosk (including space for commercial sales), gate area, base structure, top structure, flooring materials, ceiling, energy-efficient lighting, ventilation, universal power box, cash drop box, vehicle-platform interface, doorways, gutters, totem, etc. The station design should also fully consider energy efficiency measures (e.g., LED lighting), renewable energy generation, recycling facilities, and grey water collection and water conservation. Station area footprints should also include integration with pedestrian crossing facilities on the surface road.

The design of the stop platform-to-vehicle interface should be given particular attention. Consistent with BRT phase 1, the Consultant will develop the docking assist measures to ensure the platform-to-vehicle gap is minimized to the extent possible. Alignment roadway markers will be utilized to guide the vehicle as it approaches the station. Roadway channels shall be used to provide rapid and accurate alignment of the tire footprints relative to the station. In addition, boarding bridge extensions from the stop platform will effectively eliminate the gap problem in its entirety, but the platform design must accommodate the dimensions of these boarding bridges. The Consultant shall pursue all of these techniques through a comprehensive design of the vehicle-platform interface.

- (ii) **Roadway and grade-separated busway preliminary design (all roads):** The Consultant will prepare preliminary roadway designs for the BRT infrastructure. Where the BRT is at-grade, the Consultant will design the full street, building wall-to-building wall, including NMT, parking, structured vending, mixed traffic, BRT lanes, and stations. Where the BRT is grade-separated, the Consultant will design both the busway (elevated or underground) and the surface road (underneath or above). Roadway designs for the surface road must include upgraded footpaths, structured parking, dedicated cycle tracks, and any structured vending locations. A conceptual design for the non-motorized components will be included in the Phase 2a Feasibility Study and will indicate the basic design and locations for cycle and pedestrian facilities.
- (iii) **Kohat Road/ Ring Road Interchange:** The Consultant will develop a preliminary design for the selected alternative for the Kohat Rd/Ring Road Interchange.
- (iv) **Roadway signage and pavement markings:** The Consultant will design roadway signage and pavement markings. Specifically, there will be markings at station areas to assist in guiding the buses to a consistent and close docking position with the bus stop platforms, as well signage and pavement markings for pedestrian and cycle facilities.
- (v) **Physical connection with direct service route entry/exit points:** The Consultant will design a bus turnaround at the end of BRT Route 3 near the Kohat Bus Terminal. The Phase 2a Feasibility Study will include preliminary concepts.

- (vi) **Intersections:** All intersections of roads larger than 10 meters in width should include pedestrian crossings. Tabletop crossings should be considered, where possible, as well as cycle tracks that continue through intersections. On the portions of the trunk corridor where the BRT is at-grade, the Consultant must ensure priority for buses, reducing or eliminating any conflict with turning vehicles. This may mean eliminating right turns across the busway and designing u-turns beyond the intersections.
- (vii) **Traffic signals:** Where traffic signals are proposed, the Consultant will propose specific traffic signal timings. Two-phase intersections are recommended. A pedestrian walk phase must be included. The Consultant will develop the specifications for the traffic signals.
- (viii) **Pavement analysis:** The Consultant will conduct an analysis of the roadway pavement options on the trunk and spur corridors where the buses will operate at-grade. Most likely, new pavement will only be required at station locations, but the Consultant will make a final determination on the requirements. This analysis will include an emphasis on the life-cycle costs of the pavement section designs based on the expected operations plan. This exercise should consider a range of pavement surfacing options (e.g., asphalt, jointed concrete, continuously reinforced concrete, etc.), as may be relevant, and some uniformity with the pavement options of BRT Phase 1 as well as consideration for lessons learned from BRT Phase 1.
- (ix) **Complete streets elements:** The Consultant will include the following complete streets elements in the design.
 - Street lighting: This is required for the full cross section of the corridor, covering the BRT busway, parallel all-purpose roads, side roads, and footpaths. The Consultant will develop the specifications for the street lighting, with a particular emphasis on energy-efficient lighting systems (i.e. LED street lighting).
 - Bicycle parking: Bicycle racks should be provided at every BRT station and shelter, as well as every 500 meters throughout the Kohat Road BRT corridor, and at major destinations. The Consultant will develop specifications for the bike racks.
 - Street furniture: The Consultant will design street furniture along the Kohat Road BRT corridor. This will include such things as benches, child play equipment (where appropriate and where space allows), pocket parks, art installations, etc. The Consultant will develop specifications for the street furniture.
 - Landscaping: The Consultant will prepare preliminary landscape designs along the Kohat Road BRT corridor. The landscape design should maximize the use of bioswales to improve corridor drainage. Along the cycleways and foot paths, the landscaping should assist in providing shading to enhance weather protection. To the extent possible, plant and tree species that are indigenous to the local area and that are sufficiently robust and resilient should be utilized.
- (x) **Preliminary design of signage:** The Consultant will prepare the preliminary design and plan for customer information signage at the BRT stations and way-

finding information at key points of the pedestrian network around the stations. These designs should be consistent with the existing Phase 1 designs and improved as required and possible. The Consultant will ensure the customer information signage demonstrates a high degree of visual clarity. Among the forms of signage and customer information to be provided within the bus stop area are:

- Stop name
- Full network maps
- Route maps above for the routes that stop there
- Local area maps
- Totem signage
- Special needs signage
- Prohibitions
- Fare system instructions (including height-based free fare standard)
- Way-finding signage on streets accessing the stop
- Braille signage for the sight impaired.

Preliminary project bill of quantity and engineer's cost estimate

62. As the preliminary design work proceeds, the Consultant will determine the required quantity of each project cost component. The Consultant will also prepare a preliminary budget and cost estimate of all project costs related to each project component. These costs shall also include all costs related to safeguard issues. The costs shall also be broken out by individual procurement under this TOR, and also totaled. Among the key cost components to be itemized (as applicable) are:

- Roadway civil works
- Flyover and bridges
- BRT stations
- Non-motorized civil works (pedestrian and cycling facilities)
- Utility relocation and provision
- Drainage and bioswales
- Traffic signals
- Traffic management works (signalization, intersection / junction civil works)
- Signage and road markings
- Street lighting
- Street furniture
- Bike racks
- Landscaping.

Final detailed engineering design

63. For each of the project's physical components, the Consultant will prepare the detailed engineering design that will form the basis for the subsequent construction specifications under the construction tender document. The detailed engineering design will encompass detailed component descriptions, detailed drawings, and the associated detailed technical specifications. The detailed engineering design will incorporate the agreed upon comments and modifications provided from the presentation of the preliminary detailed engineering design.

Detailed bus industry restructuring plan

64. Existing bus and paratransit operators that are affected by new BRT corridor are to be compensated through two mechanisms: i) Livelihood restoration payments; and, ii) Scrapping value of vehicles to be retired. The Consultant shall produce a detailed plan for compensation payments to existing bus operators affected by the new BRT corridor. The Consultant shall detail the names of each operator that owns public transport vehicles on the corridor. The information collected shall also include the following: i) Number and type of vehicles operators; ii) Age of each vehicle; and, iii) Value of vehicle by general vehicle class. The Consultant shall work with TransPeshawar to identify the process and mechanisms to compensate the affected operators. Any implementation of the bus industry restructuring plan will be the responsibility of TransPeshawar.

Fare System and ITS specifications and bid documents

65. The Consultant shall prepare the technical specifications for the procurement of the fare system and intelligent transportation system (ITS) equipment components required for operation of the new corridor. Among the fare system components required are: security metal detectors, fare gates, fare validators, and fare vending machines. Among the ITS components are the real-time information displays at both the platform and station concourse. The consultant will utilize the existing Phase 1 specifications and bid documents as a starting point in order to ensure technological compatibility between the project phases. The Consultant shall also prepare the full bid documents for the tendering of the equipment and the associated services.

Final bill of quantity and engineer's cost estimate

66. After the approval of all preliminary designs, including the incorporation of all accepted review comments and considerations, the Consultant will prepare and then finalize the BoQ for all design components.

67. The Consultant will prepare the final detailed engineer's cost estimate for each of the components to be tendered. Both a price contingency and physical contingency shall be calculated for the project, based on the contingency calculation procedures of the Government of Pakistan.

Due Diligence

68. The Consultant will carry out all due diligence activities in accordance with Annex C.

Procurement Support

69. The Consultant will provide procurement support in accordance with Annex D.

Deliverables

70. The Consultant shall produce the following deliverables for Output 2:

- (i) Project management plan
 - a. Project Management Information System (MIS)
 - b. Master project schedule
 - c. Precedents chart
 - d. Master budget
 - e. Risk registry

- f. Quality assurance plan
 - g. Project governance plan.
- (ii) Communications and stakeholder engagement plan
 - a. Project stakeholder directory
 - b. Stakeholder engagement plan
 - c. Public participation workshop schedule
 - d. Program and information package for public participation workshops.
- (iii) Preliminary design report
 - a. Engineering Survey Report including all memoranda prepared for each survey, as well as accompanying maps
 - b. Preliminary design specifications, drawings, and renderings
 - c. Preliminary BOQ and cost estimates.
- (iv) Final design report
 - a. Final design specifications, drawings, and renderings
 - b. Final BOQ and cost estimates
 - c. Bus industry restructuring plan
 - d. ITS and fare system specifications and bid documents.
- (v) Environmental safeguards reports
 - a. Rapid Environmental Assessment (REA)
 - b. Environmental Impact Assessment / Initial Environmental Evaluation (EIA/IEE)
 - c. Environmental Management Plan (EMP)
 - d. Climate Change Assessment Linked Document
 - e. Detailed Climate Risk Assessment Supplementary Document.
- (vi) Social due diligence reports (SDDR)
 - a. Land acquisition and resettlement plans (LARP)
 - b. Gender pre-assessment and methodology report
 - c. Gender Assessment Report.
- (vii) Grievance redress mechanism (GRM)
- (viii) Economic and financial assessment report
- (ix) Institutional capacity reports
 - a. Procurement capacity assessment action plan and mitigation measures
 - b. Financial management assessment action plan.
- (x) Guidance manual on permits, clearances, and licenses
- (xi) PC-1 document
- (xii) Procurement support documents
 - a. Procurement plan
 - b. Specifications, tender documents, and contracts for construction services
 - c. Maintenance specifications and protocols
 - d. Bid evaluation report (BER).

Output 3: Direct Service Routes

71. The Peshawar BRT system is designed as a Third-Generation BRT system. That means that many of the routes operate both on the trunk BRT corridors, and off the corridors in mixed traffic. It is estimated that Phase 2a will include approximately 60 kilometers of direct services routes operating off-trunk; the location of these direct services will be determined in the Phase 2a Feasibility Study.

72. While full BRT infrastructure will not be built on these roads, curbside bus shelters, similar to those operating on Phase 1 direct service roads, will be built roughly every 450 meters. Additionally, bicycle and pedestrian infrastructure will be upgraded along these roads, and parking locations will be provided, where appropriate. Any site-specific bottlenecks, such as poorly timed or congested intersections, will be addressed with localized measures. Finally, the pavement may be upgraded, depending on the current state of the pavement.

73. The Consultant will prepare the preliminary and detailed engineering design that will form the basis for the subsequent construction specifications under the construction tender document. These designs should be fully consistent with the existing Phase 1 designs and improved as required and possible. In particular, all efforts should be made to adopt climate resilient design options, consistent with the recommendations & findings of the climate change assessment (CCA), and mindful of recent innovations in resilient design.

Project Management

74. The Consultant will carry out all project management activities in accordance with Annex A.

Engineering Surveys

75. The Consultant will carry out all engineering surveys in accordance with Annex B.

Preliminary Design

76. The Consultant will produce drawings with the following scales:
- a. 1:500 - General horizontal alignment and overall layout;
 - b. 1:200 - Vertical alignments (typical cross-sections);
 - c. 1:200 - Horizontal and vertical alignments for zooms on stations sites, restructured junctions, and elevated or underground sections;
 - d. 1:50 - Detailed engineering solutions and relevant details for sidewalks, stairways, pedestrian crossings, station arrangements and proposed structures, if any; and
 - e. 3D Renderings of each project component and major sections of the direct services roads “before and after”.
77. The specific sub-components include, but are not limited to, the following:
- (i) **BRT shelter architecture:** The Consultant will develop the design of the curbside shelters and/or stop indicators for each location specified in the Phase 2a Feasibility Study. These designs should be consistent with the existing Phase 1 station designs for stops on the off-corridor portions. These should also be consistent in style with full Phase 1 BRT stations. In locations with sufficient

ridership, a full shelter will be considered, including design for weather protection, information signage, and seating. In low demand areas, the Consultant may design a lower-cost stop, including a stop indicator and information signage. All stops should include tactile tiles to assist the sight impaired.

The design of the stop platform-to-vehicle interface should be given particular attention. Consistent with BRT phase 1, the Consultant will develop the docking assist measures to ensure the platform-to-vehicle gap is minimized to the extent possible. Alignment roadway markers will be utilized to guide the vehicle as it approaches the station. Roadway channels shall be used to provide rapid and accurate alignment of the tire footprints relative to the station. In addition, boarding bridge extensions from the stop platform will effectively eliminate the gap problem in its entirety, but the platform design must accommodate the dimensions of these boarding bridges. The Consultant shall pursue all of these techniques through a comprehensive design of the vehicle-platform interface.

- (ii) **Roadway and grade-separated busway preliminary design (all roads):** Along the direct services roads, the Consultant will prepare preliminary roadway designs. The Consultant will design the full street, building wall-to-building wall, including NMT, parking, structured vending, mixed traffic, and shelters. Roadway designs must include wall-to-wall pavement, fully protected cycle lanes, upgraded footpaths of at least one-meter in width (unobstructed and without abrupt grad changes), and structured parking. A conceptual design for the non-motorized components will be included in the Phase 2a Feasibility Study and will indicate the basic design and locations for cycle and pedestrian facilities.
- (iii) **Roadway signage and pavement markings:** The Consultant will design roadway signage and pavement markings. Specifically, there will be markings at bus stop areas to assist in guiding the buses to a consistent and close docking position with the bus stop platforms, as well signage and pavement markings for pedestrian and cycle facilities.
- (iv) **Physical turnaround at the end of the corridor:** The Consultant will design a bus turnaround at the end of each direct services bus route. The Phase 2a Feasibility Study will include bus turnaround concepts. In some cases, it may be possible to route buses in such a way as to avoid designing a turnaround; in other cases, a physical turnaround may be needed.
- (v) **Intersections:** All intersections should include pedestrian crossings. Tabletop crossings should be considered, where possible, as well as cycle tracks that continue through intersections. Where intersections are overly complicated, delaying buses and other traffic, the Consultant should consider simplification. The Consultant should also consider bus priority measures at intersections, such as queue jumps.
- (vi) **Traffic signals:** Where traffic signals are proposed, the Consultant will propose specific traffic signal timings. Two-phase intersections are recommended. A pedestrian walk phase must be included. The Consultant will develop the specifications for the traffic signals.

- (vii) **Pavement analysis:** The Consultant will conduct an analysis of the roadway pavement options along the direct service roads. Most likely, new pavement will only be required at bus stop locations, but the Consultant will make a final determination on the requirements. This analysis will include an emphasis on the life-cycle costs of the pavement section designs based on the expected operations plan. This exercise should consider a range of pavement surfacing options (e.g., asphalt, jointed concrete, continuously reinforced concrete, etc.), as may be relevant, and some uniformity with the pavement options of BRT Phase 1 as well as consideration for lessons learned from BRT Phase 1.
- (viii) **Complete streets elements:** The Consultant will include the following complete streets elements in the design.
- **Street lighting:** This is required for the full cross section of the direct services roads. The Consultant will develop the specifications for the street lighting, with a particular emphasis on energy-efficient lighting systems (i.e. LED street lighting).
 - **Bicycle parking:** Bicycle racks should be provided at every shelter, as well as every 500 meters on each road, and at major destinations. The Consultant will develop specifications for the bike racks.
 - **Street furniture:** The Consultant will design street furniture along all direct services roads. This will include such things as benches, child play equipment (where appropriate and where space allows), pocket parks, art installations, etc. The Consultant will develop specifications for the street furniture.
 - **Landscaping:** The Consultant will prepare preliminary landscape designs along all the direct services roads. The landscape design should maximize the use of bioswales to improve corridor drainage. Along the cycleways and foot paths, the landscaping should assist in providing shading to enhance weather protection. To the extent possible, plant and tree species that are indigenous to the local area and that are sufficiently robust and resilient should be utilized.
- (ix) **Preliminary design of signage:** The Consultant will prepare the preliminary design and plan for customer information signage at the bus stops and way-finding information at key points of the pedestrian network around the stations. These designs should be consistent with the existing Phase 1 designs and improved as required and possible. The Consultant will ensure the customer information signage demonstrates a high degree of visual clarity. Among the forms of signage and customer information to be provided within the bus stop area are:
- Stop name
 - Full network maps
 - Route maps above for the routes that stop there
 - Local area maps
 - Totem signage
 - Special needs signage
 - Prohibitions
 - Fare system instructions (including height-based free fare standard)
 - Way-finding signage on streets accessing the stop
 - Braille signage for the sight impaired

Preliminary project bill of quantity and engineer's cost estimate

78. As the preliminary design work proceeds, the Consultant will determine the required quantity of each project cost component. The Consultant will also prepare a preliminary budget and cost estimate of all project costs related to each project component. These costs shall also include all costs related to safeguard issues. The costs shall also be broken out by individual procurement under this TOR, and also totaled. Among the key cost components to be itemized (as applicable) are:

- Roadway civil works
- Curbside bus stops and shelters
- Non-motorized civil works (pedestrian and cycling facilities)
- Utility relocation and provision
- Drainage and bioswales
- Traffic signals
- Traffic management works (signalization, intersection / junction civil works)
- Signage and road markings
- Street lighting
- Street furniture
- Bike racks
- Landscaping.

Final detailed engineering design

79. For each of the project's physical components, the Consultant will prepare the detailed engineering design that will form the basis for the subsequent construction specifications under the construction tender document. The detailed engineering design will encompass detailed component descriptions, detailed drawings, and the associated detailed technical specifications. The detailed engineering design will incorporate the agreed upon comments and modifications provided from the presentation of the preliminary detailed engineering design.

Detailed bus industry restructuring plan

80. Existing bus and paratransit operators that are affected by new BRT direct service routes are to be compensated through two mechanisms: i) Livelihood restoration payments; and, ii) Scrapping value of vehicles to be retired. The Consultant shall produce a detailed plan for compensation payments to existing bus operators affected by the new BRT direct service routes. The Consultant shall detail the names of each operator that owns public transport vehicles on the route. The information collected shall also include the following: i) Number and type of vehicles operators; ii) Age of each vehicle; and, iii) Value of vehicle by general vehicle class. The Consultant shall work with TransPeshawar to identify the process and mechanisms to compensate the affected operators. Any implementation of the bus industry restructuring plan will be the responsibility of TransPeshawar.

Final bill of quantity and engineer's cost estimate

81. After the approval of all preliminary designs, including the incorporation of all accepted review comments and considerations, the Consultant will prepare and then finalize the BoQ for all design components.

82. The Consultant will prepare the final detailed engineer's cost estimate for each of the components to be tendered. Both a price contingency and physical contingency shall be calculated for the project, based on the contingency calculation procedures of the Government of Pakistan.

Due Diligence

83. The Consultant will carry out all due diligence activities in accordance with Annex C.

Procurement Support

84. The Consultant will provide procurement support in accordance with Annex D.

Deliverables

85. The Consultant shall produce the following deliverables for Output 3:

- (i) Project management plan
 - a. Project Management Information System (MIS)
 - b. Master project schedule
 - c. Precedents chart
 - d. Master budget
 - e. Risk registry
 - f. Quality assurance plan
 - g. Project governance plan.
- (ii) Communications and stakeholder engagement plan
 - a. Project stakeholder directory
 - b. Stakeholder engagement plan
 - c. Public participation workshop schedule
 - d. Program and information package for public participation workshops.
- (iii) Preliminary design report
 - a. Engineering Survey Report including all memoranda prepared for each survey, as well as accompanying maps
 - b. Preliminary design specifications, drawings, and renderings
 - c. Preliminary BOQ and cost estimates.
- (iv) Final design report
 - a. Final design specifications, drawings, and renderings
 - b. Final BOQ and cost estimates
 - c. Bus industry restructuring plan.
- (v) Environmental safeguards reports
 - a. Rapid Environmental Assessment (REA)
 - b. Environmental Impact Assessment / Initial Environmental Evaluation (EIA/IEE)
 - c. Environmental Management Plan (EMP)
 - d. Climate Change Assessment Linked Document
 - e. Detailed Climate Risk Assessment Supplementary Document.

- (vi) Social due diligence reports (SDDR)
 - a. Land acquisition and resettlement plans (LARP)
 - b. Gender pre-assessment and methodology report
 - c. Gender Assessment Report.
- (vii) Grievance redress mechanism (GRM)
- (viii) Economic and financial assessment report
- (ix) Institutional capacity reports
 - a. Procurement capacity assessment action plan and mitigation measures
 - b. Financial management assessment action plan.
- (x) Guidance manual on permits, clearances, and licenses
- (xi) PC-1 document
- (xii) Procurement support documents
 - a. Procurement plan
 - b. Specifications, tender documents, and contracts for construction services
 - c. Maintenance specifications and protocols
 - d. Bid evaluation report (BER).

Output 4: NMT upgrades

86. Current facilities for pedestrians to safely cross the Phase 1 BRT corridor are currently under final construction. Existing footpaths and bikeways along the Phase 1 corridor remain the responsibility of the Phase 1 contractors. However, pedestrian and cycling conditions within a 400m radius of the trunk BRT stations and direct service shelters are being evaluated as part of the Phase 2a Feasibility Study. Station area NMT improvements will be designed at the conceptual level for the Phase 1 trunk BRT stations and the Phase 1 direct service shelters. The Consultant will be required to do the preliminary and detailed design. In addition, the locations of necessary walkways, cycle tracks and structured parking along the Phase 1 corridors and routes will be identified by the Phase 2a Feasibility Study, and the Consultant will prepare the preliminary and detailed design.

Project Management

87. The Consultant will carry out all project management activities in accordance with Annex A.

Engineering Surveys

88. The Consultant will carry out all engineering surveys in accordance with Annex B.

Preliminary Design

89. The Consultant will produce drawings with the following scales:

- a. 1:500 - General horizontal alignment and overall layout;
- b. 1:200 - Vertical alignments (typical cross-sections);

- c. 1:200 - Horizontal and vertical alignments for zooms on stations sites, restructured junctions, and elevated or underground sections;
- d. 1:50 - Detailed engineering solutions and relevant details for sidewalks, stairways, pedestrian crossings, station arrangements and proposed structures, if any; and
- e. 3D Renderings of each project component and major sections of the NMT upgrades “before and after”.

90. The Consultant shall provide preliminary designs for pedestrian and bicycle infrastructure around Phase 1 trunk BRT stations and Phase 1 direct service stops as follows:

- (i) **Access roads around Phase 1 trunk BRT stations and stops:** Currently demand on TransPeshawar is partially inhibited by limited pedestrian and bicycle access to the surrounding neighborhoods in some locations to be identified by the Phase 2a Feasibility Study. Preliminary and detailed designs for measures to overcome accessibility issues in these station areas will be done by the consultant based on conceptual designs in the Feasibility Study.
- (ii) **Pedestrian crossings along the Phase 1 direct services roads:** Pedestrian facilities to cross the corridor should be provided at every intersection. The Phase 2a Feasibility Study will identify where pedestrians are crossing unsafely or are unable to cross at all. These locations will be identified in the Scoping Study, and the Consultant will prepare preliminary designs.
- (iii) **Pedestrian movement along the corridor and direct services roads:** The Consultant will design minimum one-meter wide footpaths along both sides of the Phase 1 BRT corridor and direct services roads. The footpaths should be fully universally accessible with no obstructions or abrupt elevation variations. Design concepts will be provided in the Phase 2a Feasibility Study.
- (iv) **Cyclist movement along the corridor and direct services roads:** The Consultant will design fully protected bicycle lanes along the Phase 1 BRT corridor and direct services road. Where space is particularly constrained, the Consultant will include bicycle markings on the street to denote bicycle priority. Design concepts will be provided in the Phase 2a Feasibility Study.
- (v) **Complete streets elements:** The Consultant will include the following complete streets elements in the design.
 - Street lighting: This is required for the full length of every footpath. The Consultant will develop the specifications for the street lighting, with a particular emphasis on energy-efficient lighting systems (i.e., LED street lighting).
 - Bicycle parking: Bicycle racks should be provided at every BRT station and shelter, as well as every 500 meters throughout the BRT corridor and direct services roads, and at major destinations. The Consultant will develop specifications for the bike racks.
 - Street furniture: The Consultant will design street furniture along the Phase 1 corridor and direct services roads. This will include such things as benches, child play equipment (where appropriate and where space allows), pocket parks, art installations, etc. The Consultant will develop specifications for the street furniture.
 - Landscaping: The Consultant will prepare preliminary landscape designs along Dalazak Road and the direct services roads. The landscape design should maximize the use of bioswales to improve corridor drainage. Along the cycleways and foot paths, the landscaping should assist in providing shading to enhance weather protection. To the extent possible, plant and

tree species that are indigenous to the local area and that are sufficiently robust and resilient should be utilized.

Preliminary project bill of quantity and engineer's cost estimate

91. As the preliminary design work proceeds, the Consultant will determine the required quantity of each project cost component. The Consultant will also prepare a preliminary budget and cost estimate of all project costs related to each project component. These costs shall also include all costs related to safeguard issues. The costs shall also be broken out by individual procurement under this TOR, and also totaled. Among the key cost components to be itemized (as applicable) are:

- Pedestrian bridges
- Non-motorized civil works (pedestrian and cycling facilities)
- Utility relocation and provision
- Drainage and bioswales
- Signage and road markings
- Street lighting
- Street furniture
- Bike racks
- Landscaping.

Final detailed engineering design

92. For each of the project's physical components, the Consultant will prepare the detailed engineering design that will form the basis for the subsequent construction specifications under the construction tender document. The detailed engineering design will encompass detailed component descriptions, detailed drawings, and the associated detailed technical specifications. The detailed engineering design will incorporate the agreed upon comments and modifications provided from the presentation of the preliminary detailed engineering design.

Final bill of quantity and engineer's cost estimate

93. After the approval of all preliminary designs, including the incorporation of all accepted review comments and considerations, the Consultant will prepare and then finalize the BoQ for all design components.

94. The Consultant will prepare the final detailed engineer's cost estimate for each of the components to be tendered. Both a price contingency and physical contingency shall be calculated for the project, based on the contingency calculation procedures of the Government of Pakistan.

Due Diligence

95. The Consultant will carry out all due diligence activities in accordance with Annex C.

Procurement Support

96. The Consultant will provide procurement support in accordance with Annex D.

Deliverables

97. The Consultant shall produce the following deliverables for Output 4:

- (i) Project management plan
 - a. Project Management Information System (MIS)
 - b. Master project schedule
 - c. Precedents chart
 - d. Master budget
 - e. Risk registry
 - f. Quality assurance plan
 - g. Project governance plan.
- (ii) Communications and stakeholder engagement plan
 - a. Project stakeholder directory
 - b. Stakeholder engagement plan
 - c. Public participation workshop schedule
 - d. Program and information package for public participation workshops.
- (iii) Preliminary design report
 - a. Engineering Survey Report including all memoranda prepared for each survey, as well as accompanying maps
 - b. Preliminary design specifications, drawings, and renderings
 - c. Preliminary BOQ and cost estimates.
- (iv) Final design report
 - a. Final design specifications, drawings, and renderings
 - b. Final BOQ and cost estimates.
- (v) Environmental safeguards reports
 - a. Rapid Environmental Assessment (REA)
 - b. Environmental Impact Assessment / Initial Environmental Evaluation (EIA/IEE)
 - c. Environmental Management Plan (EMP)
 - d. Climate Change Assessment Linked Document
 - e. Detailed Climate Risk Assessment Supplementary Document.
- (vi) Social due diligence reports (SDDR)
 - a. Land acquisition and resettlement plans (LARP)
 - b. Gender pre-assessment and methodology report
 - c. Gender Assessment Report.
- (vii) Grievance redress mechanism (GRM)
- (viii) Economic and financial assessment report
- (ix) Institutional capacity reports
 - a. Procurement capacity assessment action plan and mitigation measures
 - b. Financial management assessment action plan.
- (x) Guidance manual on permits, clearances, and licenses
- (xi) PC-1 document

- (xii) Procurement support documents
 - a. Procurement plan
 - b. Specifications, tender documents, and contracts for construction services
 - c. Maintenance specifications and protocols
 - d. Bid evaluation report (BER).

Output 5: Upgrade of Kohat Adda intercity terminal to multimodal terminal

98. Currently the Kohat Adda Intercity Bus Terminal is located at the end of BRT direct service route 3 on Kohat Road. The bus terminal is little more than a parking lot and has no formal connection with BRT direct service route 3. This terminal will be upgraded to a multimodal terminal with a parking area for easy transfers between BRT and intercity buses, and an indoor facility which includes rest areas and water closets for drivers, as well as retail.

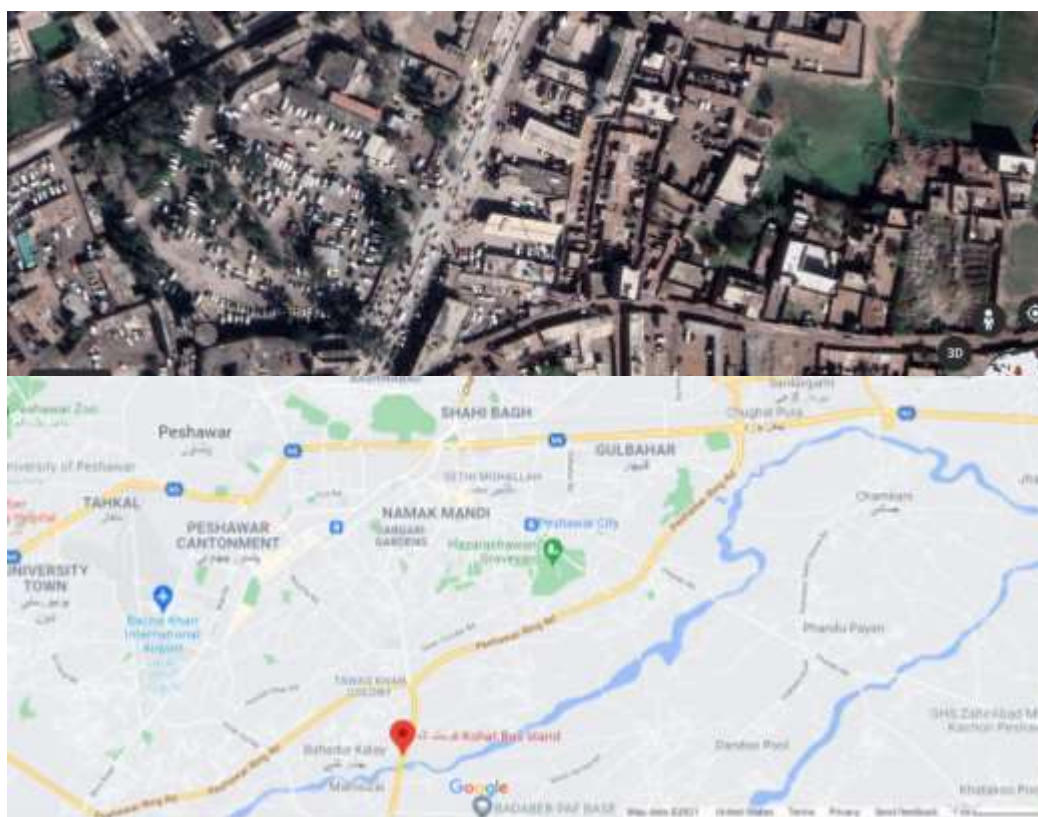


Figure 11. Google Earth image of the Kohat Adda Intercity Bus Terminal and its location on Google Maps

99. The Consultant will prepare the preliminary and detailed engineering design that will form the basis for the subsequent construction specifications under the construction tender document. All efforts should be made to adopt climate resilient design options, consistent with the recommendations & findings of the climate change assessment (CCA), and mindful of recent innovations in resilient design.

Project Management

100. The Consultant will carry out all project management activities in accordance with Annex A.

Engineering Surveys

101. The Consultant will carry out all engineering surveys in accordance with Annex B.

Preliminary Design

102. The Consultant will produce drawings with the following scales:
- a. 1:500 - General horizontal alignment and overall layout;
 - b. 1:200 - Vertical alignments (typical cross-sections);
 - c. 1:200 - Horizontal and vertical alignments for zooms on stations sites, restructured junctions, and elevated or underground sections;
 - d. 1:50 - Detailed engineering solutions and relevant details for sidewalks, stairways, pedestrian crossings, station arrangements and proposed structures, if any; and
 - e. 3D Renderings of the major aspects of the terminal “before and after”.
103. The Consultant will prepare a preliminary design for the intermodal BRT/Intercity bus terminal. The design of the terminal should reflect the regional and local architectural character. The architectural style should be consistent throughout the complex. This will include:
- (i) **Circulation plan:** The Consultant will develop a circulation plan for the new multimodal terminal, with associated drawings, to inform the preliminary design of the terminal and associated facilities. The plan should include an overall circulation of vehicles throughout the terminal, along a main circulation pathway. The general flow of buses within the terminal should be as follows: Buses enter through one entrance, access a stopping bay, and exit through a separate exit. There should be an assigned stopping bay for each bus route, with multiple bays for routes with higher frequency. One-way circulation within the terminal, coupled with 60-degree angled parking, allows maximum efficiency in terms of space and ease of operations (pulling in and out of the bays).
 - (ii) **Pavement options:** The Consultant will conduct an analysis of the pavement options for the multimodal terminal. This analysis will include an emphasis on the life-cycle costs of the pavement section designs based on the proposed circulation plan. This exercise should consider a range of pavement surfacing options (e.g. asphalt, jointed concrete, continuously reinforced concrete, etc.), as may be relevant.
 - (iii) **Driver facilities:** Quality male and female water closets (toilets, basins, etc.) shall be provided, including provision of disability-accessible toilets. Rest and recreational facilities shall also be provided for drivers, including a television/board games room and some form of physical exercise area (e.g. table tennis, basketball, etc.).
 - (iv) **Retail:** Space in the main terminal building should be provided for retail.
 - (v) **Drainage and sub-drainage systems:** The requisite drainage system shall be designed to ensure that the terminal can operate even during unusual weather events.

- (vi) **Sewage and sanitation system:** The requisite sewage and sanitation system shall be designed to accommodate the site.
- (vii) **Electrical supply facilities:** The Consultant shall determine and design for the site's electric requirements, including electrical connections, transformers, and electric infrastructure for lighting.
- (viii) **Landscaping:** The terminal should be attractive from a landscaping perspective. Consideration should be given to the use of grey water for landscaping. Landscaping design should be paired with plans describing how the landscaping must be maintained.
- (ix) **Signage:** The terminal should be built with a large illuminated totem at the entrance area. There will also be a range of signage requirements inside the facility to demarcate the different bus routes, point out specific dangers, etc. The Consultant shall prepare a full signage plan for the site.
- (x) **Lighting:** The Consultant will develop the specifications for the outdoor lighting in the bus parking area, with a particular emphasis on energy-efficient lighting systems (i.e. LED street lighting). Indoors at the terminal facility, natural lighting and ventilation should be provided for, where practical. Energy-efficient LED lighting shall be specified where artificial lighting is needed.

Preliminary project bill of quantity and engineer's cost estimate

104. As the preliminary design work proceeds, the Consultant will determine the required quantity of each project cost component. The Consultant will also prepare a preliminary budget and cost estimate of all project costs related to each project component. These costs shall also include all costs related to safeguard issues. The costs shall also be broken out by individual procurement under this TOR, and also totaled. Among the key cost components to be itemized (as applicable) are:

- Bus parking area civil works
- Utility relocation and provision
- Drainage and bioswales
- Multimodal terminal structure
- Interior amenities and furniture
- Sewage and sanitation
- Signage and road markings
- Lighting
- Bike racks
- Landscaping.

Final detailed engineering design

105. For each of the project's physical components, the Consultant will prepare the detailed engineering design that will form the basis for the subsequent construction specifications under the construction tender document. The detailed engineering design will encompass detailed

component descriptions, detailed drawings, and the associated detailed technical specifications. The detailed engineering design will incorporate the agreed upon comments and modifications provided from the presentation of the preliminary detailed engineering design.

Final bill of quantity and engineer's cost estimate

106. After the approval of all preliminary designs, including the incorporation of all accepted review comments and considerations, the Consultant will prepare and then finalize the BoQ for all design components.

107. The Consultant will prepare the final detailed engineer's cost estimate for each of the components to be tendered. Both a price contingency and physical contingency shall be calculated for the project, based on the contingency calculation procedures of the Government of Pakistan.

Due Diligence

108. The Consultant will carry out all due diligence activities in accordance with Annex C.

Procurement Support

109. The Consultant will provide procurement support in accordance with Annex D.

Deliverables

110. The Consultants shall produce the following outputs for Output 5:

- (i) Project management plan
 - a. Project Management Information System (MIS)
 - b. Master project schedule
 - c. Precedents chart
 - d. Master budget
 - e. Risk registry
 - f. Quality assurance plan
 - g. Project governance plan.
- (ii) Communications and stakeholder engagement plan
 - a. Project stakeholder directory
 - b. Stakeholder engagement plan
 - c. Public participation workshop schedule
 - d. Program and information package for public participation workshops.
- (iii) Preliminary design report
 - a. Engineering Survey Report including all memoranda prepared for each survey, as well as accompanying maps
 - b. Preliminary design specifications, drawings, and renderings
 - c. Preliminary BOQ and cost estimates.
- (iv) Final design report
 - a. Final design specifications, drawings, and renderings
 - b. Final BOQ and cost estimates.
- (v) Environmental safeguards reports

- a. Rapid Environmental Assessment (REA)
 - b. Environmental Impact Assessment / Initial Environmental Evaluation (EIA/IEE)
 - c. Environmental Management Plan (EMP)
 - d. Climate Change Assessment Linked Document
 - e. Detailed Climate Risk Assessment Supplementary Document.
- (vi) Social due diligence reports (SDDR)
 - a. Land acquisition and resettlement plans (LARP)
 - b. Gender pre-assessment and methodology report
 - c. Gender Assessment Report.
 - (vii) Grievance redress mechanism (GRM)
 - (viii) Economic and financial assessment report
 - (ix) Institutional capacity reports
 - a. Procurement capacity assessment action plan and mitigation measures
 - b. Financial management assessment action plan
 - (x) Guidance manual on permits, clearances, and licenses
 - (xi) PC-1 document
 - (xii) Procurement support documents
 - a. Procurement plan
 - b. Specifications, tender documents, and contracts for construction services
 - c. Maintenance specifications and protocols
 - d. Bid evaluation report (BER).

Output 6: Direct access to Chamkani BRT Station from GT Road

111. Currently, the Chamkani BRT station and depot, which in addition contains the KPUMA/TransPeshawar Offices and park-and-ride commercial facility, are only accessible by westbound vehicles and eastbound BRT vehicles; there is no connection for eastbound mixed traffic into the depot or westbound mixed traffic out of the depot; nor is there any reasonable pedestrian access from the surrounding neighborhoods. Motorists wishing to enter the area from the Grand Trunk Road coming from the west currently must make a u-turn to reach the access ramp.

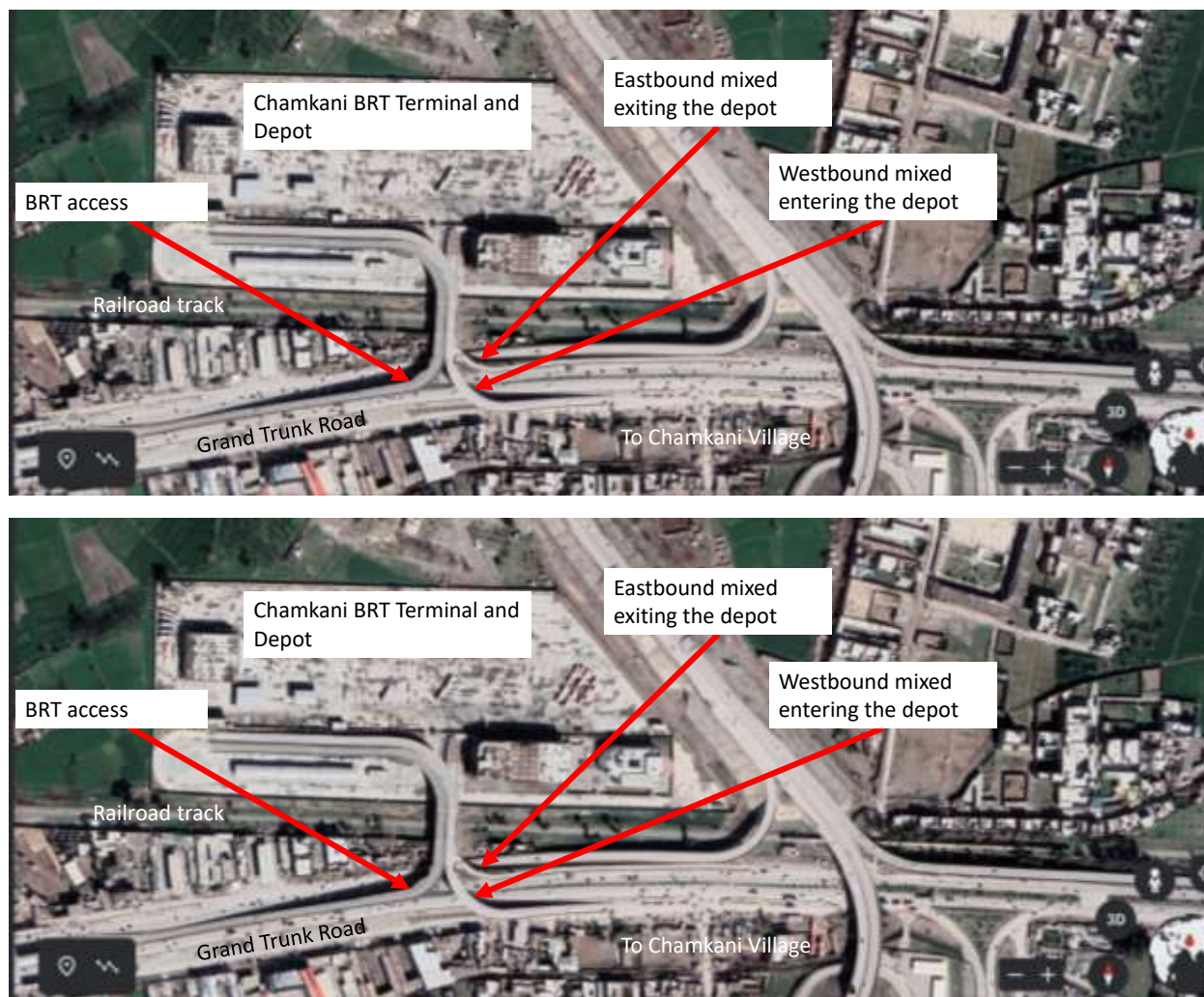


Figure 12. The Chamkani BRT terminal and depot is lacking mixed traffic access to and from the west side, and is missing NMT connections in all directions.

112. In this component, the Consultant will design a more direct connection into the depot for vehicles traveling eastbound and out of the depot for vehicles traveling westbound.

113. The Consultant will prepare the preliminary and detailed engineering design that will form the basis for the subsequent construction specifications under the construction tender document. All efforts should be made to adopt climate resilient design options, consistent with the recommendations & findings of the climate change assessment (CCA), and mindful of recent innovations in resilient design.

Project Management

114. The Consultant will carry out all project management activities in accordance with Annex A.

Engineering Surveys

115. The Consultant will carry out all engineering surveys in accordance with Annex B.

Preliminary Design

116. The Consultant will produce drawings with the following scales:
- 1:500 - General horizontal alignment and overall layout;
 - 1:200 - Vertical alignments (typical cross-sections);
 - 1:200 - Horizontal and vertical alignments for zooms on stations sites, restructured junctions, and elevated or underground sections;
 - 1:50 - Detailed engineering solutions and relevant details for sidewalks, stairways, pedestrian crossings, station arrangements and proposed structures, if any; and
 - 3D Renderings of the project “before and after”.

117. The Consultant will prepare the preliminary drawings for the connections into and out of the Chamkani Depot, as follows:

- Mixed traffic connections:** The Consultant will design connections for eastbound mixed traffic into the depot and westbound mixed traffic out of the depot. Since there is a railway between the depot and GT Road, the crossing cannot be at-grade.
- NMT connections:** The Consultant will prepare the preliminary design of a pedestrian bridge crossing both GT Road and the railroad tracks to allow pedestrians to safely reach the BRT terminal and associated offices and commercial activities at the Chamkani Terminal. The precise location will be provided by the Phase 2a Feasibility Study.
The Consultant shall investigate techniques available for foundations, sub-structure and deck construction and assess alternative materials. The facilities are to be designed for ease of pedestrian movement, with appropriate standards for step heights, stairway widths and ramps for use of the disabled.
Pedestrian infrastructure must be universally accessible. The Consultant will include the following complete streets elements in the pedestrian design:
 - Street lighting: This is required along the length of the footpaths. The Consultant will develop the specifications for the street lighting, with a particular emphasis on energy-efficient lighting systems (i.e. LED street lighting).
 - Landscaping: The Consultant will prepare preliminary landscape designs along the new footpaths. The landscape design should maximize the use of bioswales to improve corridor drainage. The landscaping should assist in providing shading to enhance weather protection. To the extent possible, plant and tree species that are indigenous to the local area and that are sufficiently robust and resilient should be utilized.

Preliminary project bill of quantity and engineer’s cost estimate

118. As the preliminary design work proceeds, the Consultant will determine the required quantity of each project cost component. The Consultant will also prepare a preliminary budget and cost estimate of all project costs related to each project component. These costs shall also include all costs related to safeguard issues. The costs shall also be broken out by individual procurement under this TOR, and also totaled. Among the key cost components to be itemized (as applicable) are:

- Roadway civil works

- Flyover and bridges
- Non-motorized civil works (pedestrian and cycling facilities)
- Utility relocation and provision
- Signage and road markings
- Street lighting
- Landscaping.

Final detailed engineering design

119. For each of the project's physical components, the Consultant will prepare the detailed engineering design that will form the basis for the subsequent construction specifications under the construction tender document. The detailed engineering design will encompass detailed component descriptions, detailed drawings, and the associated detailed technical specifications. The detailed engineering design will incorporate the agreed upon comments and modifications provided from the presentation of the preliminary detailed engineering design.

Final bill of quantity and engineer's cost estimate

120. After the approval of all preliminary designs, including the incorporation of all accepted review comments and considerations, the Consultant will prepare and then finalize the BoQ for all design components.

121. The Consultant will prepare the final detailed engineer's cost estimate for each of the components to be tendered. Both a price contingency and physical contingency shall be calculated for the project, based on the contingency calculation procedures of the Government of Pakistan.

Due Diligence

122. The Consultant will carry out all due diligence activities in accordance with Annex C.

Procurement Support

123. The Consultant will provide procurement support in accordance with Annex D.

124. The Consultant shall produce the following deliverables for Output 6:

- (i) Project management plan
 - a. Project Management Information System (MIS)
 - b. Master project schedule
 - c. Precedents chart
 - d. Master budget
 - e. Risk registry
 - f. Quality assurance plan
 - g. Project governance plan.
- (ii) Communications and stakeholder engagement plan
 - a. Project stakeholder directory
 - b. Stakeholder engagement plan
 - c. Public participation workshop schedule

- d. Program and information package for public participation workshops.
- (iii) Preliminary design report
 - a. Engineering Survey Report including all memoranda prepared for each survey, as well as accompanying maps
 - b. Preliminary design specifications, drawings, and renderings
 - c. Preliminary BOQ and cost estimates.
- (iv) Final design report
 - a. Final design specifications, drawings, and renderings
 - b. Final BOQ and cost estimates.
- (v) Environmental safeguards reports
 - a. Rapid Environmental Assessment (REA)
 - b. Environmental Impact Assessment / Initial Environmental Evaluation (EIA/IEE)
 - c. Environmental Management Plan (EMP)
 - d. Climate Change Assessment Linked Document
 - e. Detailed Climate Risk Assessment Supplementary Document.
- (vi) Social due diligence reports (SDDR)
 - a. Land acquisition and resettlement plans (LARP)
 - b. Gender pre-assessment and methodology report
 - c. Gender Assessment Report.
- (vii) Grievance redress mechanism (GRM)
- (viii) Economic and financial assessment report
- (ix) Institutional capacity reports
 - a. Procurement capacity assessment action plan and mitigation measures
 - b. Financial management assessment action plan
- (x) Guidance manual on permits, clearances, and licenses
- (xi) PC-1 document
- (xii) Procurement support documents
 - a. Procurement plan
 - b. Specifications, tender documents, and contracts for construction services
 - c. Maintenance specifications and protocols
 - d. Bid evaluation report (BER).

Output 7: Parking Management

125. Reforming on-street parking in Peshawar will help to shift people out of their cars and onto more sustainable modes like bicycle and BRT. It also has the potential to create a new revenue stream from which to fund BRT operations. On-street parking equipment and enforcement will be managed by a firm and the tender for that firm will be prepared under this component.

126. For off-street parking, a parking levy is an effective tool to both manage parking and generate revenues for the public transport system. A parking levy is a special tax similar to a general property tax, but charged specifically on non-residential off-street parking spaces, regardless of whether it is utilized or not.

127. A parking levy has a dual purpose:

- (i) To act as a transport demand management tool by either encouraging people to shift to alternative modes (as a result of the increase of the cost of commuting by car when the charge is passed on to the employee) or reducing parking supply because it is less profitable for employers/owners to maintain off-street parking.
- (ii) To fund transport improvements (revenue collected from the tax can be used as a dedicated tool), and as practiced elsewhere, a parking levy is an effective instrument for ensuring the financial sustainability of the overall sustainable urban transport system.

128. The intent in Peshawar is to find a hypothecated source of funding for TransPeshawar operations which currently operate at a deficit.

Project Management

129. The Consultant will carry out all project management activities in accordance with Annex A.

Specifications, Tender, and Contract for On-Street Parking Management System

130. An on-street parking management strategy and business plan is being developed by a separate consultant. This plan will define a controlled-parking boundary zone. On-street parking surveys will also be conducted under a separate contract and survey results and maps will be provided to the Consultant. Pay-by-phone and mobile parking enforcement with hand-held devices are being considered as that is the state-of-the-art in parking management systems. Equipment includes the devices and software required for parking enforcement, as well as variable message signage to indicate parking availability in the area, and occupancy sensors at the controlled on-street parking spaces.

131. The Consultant will develop the specifications, tender documents, and contract for the Parking Management company, according to the business plan.

132. The specifications for the smart parking management system will include all components (software and hardware) as follows:

- (i) On-street occupancy sensors for parking spaces;
- (ii) Real-time information on parking availability displayed on electronic boards across an area;
- (iii) Intelligent management system for parking linked to the overall BRT control center;
- (iv) Smart card payment system for parking (utilizing the same smart card as that for the BRT system).
- (v) Pay-by-phone systems and hand-held devices for mobile parking enforcement and centralized meters should be specified if it was determined in the business plan to include these systems.

133. The specifications will detail the protocols and performance standards for this equipment and will include renderings. Documentation will include provisions for the equipment warranty, spare parts, required tools, manuals and instructions, and system testing and commissioning.

134. The Consultant will also undertake an analysis of the legal and regulatory policies and structures required to implement the on-street parking management system.

Parking Levy Tender for Off-Street Parking Management

135. The Consultant will prepare and manage a tender for the procurement of a firm who will serve three functions:

- (i) Verify the number of commercial parking units on private premises within the parking zone shown in the figure below. A full-scale survey of off-street parking spaces will be performed under a separate contract and provided to the Consultant in order to do this work.

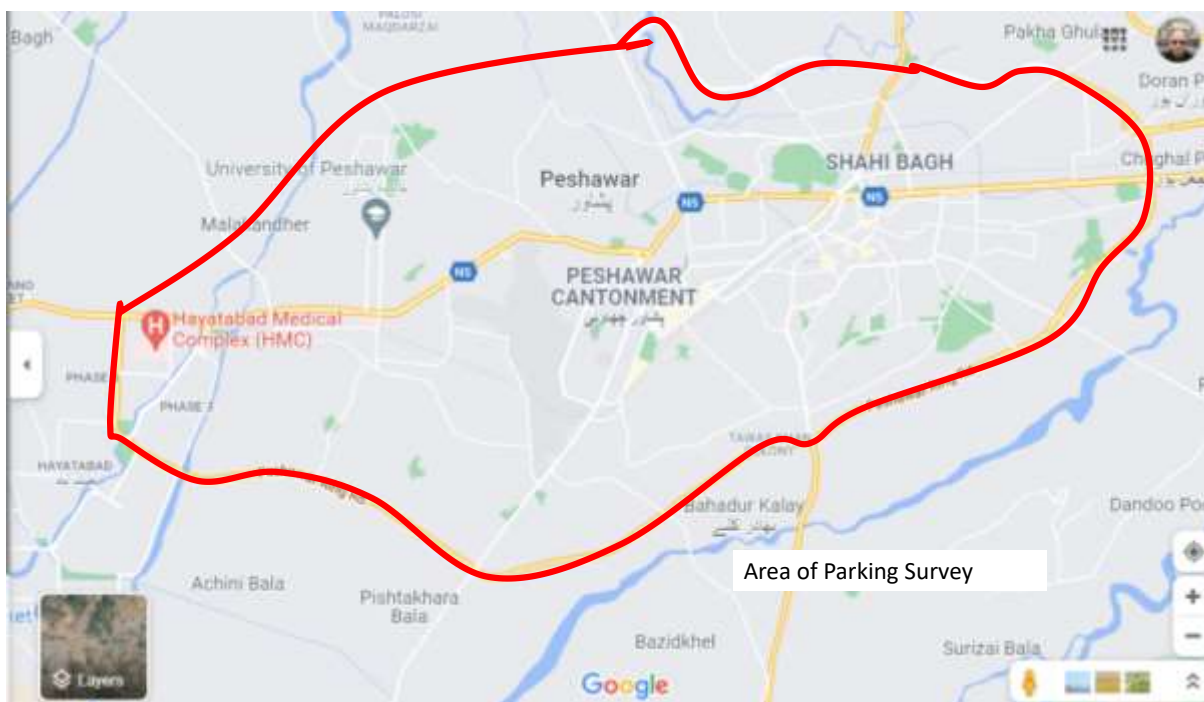


Figure 13. Approximate boundaries for off-street parking levy

- (ii) Billing and collection: Manage the billing and collection of the levy and its deposit into an earmarked account hypothecated for the use by TransPeshawar operators.
- (iii) Provide clear and transparent record keeping of all transactions and audit these transactions on an annual basis.

136. The Consultant will also undertake an analysis of the legal and regulatory policies and structures required to implement the parking levy system.

Due Diligence

137. The Consultant will carry out all due diligence activities in accordance with Annex C.

Procurement Support

138. The Consultant will provide procurement support in accordance with Annex D.

Deliverables

139. The Consultant shall produce the following deliverables for Output 8:

- (i) Project management plan
 - a. Project Management Information System (MIS)
 - b. Master project schedule
 - c. Precedents chart
 - d. Master budget
 - e. Risk registry
 - f. Quality assurance plan
 - g. Project governance plan.
- (ii) Communications and stakeholder engagement plan
 - a. Project stakeholder directory
 - b. Stakeholder engagement plan
 - c. Public participation workshop schedule
 - d. Program and information package for public participation workshops.
- (iii) Preliminary design report
 - a. Engineering Survey Report including all memoranda prepared for each survey, as well as accompanying maps
 - b. Preliminary design specifications, drawings, and renderings
 - c. Preliminary BOQ and cost estimates.
- (iv) Final design report
 - a. Final design specifications, drawings, and renderings
 - b. Final BOQ and cost estimates.
- (v) Environmental safeguards reports
 - a. Rapid Environmental Assessment (REA)
 - b. Environmental Impact Assessment / Initial Environmental Evaluation (EIA/IEE)
 - c. Environmental Management Plan (EMP)
 - d. Climate Change Assessment Linked Document
 - e. Detailed Climate Risk Assessment Supplementary Document.
- (vi) Social due diligence reports (SDDR)
 - a. Land acquisition and resettlement plans (LARP)
 - b. Gender pre-assessment and methodology report
 - c. Gender Assessment Report.
- (vii) Grievance redress mechanism (GRM)
- (viii) Economic and financial assessment report
- (ix) Institutional capacity reports
 - a. Procurement capacity assessment action plan and mitigation measures

- b. Financial management assessment action plan
- (x) Guidance manual on permits, clearances, and licenses
- (xi) PC-1 document
- (xii) Procurement support documents
 - a. Procurement plan
 - b. Specifications, tender documents, and contracts for construction services
 - c. Maintenance specifications and protocols
 - d. Bid evaluation report (BER).

Output 8: Commercial property upgrading

140. Commercial properties have been developed along the Phase 1 corridor to achieve transit-oriented development (TOD) that returns value to the system. Specifically, revenues generated from the rental or leasing of shops helps to reduce any subsidy requirements for the Peshawar BRT system. Commercial centers are under development at Chamkani depot (as part of the park-and-ride facility), Dabgari station, and Hayatabad depot.

Project Management

141. The Consultant will carry out all project management activities in accordance with Annex A.

Preliminary Design

142. The Consultant will produce drawings with the following scales:

- a. 1:500 - General horizontal alignment and overall layout;
- b. 1:200 - Vertical alignments (typical cross-sections);
- c. 1:200 - Horizontal and vertical alignments for zooms on structures;
- d. 1:50 - Detailed engineering solutions and relevant details for proposed structures and public space enhancements, if any; and
- e. 3D Renderings of each depot “before and after”.

143. During the construction of Phase 1, changes of scope have meant that the commercial centers are not being developed in a way to maximize revenues. The elimination of air conditioning and other customer amenities means that shop rental income will be much more limited. The lack of an automated parking management system also inhibits proper management and revenue control. The Consultant shall thus provide designs to retrofit air conditioning, customer amenities, and electronic parking management into these facilities.

144. In addition, the Dabgari commercial center holds the potential for a significant public space intervention that will both improve the center’s usage and revenue production as well as provide a quality public space amenity to Peshawar. The Consultant shall develop the preliminary design for the public space based on the conceptual study developed under the Phase 2a Feasibility Study.

Preliminary project bill of quantity and engineer’s cost estimate

145. As the preliminary design work proceeds, the Consultant will determine the required quantity of each project cost component. The Consultant will also prepare a preliminary budget

and cost estimate of all project costs related to each project component. These costs shall also include all costs related to safeguard issues. The costs shall also be broken out by individual procurement under this TOR, and also totaled. Among the key cost components to be itemized (as applicable) are:

- Air conditioning
- Customer amenities
- Electronic parking management equipment
- Lighting
- Landscaping
- Street furniture
- Other public space enhancements
- Signage and road markings.

Final detailed engineering design

146. For each of the project's physical components, the Consultant will prepare the detailed engineering design that will form the basis for the subsequent construction specifications under the construction tender document. The detailed engineering design will encompass detailed component descriptions, detailed drawings, and the associated detailed technical specifications. The detailed engineering design will incorporate the agreed upon comments and modifications provided from the presentation of the preliminary detailed engineering design.

Final bill of quantity and engineer's cost estimate

147. After the approval of all preliminary designs, including the incorporation of all accepted review comments and considerations, the Consultant will prepare and then finalize the BoQ for all design components.

148. The Consultant will prepare the final detailed engineer's cost estimate for each of the components to be tendered. Both a price contingency and physical contingency shall be calculated for the project, based on the contingency calculation procedures of the Government of Pakistan.

Due Diligence

149. The Consultant will carry out all due diligence activities in accordance with Annex C.

Procurement Support

150. The Consultant will provide procurement support in accordance with Annex D.

Deliverables

151. The Consultant shall produce the following deliverables for Output 9:

- (i) Project management plan
 - a. Project Management Information System (MIS)
 - b. Master project schedule
 - c. Precedents chart
 - d. Master budget
 - e. Risk registry

- f. Quality assurance plan
 - g. Project governance plan.
- (ii) Communications and stakeholder engagement plan
 - a. Project stakeholder directory
 - b. Stakeholder engagement plan
 - c. Public participation workshop schedule
 - d. Program and information package for public participation workshops.
- (iii) Preliminary design report
 - a. Engineering Survey Report including all memoranda prepared for each survey, as well as accompanying maps
 - b. Preliminary design specifications, drawings, and renderings
 - c. Preliminary BOQ and cost estimates.
- (iv) Final design report
 - a. Final design specifications, drawings, and renderings
 - b. Final BOQ and cost estimates.
- (v) Environmental safeguards reports
 - a. Rapid Environmental Assessment (REA)
 - b. Environmental Impact Assessment / Initial Environmental Evaluation (EIA/IEE)
 - c. Environmental Management Plan (EMP)
 - d. Climate Change Assessment Linked Document
 - e. Detailed Climate Risk Assessment Supplementary Document.
- (vi) Social due diligence reports (SDDR)
 - a. Land acquisition and resettlement plans (LARP)
 - b. Gender pre-assessment and methodology report
 - c. Gender Assessment Report.
- (vii) Grievance redress mechanism (GRM)
- (viii) Economic and financial assessment report
- (ix) Institutional capacity reports
 - a. Procurement capacity assessment action plan and mitigation measures
 - b. Financial management assessment action plan
- (x) Guidance manual on permits, clearances, and licenses
- (xi) PC-1 document
- (xii) Procurement support documents
 - a. Procurement plan
 - b. Specifications, tender documents, and contracts for construction services
 - c. Maintenance specifications and protocols
 - d. Bid evaluation report (BER).

V. LOGISTICS AND TIMING

152. **Assignment's location.** The Consultant will perform this assignment mainly from Islamabad in an office to be rented under the Consultant's contract and budget. The Consultant is expected to go on site in Peshawar during one-day trips, as needed and required, and will locate some of its national team members more permanently in Peshawar. Some work of the Consultant may also be provided at the home office of the Consultant with the consent of the of KPUMA, TransPeshawar and ADB. The task description and experts' profile will indicate the amount of consultant time allocated at each location. In the case travel restrictions are still in place during this study (COVID-19), international experts may work remotely, with the consent of KPUMA, TransPeshawar and ADB. In all other cases, the Consultant must make all efforts to work in the field.

153. The duration of the Consultant services shall be 15 months, commencing approximately in the first quarter of 2022.

154. **Detailed project schedule.** A detailed project schedule, including all deliverables, can be found in Annex E.

VI. PERSONNEL REQUIREMENTS

A. Personnel

155. **Selection of Consultants.** The Consulting Services will use an international firm, preferably associated with a consortium partner for local operation. All Consultants will be selected in accordance with ADB's Guidelines on the Use of Consultants by Asian Development Bank and Its Borrowers (2017, as amended from time to time).

156. In the Full Technical Proposal (FTP), the consulting firm shall provide details of staff that are proposed to comprise the project team. Proposing firms will be responsible for determining, budgeting and assigning team members to each task to produce the required outputs as effectively and efficiently as possible, in accordance with their proposed approach and methodology. One curriculum vitae (CV) shall be submitted for each proposed team member. Only the CVs of required and mandatory key positions will be scored as part of the personnel evaluation of FTPs. The CVs of non-mandatory team members will not be scored individually.

157. In the FTP, the consulting firm shall also produce a Personnel Work Plan and Schedule which indicates the total time allocation of each team member (in terms of person-months), the projected timing of each team member's contribution (by month), and the location (home office or field work) of the activity. The overall team composition, person-month allocation and work program will be reviewed by ADB's evaluation team and will be scored under "Approach and Methodology", while only CVs for required and mandatory key experts will be evaluated and scored under "Personnel".

158. **Staffing.** Table 1 below lists all staff required for this project. As a mandatory requirement, the consulting team shall include the fourteen experts listed under "Key Experts" in Table 1 below, for which CVs will be evaluated. Minimum person-month allocations for all experts are also provided in Table 1.

Table 1: Staffing Summary

International Consultants	Minimum Person-Months	National Consultants	Minimum Person-Months
Key Staff			
Team Leader / Senior Project Manager	8	Deputy Team Leader / Project Management Specialist	12
Senior BRT Design Engineer	6	Urban Transport Specialist	8
Senior Architect	4	Procurement Specialist	6
		Architect	6
		BRT Design Engineer	8
		NMT Specialist	8
Subtotal	18	Subtotal	48
Non-Key Staff			
Senior Parking Specialist	4	Communications Specialist	10
Senior Procurement Specialist	4	Bus Industry Specialist	4
Probity Auditor	1	Public Participation Specialist	5
Compete Streets Specialist	5	Engineering Survey Manager	5
Senior Drainage Design Engineer	2	Traffic Engineer	6
Senior Road Design Engineer	5	Legal and Regulatory Specialist	5
Road Signage Specialist	1.5	Urban Designer	5
Senior Structural Engineer	4	Landscape Architect	5
Senior NMT Design Specialist	5	Environmental Specialist	5
		Resettlement Specialist	5
		Gender Specialist	5
		Road Design Engineer	8
		Drainage Design Engineer	5
		Geotechnical/Foundation Engineer	5
		Cadastral Analyst	4
		Structural Design Engineer	5
		Electrical Design Engineer	5
		Road Signage Specialist	1.5
		CAD Specialist	8
		Quantity Surveyor	5
Subtotal	31.5	Subtotal	106.5
Total	49.5	Total	154.5

159. The required qualifications and experience of the key international experts and the key tasks they are to undertake are shown in Table 2.

Table 2: International key experts

	Position	Person-months	Experience requirements
1	Team Leader / Senior Project Manager	8.0	The Team Leader/Senior Project Manager will possess at least bachelor's degree in civil engineering, transport engineering, transport / urban planning, project management, or a related field, and preferably the expert will also possess a post-graduate degree. The expert will possess a minimum 12 years of relevant experience in implementing sustainable urban transport projects, including a minimum 10 years in developing and implementing quality public transport systems, including specific experience with BRT. The expert will also have at least 10 years of experience in a position managing large

	Position	Person-months	Experience requirements
			<p>sustainable urban transport projects as the Team Leader. The expert will be based in Peshawar for the duration of the assignment.</p> <p>Among the key responsibilities of the Team Leader / Senior Project Manager are:</p> <ul style="list-style-type: none"> ▪ Project reporting ▪ Project team management ▪ Stakeholder engagement and presentations ▪ Technical inputs to each planning component.
2	Senior BRT Design Engineer	6.0	<p>The Senior BRT Design Engineer will possess a university degree in transport / urban planning, engineering, or a related field. The expert will possess at least 10 years of relevant experience in designing BRT systems.</p> <p>Among the key responsibilities of the Senior BRT Design Engineer are:</p> <ul style="list-style-type: none"> ▪ Input into engineering surveys ▪ Preliminary and detailed design of Dalazak Road BRT, Eid-Gah spur, Kohat Rd, and direct services roads ▪ Input into station design
3	Senior Architect	4.0	<p>The Senior Architect will possess a university degree in architecture, design, or a related field. The expert will possess at least 10 years of relevant experience in designing quality urban public transport systems, including experience with BRT.</p> <p>Among the key responsibilities of the Senior Architect are:</p> <ul style="list-style-type: none"> ▪ Station/shelter component development ▪ Station/shelter architectural design ▪ Kohat intermodal terminal architectural design ▪ Inputs to renderings

160. The required qualifications and experience of the key national experts and the key tasks they are to undertake are shown in **Table 3**.

Table 3: National Key Experts

	Position	Person-Months	Experience requirements
4	Deputy Team Leader / Project Management Specialist	12.0	The Deputy Team Leader / Project Management Specialist will possess a university degree in project management, business, engineering, transport / urban planning, or a related field. The expert will possess at

	Position	Person-Months	Experience requirements
			<p>least 10 years of relevant experience in developing and managing urban transport projects, preferably with BRT experience in the region.</p> <p>Among the key responsibilities of the Deputy Team Leader / Project Management Specialist are:</p> <ul style="list-style-type: none"> ▪ Project reporting ▪ Team management ▪ MIS oversight ▪ Gantt and precedent chart management ▪ Contact directory and stakeholder engagement ▪ Risk registry management ▪ Quality control plan ▪ Procurement support
5	Urban Transport Specialist	8.0	<p>The Urban Transport Specialist will possess a university degree in transport / urban planning, engineering, or a related field. The expert will possess at least 7 years of relevant experience in developing sustainable urban transport initiatives, preferably with BRT experience in the region.</p> <p>Among the key responsibilities of the Urban Transport Specialist are:</p> <ul style="list-style-type: none"> ▪ Coordination between Phase 2a Feasibility Study and preliminary/detailed design ▪ Assistance with the integration design of non-motorized transport components ▪ Infrastructure maintenance protocols ▪ Inputs to physical design of BRT corridor ▪ Inputs to intermodal terminal development ▪ Capacity development support
6	Procurement Specialist	6.0	<p>The Procurement Specialist will possess a university degree in business, finance, accounting, law, engineering, or a related field. The expert will possess at least 5 years of relevant experience in managing procurement for development projects.</p> <p>Among the key responsibilities of the Procurement Specialist are:</p> <ul style="list-style-type: none"> ▪ Inputs into construction tender development ▪ Specification review ▪ Inputs into infrastructure maintenance contract ▪ Procurement support ▪ Grievance Redress Mechanism ▪ Inputs into bid evaluation report
7	Architect	6.0	<p>The Architect will possess a university degree in architecture, design, or a related field. The expert will possess at least 10 years of relevant experience in designing top structure elements for urban projects.</p>

	Position	Person-Months	Experience requirements
			<p>Among the key responsibilities of the Architect are:</p> <ul style="list-style-type: none"> ▪ Analysis of station components ▪ Station and shelter architectural design ▪ Terminal design ▪ Commercial property upgrading ▪ Inputs to renderings
8	BRT Design Engineer	8.0	<p>The BRT Design Engineer will possess a university degree in civil engineering (nationally recognised professional qualification). The experts will possess at least 5 years of professional experience with 2 years working in similar assignments/ positions. Among the key responsibilities of the BRT Design Engineer are:</p> <ul style="list-style-type: none"> ▪ Inputs to engineering surveys ▪ Inputs to Preliminary design for Dalazak Road BRT, Eid-Gah spur, Kohat Road BRT, and direct services roads ▪ Inputs to Detailed design for Dalazak Road BRT, Eid-Gah spur, Kohat Road BRT, and direct services roads
9	NMT Specialist	8.0	<p>The NMT Specialist will possess a university degree in engineering, transport / urban planning, environmental management, or a related field. The expert will possess at least 3 years of relevant experience in developing urban transport projects.</p> <p>Among the key responsibilities of the Non-Motorized Transport (NMT) Specialist are:</p> <ul style="list-style-type: none"> ▪ Design of NMT upgrades along the Phase 1 corridor and direct service roads ▪ Design of NMT components along the Dalazak BRT, Eid-Gah spur, Kohat Road BRT, and direct service roads ▪ Bike rack placement and specifications

161. In addition to the nine key experts noted above, the Consultant will also include additional required experts in order to deliver the project activities in a timely and quality manner. While these additional required experts will not be evaluated for purposes of the selection scoring, the contracting authority reserves the right to request the replacement of any expert should they be deemed inadequate for the described tasks. Table 4 describes the additional required international experts. Table 5 describes the additional required national experts.

Table 4: Additional required international experts

	Additional required international experts	Person-months	Experience requirements
1	Senior Parking Specialist	4.0	The Senior Parking Specialist will possess a university degree in transport / urban planning, engineering, or a

	Additional required international experts	Person-months	Experience requirements
			<p>related field. The expert will possess at least 7 years of relevant experience in parking management, as well as ITS systems.</p> <p>Among the key responsibilities of the Senior Parking Specialist are:</p> <ul style="list-style-type: none"> ▪ Write the specifications for the on-street parking ITS equipment ▪ Inputs into the parking management firm contract and tender documents ▪ Inputs into the parking levy firm contract and tender documents.
2	Senior Procurement Specialist	4.0	<p>The Senior Procurement Specialist will possess a university degree in business, finance, accounting, law, engineering, or a related field. Chartered institute of procurement and supply (CIPS) or similar procurement qualification is an asset. The expert will possess at least 7 years of relevant experience in managing procurement for transport projects and contract management, including specific experience with projects financed through international financial institutions.</p> <p>Among the key responsibilities of the Senior Procurement Specialist are:</p> <ul style="list-style-type: none"> ▪ Construction tender development ▪ Parking management tender development ▪ Parking levy tender development ▪ Specification review ▪ Equipment / goods procurement ▪ Infrastructure maintenance contract ▪ Procurement support ▪ Preparation of bid evaluation report
3	Probity Auditor	1.0	<p>The Probity Auditor will possess a university degree in law, accounting, business, or a related field. The expert will possess at least 7 years of relevant experience in monitoring and evaluating projects from the perspective of anti-corruption.</p> <p>Among the key responsibilities of the Probity Auditor are:</p> <ul style="list-style-type: none"> ▪ Probity audit of the procurement process.
4	Complete Streets Specialist	5.0	<p>The Complete Streets Specialist will possess a university degree in transport / urban planning, engineering, or a related field. The expert will possess at least 7 years of relevant experience in complete streets design.</p> <p>Among the key responsibilities of the Complete Streets Specialist are:</p> <ul style="list-style-type: none"> ▪ Develop specifications for street furniture

	Additional required international experts	Person-months	Experience requirements
			<ul style="list-style-type: none"> Inputs into specifications for street lighting Inputs into the design of the surface of Dalazak Road
5	Senior Drainage Design Engineer	2.0	<p>The Senior Drainage Design Engineer will possess a university degree in engineering, transport planning, or a related field. The expert will possess at least 7 years of relevant experience in developing roadway drainage systems, including experience with drainage systems for public transport corridors.</p> <p>Among the key responsibilities of the Senior Drainage Design Engineer are:</p> <ul style="list-style-type: none"> Oversight of hydrological/drainage survey Drainage system design Bioswale development
6	Senior Road Design Engineer	5.0	<p>The Senior Road Design Engineer will possess a university degree in civil engineering or a related field. The expert will possess at least 10 years of relevant experience in designing quality urban public transport systems, including experience with BRT.</p> <p>Among the key responsibilities of the Senior Road Design Engineer are:</p> <ul style="list-style-type: none"> Inputs into preliminary and detailed road design on Dalazak Road and on the direct services roads Bus turnaround design Design of the connection to Chamkani Depot Road design at the Kohat intermodal terminal Pavement analysis and design Inputs into engineering surveys
7	Senior Structural Engineer	4.0	<p>The Senior Structural Engineer will possess a university degree in civil engineering, architecture, or a related field. The expert will possess at least 7 years of relevant experience with the design of public transport structures, including specific experience with BRT.</p> <p>Among the key responsibilities of the Senior Structural Engineer are:</p> <ul style="list-style-type: none"> Station and shelter structural design Intermodal terminal structural design Structural design of the elevated BRT structure
8	Senior NMT Design Specialist	5.0	<p>The Senior NMT Design Specialist will possess a university degree in transport / urban planning, engineering, environmental management, or a related field. The expert will possess at least 7 years of relevant experience in designing pedestrian and bicycle infrastructure.</p>

	Additional required international experts	Person-months	Experience requirements
			<p>Among the key responsibilities of the Senior NMT Design Specialist are:</p> <ul style="list-style-type: none"> ▪ Pedestrian facility design along the Phase 1 and 2A corridors, Eid-Gah Rd spur, and direct services roads ▪ Pedestrian crossings and access at stations, intersections, and mid-block ▪ Bicycle parking design ▪ Bicycle infrastructure design
9	Senior ITS Specialist	2.0	<p>The Senior ITS Specialist shall possess a university degree in systems, engineering, or a related field. The expert shall also possess at least 7 years of relevant experience with fare and ITS equipment, including specific experience with fare and ITS equipment for urban public transport systems.</p> <p>Among the key responsibilities of the Senior ITS Specialist:</p> <ul style="list-style-type: none"> ▪ Review the Phase 1 fare and ITS specifications and bid documents, and provide any suggested edits or modifications ▪ Determine the bill of quantity requirements for the Phase 2a trunk stations ▪ Prepare the Phase 2a fare and ITS specifications and bid documents ▪ Assist TransPeshawar in the negotiation of the Phase 2a service operations with the existing System Control Company.

Table 5: Additional required national experts

	Additional required national experts	Person-months	Experience requirements
11	Communications Specialist	10	<p>The Communications Specialist will possess a university degree in communications, media relations, journalism, business, or a related field. The expert will possess at least 7 years of relevant experience in providing communications and stakeholder engagement assistance to projects.</p> <p>Among the key responsibilities of the Communications Specialist are:</p> <ul style="list-style-type: none"> ▪ Project stakeholder directory ▪ Communications plan

	Additional required national experts	Person-months	Experience requirements
			<ul style="list-style-type: none"> ▪ Contact management database ▪ Project presentations ▪ Management of media relations ▪ Stakeholder sessions ▪ Project team communications ▪ Capacity development support
12	Public Participation Specialist	5.0	<p>The Public Participation Specialist will possess a university degree in communications, development studies, business, or a related field. The expert will possess at least 5 years of relevant experience in implementing public participation processes for development projects.</p> <p>Among the key responsibilities of the Public Participation Specialist are:</p> <ul style="list-style-type: none"> ▪ Assistance in the design of public participation program ▪ Development of public participation materials ▪ Conducting of public participation sessions
13	Bus Industry Specialist	4.0	<p>The Bus Industry Specialist will possess a university degree in urban planning, engineering, business, or a related field. The expert will possess at least 7 years of relevant experience in public transport planning and implementation in Pakistan.</p> <p>Among the key responsibilities of the Bus Industry Specialist are:</p> <ul style="list-style-type: none"> ▪ Manage full in-depth survey of all bus, minibus, and paratransit operators, including three-wheelers, on the trunk and direct service routes ▪ Produce the industry restructuring plan, including the detailing the compensation process.
14	Engineering Survey Manager	5.0	<p>The Engineering Survey Manager will possess a university degree in civil engineering. The expert will possess at least 7 years of relevant experience in managing surveys for preparing detailed engineering designs.</p> <p>Among the key responsibilities of the Engineering Survey Manager are:</p> <ul style="list-style-type: none"> ▪ Design engineering surveys ▪ Manage and hire surveyors ▪ Oversee engineering surveys ▪ Survey reports ▪ Data processing
15	Traffic Engineer	6.0	<p>The Traffic Engineer will possess a university degree in civil engineering, transport / urban planning, or a related</p>

	Additional required national experts	Person-months	Experience requirements
			<p>field. The expert will possess at least 5 years of relevant experience with urban transport systems and traffic management.</p> <p>Among the key responsibilities of the Traffic Engineer are:</p> <ul style="list-style-type: none"> ▪ Traffic signal system upgrades ▪ Intersection re-designs ▪ Traffic road markings and signage
16	Legal and Regulatory Specialist	5.0	<p>The Legal and Regulatory Specialist will possess a university degree in Law or a related field. The expert will possess at least 10 years of relevant experience on the provision of legal support to investment projects and specific experience on regulatory frameworks for the management of urban services.</p> <p>Among the key responsibilities of the Legal and Regulatory Specialist are:</p> <ul style="list-style-type: none"> ▪ Evaluate the current legal and regulatory structure and policies regarding urban parking management in Peshawar ▪ Provide a roadmap on the legal and regulatory requirements to implement the envisioned on-street parking management system and the off-street parking levy in Peshawar ▪ Provide legal opinions when requested.
17	Urban Designer	5.0	<p>The Urban Designer will possess a university degree in transport / urban planning, engineering, or a related field. The expert will possess at least 7 years of relevant experience in people-centric urban design.</p> <p>Among the key responsibilities of the Urban Designer are:</p> <ul style="list-style-type: none"> ▪ Inputs into street furniture, street lighting, and landscaping for all components ▪ Inputs into the design of the surface of Dalazak Road ▪ Public space design, including adjacent to commercial properties
18	Landscape Architect	5.0	<p>The Landscape Architect will possess a university degree in landscape architecture, urban design, or a related field. The expert will possess at least 7 years of relevant experience in applying landscape designs to urban public spaces.</p> <p>Among the key responsibilities of the Landscape Architect are:</p> <ul style="list-style-type: none"> ▪ Identification of appropriate plant and tree species

	Additional required national experts	Person-months	Experience requirements
			<ul style="list-style-type: none"> ▪ Landscape preliminary plan for all relevant project components ▪ Landscape detailed plan for all relevant project components ▪ Landscape maintenance plan
19	Environmental Specialist	5.0	<p>The Environmental Specialist will possess a university degree in environmental assessment, environmental management, urban planning, engineering, or a related field. The expert will possess at least 5 years of relevant experience on preparation of EIA / IEE studies for similar projects, monitoring and implementation of environmental safeguards, including specific experience with projects financed through international financial institutions. Among the key responsibilities of the Environmental Specialist are:</p> <ul style="list-style-type: none"> ▪ Greenhouse gas methodology ▪ Greenhouse gas calculations ▪ Quantitative assessment of air quality, noise and vibration ▪ Environmental management plan ▪ Environmental monitoring
20	Resettlement Specialist	5.0	<p>The Resettlement Specialist will possess a university degree in social science, development studies, or a related field. The expert will possess at least 7 years of relevant experience on the monitoring and implementation of resettlement safeguards, including specific experience with projects financed through international financial institutions. Among the key responsibilities of the Resettlement Specialist are:</p> <ul style="list-style-type: none"> ▪ Resettlement evaluation ▪ Resettlement plan ▪ Resettlement technical support
21	Gender Specialist	5.0	<p>The Gender Specialist will possess a university degree in social sciences, public policy, urban planning and governance sector, gender or another relevant field. The Gender Specialist should preferably have more than 10 years in the field of Social Development and at least 5 years gender specific expertise. They should be well-versed with gender related issues in relation to Urban Development sector with a focus on municipal services and urban transport. They should demonstrate extensive technical experience in developing gender action plans (GAPs) and institutional level gender policies and strategies for Urban Mobility and Transport or similar</p>

	Additional required national experts	Person-months	Experience requirements
			<p>sectors. Familiarity with ADB or other international donor-funded projects would be an added advantage.</p> <p>The Gender Specialist will have a role in the following:</p> <ul style="list-style-type: none"> ▪ Phase 2A BRT evaluation ▪ Gender Assessment Report ▪ Gender Action Plan ▪ Stakeholder outreach ▪ Preparation of bidding documents ▪ Bid evaluation
22	Road Design Engineer	7.0	<p>The Road Design Engineer will possess a university degree in civil engineering or a related field. The expert will possess at least 5 years of relevant experience in designing transport infrastructure, including experience in the urban transport sub-sector.</p> <p>Among the key responsibilities of the Road Design Engineer are:</p> <ul style="list-style-type: none"> ▪ Road layout design along the Dalazak Road BRT, Eid-Gah spur corridor and along the direct services roads ▪ Inputs into design for connection to Chamkani depot ▪ Pavement design ▪ Support to engineering survey work
23	Drainage Design Engineer	5.0	<p>The Drainage Design Engineer will possess a university degree in civil engineering or a related field. The expert will possess at least 5 years of relevant experience in developing roadway drainage systems.</p> <p>Among the key responsibilities of the Drainage Design Engineer are:</p> <ul style="list-style-type: none"> ▪ Support to hydrological/drainage survey ▪ Drainage system design ▪ Bioswale development
24	Geotechnical / Foundation Engineer	5.0	<p>The Geotechnical / Foundation Engineer will possess a university degree in civil engineering, soil mechanics, or a related field. The expert will possess at least 5 years of relevant experience in soil analysis and developing roadway and structural foundations.</p> <p>Among the key responsibilities of the Geotechnical / Foundation Engineer are:</p> <ul style="list-style-type: none"> ▪ Support to topographical survey ▪ Foundation design
25	Cadastral Analyst	4.0	<p>The Cadastral Analyst will possess a university degree in business, planning, property development, or a related</p>

	Additional required national experts	Person-months	Experience requirements
			<p>field. The expert will possess at least 5 years of relevant experience on urban development and/or property development.</p> <p>Among the key responsibilities of the Cadastral Analyst are:</p> <ul style="list-style-type: none"> ▪ Mapping of property boundaries around all project components ▪ Mapping of property boundaries along pedestrian access ways to the stations
26	Structural Design Engineer	5.0	<p>The Structural Engineer will possess a university degree in civil engineering, architecture, or a related field. The expert will possess at least 5 years of relevant experience with the design of public transport structures, including specific experience with BRT.</p> <p>Among the key responsibilities of the Structural Engineer are:</p> <ul style="list-style-type: none"> ▪ Station and shelter structural design ▪ Terminal structural design
27	Electrical Design Engineer	5.0	<p>The Electrical Design Engineer will possess a university degree in electrical engineering, physics, or a related field. The expert will possess at least 5 years of relevant experience in developing electrical design plans, including experience in the transport sector.</p> <p>Among the key responsibilities of the Electrical Design Engineer are:</p> <ul style="list-style-type: none"> ▪ Support to public utilities survey ▪ Station electrical design ▪ Street lighting design
28	Road Signage Specialist	1.5	<p>The Road Signage Specialist will possess a university degree in transport / urban planning, communications, engineering, business, marketing, or a related field. The expert will possess at least 7 years of relevant experience with customer information systems and signage for transport applications, including specific experience with urban public transport systems.</p> <p>Among the key responsibilities of the Road Signage Specialist are:</p> <ul style="list-style-type: none"> ▪ BRT station and bus shelter signage design and specifications ▪ Way-finding signage design and specifications
29	CAD Specialist	7.0	<p>The CAD Specialist will possess a university degree in design, engineering, or a related field. The expert will possess at least 3 years of relevant experience in developing CAD drawings and renderings for transport projects.</p> <p>Among the key responsibilities of the CAD Specialist are:</p>

	Additional required national experts	Person-months	Experience requirements
			<ul style="list-style-type: none"> ▪ Rendering perspective identification ▪ Rendering design ▪ Cross-sectional roadway drawings ▪ Utility drawings ▪ Top structure drawings
30	Quantity Surveyor	5.0	<p>The Quantity Surveyor will possess a university degree in civil engineering or a related field. The expert will possess at least 5 years of relevant experience in cost estimation of transport projects.</p> <p>Among the key responsibilities of the Quantity Surveyor are:</p> <ul style="list-style-type: none"> ▪ Infrastructure quantity estimate ▪ Infrastructure cost estimate

B. Office accommodation, facilities, equipment

162. The Consultant will be responsible for providing the long-term office space for its team in Peshawar, as well as in Islamabad, if chosen.

163. KPUMA and TransPeshawar will provide all relevant existing reports and available documents to the Consultant during the implementation of the consultancy. KPUMA and TransPeshawar will facilitate access of the Consultant to other government agencies for communications, collecting of relevant information, data, documents, etc. and other activities related to the consultant's assignment.

164. The Consultant is expected to provide for their own domestic and international travel, insurance, subsistence, computer equipment, and all consumables, and make provision for the cost of office operation, including electricity and telephone, and all other costs to fulfill the consultancy services. A line item within the budget does provide for some office equipment to be procured by the Consultant.

165. The Consultant shall ensure that experts are adequately supported and equipped. In particular it shall ensure that there is sufficient administrative, secretarial, translation and interpreting provision to enable experts to concentrate on their primary responsibilities. It must also transfer funds as necessary to support its activities under the contract and to ensure that its employees are paid regularly and in a timely fashion.

VII. DELIVERABLES, REPORTING REQUIREMENTS AND CONTRACT ADMINISTRATION

166. **Duration.** The consulting services under the proposed contract will be implemented over a maximum period of **14 months** (Q1 2022 to Q2 2023) in two stages, as follows:

- (i) **Detailed Planning and Design stage** of 11 months during which all Outputs will undergo design and due diligence;
- (ii) **Procurement stage** of 3 months during which the Consultant will be expected to provide support as necessary to the Client during the tender process and write the Bid/Tender Evaluation Report for each component, leading to the award of contracts.

167. **Payments.** Payments will be linked to the submission of outputs, as shown in **Table 6**.

Table 6: Summary of Milestones for Payments

Milestone
Mobilization
Output 1: Preliminary design for Dalazak Road trunk BRT corridor
Output 2: Kohat Road Trunk Corridor
Output 3: Direct Service Routes
Output 4: NMT Upgrades around Phase 1 Stations
Output 5: Upgrade of Kohat Adda intercity terminal to multimodal terminal
Output 6: Direct access to Chamkani BRT Station from GT Road
Output 7: Parking management
Output 8: Commercial property upgrading

168. **Workshops.** The Consultant will organize and conduct meetings with project stakeholders as needed, as well as several workshops and thematic working sessions at specific milestones, as defined in the scope of work above, to guarantee mutual understanding of project issues and proposed options. The Consultant will prepare illustrated Power Point presentations for all workshops. All expenses for those workshops should be borne by the Consultant under their consulting contract.

169. **Reporting requirements.** In addition to the main deliverables, the Consultant will prepare monthly progress reports (main text of maximum 10 pages), summarizing:

- (i) Main technical issues encountered during the past month and major technical decisions to be taken urgently;
- (ii) Administrative issues such as (a) financial and physical progress of the consultancy contract; (b) arrivals and departures of each team member; (c) elapsed time and person days on the assignment in the preceding month and forecast for the coming month; (d) expenditures, billing and payments received; and (e) consultants proposed changes in personnel schedule and team composition;
- (iii) Minutes of important meetings with project stakeholders; and
- (iv) Main challenges ahead and main recommendations from the Consultant.

170. At the end of the assignment, the Consultant will also provide a summary final report including comparison of actual expenditures compared to budget, consultant inputs compared to work plan, and other assessments which could be useful in designing future assignments of a similar type.

171. **Language requirements.** All reports will be presented in English language. If required by KPMUA and/or TransPeshawar, a translation in Pakistani language (Urdu) of main reports may be provided. In such case, the Consultant will ensure that documents in Urdu will have the same title as the English version and will follow exactly the same page layout as the English version. Consistency and integration of proposed changes (track change mode) will be ensured.

172. **Procedure for review and acceptance of project outputs.** Outputs are to be supplied under an output-based lump sum contract. Before formal acceptance, each of the outputs will be peer reviewed by a review panel composed of:

- (i) The Head of KPUMA;
- (ii) The Head of TransPeshawar; and,
- (iii) The ADB project Team Leader.

173. At each workshop held after submission of the inception, interim, draft final and final reports, the review panel will jointly:

- (i) Determine if all key deliverables were provided as agreed;
- (ii) Review and discuss the quality of the outputs submitted in each report; and
- (iii) Reach consensus on whether to authorize the progress payments on a lump sum basis.

174. If a progress payment is not authorized, the Consultant will be given a written list of deficiencies to be corrected and requested date of revised submission. The Consultant will be given the opportunity to clarify the nature and extent of the deficiencies and agree with ADB and the government on the needed revisions and resubmission date. The new submission will then be reviewed again by ADB and the government to determine whether the deficiencies have been sufficiently addressed, in which case the report/output will be deemed as “final,” and the progress payment will be approved.

175. **Budget and lump sum payment schedule.** The maximum budget for this work is fixed at \$2,500,000 (excluding taxes) for Phase 2A “Engineering Design and Procurement Support”, including mainly, but not limited to:

- (i) Remuneration for all proposed experts;
- (ii) All out-of-pocket expenses (per diems, international and local air travels, equipment, office space, land transport, communication, report preparation, etc.);
- (iii) All provisional sums for technical surveys [potentially outsourced to local entities], workshops and trainings, etc.; and
- (iv) Any contingencies.

176. The overall investment for this project phase is \$100 million. The Consultant will bid a price for each of the nine (9) outputs detailed in this document. The Client may select a reduced number of outputs for design and implementation, depending on the outcome of the Feasibility Study that is currently under development. For this reason, an itemized budget that separates the Consultant’s estimate for each output is requested.

ANNEX A**PROJECT MANAGEMENT TASKS**

1. The Consultant will develop and implement project management tools to ensure project quality and the timely delivery of outputs. The Consultant will build off existing project management tools which were developed under Phase 1.
2. Specific Project Management tasks, responsibilities and deliverables include, but are not limited to, the following:

- a. **Project management information system**

3. The Consultant will establish and maintain a web-based project management information system (MIS) for the protection of project data and information.

- b. **Master project schedule**

4. The Consultant will prepare and maintain a master project schedule, in a standard Gantt chart format. The Gantt chart is to cover all activities, tasks and milestones necessary for the successful completion of the project, including activities managed by the IA, and any activities to be carried out by external entities including utility relocation and safeguard related activities. The Gantt chart will cover the period from the notice to proceed of the Consultant through evaluation of the construction and other procurement contracts.

- c. **Precedents chart**

5. The Consultant will prepare a project precedents chart in which the interdependence of each output is related visually to each project activity. The precedents chart is intended to show critical project pathways in the delivery process.

- d. **Master budget and cost control program**

6. The Consultant will prepare and maintain a master budgeting and cost control program using an appropriate cost management software package, making the necessary configurations/changes of the software as required for the specifics of the project. When implemented, the budget and cost control spreadsheet will provide a complete and accurate picture of all incurred, programmed and projected project costs.

- e. **Risk Registry**

7. The Consultant will create and maintain a risk registry for the project, categorizing risks according to size and risk likelihood, and develop/maintain recommendations for risk mitigation.

- f. **Quality Assurance Plan**

8. The Consultant will develop, monitor and maintain a quality assurance plan for all major project processes including: procurements, detailed design activities, and civil works construction to ensure a high-quality project is implemented.

g. Project governance plan and probity audits

9. The Consultant will identify all pertinent project governance issues to ensure an effective, transparent, and open implementation. The Consultant will audit and evaluate project processes to ensure project integrity and compliance with government and ADB anti-corruption standards.

h. Stakeholder directory and stakeholder engagement plan

10. The Consultant will update the existing project stakeholder directory, ideally in coordination with the other components, that includes relevant contact information and project role details of organizations and individuals. Among the type of stakeholders to be included in the directory are national Government officials, local Government officials, traffic police, existing public transport operators, affected land and business owners along the corridors, business associations (e.g. Chamber of Commerce), civil society, news media, and international organizations.
11. The consultant will prepare a stakeholder engagement plan for the project.

i. Project update reports

12. The Consultant will produce and maintain all required project update reports to Government and funding organizations. The Consultant will produce brief (one page) project updates monthly with more detailed reporting at quarterly milestone points.

j. Public participation process

13. The Consultant will undertake a public participation process to inform the general public, businesses and related stakeholders of the new project. The public participation process will include workshops with presentations and colored hand-out brochures on the system, as well as the provision of a question-and-answer period.

ANNEX B**ENGINEERING SURVEYS**

1. The Consultant will conduct field surveys to enable the preliminary and detailed designs of all civil works. These surveys will build from studies conducted under BRT phase 1. Field surveys will be conducted at the locations where new infrastructure will be designed (see Output 3).
2. The **topographic study** will build from the topographic study from the Phase 1 BRT. The Consultant will realize topographic surveys along all road sections where new infrastructure is planned. These topographic surveys will establish survey control monuments for future construction layout, produce base mapping and derive original ground cross-sections/terrain models. Topographic surveys shall comply with relevant national standards in Pakistan.
3. The surveys will gather information at terminal sites, station sites, bridge and drainage structures, and gather information about sidewalks, curbs, buildings, turning radius, post locations, traffic control locations, tree locations, and all other relevant elements.
4. Establish horizontal and vertical surveys using an approved coordinate and ground datum system for design purposes, with closed polygons every 2 longitudinal kilometres. Survey accuracy is to be within the limits set forth in the national standards.
5. The Consultant shall place 'permanent' survey control monuments for use by the Contractor during the construction stage. Monuments shall be placed at not more than 500 m intervals and are to be intervisible. Details of the x, y and z coordinates for each monument are to be reported in a Survey Control Report containing sketches of location and other details including local reference markers used and offset dimensions, etc. The detailed requirements for the topographic surveys are as follows:
 - (i) Vertical control monuments shall be set at locations where they shall not be disturbed during construction.
 - (ii) Horizontal and vertical monuments with reference shall be shown in the plans.
 - (iii) A detailed topographic survey shall be conducted to locate existing roads, buildings, etc. and natural features such as creeks, canals, slopes, etc.
 - (iv) Level identification shall be tied to the existing benchmarks in the area.
 - (v) Identify transport routes that cross new infrastructure alignment to identify locations where facilities are needed to maintain accessibility for local communities and regional transport.
 - (vi) After identification of the alignment centerline, centerline staking at the locations including intersections (P.I.), beginning and ending of the horizontal curves (P.C. and P.T.) shall be tied to permanent references points in accordance with Government of Pakistan (GoP) standard practice.
 - (vii) Cross sections shall be taken at all locations requiring infrastructure, at 20-meter intervals, unless local conditions require cross sections at closer intervals so as to provide the necessary details for the earthwork, quantity calculation with accuracy of five percent (5%) of final quantities.
 - (viii) All survey information and data shall be recorded in standard survey notebooks. Upon completion of the works, all survey notes shall become the property of GoP.
6. **Roadway Pavement Strength.** For the BRT route along Dalazak Road, if the feasibility recommends at-grade BRT operations, the roadway will require new concrete pavement

construction for BRT lanes throughout, or only at BRT stations. However, in other road sections existing surfaces may be retained with local asphalt overlays. Accordingly, some investigation into residual pavement is required, and notably (i) two (2) test pits per km.; and (ii) ten (10) Beam Deflection Tests per km. Pavement strength surveys shall comply with relevant GoP Standards.

7. **Hydrological investigations.** Study the existing hydrological regime, based on an analysis of rainfall and flood records, including subsurface water characteristics supplemented by detailed field investigations, to establish road embankment levels, bridge elevations, culverts and side ditches invert levels. Where necessary, these structures should be modified to ensure they control sedimentation and erosion during construction and during subsequent operation.

8. At key bridge sites, riverbed measurements are to be made with at least one cross-section on the upstream and downstream and one at the centerline. Water samples are to be taken for testing of corrosive substances. The detailed requirements for the hydrological investigations are:

- (i) Meteorological and hydrographical data related to rainfall, wind, temperature, humidity shall be collected from the meteorological stations and authorities, and survey of flow rate and water level in rivers from hydrographical stations in the project area shall be carried out.
- (ii) Existing drainage works and irrigation systems along and through the Project corridor shall be surveyed to identify existing cross-section of canals and dykes, functions, flow direction and longitudinal slope, etc.
- (iii) Hydrographic surveys shall be conducted at bridge sites and channel structures to measure cross section of flow, estimate the high water level and other necessary information.
- (iv) Flood record survey shall be conducted in order to confirm the historical flood level along the roadway.

9. **Geotechnical Survey and Soil Investigation.** A review shall be made of all existing relevant data, followed by a study of the soils and materials along the road sections. The Consultant shall identify the varying soil and sub-strata types by visual inspection and by testing of recovered samples to be taken at appropriate intervals to determine the classification and specific properties of the materials present. As a minimum, the following surveys and investigations shall be made to obtain the geologic information for detailed design:

- (i) Mechanical boring for the foundation design of the flyovers, bridges and approach roads. Deep drilling with standard penetration test (SPT) shall be conducted at abutment and specified piers. Minimum depth shall be determined based on the confirmation of hard strata bedrock. Drilling can be stopped after three (3) meters penetration into identified bearing layer, hard strata or bedrock.
- (ii) Disturbed and undisturbed soil sampling for the design of roads, bridges and other structures and disturbed samples from borrow pits, quarry sites and other sources of material. The samples shall be tested for the determination of the main characteristics, including:
 - a. Grain size distribution and classification
 - b. Moisture contents
 - c. Atterberg limits
 - d. Shear strength
- (iii) Analysis for slope stability, both for high embankment section and deep cut section, shall be conducted. Analysis for consolidation due to soft ground should also be done.

10. **Road Works.** Work in this area will be required to identify the properties of native soils and to determine the suitability of locally available construction materials for use in the works. The following frequency of testing shall be adopted as a minimum: (i) Test pits (1/km); and (ii) Boreholes (15m deep, 1/km)

11. At a minimum, the following tests on recovered samples will be required:

- (i) Grain Size Analysis
- (ii) Atterberg Limits
- (iii) Moisture / Density relationship (AASHTO T180)
- (iv) Soaked CBR

12. The Consultant shall give attention to any sections containing swelling soils and shall determine relevant consolidation properties and likelihood of future settlement problems. Where appropriate, construction techniques to minimize the effect of such soils shall be determined, including use of: (i) Soil replacement; (ii) PVD, Drainage blankets and/or geo-textiles, Pre-consolidation/surcharging; and (iii) Stabilization with sand or bamboo piles, etc.

13. **Fill Materials.** Similarly, investigation into the stability of materials intended to be used for the construction of embankment sand fills will be necessary. The Consultant shall also investigate the suitability of locally available construction materials and identify the location of potential quarry sites, borrow pits and disposal/spoil areas – complete with estimates of quality and quantity of materials and hauling distances. Sample recovery and testing will be required to establish properties by the following test procedures, as appropriate:

- (i) Los Angeles Abrasion,
- (ii) Grain Size Analysis
- (iii) Aggregate Crushing Value,
- (iv) Sodium Sulphate Soundness,
- (v) Bitumen Affinity,
- (vi) Specific Gravity and Water Absorption
- (vii) Chloride and Sulphate Content.

14. Geotechnical recommendations shall then be prepared (Technical Memorandum) with respect to earthworks and pavement construction - including special treatments for sub-grades and for the subsequent sub-base and base materials as necessary.

15. **Structures.** A review shall be made of all existing relevant data, followed by a study of the soil strata at the sites of the major structures in each road section. The Consultant shall identify varying soil by visual inspection and testing of recovered samples taken at appropriate depths to determine classification and properties of the sub-surface materials.

16. As a minimum the Consultant's testing program is expected to include any proposed bridge, interchange, flyover, underpasses and box culvert sites. The number of boreholes (up to 70m deep) is to be in accordance with GoP standards applicable at the time of proposal submission and to be specified at the pre bid conference.

17. The Consultant shall also investigate the properties of the strata encountered through a sample recovery and testing program using at least the following procedures:

- (i) Logs of soil types and water table measurements;
- (ii) Standard Penetration tests (1.5 m interval) in alternate holes (using split barrel sampler);
- (iii) Shear vane tests (in alternate holes);

- (iv) Atterberg Limits on each clearly identified soil stratum (minimum 3-5 per borehole);
- (v) Density and moisture content on each stratum;
- (vi) Tri-axial tests on a selective basis to establish a design value for the angle of internal friction of soil strata (say, at total of 50 tests); and
- (vii) Unconsolidated, un-drained tri-axial test (say, a total of 50 tests) to determine cohesion, angle of internal friction etc.

18. A Technical Memorandum on geotechnical recommendations shall then be prepared with respect to foundation design (pile type, depth, axial loading limitations etc), bearing pressures for culvert and retaining wall foundations, requirements for structural backfill materials including abutment drainage provisions needed, and soft soil treatment design.

19. **Utilities.** In conjunction with Owner agencies, the Consultant shall carry out surveys (including test pit excavations and leak detection surveys) to determine the locations, present condition and life expectancy of the existing utilities and prepare a Technical Memorandum accordingly for design purposes. A separate Technical Memorandum shall be prepared for each utility as Supporting Documents.

20. **Materials Source Survey.** The Consultant shall:

- (i) Identify potential borrow pits, quarry sites and other sources of material taking into account of the quality necessary for the construction of the project components, and identify preferred sources based on discussions with local authorities.
- (ii) At each preferred source of materials, prepare four test pits and extract sufficient samples for laboratory testing.
- (iii) Conduct a consultation meeting with the local community regarding the location, potential socio-environmental impacts and management plan for each borrow pit and quarry and related matters.
- (iv) Gain approval of local authorities and competent environmental authority for sources of materials such as sand, stone, etc to be used for the road and bridge construction.
- (v) Evaluate the respective material costs, supply routes and transport costs.

21. **Preparation of Base Maps and Digital Terrain Modeling.** The Consultant will prepare base maps (and terrain models) for the project areas showing details of all existing topographical features including affected properties and areas of particular environmental concern.

22. Base mapping shall indicate the locations and nature of all identifiable utilities (both underground and surface features) for which research of records and/or field investigations in conjunction with owner agencies, will be required.

23. For all watercourses, additional mapping shall be compiled from available records (and supplemented by localized field surveys as necessary) in order to determine catchments features, flow regimes and present capacities.

24. **Cadastral / parcellary study.** The Consultant will precisely define the right-of-way boundary between public space and private property along Dalazak Road and the streets on which direct services will operate. The Consultant will first research the appropriate government agencies to obtain and collate the necessary documents, such as base cadastral maps, index maps, list of historical sites, easements for water bodies, etc. The final cadastral boundaries will be documented in mapping form. The study will describe the boundary impacts of the proposed

infrastructure. The survey team will coordinate with the social analysis team to document any impacts on current property owners or property users.

25. For each survey, a summary report will be produced, which will then be compiled into a larger Engineering Survey Report. The summaries will include a description of the methodology employed and the survey findings. The level of detail of the surveys must be sufficient to form the basis of the construction tender documents and thus constitute a full detailed design of the infrastructure.

ANNEX C**DUE DILIGENCE TASKS**

1. Specific Due Diligence tasks, responsibilities and deliverables include, but are not limited to, the following:

a. Environmental safeguards

2. The Consultant will prepare various environmental safeguard documents. The broad terms of reference are as follows:

- (i) Preparation of Rapid Environmental Assessments (REA) to confirm project environmental categorization. This will be submitted to ADB for review and endorsement.
- (ii) Based on the confirmed category, either an Environmental Impact Assessment (EIA) for Category A, or Initial Environmental Examination (IEE) for category B, subprojects will need to be prepared. The scope of study will include (but not limited to):
 - (a) Evaluation of direct, indirect, induced and cumulative environmental impacts of the Project, its alternatives and associated facilities including physical impacts (air and water quality, noise and vibration, soils and wastes, etc.), ecological impacts (plants, wildlife, and protected areas), socio-economic impacts (impacts to social environment, infrastructure, traffic, etc.) and physical cultural resources in context of the project area of influence. A quantitative assessment (through modeling) will be carried out to assess impacts related with noise, air quality, and vibration, greenhouse gas emissions. Moreover, various tools such as integrated biodiversity assessment tool (IBAT) will also be used to interpret any impacts on Biodiversity.
 - (b) Prepare an Environmental Assessment Study and Environmental Management Plan (EMP) following the format and contents as specified in the ADB Safeguards Policy Statement (SPS) 2009. It will also be ensured that the EMP is included in all tender and contract documents for all project components regardless of financing source.
 - (c) Confirm alternatives to the project's location, design, technology, and components and their potential environmental and social impacts and document the rationale for selecting the proposed alternative, including the no project alternative.
 - (d) Provide avoidance, minimization, mitigation, and/or compensation of adverse impacts and enhancing positive impacts of the project by means of environmental planning and management.
 - (e) In coordination with the Executing/Implementation Agency and local administrations, participate in meaningful additional consultation with affected people and facilitate their informed participation. Ensure that their views and concerns are made known to and understood by decision makers and taken into account.
 - (f) In coordination with the EA/IA and local administrations, propose a grievance redress mechanism to receive and facilitate resolution of the affected people's concerns and grievances regarding the project's environmental performance.

- (g) Prepare an environmental management plan (EMP) that includes the proposed mitigation measures, environmental monitoring and reporting.
- (h) Review the environmental management capability of the executing agency and recommended institutional strengthening measures, if any. Requirements, related institutional or organizational arrangements, capacity development and training measures, implementation schedule, cost estimates, and performance indicators would then be determined.
- (iii) Ensure that subprojects fully meet environmental safeguards requirements as defined in ADB's Safeguard Policy Statement (2009).
- (iv) Meet and comply with requirement and guidelines of concerned National Regulatory Authorities (such as obtaining no objection certificates from Khyber Pakhtunkhwa Environmental Protection Agency-KP EPA) before starting any civil works.
- (v) Provide any additional input related to environmental safeguards in the scoping study, bidding documents etc.

b. Climate Change Assessments

3. A climate risk and vulnerability assessment was prepared in 2017 for the Peshawar BRT project.³ The type of document is now known as climate change assessments (CCA). The 2017 document will serve as one of the references for the preparation of the Phase 2A CCAs.

4. The Consultant will prepare CCA, following the ADB guidance note, provided in Annex A. The CCA consist of detailed climate vulnerability and risk assessment to support subproject prioritization and design. The Consultant will assess the change and variability of key climate-related parameters over the project lifetime, to be used as inputs to the disaster risk assessment, feasibility studies, among others. The Consultant should identify the uncertainties associated with the projections and provide guidance on how the results should be interpreted. The Consultant will also review the existing hydromet monitoring network and propose additional weather stations and associated capacity requirements for proper monitoring and surveillance in the project areas.

c. Social safeguards

5. The Consultant will lead the conduct of social safeguards due diligence for the proposed components under Peshawar-BRT Phase 2 as required under ADB Safeguard Policy Statement (SPS) 2009. This includes:

- (i) social safeguards screening (IR/IP) and recommending IR/IP safeguards category,
- (ii) preparing social due diligence report (SDDR) including identifying and assessing any IR legacy issues (i.e., use of the LAA Section 17-urgency clause and pending complaints on sites that were acquired previously, or which are already owned/possessed by the relevant government agencies, recent anti-encroachment activities in project areas), and
- (iii) preparing an implementation-ready land acquisition and resettlement plans (LARPs) based on detailed design and following the notification of Section 5 of the LAA. The Consultant will also prepare a livelihood restoration plan (LRP) to be included in the LARP in case where there are livelihood losses to ensure that affected persons are able to improve or at least restore the livelihood that was lost. The Consultant will advise the concerned districts that no land would be acquired for Peshawar BRT Phase 2 using the LAA Section 17 urgency clause.

³ <https://www.adb.org/sites/default/files/linked-documents/48289-002-ld-crva.pdf>

6. In the valuation of affected land and non-land assets, the Consultant will ensure that licensed valuers accredited with the State Bank of Pakistan are engaged to undertake an independent valuation study (IVS) to ensure that the calculation of compensation rates meet the ADB SPS replacement cost requirements. Results of the IVS shall be incorporated into the LARP.

7. In case of IR impacts that do not involve land acquisition, but will result in physical or economic displacement of unregistered landusers or persons who have no legal title or claim to the land (i.e. informal settlers, road side vendors, unregistered farmers or persons who have planted crops on government-owned land), the Consultant will prepare a resettlement plan (RP) following the provisions and requirements of the ADB SPS. To the extent possible, the Consultant will engage with relevant units to assist those displaced to have formal access to land or vending spaces.

8. In case of land acquisition involving negotiated settlements, the Consultant will document the negotiation and settlement process. The Consultant will document and confirm if the process included offering adequate and fair price for land and/or other assets, and if the risks of asymmetry of information and bargaining power of the parties have been mitigated in the transactions.

9. The Consultant will coordinate closely with relevant units involved in land acquisition (i.e. respective district collectors/deputy commissioners, patwari, etc.) and brief them on the LAR-related conditions and standards to be applied to the acquisition of land for the ensuing projects and facilitate the fund allocation, required notifications and other activities. The Consultant will advise the District governments not to undertake clearing/demolition activities in anticipation of the Peshawar-BRT Phase 2A.

10. The Consultant will review the project-based grievance redress mechanism (GRM) developed for Peshawar BRT and recommend measures to further strengthen the system for Phase 2A. They will advise KPUMA and TransPeshawar on the proper identification, handling and resolution of complaints. In conducting the safeguards due diligence work, the Consultant will ensure that meaningful consultations with affected people and key stakeholders is conducted and properly documented. They will also ensure that relevant information is disclosed in a timely manner. The Consultant will also identify vulnerable groups and households among the affected persons to ensure that they are provided with additional support to help them cope with their displacement and improve their condition. The Consultant will make certain that appropriate health and safety measures are observed in the conduct of consultations and field activities to avoid the risk spreading COVID-19 risks.

d. Gender Action Plan

11. The Consultant will undertake, but not be limited to, the following key tasks:
- (i) Review the existing Peshawar BRT phase 1 gender design features and Gender Action Plan (GAP) implementation practices, institutional policies and strategies of the Implementing Agency (IA) and identify gaps to address areas of improvement;
 - (ii) Based on the gender assessment and lessons learned of the GAP implementation of Peshawar BRT phase 1, prepare the GAP for phase 2 in close coordination with TransPeshawar and KPUMA;
 - (iii) Recommend the gender entry points to be incorporated in the GAP of the ensuing project;
 - (iv) Prepare gender analysis and collate baseline data (gender-disaggregated) relevant to the scope and design of the sub-projects of the ensuing project;

- (v) Assess the institutional capacity of the IA in gender-inclusive planning and implementation; based on the assessment, identify the areas for capacity building as one of the gender actions under the GAP.
12. The Consultant shall produce the following deliverables:
- (i) **Pre-Assessment and Methodology Report** including the outputs, methodology, gender parameters and instruments for data collection for gender specific due diligence and time lines.
 - (ii) **Gender Assessment Report** including the gender analysis of existing Peshawar BRT phase 1, stakeholders' analysis, baseline data for GAP indicators and targets and recommendations for improving the gender results of BRT phase 2.
 - (iii) **Gender Action Plan (GAP)** in accordance with the ADB specified gender mainstreaming guidelines and format.

e. Economic Assessment and Financial Assessment

13. The Consultant will provide the overall economic analysis for Peshawar BRT Phase 2A. This will include:

- (i) Identify the relevant costs and benefits associated with all components of the project
- (ii) Establish both the baseline case and the project case for these facilities
- (iii) Using the ADB standard guidelines for project economic analysis⁴, develop the economic analysis spreadsheet for the project, including the calculation of the project Economic Internal Rate of Return (EIRR) and the performance of a sensitivity analysis on the results.

14. The Consultant will also develop a financial assessment following ADB methodology for financial analysis.⁵

f. Procurement capacity assessment of the Implementing Agency

15. A procurement assessment of the Implementing Agency for the ensuing project will be conducted following ADB guidelines. An action plan and mitigation measures will be prepared accordingly.

g. Financial Management Capacity assessment of the Implementing Agency

16. A Financial Management assessment of the Implementing Agency for the ensuing project will be conducted following ADB guidelines.⁶ An action plan and mitigation measures will be prepared accordingly.

h. Procurement plan and market engagement

17. The Consultant will prepare a Procurement Plan. It must provide the following information:

⁴ <https://www.adb.org/sites/default/files/institutional-document/32256/economic-analysis-projects.pdf>

⁵ <https://www.adb.org/sites/default/files/institutional-document/535126/financial-analysis-evaluation-guidance-note.pdf>

⁶ ADB. 2015. *Financial Management Assessment Technical Guide Note*, Manila: ADB. 2009. *Financial Due Diligence: A Methodology Note*. Manila.

- (i) Definition of who is buying. This section will provide details to potential bidders as to who is making the purchase, using what sources of funds, and under the aegis of what set of procurement rules. The procurement plan must be consistent with the ADB Procurement Policy and Procurement Regulations for ADB Borrowers, the Government of Pakistan, and the Municipality of Peshawar, so the Consultant should be familiar with these procurement rules.
- (ii) Definition of what is being bought, and under how many packages. This section will define the separate goods and services that are being sought by the buyer in a high degree of detail.
- (iii) Specification of the preferred procurement route. Under the procurement rules of the ADB, the Government of Pakistan, and the Municipality of Peshawar, it is likely that more than one procurement process is allowable. The procurement options allowable under these governing regulations should be explained, and one particular route should be recommended.
- (iv) Specification of the number of procurement stages. The less sure that the buyer is of what exactly they want to buy, the more dialog-oriented and multi-staged the procurement should be. Different procurement routes allow for different levels of input from potential bidders. In this case, one and two-staged tenders should be considered. It is unlikely that a multi-staged tender with more than two stages will be needed.
- (v) Specification of procurement methods together with source and scope of advertisement (international or national).
- (vi) Preparation of Procurement Timeline. The consultant will assist the client in completing a schedule for each stage of the procurement process.
- (vii) Preparation of pre-market engagement plan and implementation. The consultant will prepare a Procurement Plan which specifies how the client should engage the market in the tender to ensure a robust bidding process.

i. Permits, clearances, and licenses

18. The Consultant will provide support to the KPUMA and TransPeshawar in obtaining all required permits, clearances, and licenses required to implement the project. The Consultant will support these processes as necessary with both national departments and local government units. The Consultant will produce a guidance manual outlining the processes for the obtaining of necessary permits, clearances, and licenses.

j. Planning Committee-1 (PC-1) document

19. The Consultant will prepare the Planning Committee-1 (PC-1) document. The PC-1 is a prerequisite for formal authorization to the government to negotiate the loan for the project. It must fully describe the project outputs and the financing plan.

ANNEX D**PROCUREMENT SUPPORT**

1. The Consultant will prepare all bidding documents, according to the Procurement Plan developed as part of due diligence.

2. The Bidding Documents are to be based on detailed engineering design, and include:
- (i) Detailed design drawings
 - (ii) Technical specifications – This part of the tender documents will comprise the engineering specifications produced above. The technical specifications should include environmental mitigation measures as identified in the Environmental Management Plan (EMP)
 - (iii) Bill of quantities (BoQ)
 - (iv) Detailed cost estimates
 - (v) Contract - The form of contract is to be based on ADB Standard Form of Contract for, as appropriate, international advertisement, national advertisement, and Shopping, and include provision of an EMP/SEMP as required. The Consultant is to prepare each contract, including the required “Special Conditions of Contract”, Bid Data Sheet, etc.
 - (vi) Implementation schedule
 - (vii) Invitation to tender, instructions to tenderers, and tender forms

3. The Consultant will carry out the following tasks as related to the preparation of bidding documents:

a. Develop Specifications, tender, and contract for system construction

4. The Consultant will prepare specifications and tender documents for all construction and goods components. The Consultant will develop and include a construction schedule. The Consultant will develop an appropriate bid analysis regime. The Consultant will prepare the final contract(s) between the IA and the Civil Works Construction Firm(s), and between the IA and the Goods supplier(s).

5. The Consultant will develop gender specific guidelines, affirmative actions and instructions for the contractors’ ToRs and bidding documents. The Consultant will anticipate labor standards adherence and labor compliance in accordance with national law and national commitment to the International Labor Organization’s Core Labor Standards.

b. Infrastructure maintenance protocols, specifications, tender, and contract

6. The Consultant will review the current specifications and protocols for the maintenance of the infrastructure (BRT, NMT, terminals, etc.), against actual maintenance procedures. If maintenance is working as described in the protocols, and the infrastructure appears to be well-maintained, then the protocols should be expanded to include the new infrastructure. If there are issues with the existing protocols and/or practices, a memorandum should be written to document these issues and propose changes.

7. The Consultant will develop the contractual wording for the realization of the infrastructure maintenance services and integrate it into the appropriate contract(s).

c. Grievance redress mechanism (GRM)

8. Prior to commencement of site works/civil works, the Consultant will assist the KPUMA and TransPeshawar and contractors in establishing a grievance redress mechanism (GRM).

d. Bid evaluation support

9. The output for this activity is the selection of contractors. The Consultant is to assist in this process, support the preparation of the bid evaluation reports (BER), draft and obtain the agreement of the members of the evaluation committee to the recommendation in the BER. The number of civil works, goods and contracts will be determined in the Procurement Plan.

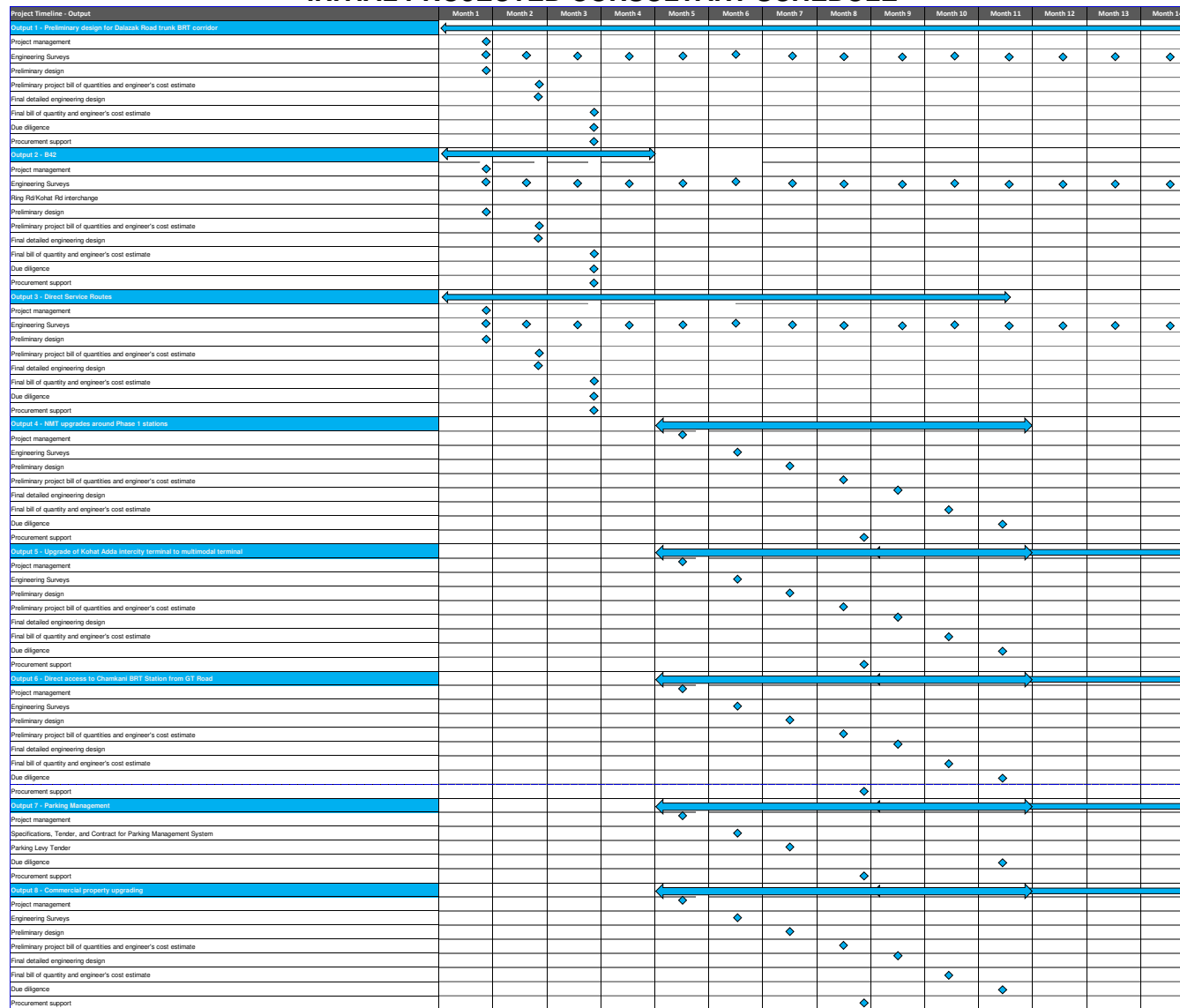
10. The Consultant shall provide necessary support to the client in all aspects of the procurement process for civil works contracts and goods contracts in accordance with the procurement regulations of GoP and ADB guidelines. The Consultant shall apply gender specific guidelines and affirmative actions within the bid evaluation process.

11. The support shall include the following:

- (i) Preparation of pre-qualification (if required) for each contract package, including support for the invitation of pre-qualification, evaluation of pre-qualification applications and preparation of pre-qualification evaluation reports for submission for review by concerned agencies including the client, and the ADB;
- (ii) Preparation of Special Procurement Notices (SPN);
- (iii) Preparation of contractor selection criteria and sample environmental non-conformance documentation with sufficient details to inform the contractors at the bidding stage that they will be assessed on environmental capability and that they must deploy staff to carry out and supervise the physical environmental mitigation measures and checking as they would for any other construction activity in line with other standards of quality and control;
- (iv) Support for the invitation for bids, pre-bid conference, pre-bid site visits for the pre-qualified interested bidders, preparation in response to bidders', of clarification answers and addendum to bidding documents;
- (v) Support for organizing the bid opening, the evaluation of bids, and preparation of bid evaluation report (BER) in accordance with the ADB's standard bid evaluation form and the GoP standards and procedures for submission for review by concerned agencies including the client, and the ADB; and
- (vi) Assisting the IA in contract award, contract negotiation, preparation and finalization of contracts submission for review by concerned agencies including the client, and the ADB, through to signature of the contracts.

ANNEX E

INITIAL PROJECTED CONSULTANT SCHEDULE



**PLANNING, FEASIBILITY, DETAILED DESIGN AND CAPACITY BUILDING (PFDDCB)
CONSULTANT FOR KHYBER PAKHTUNKHWA'S CITIES IMPROVEMENT PROJECT 2**

**Terms of Reference
(Lumpsum, output based contract)**

6 June 2021

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TERMS OF REFERENCE

PAKISTAN: PLANNING, FEASIBILITY, DETAILED DESIGN AND CAPACITY BUILDING (PFDDCB) CONSULTANT

A. INTRODUCTION AND BACKGROUND

1. The Government of Pakistan (the Government) has requested the Asian Development Bank (ADB) to process the Khyber Pakhtunkhwa Cities Improvement Project 2 (the project).

2. Cities are the economic, social, and innovative core of Pakistan. They generate most wealth and are home to about 40% of the country's population.³ Pakistan's cities, particularly the intermediate cities, are developing at a fast rate and this has led to the rapid expansion of the urban environment but in an uncoordinated, unplanned, and unregulated manner. Water supply, wastewater collection and treatment, storm water drainage, and the urban road networks are increasingly unable to respond to population pressures and economic demands. Furthermore, the residents are suffering from a severe lack of open spaces and civic amenities. There is therefore a growing demand to make Pakistan's cities more livable to promote better living standards, improve public health, and to develop the country's economy in a more appropriate and sustainable manner. While in other Asian countries the focus is often on attracting large firms to provincial capitals, in Pakistan, most of urban jobs are created by small and medium firms that rely heavily on the collective resources of urban infrastructure and services in the intermediate cities

3. The Government of Pakistan has realized the importance of making its cities, particularly the intermediate cities, more livable and has put the urban sector at the forefront of its national development strategy. Pakistan's Vision 2030¹ and Framework for Economic Growth² envisage livable cities as engines of national growth and centers of economic activity, culture, and knowledge. The framework also recognized the advantage of the local governments in managing the urban development on the ground, as they are closer to the beneficiary population with an informational advantage in identifying citizens' preferences, as well as essential flexibilities to respond rapidly to evolving city's needs. Under these circumstances, the government amended its constitution to decentralize the role of urban services to the provincial governments.³

4. This support for project preparedness and readiness is part of long-term engagement on urban development that GoKPK has with ADB. The proposed Khyber Pakhtunkhwa Cities Improvement Projects (KPCIP) – Second Project Readiness Financing (PRF 2) will support the continued effort by the Government of Pakistan (government) to improve the quality of life of the residents of KPK cities. The Peshawar Sustainable Bus Rapid Transport (BRT) Corridor Project was approved in 2017, commissioned in August 2020, and initiated the transformation of KPK cities through sustainable urban mobility initiatives.² The KPCIP PRF was approved in 2019 and supports quality and project readiness for the ensuing KPCIP Project planned for board approval in 2021.³ Under the KPCIP PRF 1, 24 subprojects have been detailed designed in 5 divisional headquarters/major cities of KPK including Abbottabad, Kohat, Mardan, Mingora, and Peshawar. The scope of ensuing project includes: integrated solid waste management including collection, recycle, reuse, and disposal in all five cities; water supply source (surface and ground) development, storage, networks, and efficiency improvement in four cities; waste water collection

¹ Planning Commission, Government of Pakistan 2007 Pakistan in 21st Century, Vision 2030. Islamabad.

² Planning Commission, Government of Pakistan 2011 Framework for Economic Growth Islamabad.

³ The 18th Amendment to the Constitution of Pakistan 2010 Islamabad

network and treatment in two cities; and green urban spaces development in all five cities. These subprojects (worth \$480 million) were identified through city level planning and consultation process, and prioritization was informed by technical, operational, safeguards, gender and climate change assessments. Currently, land use planning and subsector master planning work in water supply, and sanitation is ongoing in few of five cities considering their future growth trajectory and potential, where it has been completed in others. In addition, through a separate grant resource from ADB, regional development plans are being developed for the greater Peshawar, Swat, and Abbottabad regions—this work is expected to be completed by October 2021.

5. Building on these studies, plans, and already designed subprojects, the government proposed to process KPCIP PRF 2 to continue to support a more systematic approach to urban planning, higher quality of readiness for urban projects, and increased focus on sustainable project operations. KPCIP PRF 2 will directly benefit about 5 million of urban population across 5 to 8 cities. The geographic scope of the PRF 2 proposed by the GOKPK includes cities of: (i) (additional investments in) Abbottabad, Kohat, Mardan, Mingora, and Peshawar which are already in the scope of the ongoing KPCIP PRF; and (ii) 2 additional divisional headquarters that are the cities of Bannu and Dera Ismail Khan (DIK) in the south of KPK, and (ii) some regional cities (in Malakand and Hazara Divisions) that are part of existing city clusters of Abbottabad and Mingora.

6. Peshawar and Mardan are the largest two cities of KPK and contribute most to the province's economic growth through their industrial base and extensive trade and services sector. Abbottabad and Mingora are tourist hubs and feeder cities to the most popular tourist destinations of the country, besides being educational centers, both these cities are located on the two main northern entries of the China–Pakistan Economic Corridor (CPEC).⁴ Kohat, Bannu, and DIK are major nodes on the N-55 Indus Highway connecting Peshawar to Karachi, new CPEC corridor currently under construction is also being connected through its southern link (on right side of the Indus) to all of these three cities, where the N-80 highway is already connecting Kohat to Islamabad. To exploit their tourism potential, Hazara (including Abbottabad) and the Malakand (including Mingora) divisions are currently in the process of undergoing major transition, including improvement in their access and connectivity through a network of motorways (Swat M16), expressways (E35) and highways, and improvement in urban services of existing destinations (KPCIP and WB financed KITE Project) and developing new destination as part of the KPK tourism development strategy.

7. The ensuing projects to be designed through PRF 2 will help selected cities further improve their development plans and access to quality urban services through two interlinked outputs: (i) enhanced planning, municipal services, and public urban spaces, and (ii) strengthened institutional and operational capacities and efficiency of the selected region and cities.

8. The proposed PRF 2 will finance the planning, preparation, and engineering design of a series of urban projects reflected in the ADB's country operations and business plans agreed between the GoKP and ADB for the next 3 years.⁵ The PRF 2 will ensure quality and project readiness, thereby facilitating the timely and cost-effective achievement of the project outcomes. The ensuing projects developed through the PRF 2 will add value by promoting (i) integrated and smart solutions; (ii) use of highest international standards and technologies in project design and operations, (iii) institutional strengthening and capacity development, (iv) integrated urban transport and urban planning, (v) gender inclusiveness, (vi) inclusion of disaster and climate change resilience, and (vii) private sector participation in all urban interventions.

⁴ ADB recognizes this member as the People's Republic of China.

9. In preparation of the above project, the Government requested ADB to process project readiness financing facility (PRF 2) that, besides other activities supporting the urban transport sector, will finance hiring of a consultancy firm to fast track the completion of: (i) planning activities including land use plans, regional plans, and subsector master plans in two cities (Bannu and DIK) and two regions (Hazara and Malakand), and based on this, identify priority and phasing of investments, along with prefeasibility/conceptual design of priority/phase 1 investments; (ii) undertake operational design and financial/sustainability modelling of priority investment, and based on this select the most viable subprojects (passed on the selection criteria provided at appendix 1) for which the detailed engineering designs and necessary safeguards due diligence assessments will be undertaken; and (iii) support the implementing agencies in procurements, and capacity development and institutional strengthening measures of the operating entities of the ensuing subprojects (mainly Water and Sanitation Companies and TMAs). As the scope of the work include planning, feasibility, detailed design; financial, operational, economic and safeguard due diligence and assessment; besides operational and performance improvement measures in the utilities:- for a well-coordinated approach JV of consultancy firms (if necessary) that have this range of capacities, with possible partnership with utility operators is expected to be the best fit for the assignment.

10. This Terms of Reference is for the recruitment of a consulting firm for carrying out the '*Planning, Feasibility, Detailed Design and Capacity Building (PFDDCB) of KPCIP 2* funded by the PRF 2.

B. OUTPUTS AND DELIVERABLES

11. The scope of the output/deliverable based consultancy services will have the following 3 outputs:

1. Output 1: Planning activities for two cities and two regions

- (i) **Output 1(a):** Planning for two cities (Banu and D.I.Khan): Land use planning including Land use zoning plan, Peri Urban Structure Plan; and Strategic frameworks for several critical sub-sectors related to city development; and Sub Sector Master Plan (Water supply, Sanitation and Solid Waste Management);
- (ii) **Output 1(b):** Regional Master plans at cluster level for Hazara and Swat Region (Pilots): Using the Regional Development Plans already prepared for these two regions and city large use and subsector master plans developed for divisional headquarter (Abbottabad and Mingora) expand the city land use plans to regional level; expand subsector master plans (including maximum of 3 to 4 cluster cities of the region) to regional level for better integration and economies of scale in service provision; and regional integration plan for effective use of resources and services; and
- (iii) **Output 1(c):** Develop short/medium/long terms investments plans (taking into account a long list attached as appendix 2) and undertake, identify priority subprojects (phase 1) and undertake pre-feasibility of priority investments in the 2 cities and 2 Regions identified above.⁵ This would include a situation analysis based on master plans, initial safeguard, economic and technical due diligence for subproject rating, and conceptual design of prioritized subprojects;

⁵ % cities and two regions include: Banu, D.I.Khan, Peshawar, Kohat, Mardan and Hazara and Swat Region

2. Output 2: Feasibility (worth \$400 million) and detailed engineering design of \$250m investments (five cities and two regions)

- (i) **Output 2(a):** Undertake feasibility studies of highest priority investment based on master planning and pre-feasibility/selection criteria from the five cities (already completed under PRF 1), and two new cities and two regional plans completed under output 1 of the consultancy. This would include economic viability, social and environment viability, sustainability of operations, technical viability/options, political acceptability, and rough cost estimate (portfolio worth \$400 million) ;
- (ii) **Output 2(b):** Operations viability (portfolio worth \$400 million): Operational business modeling of service delivery for all priority investments, identify projects for PPP, Financial modelling of all priority investments, tariff structuring for services, baseline for different service levels, affordability, and willingness to pay, performance benchmarking of existing service levels where investments are being planned.
- (iii) **Output 2(c):** Detailed Engineering Design of five cities and two regions (worth \$250 million): Undertake detailed engineering design of the most feasible projects selected based on feasibility, including detailed hydrological/geological studies, topo and other surveys, plans and structural/engineering drawing and specifications required for construction and detailed cost estimates, develop bill of quantities, undertake land acquisition and resettlement plans where land is required, undertake environmental impact assessment and develop management plan as required, undertake detailed economic and financial analysis (including risk analysis of the project), climate change assessment and mitigation and adaptation measures to be included in project design with GHG emission reduction and incremental cost adaptation, and gender and poverty analysis of the projects; and
- (iv) **Output 2(d):** Procurement and other Support: Provide technical support to PMU in undertaking strategic procurement assessment of the ensuing project's investments and procurement capacity of the entities responsible for procurement. Develop procurement framework and plan for project investments based on market analysis. Based on this propose the appropriate procurement strategy taking into account the market and the capacity of the utilities involved. Develop the complete procurement documents during the procurement process of \$250m investments including preparation specification and bill of quantities, and advertisement of bids, and assist the IAs in pre-bid meeting, bid evaluation and contract awards.

3. Output 3: Institutional Development and Capacity Building (two cities and two regions):

- (i) **Output 3(a):** Institutional Development (DI Khan and Banu): Capacity building of WSSCs (Business and Operational plans, ERP, Organization structure and roles, systems and procedures for operations); and
- (ii) **Output 3(b):** Institutional Restructuring (Swat and Hazara Region): Organizational Restructuring for regional role on pilot scale, updating SAMAs revised performance targets, define shared responsibilities and outsourcing arrangement between TMA and WSSCs.

12. The indicative civil works, goods, and services requirements under the (ensuing) project will be provided during the contract negotiations.⁶

C. IMPLEMENTATION ARRANGEMENTS FOR PROJECT READINESS FINANCING

13. The Planning and Development Department will be the Executing Agency (EA) and Local Government, Elections and Rural Development Department (LGE&RDD) in Khyber Pakhtunkhwa Province is the implementing agency (IA) for the PRF 2. A Project Management Unit (PMU) will be established at the at provincial level to implement the KP City Improvement Project (KPCIP Phase 1) who would also be responsible for implementing PRF 2 activities in respective city on behalf of LGERDD. Under the guidance of the project steering committee, the Planning and Development Department will be responsible for the overall execution of the PRF 2.

D. DETAILED TERMS OF REFERENCE:

14. The Consultant will work in close coordination with the Project PMU, and deliver the following outputs:

1. Output 1: Planning activities for two cities and two regions:

15. Develop strategic plans for future development of Banu and D.I.Khan cities for the next 25 years, along with corresponding implementation and action plans and identify priority investments in light of these plans.

16. This output has the following three components:

Output 1(a). Planning for two cities (Banu and D.I.Khan):

(a) Land Use Focused City Comprehensive Plans for Banu and D.I.Khan:

17. **Assignment Objective:** One of the primary objectives of the Project is to facilitate integrated city planning practices in Banu and D.I. Khan cities, to ensure sustainable and resilient urban infrastructure and management practices. This includes facilitating strategic planning of land-use, municipal and economic infrastructure, such that resources are used effectively and efficiently, while safeguarding the city's socio-economic and environmental wellbeing.

18. A Land-Use focused City Comprehensive Plan will be designed for Banu and D.I. Khan cities to guide their development patterns for the next 25 years (i.e.2020-2045). The purpose of developing this Comprehensive Plan is to create a sustainable vision for the future of these cities (one that resonates with their citizens and stakeholders), with long-term goals and objectives for all city development activities of the local governments. The two critical components of comprehensive plan, are explained below:

First is to develop detailed (a) Land-Use Zoning Plan, and (b) Peri-Urban Structure Plan. These plans are important tools for decision makers (MCs and relevant government departments) to guide sustainable spatial growth and development in and around the two cities. It is important as it will facilitate the developers to launch their schemes in a regulated way. These plans will also provide continuity across time, and will give successive public bodies a common framework for addressing land-use and related

⁶ The ensuring loan will finance the components that meet ADB's due diligence requirements

issues. They will provide a detailed guide on making effective decisions about zoning and development of public and private land within each city's administrative limits and in its contiguous peri-urban and rural communities; on making complementing regulations and tax policies that are sustainable and equitable; and on planning cooperative efforts to address issues of pressing concern, such as farmland and forest preservation, combating environmental degradation, improving city's density profile, making neighbourhoods public transit and NMV (not car) dependent, determining the city's approach towards various economic and industrial activities, and upliftment of run-down areas etc. In light of the land-use zoning and peri-urban structure plans, priority investments will be identified and a 5-year implementation plan will be developed by the consultant for both cities.

Second component is to develop strategic frameworks for several critical sub-sectors related to city development. These frameworks will help to prepare an overarching strategy for some subsectors (listed below) that are critical for city planning and are directly influenced by the decisions made under the Land-Use plan. These strategic plans will help multiple city development authorities to coordinate individual decisions and actions so that development decisions complement rather than detract one another. Sub-sector strategic plans will be developed for (i) housing and community development, (ii) urban regeneration, (iii) economic development, (iv) municipal utilities (like electricity, gas and telecom), (v) social infrastructure development, (vi) disaster mitigation, preparedness and management, (viii) environmental protection and (ix) urban green/open public space development. These plans will also layout the groundwork and preliminary strategy when (and if) the government decides to develop detailed master plans for each of these subsectors, and will ensure that all such future planning is in line with the city's long-term vision, goals and Land-Use aspirations and restrictions set forth in this City Comprehensive Plan.

19. To achieve the above-mentioned outputs, the consultant shall coordinate with the WSSCs and MCs of Banu and D.I. Khan (with assistance of PMU and CIUs) while carrying out the assignment to comply with the relevant sections of the KP Local Government (Amended) Act, 2019”.

(b) Water supply and Sanitation Master Plan of Banu and D.I. Khan:

20. Under the scope of this assignment, the Consultant will develop the sub-sector master plan for urban municipal sectors including (i) Water Supply; and (ii) Sanitation. The proposed sub-sector master plan in the two cities will have a planning horizon of 20 years (up to year 2040) and will result in the identification/prioritization of subprojects for provision of physical infrastructure for water supply (production and treatment), sewerage, storm water drainage & wastewater treatment, systems with costing.

21. **Assignment Objective:** A comprehensive sub-sector master plan shall be prepared to address the issues and demand of the urban municipal services including water supply and sanitation, through forecasting of services required till the year 2040. The sub-sector master plans shall address the urban municipal requirements and proposed infrastructure improvements over the next 20 years to ensure the demands of current and future population with respect to water supply and sanitation are met, taking into account assessments of financial viability, affordability and sustainability and institutional and technical capacity to execute such projects. Detailed cost estimates of infrastructure improvement projects shall be carried out and capital improvements projects shall be prioritized for implementation.

22. The scope of the project is explained below but not limited to the following:
- (i) A comprehensive city vision will be developed to depict making the 2 cities [*Banu and D. I. Khan*] sustainable with regards to water supply, and sanitation services;
 - (ii) Planning boundaries will be delineated at inception phase which shall be refined in later stages after situational analysis;
 - (iii) Secondary data analysis: carry out a consolidated analytical review of all available data, reports, master plans and information on water supply, and sanitation systems and the applicable standards and regulations (this will include information relevant to Water & Sanitation Services Companies (WSSCs) in each city and other relevant stakeholders like (i) Cantonment Board; (ii) Public Health Engineering Department; (iii) Irrigation Department; (iv) Planning and Development Department; and (v) Local Government Department, (vi) Environmental Protection Agency, etc.;
 - (iv) Detailed field surveys and studies will be conducted and situational analysis will be performed for the existing conditions and performance standards of urban municipal infrastructure (Water Supply, Sewerage and Sewage Treatment Plants);
 - (v) Assess the condition and state of the physical infrastructures of all the components (Water Supply, Sewerage Network and Sewage Treatment Plants) based on the various field surveys including condition assessment surveys. This will help identify the gaps in infrastructure to cater to the existing and future projected demands of population;
 - (vi) A Geographic Information System (GIS) mapping system will be developed in which all data collected in the various field surveys and condition assessment surveys of assets will be mapped with an active Management Information System (MIS) in the background;
 - (vii) Population projections will be reviewed taking into account the 1998 and 2017 Census data including projections for the planning horizon of 2019-2040, Population projections have already been completed for Abbottabad, and Mardan as part of the ongoing exercise on the preparation of regional development plans and are planned to be undertaken also for Kohat and Mingora by the PATA Team. Consultants shall review and use these data and reach consensus with the PATA team on a common basis for population projections.

(c) Solid Waste Management (SWM) Master Plan of Banu and D.I.Khan:

23. **Assignment Objective:** Solid Waste Management (SWM) Master Plans of Banu and D.I.Khan will identify the two cities' current and future (for next 25 years) SWM-related needs and will propose strategic plans for collection, transportation, development of transfer stations, segregation, processing, recycling and disposal of municipal solid waste of these cities. These plans will set out strategies in a manner that is consistent with the projected needs, and aligns with the cities' growth and overall vision for sustainable development set forth in the above discussed land-use plans. This will be done taking into account assessments of financial viability, affordability and sustainability and institutional and technical capacity of the institutions. The plans will also recommend solutions to address the gaps in institutional structure of existing SWM system (explore PPP modalities) and will forecast infrastructure and equipment needs based on projected population and spatial growth. Moreover, these plans will rely on an extensive environmental and socio-economic analysis to identify potential landfill sites for safe waste disposal. An implementation plan (with short-, medium- and long-term solutions) will be developed in close coordination with all relevant stakeholders. Priority subprojects will be identified (along with their costing), to help the government make evidence-based decisions when planning future SWM investments in the two cities. The Consultant will ensure that innovative climate resilience

technologies and innovations (including waste-energy technologies) are reflected in the SWM Master Plan as applicable.

Output 1(b)- Regional Master plans at cluster level for Hazara and Swat Region (Pilots):

24. Purpose of regional planning exercise is to create guiding framework that will serve as a tool for decision makers (MCs, WSSCs and relevant government departments) to guide growth and development in and around their respective region and city in a sustainable manner, for residents and other stakeholders to voice out their preferences for growth/ change of their city in the future and for developers as they seek planned areas to advance projects. These plans will provide continuity across time and will give successive public bodies a common framework for addressing land-use and related issues. They will provide a detailed guide on making effective decisions about zoning and development of public and private land within each city's administrative limits and in its contiguous peri-urban and rural communities; on making complementing regulations and tax policies that are sustainable and equitable; and on planning cooperative efforts to address issues of pressing concern, such as farmland and forest preservation, combating environmental degradation, improving city's density profile, making neighborhoods public transit and non-motorized vehicle dependent, determining the city's approach towards various economic and industrial activities, and upliftment of run-down areas etc. In light of the land-use zoning and peri-urban structure plans, priority investments will be identified, and a 5-year implementation plan will be developed by the consultant for the two regions, specially targeting new areas and adjoining cities.

2. Output 2: Design Phase of \$250m investments (five cities and two regions) including feasibilities for for \$400 million priority portfolio to select from:

Output 2(a): Feasibility (five cities and two regions):

- (i) Assess the sub projects relevancy showing their relationship with existing infrastructure under integrated urban development concept.
- (ii) Produce an appropriate tentative cost estimate of each sub project, based on typical sections and details using appropriate unit rates and concept design details.
- (iii) Assess the relevance and feasibility of each sub project ensuring that
 - (a) It fills a clear need (for instance in the case of water supply improvement that demand are sufficient to justify improvement)
 - (b) It is compatible with existing infrastructure (for instance those levels are such that proposed drains and sewers can be discharged to existing facilities or can receive flows from their proposed drainage areas and that existing drains have sufficient capacity to carry any addition flows resulting from proposed schemes. In case of water supply, check that water is available to serve new distribution system extensions etc.)
 - (c) The proposed technology is manageable by the WSSC's
- (iv) Based on the assessment, produce a brief feasibility report for each sub project and present this for clearance

Output 2(b)- Operations Modelling of Priority/Feasible Investments:

(a) Operations Design: The consultant will undertake business & operational model for priority investments identified under out 2(a) to ensure sustainability of services to be provided through these investments,⁷ this would include:

- (i) Analysis of current tariffs and services levels and develop a comparison of these parameters after the priority subprojects.
- (ii) Undertake willingness to pay and affordability surveys/analysis to work out workable tariffs, their projections and sources of subsidies where applicable to ensure sustainability of operation as result of priority investments.
- (iii) Based on the above recommend revision service standards, efficiency/cost of operations and design changes as required – and qualify priority investments based on their operational sustainability.
- (iv) Develop performance parameters and service standards to be included in the outsourcing arrangements of each WSSCs based on new investments and sources of funding for the operations for the most sustainable services and related service standards.

Output 2(c): Engineering Design (5 cities and two regions):

- (i) Review, conduct and ensure that all the available surveys data are correct (amend if required) and meets the best international practices;
- (ii) Undertake field surveys (geotechnical, engineering, site investigations, topographic etc.) and studies to establish firm basis for design;
- (iii) Undertake environmental and social safeguard studies (including but not limited to EIA, IEE, land acquisition and resettlement plans, health and safety management plan, gender action plan for the proposed investments;
- (iv) Conduct energy audit (energy requirement analysis) for the overall project and recommend the best suitable solutions to meet the energy needs and their viable sustainable solutions in the area specific context for all the sub-projects including the final recommended designs based on the recommendations;
- (v) Undertake technical due diligence and geotechnical assessment, for the proposed sub-projects;
- (vi) Review the engineering designs developed earlier and improve the designs according to international best practices and climate change resilience;
- (vii) Finalize the detailed engineering designs, technical specifications, detailed cost estimates that meet all the standards, climate resilience measures, and international best practices. In addition, the detailed engineering designs should be prepared using integrated urban planning approach keeping future needs in mind and viable new technologies;
- (viii) Identify the utilities to be replaced/ removed and prepare a detailed implementation plan for the same;
- (ix) Finalize the draft procurement plan with procurement packages proposed for selected sub-projects;
- (x) Assist and prepare the subproject(s) PC-1 or other PMU requirements for administrative/ management approvals for starting of the procurement process;
- (xi) Assist and liaison with Individual Procurement Expert in preparation of draft bidding documents for the individual packages identified in the procurement plan as per ADB standard bidding documents for works, goods and plant. This activity will be

⁷ water supply, sanitation, solid waste management, parks, green spaces

- supported by the procurement specialist (individual consultant) hired for the project; and
- (xii) The bidding documents shall include detailed design/construction drawings, technical specifications, BOQs, EMP, HSMP, GAP or any other documents required by the ADB;

Output 2(d): Procurement Support:

25. The Consultant shall provide necessary support to the Client in all aspects of the procurement process for civil works contracts in accordance with the ADB Procurement Policy and Procurement Regulations for ADB Borrowers and the KP government procurement rules and regulations. The support shall include but not limited to the following:

- (i) Undertaking strategic procurement assessment based on market analysis,
- (ii) Development procurement plans taking into account the market conditions and capacity of the utilities operating serves.
- (iii) Preparation of bidding documents, bill of quantiles, costs, specs, EMPs, advertisement of bids,
- (iv) Support in the pre-bid meetings and site visits for interested bidders, preparation of responses to bidders' clarification answers;
- (v) Bid submission and bid evaluation;
- (vi) Assisting the Client in contract award, contract negotiation, preparation and finalization of contracts submission for review by concerned agencies including the Client, and the ADB, through to signature of the contracts.
- (vii) Consultant in any case has to design the detail engineering design of projects having total cost of \$250Million USD for priority projects finalized with the PMU and LG&CD in line with integrated Master Plans.

3. Output 3: Institutional Reforms and Capacity Building two cities and two regions)

Output 3(a): Institutional Development (DI Khan and Banu)

26. The consultant is required to provide technical and operational/management support to the WSSCs. The consultant will assist the two cities in (i) designing a business & operational model for sustainable municipal services in water, sanitation and solid waste that would include both existing and services and proposed services together⁸; (ii) work out efficiency improvement and cost reduction measures to both improve municipal services to customers utilizing the existing and additional asset base which will be created in these cities; (iii) mainstream these measures in the overall structure and operational procedures of the utilities through system of monitoring, reporting measurement, penalties and rewards – using technology based intervention where required; and (iv) train the staff in the use of these systems.

27. This will be achieved through support to institutional reforms such as the establishment of urban service standards, enhancement of customer services function, and development of new tariff structures. Institutional capacities, efficiency and governance of WSSCs will be strengthened. Various capacity development programs, including:

- (i) urban municipal services operational guidelines and plans,
- (ii) operation and maintenance protocols of key urban services,
- (iii) financial control and management, and

⁸ water supply, sanitation, solid waste management, parks, green spaces

- (iv) enterprise resource planning (ERP) systems
 - (v) tariff systems and related policy changes for cost recovery options
 - (vi) Procurement and contracts management (will also be delivered to relevant staff in the government and WSSCs).
28. The consultant will carry out the following tasks
- (i) Detailed assessment of institutional structure and functions of WSSCs and capacity need assessment.
 - (ii) Assess present business, operational and management processes of WSSCs and their effectiveness in the delivery of mandate and related services.
 - (iii) Develop and implement institutional reforms and capacity building program for WSSCs to deliver the mandate more effectively. The consultant is required to provide technical and operational/management support to the WSSCs.
 - (iv) Develop operational design and support tools and business plans/solutions for efficient and sustainable delivery of services including water supply, sanitation, drainage, and solid waste management systems.
 - (v) Undertake training needs assessments, develop training strategy and customized training contents and deliver the training programs.
 - (vi) Assess and propose possible public-private partnership arrangements and prepare necessary documents to make the above arrangements become effective.
 - (vii) Conduct SWOT analysis and design a business & operational model to develop an overall integrated city management solution / mechanism
29. The consultants shall be responsible for identifying and supporting implementation of the identified business model solutions to ensure sustainable provision of quality municipal services. Such “solution” may involve outsourcing arrangement (through PPP concessions and/or private sector partnership). The consultant, in close coordination with PMU and WSSCs would facilitate in selection of a feasible solution, engagement and its implementation in the target cities.
- (i) Develop business plans for financial sustainability for cities through own-source revenue with defined targets and timelines;
 - (ii) Introduce specific performance measures and benchmarking in the business plan to improve water and sanitation and solid waste management services for better customer satisfaction;
 - (iii) Propose new indexed cost recovery tariffs for all urban services according to different service standards; and
 - (iv) Introduce contracts for private sector participation in service provision and possibly investment in urban infrastructure and service provision to make the above arrangements become effective.

Output 3(b): Institutional Restructuring (Swat and Hazara Region): The consultant shall review the existing institutional, operational and financial systems, and capacities of the local governments, water & sanitation services companies in the Hazara and Swat regions and develop a roadmap for reforms in these areas, that would support and guide the output II of the Project. In general, the consultant shall work on:

Institutional Review& Development:

- (i) The Consultant will examine existing organizational and institutional arrangements for municipal service delivery models already in place in the regions in the form of Water and Sanitation Services Companies and local government (TMA).

- (ii) Detailed assessment of institutional structure and functions of WSSCs, the City Governments, the Local Government and institutional mapping and capacity need assessment
- (iii) Considering the capacity, structure and mandate of each organization providing municipal services in the respective region propose the optimum arrangement based on comparative advantage and economies of scale that would allow provision of these services more effectively and efficiently;
- (iv) Identify areas for improvement in each of these agencies to strengthen their proposed role and related business processes (including institutional structures, legal framework, organizational mechanisms through institutional capacity building and that of employees);
- (v) The Consultant shall suggest and recommend reforms or initiatives that can lead to the achievement of sustainable operations on regional level building on the existing institutional strengths and organizational capacities available. Base on this proposal start a dialogue at the regional level and bring the outcome of this to provincial level.
- (vi) One of the options to be explored can be upgrading the available WSSCs into divisional service delivery entities with their field offices in other cities. This will require organizational restructuring of the existing WSSCs for their regional role on pilot scale, updating their SAMAs, revised performance targets, define shared responsibilities and outsourcing arrangement between TMA and WSSCs.
- (vii) Second model to be studied will be establishing new WSSCs in other cities of the region. The company model of service delivery on city level will be studied with the perspective of available WSSCs, their successes and challenges, and what can be adopted for regional model to be a success.
- (viii) Another option to investigate will be development of the institutional roadmap to indicate necessary reforms such as the establishment of urban service standards and KPIs for the local governments targeting to build their capacity to better manage their existing and new and improved assets.
- (ix) All the options will be evaluated on the financial viability, operational efficiency and the ease ` plans for mitigation of all identified risks.

Financial Sustainability is a key factor in long term sustainability of service delivery. The current level of tariff structure, recovery and subsidies needs to be assessed and evaluated in the context of local realities and development of new tariff structures, considering the Ability and Willingness to Pay. The International best practice models can be studied and proposed for developing long term policies for regular tariff revisions to sustain financial viability of the municipal services.

Private Sector Participation: An assessment of the regions shall be carried out for potential projects which can be developed and operated under Public Private Partnership (PPP) arrangements.

Operational Sustainability:

Service Delivery Standards & KPIs: The Consultant will be required to develop performance and operational efficiency benchmarks and targets for operational improvements and monitoring indicators on performance against agreed service, quality, and performance standards. The consultant will facilitate in terms of institutional systems strengthened through policies, procedures, tools and training which can assure compliance to required performance standards.

Capacity Development: Review and analysis of the existing capacities of the local governments and companies to operate and maintain the newly created assets and the optimum functioning of existing services is required. Capacity encompasses, institutional, operational, technical and human resource aspects of the companies.

30. **Reporting Requirements:** The consultants will submit the following reports to PMU and ADB in the manner discussed in Table below.

Table 1: List of Reports for Submission

SR.	Report
1.	An Inception Report , which covers at least initial findings and the work program including staffing plan and schedule for approval by PMU and ADB, 2 weeks after commencement of services.
2.	Monthly progress reports (contents include at least briefing details of the works carried out during the previous month, problems encountered or anticipated, together with steps taken or recommendations for their correction, and financial and physical progress to date) within 10 days after each month subsequently.
3.	Quarterly progress reports (at least including detailed description of the achieved progress of works, difficulties and delays encountered or anticipated, contract awards and disbursement status, payments to the consultants and contractors, and remedial actions taken or suggested, the overall progress, and plan for the upcoming quarter) within 14 days after each quarter subsequently;
4.	A project completion report (covering at least detailed description of all the work by items of technical and non-technical matters, As-Built drawings, economic analysis, financial and disbursement data, analyses, difficulties and delays encountered and reasons, and remedial actions taken, the overall progress of the Project, including recommendations to PMU and ADB) one month after the contract of consulting services completed

Note: All reports shall be submitted in both hard and soft copies i.e., 3 hard copies and 1 in data storage device with editable MS Office/compatible software and PDF formats.

31. While performing all of the above tasks, the consultant must ensure compliance with all applicable covenants set forth in PRF 2 Loan/Project Agreement and Project Administration Manual (PAM).

E. STAFF REQUIREMENTS: POSITIONS AND PERSON MONTHS

32. The Consultant shall provide, for the duration of the entire assignment, a team of international and national experts who are experienced in, (i) planning of land use, water supply, sanitation, solid waste management systems, (ii) developing detailed design of prioritized infrastructure, (iii) and procurement and due diligence support.

33. A total of **779 person-months** including; 315 **person-months** for the National Key Experts; **414 person-months** for National Non-Key experts; and **50 person-months** for International Key experts would be required. Indicative list of key and non-key staff and inputs requirements are summarized in Table 2:

Table 2: List of Key and Non-Key Experts. Positions and Person Months

Staff Position	Person No.	Duration (Person-Month)
International (Key Experts)		
Urban Planning Specialist/ Team Leader	1	18
Design Engineer (W&S Networks)	1	8
Design Engineer (Drainage/Sewage and Treatment Plants)	1	6
Design Engineer Solid Waste Management	1	6
Utility Operations and Business Model Specialist	1	6
Electromechanical/Energy Specialist	1	6
Sub-Total International Experts	6	50
National (Key Experts)		
DTL Design / Design Engineer- Water Supply Networks (Ground and Surface)	1	24
Design Engineer- Drainage and Sewerage Networks (Sanitation)	1	15
Design Engineer (STP, Oxidation Ditch Plants and Landfill Sites)	1	15
Metering and SCADA System Specialist	1	9
Solid Waste Management Expert	1	12
Ground Water Expert	1	9
Surface Water/Hydrology (Dams and Ponds etc.) Expert	1	9
Architect for Green Spaces	1	9
Town Planner / Architect	2	24
Climate Change Specialist	1	9
Structural Design Engineer (Urban Infrastructure)	1	12
Horticulture Expert	1	12
Geotechnical / Electricity Resistivity Expert	1	9
Electro/Mechanical Engineer	1	9

Staff Position	Person No.	Duration (Person-Month)
GIS /Remote Sensing Expert	3	30
Financial Modelling and Operation Planning Expert	1	6
Economist	1	6
Environment Specialist	2	12
Social Safeguards Specialist	2	12
Procurement Specialist	2	12
Capacity Building/Operational Performance Management Specialist	2	18
Institutional Development Specialist	3	27
Chief Quantity/Material Surveyor	1	15
Sub-Total National Experts	32	315
Sub-Total Key Experts (Int'l + National)	38	365
National (Non-Key Experts)		
Assistant Design Engineer- Water Supply	2	36
Assistant Design Engineer- Drainage Sanitation	2	36
Assistant Design Engineer- Mechanical	1	12
Assistant Design Engineer- Electrical	1	12
Assistant SWM Expert	2	24
Assistant Ground Water Expert	1	9
Assistant Surface Water (Dams and Ponds etc.) Expert	1	9
Assistant Town Planner / Architect	4	24
Assistant Design Engineer (Transport and Urban Infrastructure)	1	12
Assistant Geotechnical / Electricity Resistivity Expert	1	9
Assistant Hydrologist	1	9
Assistant GIS Expert	2	18
Quantity Surveyors (WS, Drainage, Let-Mech, Urban Infra)	4	48
Field Staff/remunerators for community consultation/social data collection	12	72
CAD operators	2	36
Surveyors	4	48
Sub-Total Non-Key Experts	41	414
Sub-Total Key Experts (Int'l + National)	79	779

F. QUALIFICATIONS, ROLES AND RESPONSIBILITIES

34. The required qualifications and experience of the key experts and the key tasks they are expected to undertake are provided in **Table 3**.

Table 3: Key Staff, their Qualifications, Experience and Tasks for the Consultants

SR.	Position	Qualification	Scope of Work
I. International Key Staff			
1	Urban Planning Specialist/ Team Leader	Qualification and Experience	<p>Experience He/she will have masters degree in urban: economics, planning, engineering or equivalent. Advanced degree/ qualifications would be an advantage. Should have over 12 years of experience, of which 2-3 projects/assignments are of similar nature and in similar role/capacity.f The person should also have proven work experience in other developing countries (apart from home country). He/she will also supervise the national urban economist on the team.</p> <p>Qualification Master's Degree, in Infrastructure/Project Finance, Urban Finance, Urban Planning or related disciplines</p>
		Responsibilities	<p>Duties of the Urban Economist will include, but not limited to, the following:</p> <ul style="list-style-type: none"> – Assist the team leader in incorporating the economic potential and environment into the project design, particularly to advise on sectors/subsectors to be developed such as (but not limited to) water supply and drainage, etc.; – Assist in the design of the economic corridor and location of industry; – Identify infrastructure that will help the urban economies in the selected city regions; – Assist the PMU and CIUs in the selection of eligible subprojects using subproject selection criteria; – Review recommendations of TA works, and work closely with economists, engineers and other experts on team including urban planner, etc., to incorporate adaptation into the economic situation in the country; and – Work closely with the national economist to identify, quantify, and clearly report the economic adaptation required in the project design. – Will be responsible for all urban related tasks

SR.	Position	Qualification	Scope of Work
			<ul style="list-style-type: none"> – Development and preparation of the Integrated Urban - - -Development Master Plans (based on Assessment of the current development status and propose diagnostic solutions through communications/discussions with the stakeholders, i.e. government, residents, NGOs etc.) (including Economic Development and Social Development Frameworks and a Land Use Planning Strategy) that meet all the standards and best international practices; – Specifying a supporting program of investment in integrated urban development; and – Managing the preparation of policies and proposals specific to the needs of the Urban Poor
2	Design Engineer (Water Sewerage Networks) &	Qualification and Experience	<p>Experience: Preferably 12 years' experience in designing and preferably in designing of urban development infrastructure, water supply and sanitation and solid waste management facility of similar nature or related structures including networks and treatments facilities. Expertise in Micro Tunneling for Sewer Infrastructure will be preferred.</p> <p>Qualification Bachelor's in civil engineering/Environmental Engineering / Public Health Engineering / Solid Waste Engineering or equivalent, preferably master's in environmental engineering / Urban Engineering or equivalent</p>
		Responsibilities	<p>He/she will be responsible and contribute to the designs of urban development projects, water supply and sewerage networks or related Structures.</p> <ul style="list-style-type: none"> – Review, validate, amend existing plan/finalize the subprojects (e.g., water supply and sanitation, water and wastewater treatment plants, transmission mains and primary and secondary sewers, high service reservoirs, water distribution networks, disposal stations, etc.); – Prepare, review, validate and finalize ground and surface water modeling of project area; – Review the existing feasibility studies and master plans for the water supply and sanitation subprojects, suggest any changes if required; in and

SR.	Position	Qualification	Scope of Work
			<ul style="list-style-type: none"> – Lead the preparation of detailed engineering design, drawing including engineering estimates of the finalized subprojects.
3	Design Engineer (Drainage/Seepage and Treatment Plants)	Qualification and Experience	<p>Experience He/she will have a masters degree in Hydrology or Civil Engineering with specialization in drinking water supply and source development (ground and surface water) with over 12 years of experience in planning and designing these activities, and a minimum of 10 years proven work experience. Demonstrated capacity of work in 2-3 projects of similar size and complexity in similar position in developing countries. He/she will also work closely and oversee the work of the national water supply and sanitation expert on the team.</p> <p>Qualification Bachelor's in civil engineering, wastewater engineering, water resources engineering, public health engineering, environmental engineering, mechanical engineering, chemical engineering or equivalent (internationally recognized professional qualification). A master's qualification in the above disciplines will be preferable.</p>
		Responsibilities	<p>He/she will be responsible to the Team Leader and work closely with the other members of consulting team and implement the following principle tasks:</p> <ul style="list-style-type: none"> – Project management and monitoring arrangements for design and implementation of the subproject, including preparing a computerized critical path schedule (or similar) and a simple benchmark information system for the water supply subprojects; – Identify problems and opportunities for the provision, operation and management of a sustainable water supply system in selected project areas, city corporations; – The nature, direction and outputs of the proposed preparatory studies for the water supply subproject, including the proposals related to alternative water supply sources, and implementation through detailed design; – Prepare detailed cost estimates and specifications for proposed water supply capital works and equipment; – The operation and maintenance (O&M) options and a preferred option for implementing the proposed improvements to the water supply;

SR.	Position	Qualification	Scope of Work
			<ul style="list-style-type: none"> – Preparation of O&M manuals for hand & production tube wells, production tube well pumps (submersible pumps) and other aspects of the proposed water supply system; – Participation in the proposed Community Consultation Plan and consulting with any Stakeholder Committees that may be established during the subproject implementation; – Reviewing existing studies, documents and other information available; regarding in sanitation system options in the country generally and the project areas/city corporations; – Assessing the reviewing existing studies, documents and other information available; regarding in sanitation system options in the project areas generally; – Assessing the existing current sanitation systems; and the projected quantity and quality of effluent from households, commercial and industries; – Identify problems and opportunities for the provision, operation and management of a sustainable sanitation system in the project areas/city corporations; – Selection of sanitation technology options and preferred options for selected project areas/city corporations for domestic, commercial and industries, and including: (a) design criteria for septic tanks, and de-sludging; (b) design criteria for pit latrines and de-sludging; – Detailed design for sludge disposal site and for maximizing opportunities for sludge after-use; – Prepare detailed cost estimates and specifications for proposed sanitation equipment (e.g., de-sludging vehicles and pit latrines/septic tanks); – The O&M options and a preferred option for implementing the proposed improvements to the sanitation system; – Preparation of Sanitation System Manual for sustainable sanitation system septic tanks and pit latrines and other aspects of the proposed sanitation system; and – Participation in the proposed Community Consultation Plan and Community Awareness Program and consulting with any Stakeholder

SR.	Position	Qualification	Scope of Work
			Committees that may be established during the subproject implementation.
4	Design Engineer Solid Waste Management	Qualification and Experience	<p>Experience Preferably 12 years' experience in solid waste management planning and designing. Preferably having designed landfills sites, secondary and primary transfer equipment/vehicles design/specification and transfer stations expertise</p> <p>Qualification Bachelor's in civil engineering / Environmental Engineering / Waste management or related subject or equivalent, preferably master's in civil engineering / Waste management or related subject or equivalent.</p>
		Responsibilities	<p>Responsibilities</p> <ul style="list-style-type: none"> – He/she will be responsible for designing, management and implementation of solid waste management components of the subprojects on cost effective basis including detailed structural drawings; – Perform detailed engineering design, drawings and engineers' estimates including all civil, mechanical and electrical work of landfill sites and other treatment options, if any, and garbage transfer station or any other treatment option proposed; and – The consultant will support in preparing tendering and bidding documents for landfill sites and other similar components for waste storage, transportation and treatment options, including garbage lifting vehicles and priority equipment in all the SWM component.
5	Utility Operations and Business Model Specialist	Qualification and Experience	<p>Experience: Preferably 12 years of work experience in institutional planning, business modelling, strategic planning, performance management, out of which 2-3 projects/assignment should be of similar nature and include urban development, water and sanitation works of similar size and complexity. Experience related to sustainable municipal service delivery business model and process reforms</p>

SR.	Position	Qualification	Scope of Work
			<p>Knowledge of international best practices, laws and policies for optimizing municipal services delivery would be considered an advantage.</p> <p>Qualification Master's degree in Management, business administration (Marketing) or a relevant discipline.</p>
		Responsibilities	<ul style="list-style-type: none"> – Responsible for the completion and submission of all deliverables and outputs under the Consulting assignment. – Provide guidance in assessing the current institutional arrangements and municipal services assets (water, sewerage, solid waste management, transport, parks, etc.) under the situation analysis output. – Manage detailed institutional assessments and comparative analysis of available models as stipulated in the above sections to recommend a sustainable quality municipal services business solution for the two cities. – Lead discussions with stakeholders and reach consensus among them to approve all necessary policies, regulations, procedures, and institutional arrangements. – Develop performance parameters of service delivery for the “recommended municipal services business model solution” covering key services (solid waste, water and sanitation) as well as the performance assessment framework. These standards should to be based upon international best practices and standards. – Identify institutional, management, organizational, and financial structure for the recommended municipal services business model solution or utility set up. – Workout a product development strategy & Mechanism for the Government/ Municipal Services. – Organise & Manage Marketing campaigns for the newly developed Municipal services/Products. – Devise positioning & pricing mechanism for the services to be offered under the new framework. – Build the capacity of the MCs to design and implement a comprehensive diligence framework to engage, manage, monitor, report,

SR.	Position	Qualification	Scope of Work
			<p>financial oversight and service quality assurance pertaining to the proposed solution.</p> <ul style="list-style-type: none"> – Assist in formulating policies, procedures, tools and trainings which can assure compliance to required performance standards for the new set up.. – Developing and designing comprehensive business and operational plans to achieve the set targets of the recommended municipal services business model and utility set up. – Manage and integrate input of specialist consultants and all other team members for the formulation of institutional systems (policies, procedures, frameworks, tools, and training) which can assure compliance to required performance standards envisaged under the business model. – Include the international experience in suggesting the municipal services models under operations for municipal services – Review the potential investments for the sustainability of the municipal corporation – Manage the coordination between the engineering team and management team to reach a well-accepted model of delivering municipal services including operational & maintenance – Review all systems developed under Finance, Engineering and Management using advance and innovative information technology solutions for operations and measuring the performance of services.
6	Electromechanical/Energy Specialist	Qualification and Experience	<p>Preferably 12 years as Designer / Design Engineer experience of which at least 2 to3 assignments are related to designing of equipment of water, wastewater and solid waste projects of similar size and complexity.</p> <p>Qualification Bachelor's Degree in mechanical engineering / Electrical Engineering / Mechatronics Engineering, preferably M.Sc. or equivalent.</p>
		Responsibilities	<p>Responsibilities</p> <ul style="list-style-type: none"> – He/she will be responsible for preparing specifications of the equipment for subprojects under the project etc.

SR.	Position	Qualification	Scope of Work
			<ul style="list-style-type: none"> – He/she will be responsible for review and validate the subprojects of works and goods (e.g., water intake works, water and wastewater treatment plants, transmission mains, main and secondary sewers, high service reservoirs, water distribution networks, disposal stations – Lead and contribute to the preparation of detailed engineering specification, drawing and engineering estimates of the finalized subprojects.

SR.	Position	Qualification	Scope of Work
1. National Key Staff			
7	DTL Design / Design Engineer- Water Supply Networks (Ground and Surface)	Qualification and Experience	<ul style="list-style-type: none"> – Bachelor's degree in Civil Engineering - preferably master's in civil engineering / Transportation Engineering / Environmental Engineering / Construction Management / Project Management or equivalent. – 12 years' experience as Deputy Team Leader / SRE on major infrastructure projects of civil works, contract management, processing of claims and implementation.
		Responsibilities	<p>The individual will be responsible for planning and design activities ensuring that the project is developed in accordance with the required specifications of the PMU. He/she will also be responsible to assist Team Leader for all issues when required.</p> <p>Responsibilities of the Deputy Team Leader/ SE will include, but are not limited to the following:</p> <ul style="list-style-type: none"> – Act as the Team Leader during the absence of Team Leader – Responsible for ensuring that the team prepares all the designs and specifications and carries out construction supervision and contract administration of all the civil works and goods for the Project assuming the role of "the Engineer". – Responsible for quality control of all water supply system planning and detail design activities. – Ensure that the construction drawings and technical specifications are developed as per requirement of the Bid-Documents.

SR.	Position	Qualification	Scope of Work
			<ul style="list-style-type: none"> – Render necessary advice and assist the client in contract administration and procurement issues/assignments/contractual claims; – Oversee preparation of the PC-1. – Responsible for overseeing quality control methodology put in place, confirming its adequacy and ensuring that its employment is satisfactorily carried out; – Assist the team in resolving any contractual issues; – Coordinate with all concerned organizations on project issues.
8	Design Engineer (STP, Oxidation Ditch Plants and Landfill Sites)	Qualification and Experience	<ul style="list-style-type: none"> – Bachelor's degree in civil engineering, sanitation engineering, public health engineering, environmental engineering, mechanical engineering, chemical engineering or equivalent (internationally recognized professional qualification). A master's degree in any of the above disciplines will be preferable. – 10 years of experience as Wastewater Treatment Design Engineer on major wastewater treatment projects in designing of drainage networks and wastewater treatment plants, solid waste management facility or related structures including drainage networks and disposal points.
		Responsibilities	<p>The individual will be responsible and contribute to the designs of urban development projects, especially toward the drainage, wastewater treatment plant, water treatment plants and solid waste management facility or related structures. The primary role of the Wastewater Treatment Plant Design Engineer is to design systems that safely treat urban wastewater to remove harmful substances and return it to the ecosystem and/or reuse where applicable. Wastewater Treatment Plant Design Engineer will lay out the specifications for pumping and lifting systems that bring wastewater to the treatment plants, inlet works and treatment, outfalls and monitoring. S/he will also lay out process and flow diagrams and specifications for the flow of the wastewater through the system. Responsibilities of Wastewater Treatment Plant Design Engineer will include, but is not limited to the following:</p> <ul style="list-style-type: none"> – Review existing feasibility studies, proposals, plans, or preliminary designs related to wastewater treatment systems, potential new or rehabilitation works subproject (e.g. gravity

SR.	Position	Qualification	Scope of Work
			<p>sewers e.g., lateral line, branch main or sub mains, trunk sewer, interceptor, pumping stations and rising main, waste stabilization ponds, treatment plants) and address any deficiencies, as required.</p> <ul style="list-style-type: none"> – Confirm treatment process performance requirements and sizing and rating of each process component to meet final effluent quality discharge requirements; – Conduct revisions feasibility studies for the construction of wastewater treatment plants, sullage carrier, wastewater channels, pipelines, flumes, control and metering and inspection structures, and wastewater collection systems. as required; – Supervise topographic surveys, review the results of the topographical survey and geotechnical and hydrological studies and integrate these considerations in the designs. Based on preliminary surveys, investigation and confirm data take the lead of overall design activities; – Identify and address any outstanding land acquisition and resettlement issues including any necessary land surveys and site investigations (including but not limited to geotechnical investigations) as required for the purposes of design development and preparation of tender documentation; – Review, validate, amend existing plan/finalize the sub-projects (e.g., transmission mains and primary and secondary sewers, high service drainage networks, disposal stations, and treatment plants etc.); – Perform hydraulic analyses of wastewater systems or collection networks to model flow characteristics, test for infiltration exfiltration losses, and identify opportunities to mitigate risks and improve operational efficiency; – Analyze and recommend sludge treatment or disposal methods; – Conduct cost-benefit analyses for the construction of wastewater treatment plants, or wastewater collection systems and identify construction requirements and constructability issues; – Analyze and recommend chemical, biological, or other wastewater treatment methods to prepare water for re-use;

SR.	Position	Qualification	Scope of Work
			<ul style="list-style-type: none"> – Design pumping systems, pumping stations, lift stations, pipelines, force mains, or sewers for the collection of wastewater; – Design wastewater treatment plants, including advanced facilities or technology, membranes, lift stations, headworks, surge overflow basins, ultraviolet or other disinfection systems, aerobic digesters, sludge lagoons or disposal, and control buildings to ensure compliance with regulatory requirements, technical standards and final effluent quality targets; – Facilitate a procurement risk workshop with operators technical and operations staff to identify preferred delivery contract model; – Facilitate workshops with operators technical and operations staff during design development including value engineering and management; – Finalize water treatment objectives, assess treatment process options and select preferred option in the context of current water treatment operations capability and operator skill levels; – Conduct environmental impact studies related to wastewater collection, treatment, or distribution or address any outstanding environmental issues and environmental assessment requirements; – While finalizing the final designs, specification and drawings, international practice and climate-resilience factors must be demonstrated; – Responsible for the preparation of detailed engineering design, drawing including engineering estimates and specification of the finalized wastewater structure, plants and facilities related sub-projects in an integrated and sustainable manner; – Prepare comprehensive tender documentation package based on FIDIC ‘Conditions of Contract for the preferred procurement approach including ‘Employers Requirements’, detailed performance specifications and conditions of tender.
9	Design Engineer- Drainage and Sewerage Networks (Sanitation)	Qualification and Experience	<ul style="list-style-type: none"> – A BSc/MSc in municipal/civil engineering or equivalent. – Experienced engineer with qualifications and specialization in drainage and sewerage network infrastructure development with 10 years of experience in designing and

SR.	Position	Qualification	Scope of Work
			<p>implementing drainage and sewerage network projects.</p> <ul style="list-style-type: none"> – Experience in working on donor-funded projects will be highly desirable.
		Responsibilities	<p>The individual will assist the team leader in preparing drainage and sewerage network feasibility study, detailed designs and bidding documents incorporating climate resilience into designs under the project. His/her tasks include, but not limited to, the following:</p> <ul style="list-style-type: none"> – Conducting technical analysis of drainage and sewerage systems in subproject areas; – Identify priority investment projects in drainage and sewerage system including design, costs, capacity, and operation and maintenance arrangements; – Work closely with the climate change specialist of the team to examine and incorporate climate resilience into drainage and sewerage system components; – Calculate the incremental costs of climate adaptation into drainage subprojects; – Assist environmental engineer in identifying places for public toilet, wash station, transfer station and sludge disposal to ensure linkage to safe drainage; – Oversee preparation of feasibility study, detailed engineering designs, including specifications, drawings, and detailed cost estimates for drainage and sewerage components; – Help in preparation of bidding documents and bill of quantities and – Any other responsibilities assigned by Team Leader.
10	Solid Waste Management (SWM) Expert	Qualification and Experience	<ul style="list-style-type: none"> – Bachelor's in civil engineering / Environmental Engineering / Waste management or related subject or equivalent, preferably master's in civil engineering / Waste management or related subject or equivalent. – 8 to 10 years' experience that includes 2 to 3 projects of similar nature and complexity related to sectors like solid waste management planning and designing landfills sites, secondary and primary transfer equipment/vehicles design/specification solid

SR.	Position	Qualification	Scope of Work
			waste treatment and recycling facilities and transfer stations.
		Responsibilities	<ul style="list-style-type: none"> – The individual will be responsible for Design and Design Review of structural elements of all the SWM related planning and design (including structural drawings) components of the project and will ensure that design and specifications are cost effective. – Assist in the detailed engineering design, drawings and engineers' estimates including all civil, mechanical and electrical work of landfill sites and other treatment options, if any, and garbage transfer station or any other treatment option proposed; and – The individual will support in preparing tendering and bidding documents for landfill sites and other similar components for waste storage, transportation and treatment options, including garbage lifting vehicles and priority equipment in all the SWM component. – He/She will explore waste-energy and other sustainable and innovative SWM technologies and will apply them to the project design where appropriate.
11	Ground Water Expert	Qualification and Experience	<ul style="list-style-type: none"> – Bachelor's degree in civil engineering/ Geology/ Environmental Engineering or equivalent preferably master's in civil engineering/ Geology/ Environmental Engineering or equivalent – 8-10 years work experience as Ground Water Expert with proven experience in assessment of quality and quantity of ground water for urban development projects
		Responsibilities	<p>Responsibilities of Hydrogeologist / Ground Water Expert will include but are not limited to:</p> <ul style="list-style-type: none"> – He/she will provide assessment of quality and quantity of ground water for usage in building packages under the project and parks and designing of tube wells; – Prepare cost estimate and technical specifications of tube wells and allied components; and

SR.	Position	Qualification	Scope of Work
			<ul style="list-style-type: none"> – Prepare Designs, engineers estimate, Bill of Quantities, technical specifications and other data required for bidding documents.
12	Architect	Qualification and Experience	<ul style="list-style-type: none"> – BE in Architecture / Designing / Engineering or equivalent preferably Masters or equivalent – 8-10 years of relevant work experience working on projects of similar nature and complexity and in similar capacity.
		Responsibilities	<ul style="list-style-type: none"> – The individual will be responsible for assistance in building and landscape architecture related activities. – Prepare reports and plans for a variety of projects. – Work in collaboration with civil engineers, construction managers and surveyors etc. to develop quality designs. – Spearhead designing of parks in a sustainable way. – Spearhead redesigning of street layouts. – Create energy efficient and affordable architectural designs; – Prepare landscape design of parks, street intersections and other public spaces being designed/redesigned under the project. – Oversee preparation of detailed architectural drawings, construction plans, specifications and cost estimates of relevant project investments. – Calculate angular, linear and area measurements to identify problematic areas (like landslide areas) and suggest proper mitigation measures. – Support development of Bid documents. – Work both indoors and outdoors and present evidence at meetings. – Perform related duties as required by the Team Lead and PMU.
13	Town Planner / Architect	Qualification and Experience	<ul style="list-style-type: none"> – BSc in Town Planning / Architecture / Designing / Engineering or equivalent. Preferably Masters in Urban Planning or equivalent. – 10 years of relevant work experience working on projects of similar nature.

SR.	Position	Qualification	Scope of Work
		Responsibilities	<ul style="list-style-type: none"> – The individual will assist the urban development specialist in all planning exercises. – Understand demographic and socio-economic trends, state of public infrastructure and predict demands in the project areas. – Objectively analyze and evaluate existing evidence collected through review of existing documents and through primary data collection exercises.. – Oversee/lead the preparation of land use plans, city comprehensive plans, Sub-sector master plans and regional development plans. Ensure that principles of sustainability and climate change resilience are integrated in the proposed plans. – Ensure that proposed plans are in line with other existing plans and policies of the government. – Work with other professionals, such as architects, landscape architects, civil engineers, transport specialists and surveyors to ensure comprehensiveness of proposed plans. – Carry out stakeholder consultations and FGDs, liaise with the public and councilors, and attend public meetings about planning issues (such as proposals for a new road or school etc.). – Oversee designs for the public realm (parks, street layouts, street intersections etc.). – Recommend policy reforms where necessary. – Perform related duties as required by the Team Lead and PMU
14	Structural Design Engineer (Urban Infrastructure)	Qualification and Experience	<ul style="list-style-type: none"> – Master's in civil engineering / Structural Engineering or equivalent, preferably PhD in Structural Engineering or equivalent – 10 years' experience as Designer and/or Design reviewer of Structures with proven credentials in Water Supply and sanitation and urban infrastructure designs and structures.
		Responsibilities	<ul style="list-style-type: none"> – The individual will be responsible for Design and Design Review of structural elements of all the design components and Specifications on cost effective design basis. – Oversee development of detailed structural drawings and specifications. – Assist the water supply, sanitation, and transport engineers in preparing detailed engineering designs, structural drawings, tender documents and engineering estimates of

SR.	Position	Qualification	Scope of Work
			<p>project's water supply, wastewater, urban roads, SWM, public space improvement and transportation subprojects (that have structural elements).</p> <ul style="list-style-type: none"> – Ensure that designs are multihazard resistant. – Provide details about existing structures, damages and assessment. – Perform related duties as required by the Team Lead and PMU
15	Horticulture Expert	Qualification and Experience	<ul style="list-style-type: none"> – Bachelor's degree in agriculture preferably master in horticulture or equivalent – 8-10 years work experience as Horticulture Expert with proven experience on 2 to 3 projects of similar nature involving designing of horticulture facilities, parks and green spaces for urban development projects.
		Responsibilities	<p>Responsibilities of Horticulture Expert will include but not limited to:</p> <ul style="list-style-type: none"> – He/she will be responsible for designing of horticulture i.e. type, size, shape and number of plants in the parks, green belts and green areas, parking plazas and other urban spaces; – Preparing landscape drawings and O&M guidelines; and – Development and implementation of tree plantation plan – Preparation of cost estimates and technical specifications for horticulture components under the project.
16	Geotechnical / Electricity Resistivity Expert	Qualification and Experience	<ul style="list-style-type: none"> – Bachelor's degree in geotechnical, geophysics, geology or equivalent. Preferably master's degree in geotechnical, geophysics, geology or equivalent – 10 years work experience as geotechnical expert with proven experience in geotechnical design for urban infrastructures including expertise in electrical resistivity with proven experience in carrying out electrical resistivity surveys.
		Responsibilities	<p>Responsibilities of Geotechnical Expert will include but not limited to:</p> <ul style="list-style-type: none"> – He/she will provide geotechnical recommendations based on the geotechnical investigations and secondary data for structural design of project investments. – Provide support and carryout electrical resistivity survey for tube well sites required for water supply schemes, and parks etc.

SR.	Position	Qualification	Scope of Work
			<ul style="list-style-type: none"> – Planning, data execution / processing / interpretation and reports preparation of geophysical investigations/groundwater exploration. – Providing assistance in designing of tube wells and other subprojects with geotechnical and resistivity requirements.
17	Electro/ Mechanical Engineer	Qualification and Experience	<ul style="list-style-type: none"> – Bachelor's Degree in mechanical engineering / Electrical Engineering / Mechatronics Engineering, preferably M.Sc. or equivalent. – 10 years as Designer / Design Engineer for equipment of water, wastewater and solid waste projects with proven experience in urban development water and sanitation infrastructure design.
		Responsibilities	<ul style="list-style-type: none"> – He/she will be responsible for preparing Electro/Mechanical specifications of the equipment for subprojects under the project. – He/she will review and validate the subprojects of works and goods (e.g., water intake works, water and wastewater treatment plants, transmission mains, main and secondary sewers, high service reservoirs, water distribution networks, disposal stations, etc.); – He/She will lead and contribute to the preparation of detailed engineering specification, drawing and engineering estimates of the finalized subprojects.
18	GIS /Remote Sensing Expert	Qualification and Experience	<ul style="list-style-type: none"> – BSc in computer engineering, Master's degree in spatial data analytics, GIS or equivalent degree. 8-10 years' experience as GIS Engineer of which 2 to 3 projects are of similar nature and complexity.
		Responsibilities	<p>He/she will assist TL/DTL in performance of his duties as mentioned in TOR consulting services for preparation of design phase of KPCIP-2. Responsibilities will include but not limited to the following:</p> <ul style="list-style-type: none"> – To co-ordinate all the functions related to GIS base network planning of subprojects under this project and other activities as per TOR. – To study current issues impeding the development of master planning in connection with GIS/ Mapping. – To co-ordinate the team in connection assets Management related working focusing on Water Supply and Sanitation frame work.

SR.	Position	Qualification	Scope of Work
			<ul style="list-style-type: none"> – Install, administer and update information / database system to ensure smooth operations of related GIS development and activities. – Identify needs and conduct surveys for the development of the required geonetwork for use in subsequent activities. – Provide inputs in the implementation of various GIS development related activities – Provide training for staff such as: – Global Information System. – Advance technologies in survey.
19	Economist	Qualification and Experience	<ul style="list-style-type: none"> – A university degree in Urban/Regional Economics or a relevant discipline. – 8-10 years of work experience in matters related to urban or municipal finance, urban economic research and analysis, policy formulation, application of economic principles in development programmes/projects etc. Must have experience working on similar projects particularly related to municipal and urban development. – Knowledge of best practices, laws and policies related with urban development is essential for this position – Experience of working in development sector and with international donor organizations would be preferred. – Excellent communication skills (written and oral) and strong inter-personal skills would be considered an advantage.
		Responsibilities	<p>The individual's tasks and responsibilities include, but may not be limited to, the following:</p> <ul style="list-style-type: none"> – Review primary and secondary data sets of urban and municipal services to (i) monitor trends and emerging issues related to urban economy (ii) identify the key factors / drivers of the urban economy, and (iii) perform analysis of key issues and gaps related to urban economy. – Analyze urban and regional areas by drawing together local economic, demographic and property information with broader macroeconomic and demographic trends which can encompass economic development strategies, economic analyses and projections, cost-benefit/economic impact analysis, cluster analysis and strategic land use and transport planning.

SR.	Position	Qualification	Scope of Work
			<ul style="list-style-type: none"> – Design and conduct studies/analysis/research on urban economy and its performance to leverage the comparative advantages into development models for selected interventions in infrastructure development, technology acquisition, skills development and other key inputs to strengthen the design and implementation of urban economy and finance interventions under KPCIP. – Develop models to frame and analyse urban and regional economies and urban development financing approaches, and propose policies and strategies for urban and municipal development. – Provide recommendations on enhancing the competitiveness of the target cities through improving urban/municipal services that are integrated with infrastructure and policy interventions for the urban areas. – Engage in dialogue with the MCs concerning urban development issues including urban planning, urban and municipal management, urban environmental management, and private sector participation in provision of municipal services. – Identify opportunities, and develop and implement partnership arrangements with other donor organizations, development banks, regional economic commissions, economic research institutions, private sector and other relevant players with a purpose to promote urban/municipal development initiatives in KPK. – Liaise with the key project stakeholders for planning, design, reviews, deliberations, presentations, approvals, and implementation. – Any other business as and when required by the Team Leader.
20	Institutional Development Specialist	Qualification and Experience	<ul style="list-style-type: none"> – Preferably Master's degree in Urban Planning, Town Planning or a relevant discipline – 10 years work experience in institutional planning, business modeling, process reforms and institutional capacity building is desired. Must have experience working on similar projects in developing countries.
		Responsibilities	<p>The individual's tasks and responsibilities include, but may not be limited to, the following:</p> <ul style="list-style-type: none"> – Lead to build the capacity of the MCs to design and implement a comprehensive diligence framework to engage, manage, monitor, report,

SR.	Position	Qualification	Scope of Work
			<p>financial oversight and service quality assurance pertaining to the proposed solution.</p> <ul style="list-style-type: none"> – Facilitate in terms of Institutional systems strengthened through policies, procedures, tools and training which can assure compliance to required performance standards. – Develop institutional systems through policies, procedures, tools and training pertaining to: <ul style="list-style-type: none"> a. Strategic and Operational Planning b. Transparency c. Internal and External Grievances Redress Mechanisms d. Employee compensation & benefits policy e. Performance Management Systems – Lead and provide technical input on sustainability assessment during the last quarter, with recommendations to strengthen future operations of the institutions.
21	Environmental Specialist	Qualification and Experience	<ul style="list-style-type: none"> – A university degree in Environmental Sciences, Urban/Town Planning, Engineering or a relevant discipline. – 8-10 years of work experience in matters related to preparing , environmental safeguard assessments/reports, management plans and monitoring their implementation. Must have experience working on similar on 2 to 3 projects of similar nature and in the same capacity related municipal infrastructure. – Experience of working in development sector and with international donor organizations would be preferred. – Knowledge of ADB Safeguard Policy Statement (SPS) 2009 or equivalent guidelines of other IFIs would be a requirement. – KnowledgeExcellent communication skills (written and oral) and strong inter-personal skills are considered an advantage.
		Responsibilities	<p>The individual's tasks and responsibilities include, but may not be limited to, the following:</p> <ul style="list-style-type: none"> – Identify, review and appraise Project interventions, and ensure that environmental issues are properly addressed by development of Project specific environmental analysis, which may include issues related to environmental assessments, natural habitats, pest management, forests, public consultations, and occupational health and safety.

SR.	Position	Qualification	Scope of Work
			<ul style="list-style-type: none"> – Lead in identifying, monitoring and reporting on highly sensitive interventions in the context of environment safeguard policy, coordinating where necessary with other consultants involved in those interventions. – Support the PMU in conducting the screening and categorization as per ADB Safeguard Policy Statement (SPS) 2009 of each Project intervention identified for implementation. – Provide support to the PMU in conducting meaningful and comprehensive consultations with all key stakeholders in the Project areas where the interventions will be identified as part of the public consultation requirements of ADB SPS 2009. – Provide support to the PMU in collecting all required information from the identified Project areas, such as information on sensitive receptors, secondary information from relevant public sector departments and any other information as required by PMU for preparation of the Initial Environmental Examination (IEE(s) and/or Environmental Impact Assessment (EIA(s). – Seek and develop opportunities to improve and integrate sound environmental management and policies in operations as per Environmental Management Plan (EMP), including improving environmental benefits and providing value-added service, and enhancing the capacities of relevant local clients and other stakeholders. – Ensure that the updated IEE reports and EMPs are prepared for the detailed design as required under the ADB SPS (2009), the KPK Environmental Protection Act 1997, and the provincial environmental rules and regulations. Also, ensure that the IEE reports are submitted to the KPK Environmental Protection Agency and environmental approval is sought before contract award. – Ensure that EMPs are included in bidding documents for all contracts, and that all contractors prepare and submit to PMU, for approval at least 10 days before taking possession of any work site and implement, site-specific EMPs. Also, ensure that no access to the site will be allowed until the site specific EMPs is approved by the PMU.

SR.	Position	Qualification	Scope of Work
			<ul style="list-style-type: none"> – Provide inputs to the Safeguards Specialist and support him/her as required for preparation of an report to be delivered to ADB for review and approval. – Support the PMU as requested, particularly in providing any data from the Project sites, in preparation of bi-annual environmental monitoring reports for submission to ADB. – Provide any other additional support as requested by the PMU/CIUs to ensure compliance with national safeguard regulatory requirements and ADB SPS 2009.
22	Social Safeguards Specialist	Qualification and Experience	<ul style="list-style-type: none"> – Bachelor's / or master's degree in Sociology/Anthropology or related field, – 10 years professional experience in the sector. – Demonstrated experience in social assessment and community development consultations for various project types such as water supply, sanitation, solid waste management and community facilities etc.
		Responsibilities	<p>The individual's tasks and responsibilities include, but may not be limited to, the following:</p> <ul style="list-style-type: none"> – Identify challenges, opportunities, priorities and needs for the development and implementation of the Project's Social Safeguard Plan at all levels. – Prepare guidelines, handbooks, and staff instructions on the social safeguard policies and its electronic and web-based materials. – Assist in the review and development process of the current Environmental and Social Safeguards guidelines in consultation with the Asian Development Bank and PMU and provide support and technical assistance to develop environment and social safeguard responsive strategies and plans. – Assist PMU on administrative measures and actions required for ensuring the compliance with social safeguard measures prior to the validation and implementation of the Project activities/investments. – Supervise and support, as and when required, the preparation and finalization of Land Acquisition and Resettlement Frameworks/Plans (LARF/PS) to confirm compliance with key procedural requirements of the Safeguard Policy Statement (SPS) and the Land Acquisition Act (LAA). In case of any gaps

SR.	Position	Qualification	Scope of Work
			<p>in land acquisition process and ADB SPS, coordinate with the District Revenue Department to address these gaps and seek support from District Land Acquisition Collector office (Deputy Commissioner) as and when required.</p> <ul style="list-style-type: none"> – Develop a system of consultations with the male and female displaced persons (DPs) including vulnerable and affected households and other stakeholders; and perform information disclosure to ensure DPs are well aware of the Project impacts on land, structures, income and other assets, LARF policy, eligibility, entitlements and obligations, compensation and allowances, schedules of compensation disbursement, complaints and Grievance redressal Mechanism (GRM), internal and external monitoring and evaluation of LARPs and all other relevant Project related information. This shall include communication with displaced persons of formal businesses and roadside vendors about the need for their eviction, the timeframe for their shifting/removal and their entitlements as per the LARF. – Ensure valuation of land and all other assets at full replacement costs as per SPS 2009. Also, ensure physical verification of data in the field on land acquisition and resettlement in coordination with District Revenue Department and other agencies involved in LARP. Update information and inform Consultants and ADB about changes in the LARPs. – Develop schedules for timely payments of compensation, and how and when compensation and resettlement assistance will be provided. Ensure assistance to vulnerable DPs in opening bank accounts and preparation of documents required for issuance of compensation vouchers/cheques. – Establish and maintain an up to date MIS of the census, inventory of losses and the different categories of displaced persons, GRM and compensation payments. Maintain an up to date record of compensation and resettlement related payments and include details in the monthly, quarterly and bi-annual progress reports. – Prepare quarterly and annual reports to be submitted to PMU and other stakeholders with a

SR.	Position	Qualification	Scope of Work
			<p>special view to capturing lessons learned and best practices for improving the performance of the Project and maintaining safeguard standards.</p> <ul style="list-style-type: none"> – Establish a context specific and effective Grievance Redressal Mechanism (GRM) at the Project and field level and facilitate DPs in resolving their grievances/complaints, and if required, play the role of an arbitrator. – Maintain an up to date record of complaints including issues raised/complaints addressed and complaints handled, action plans/recommendations made, and measures adopted to address the concerns/complaints and related issues throughout implementation of LARPs/RPs. – Establish an internal monitoring system and monitoring indicators benchmarking the LARPs and other safeguard instruments. Conduct internal monitoring of LARPs, LRP and GAP implementation with the help from CIUs, MCs. – Organize and facilitate training programs for PMU, CIUs, MCs, contractors and consultants involved in the preparation and implementation of LARFs. Document training reports, share with participants, and report capacity building activities in periodic reports. – Provide any other additional support as requested by the PMU/CIUs to ensure compliance with national safeguard regulatory requirements and ADB SPS 2009.
23	Procurement Specialist	Qualification and Experience	<ul style="list-style-type: none"> – CIPS (or similar) qualification related to Procurement & Contracts Management Specialization/certification/diploma in construction Law will be given preference. – 8-10 years of relevant work experience in matters related to procurement, contract management, bids administration etc. Must have experience working on similar projects/assignments, in similar capacity and in organizations with comparable conditions. – Knowledge of best practices, IFI procurement guidelines, and laws and policies related with local government and municipal services is essential for this position. – Experience of working in development sector and with international donor organizations would be preferred.

SR.	Position	Qualification	Scope of Work
		Responsibilities	<p>The individual's tasks and responsibilities include, but may not be limited to, the following:</p> <ul style="list-style-type: none"> – Provide technical leadership on activities related with procurement and contracts management of project interventions including development and implementation of project procurement plan and management of procurement contracts (works and services) as per ADB/Government of KPK's guidelines. – Lead the process of the development, review, updating and implementation of the Procurement Plan as required. – Develop and implement PMU's procurement related requirements including scope of work, performance objectives, technical specifications, and all other necessary and the relevant information related to procurement. – Verify and vet the standard bidding documents, and add special terms and conditions, if required, to support effective procurement. – Ensure the effective implementation of all processes of procurement including but not limited to shopping method, publication of advertisements, EOIs, RFPs. – Supervise the process of evaluation of the bids and preparation, submission and finalization of bid evaluation reports/results. – Supervise the process of managing and monitoring contractor performance for compliance with applicable laws, delivery schedules, payment provisions, contract data, reporting requirements, and other contractual requirements. – Review and approve/recommend the variation of contracts, if required, as per ADB/Government of KPK's guidelines. – Ensure that contractor performance, estimated costs, pricing systems, financial policies, and cost control procedures are monitored, analyzed, and evaluated in accordance with financial and contract administration requirements.
24	Capacity Building/Operational Performance Management Specialist	Qualification and Experience	<ul style="list-style-type: none"> – Preferably Master's degree in Urban Planning, Town Planning or a relevant discipline – 10 years work experience in institutional planning, business modelling, process reforms and institutional capacity building is desired. Must have experience working on at least 3 similar projects in developing countries.

SR.	Position	Qualification	Scope of Work
		Responsibilities	<p>The individual's tasks and responsibilities include, but may not be limited to, the following:</p> <ul style="list-style-type: none"> – Lead to build the capacity of the MCs to design and implement a comprehensive diligence framework to engage, manage, monitor, report, financial oversight and service quality assurance pertaining to the proposed solution. – Facilitate in terms of Institutional systems strengthened through policies, procedures, tools and training which can assure compliance to required performance standards.
25	Surface Water/Hydrology (Dams and Ponds etc.) Expert	Qualification and Experience	TBD
		Responsibilities	TBD
26	Metering and SCADA System Specialist	Qualification and Experience	TBD
		Responsibilities	TBD
27	Financial Modelling and Operation Planning Expert	Qualification and Experience	TBD
		Responsibilities	TBD
28	Climate Change Specialist	Qualification and Experience	TBD
		Responsibilities	TBD
29	Chief Quantity/Material Surveyor	Qualification and Experience	TBD
		Responsibilities	TBD

35. The required qualifications and experience of the non-key staff is provided in **Table 4**.

Table 4: Non-Key Staff, their Qualifications and Experience Requirements

SR. No	Position	Nature	Qualification	Experience
i	National Non- Key Staff			
1	Assistant Design Engineer- Water Supply	Intermittent	BSc in Civil/Environmental Engineering or similar field.	Minimum of 3 years of relevant experience
2	Assistant Design Engineer- Drainage Sanitation	Intermittent	BSc in Civil/Environmental Engineering or similar field.	Minimum of 3 years of relevant experience
3	Assistant Design Engineer- Mechanical	Intermittent	BSc in Mechanical Engineering or similar field.	Minimum of 3 years of relevant experience
4	Assistant Design Engineer- Electrical	Intermittent	BSc in Electrical Engineering or similar field.	Minimum of 3 years of relevant experience
5	Assistant SWM Expert	Intermittent	BSc in Civil/Environmental Engineering or similar field.	Minimum of 3 years of relevant experience
6	Assistant Ground Water Expert	Intermittent	BSc in Civil/Environmental Engineering or similar field.	Minimum of 3 years of relevant experience
7	Assistant Surface Water (Dams and Ponds etc.) Expert	Intermittent	BSc in Civil/Environmental Engineering or similar field.	Minimum of 3 years of relevant experience
8	Assistant Town Planner / Architect	Intermittent	BSc in Architecture/Town Planning, An advance degree in Urban Planning with be an advantage.	Minimum of 3 years of relevant experience
9	Assistant Design Engineer (Transport and Urban Infrastr)	Intermittent	BSc/MS in Transport Engineering/Planning, Infrastructure Planning, Urban Planning, Town Planning or similar field.	Minimum of 3 years of relevant experience
10	Assistant Geotechnical / Electricity Resistivity Expert	Intermittent	BSc in Engineering or similar field.	Minimum of 3 years of relevant experience
11	Assistant Hydrologist	Intermittent	BSc in Civil/Environmental Engineering or similar field.	Minimum of 3 years of relevant experience
12	Assistant GIS Expert	Intermittent	BSc in computer science, with expertise in GIS, spatial data analysis or related discipline.	Minimum of 3 years of relevant experience
13	Quantity Surveyors (WS, Drainage, ElctroMech, Urban Infra)	Intermittent	Diploma in Civil Engineering or Certification/Membership of any recognized national or international quantity	Minimum of 3 years of relevant experience

SR. No	Position	Nature	Qualification	Experience
			surveying body (like Chartered Institute of Building or Royal Institution of Chartered Surveyors)	
14	Field Staff/renumerators for community consultation/social data collection	Intermittent	Diploma in MS Excel and Stata	Minimum of 3 years of relevant experience
15	CAD operators	Intermittent	Diploma in Architecture/AutoCad	Minimum of 3 years of relevant experience
16	Surveyors	Intermittent	Diploma in Civil Engineering or similar field	Minimum of 3 years of relevant experience

Note:

- The Environmental Expert/Engineer will be responsible for developing the IEE (Initial Environmental Examination) and EMP (Environmental Management Plan) Reports in accordance with ADB requirements and EIA (Environmental Impact Assessment) Reports where applicable, as per government requirements, for all investments under Output B (i.e. Detailed Design).
- The Social Safeguards and Gender Development Expert will be responsible for developing SDDR Reports (Safeguards Due Diligence Report) and LARPs (Land Acquisition and Resettlement Plans) where applicable, in accordance with ADB and government requirements, for all investments under Output B (i.e. Detailed Design).
- Given the uncertainty regarding global mobility caused by the Covid-19 pandemic situation, international inputs have been kept provisional and are only required for review and quality check of deliverables developed by the consultant.
- All experts engaged under the contract, whether key or non-key expert, must be citizens of ADB member countries.

G. DELIVERABLE SCHEDULE:

36. The consulting team is expected to submit the required reports to PMU-LGERD and ADB as scheduled in Table 5:

Table 5: Deliverable Schedule for the Consultancy Package

Deliverable	Timeline
PLANNING AND DETAILED DESIGN PHASE (Outputs 1, 2 and 3)	
1. Project Initiation Report for entire Planning and Design Phase i.e. Outputs A and B	Within 1 month after mobilization

OUTPUT A - PLANNING

1. OUTPUT 1: PLANNING ACTIVITIES FOR \$400 M INVESTMENTS IN 5 CITIES AND TWO REGIONS	
1. Inception Report	Within 1.5 months after mobilization
2. Land Use Focused City Comprehensive Plans for Banu and D.I.Khan	Within 6 months after mobilization
3. Water supply and Sanitation Master Plan of Banu and D.I. Khan	Within 8 months after mobilization
4. Solid Waste Management (SWM) Master Plan of Banu and D.I.Khan	Within 8 months after mobilization
5. Output 1(b)- Regional Master plans at cluster level for Hazara and Swat Region (Pilots)	Within 12 months after mobilization
6. Output 1(d)- Operations and Business Modelling for Banu and D.I. Khan (Cities)	Within 18 months after mobilization
(a) Operations Design	
(b) Business Modelling	
(c.) Financial Solution	
2. OUTPUT 2: DESIGN PHASE OF \$250M INVESTMENTS (5 CITIES AND TWO REGIONS):	
1. Inception Report	Within 20 month after mobilization
2. Feasibility (5 cities and two regions)	Within 24 months after mobilization
3. Engineering Design (5 cities and two regions)	Within 30 months after mobilization
4. Procurement Support	Within 36 months after mobilization
3. OUTPUT 3: INSTITUTIONAL REFORMS AND CAPACITY BUILDING (5 CITIES AND TWO REGIONS)	
1. Inception Report	Within 20 month after mobilization
2. Institutional Development (DI Khan and Banu)	Within 36 month after mobilization
3. Institutional Restructuring (Swat and Hazara Region)	Within 36 month after mobilization
a. Institutional Review& Development	
b. Financial Sustainability	
c. Capacity Development	

H. OUTPUTS AND PAYMENT MILESTONES

37. Payments will be made to the Consultant in the manner explained in Table 6.

Table 6: Payment Schedule for the Consultancy

Deliverable	Payment %
PLANNING, DETAILED DESIGN & CAPACITY BUILDING (Outputs 1, 2 AND 3)	
1. Project Initiation Report for all Outputs	3 %
OUTPUT 1	
2. Output 1(a). Planning for two cities (Banu and D.I.Khan)	15 %
3. Output 1(b)- Regional Master plans at cluster level for Hazara and Swat Region (Pilots)	15 %
4. Output 1(d)- Operations and Business Modelling for Banu and D.I. Khan (Cities):	15 %
OUTPUT 2	
5. Output 2(a): Feasibility (5 cities and two regions)	10%
6. Output 2(b): Engineering Design (5 cities and two regions)	20 %
7. Output 2c: Procurement Support	2%
OUTPUT 3	
8. Output 3(a): Institutional Development (DI Khan and Banu)	20 %
9. Output 3(b): Institutional Restructuring (Swat and Hazara Region)	

38. All reports will be submitted to PMU and ADB and will be circulated to the LGERD for comments before finalization. For each milestone, 70% of the payment will be made based on the submission of the reports while the remaining 30% will be paid upon approval by PMU. In case of GIS dashboards/applications, a presentation/demonstration of the (up and running) system will be given to ADB, PMU and LGECDD. 70% of the payment will be made based on the transfer of the product to PMU. Remaining 30% will be paid after two training sessions have been given to PMU staff on use of tool and after PMU's approval (post 1 week's smooth usage of the tool by its staff).

I. FACILITIES TO BE PROVIDED BY THE CLIENT

39. The Client will provide the Consultant with access to key relevant reports, studies and other documents, required to carry out project implementation, including but not limited to the Loan Agreement, the Project Agreements, the RRP, the Operational Manual, the Environmental Management Plan and related studies, the Pre-feasibility and Feasibility Studies for the project.

J. FACILITIES TO BE ARRANGED BY THE CONSULTANT

40. The Consultant under out of pocket expenses (OPE) shall arrange for: all office space, office hardware, such as vehicles, office furniture, communications equipment, photocopying equipment, fax machines, computers and printers, including software needs. **All documents, equipment, vehicles, facilities related to the assignment are and will remain the Client's property after completion of assignment.** Other out-of-pocket expenses that the Consultant will be responsible for include: (i) all other necessary facilities and logistic support for its international staff; (ii) international and national travel, and miscellaneous transportation; (iii) day-to-day office communications, utilities and other miscellaneous costs which may be required for

carrying out the services as per the requirement of the Contract; and (iv) printing, publishing and transmittal of all reports and deliverables.

K. OFFICE/ TECHNICAL SUPPORT STAFF AND LOGISTICAL ARRANGEMENTS

41. The Consultant shall provide the entire administrative, technical professionals, and support staff needed to carry out their services. An adequate number of suitably skilled office support staff will be required to meet the needs of the 3 offices in Bannu, D.I.Khan and Peshawar cities, and all associated logistics of the consulting assignment. Suggested positions, qualifications, and number of staff are shown in Table XX. However, the positions and actual numbers are at the discretion of the consultant and will cost them accordingly as out-of-pocket, fixed-rate expenses in their financial proposal.

Table 7: Indicative Office/ Technical Support Staff

Position	Indicative No.
Office Manager	4
Accountant & Bookkeeper	4
Assistant Office Secretary/Operators	4
Office Caretaker / Messenger / Guard/Drivers etc	4

42. The Consultant is fully responsible for the safety and security of the consultant team under this contract.

L. PROCUREMENT OF ADDITIONAL STUDIES, EQUIPMENT AND TRAINING

43. Goods and works for ADB-financed contracts will be procured in accordance with ADB's Procurement Guidelines (as amended from time to time). Provisional sums have been included in the consultancy agreement for procurement of various requirements that will support the project. The Consultant will be responsible for preparing the exact implementation arrangements, TORs, specifications, and detailed cost estimates of the procurement which will be approved by the Director General of PMU before initiating procurement. Supporting surveys and specific studies, such as social-economic will be financed under the contract.

M. TERMS OF THE ASSIGNMENT

44. Experts will be based in Bannu, DIKhan, Peshawar cities of Pakistan for the duration of the intermittent assignment for a period of three (3) years. The terms will be revised based on consultations between the parties involved in the assignment per changes and or additional requirements identified during implementation.

TERMS OF REFERENCE

Detailed Design and Procurement Support:

Khyber Pakhtunkhwa Sustainable Urban Mobility Project (Project 2)

**Planning & Development Department
Government of Khyber Pakhtunkhwa**

November 2021

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ABBREVIATIONS

ADB	Asian Development Bank
BER	bid evaluation report
BoQ	bill of quantity
BRT	bus rapid transit
CV	curriculum vitae
EA	executing agency
EIA	environmental impact assessment
EMP	environmental management plan
FAQ	frequently asked questions
FTP	full technical proposal
GAP	gender action plan
GoP	Government of Pakistan
GRM	grievance redress mechanism
IA	implementing agency
IEE	initial environmental examination
ITS	intelligent transportation system
KPCIP	Khyber Pakhtunkhwa Cities Improvement Projects
KPK	North Western Province of Khyber Pakhtunkhwa
KPUMA	Khyber Pakhtunkhwa Urban Mobility Authority
LARP	land acquisition and resettlement plan
MIS	management information system
NMT	non-motorized transport
PPP	public-private partnership
PRF	project readiness financing
REA	rapid environmental assessment
SDDR	social due diligence report
SEMP	strategic environmental management plan
SPS	Safeguards Policy Statement
TMTD	Transport and Mass Transit Department
TOR	terms of reference

TERMS OF REFERENCE

Detailed Design and Procurement Support: Khyber Pakhtunkhwa's Sustainable Urban Mobility Project 2

I. INTRODUCTION

A. Project Background

1. The cities in Pakistan's Khyber Pakhtunkhwa Province (KPK) generate about 70% of the province's wealth and are home to about 20% of the province's population. The province's cities are developing fast, and the urban population has grown by 74% since 1998 at an average annual growth rate of 3%.¹ This has caused the urban environment to expand rapidly in an uncoordinated, unplanned, and unregulated manner. Basic urban services such as urban transport, water supply, wastewater collection and treatment, solid waste management, and storm water drainage are increasingly unable to respond to the population pressures and economic growth. This has increased the demand to develop the provincial economy in a sustainable manner and to make the cities more livable, with better living standards and improved public health.

2. The proposed Khyber Pakhtunkhwa Cities Improvement Projects (KPCIP) – Second Project Readiness Financing (PRF 2) will support the ongoing efforts by the Government of Pakistan (government) to improve the quality of life of the residents of KP cities. The proposed PRF is the continuation of ADB's long term engagement and programmatic approach in KP. The Peshawar Sustainable BRT Corridor Project was approved in 2017, commissioned in August 2020, and initiated the transformation of KP cities through sustainable urban mobility initiatives.² The KPCIP PRF was approved in 2019 and supports quality and project readiness for the ensuing KPCIP Project planned for board approval in 2021.³

3. Building on these projects, the government has proposed to process KPCIP PRF 2 to continue to support a more systematic approach to planning, higher quality of project readiness for urban projects, and increased focus on sustainable project operations. KPCIP PRF 2 will directly benefit about 4 million of urban population. The PRF 2 is anticipated to include the cities of: (i) Abbottabad, Kohat, Mardan, Mingora, and Peshawar which are already in the scope of the ongoing KPCIP PRF; and (ii) Bannu and Dera Ismail Khan (DIK), and some additional secondary cities (in Malakand and Hazara Divisions) that are part of existing city clusters of Abbottabad and Mingora.

4. Peshawar and Mardan are the largest two cities and contribute most to the province's economic growth through their industrial base and extensive trade and services sector. Abbottabad and Mingora are tourist hubs and feeder cities to the most popular tourist destinations

¹ Pakistan Bureau of Statistics. 2017. *Summary Results of 6th Population and Housing Census*. Islamabad

² ADB. [Pakistan: Peshawar Sustainable Bus Rapid Transit Corridor Project](#); and ADB. [Pakistan: Peshawar Sustainable Bus Rapid Transit Project \(Project Design Advance\)](#). The project adopts the latest BRT standards and includes a series of innovations such as a fleet of plug-in hybrid electric buses, operation plan (direct services), universal accessibility, façade-to-façade (urban integration), gender mainstreaming, bike lanes and sharing system, institutional reforms, bus industry transition plan, transit-oriented development and private sector participation. The project is cofinanced by the French Development Agency (AFD).

³ ADB. [Pakistan: Khyber Pakhtunkhwa Cities Improvement Projects – Project Readiness Financing](#); and ADB: [Pakistan: Khyber Pakhtunkhwa Cities Improvement Project](#). The project consists of water supply and sanitation, and solid waste management subprojects in five cities (Abbottabad, Kohat, Mardan, Mingora, and Peshawar). The project is cofinanced by the Asian Infrastructure Investment Bank (AIIB).

of the country. Besides being educational centers, both these cities are located on the two main norther entries of the China–Pakistan Economic Corridor (CPEC).⁴ Kohat, Bannu, and DIK are major nodes on the N-55 Indus Highway connecting Peshawar to Karachi, new CPEC corridor currently under construction is also being connected to all of these three cities, where the N-80 highway is already connecting Kohat to Islamabad. To exploit their tourism potential, Hazara (including Abbottabad) and the Malakand (including Mingora) divisions are currently undergoing major transition developing new destination as part of the KP tourism development strategy. The ensuing projects will help selected cities further improve their development plans and access to quality urban services.

5. This KP Sustainable Urban Mobility Project 2 is anticipated to finance urban mobility projects in Abbottabad, Mingora, and Peshawar. The project is listed in the draft COBP 2022–2024 for Pakistan.

⁴ ADB recognizes this member as the People's Republic of China.

II. PROJECT OUTPUTS

6. The KP Sustainable Urban Mobility Project 2 is anticipated to finance urban transport projects in Abbottabad, Mingora, and Peshawar. The selection of subprojects will be informed by the sustainable urban mobility plans (funded by Mobilize Your City⁵) and feasibility studies (funded by a Technical Assistance grant⁶) that will be developed for each city in 2021–2022. The Consultant will be provided with the mobility plans and feasibility studies prior to the commencement of the assignment. The subprojects are anticipated to pertain to the following four areas, which will be the principal outputs for the KP Sustainable Urban Mobility Project 2:

7. **Output 1: Public transport planning.** The Consultant will deliver detailed design, due diligence studies, and procurement support for investments in public transport systems. These investments may cover bus rapid transit (BRT) system extensions in Peshawar, conventional bus services in Mingora, and aerial tramway technology in Abbottabad.

8. **Output 2: Non-motorized transport facilities.** The Consultant will deliver detailed design, due diligence studies, and procurement support for investments in non-motorized transport (NMT) facilities. These investments are to cover pedestrian facility upgrades, public space enhancements, and bicycle facilities.

9. **Output 3: Traffic management.** The Consultant will deliver detailed design, due diligence studies, and procurement support for investments in traffic management systems. These investments are to cover improvements in signalization, junction design, pedestrian crossings, road markings, and road signage. These investments may also include upgrades and additions to the road network in the urban area, including the provision of missing roadway links that will help decongest city centers.

10. **Output 4: Parking management.** The Consultant will deliver detailed design, due diligence studies, and procurement support for investments in parking management systems. These investments are to cover on-street parking systems (including electronic metering and payment systems) and off-street parking levy policies.

⁵ The AFD provided in 2020 a grant of €1.2 million as part of the Mobilize Your City (MYC) partnership to the cities of Abbottabad, Mingora, and Peshawar. The grant supports the preparation of sustainable urban mobility plans (SUMP) and capacity development in the 3 cities.

⁶ ADB, F-TRTA. TA 9839-PAK: Preparing Urban Development Projects.

III. IMPLEMENTATION ARRANGEMENTS

11. The Transport and Mass-Transit Department (TMTD) of GoKP and the Khyber Pakhtunkhwa Urban Mobility Authority (KPUMA) are anticipated to act as the implementing agencies (IA) for the PRF. The Planning & Development Department, GoKP will be the executing agency (EA) for the project.

IV. SCOPE OF WORK, TASKS, AND DELIVERABLES

A. Objectives of assignment

12. The overall primary objective of this project is to provide due diligence, planning, preliminary and detailed engineering design, procurement activities, and implementation support for a selection of sustainable transport projects, contained within the sustainable urban development plans for Abbottabad, Mingora, and Peshawar.

B. Tasks

1. Output 1: Public transport systems

13. In Peshawar, a Feasibility Study has selected a new trunk BRT corridor and provided initial designs. Like the other BRT corridors in Peshawar, this corridor will be designed as a “third-generation” BRT, with direct services which travel both on and off of the corridor.

14. In Mingora, a Feasibility Study has identified a number of locations where buses face significant delays and has recommended initial designs for prioritizing the buses over other traffic, to reduce the delays. Some of these designs are physical; others are retiming or introduction of traffic signals.

15. In Abbottabad, a Feasibility Study has selected a corridor for a new aerial tramway and provided initial designs.

a. Project Management

16. The Consultant will carry out all project management activities in accordance with Annex A.

b. Engineering Surveys

17. The Consultant will carry out all engineering surveys in accordance with Annex B.

c. Preliminary Design

18. The Consultant will produce drawings with the following scales:

- a. 1:500 - General horizontal alignment and overall layout;
- b. 1:200 - Vertical alignments (typical cross-sections);
- c. 1:200 - Horizontal and vertical alignments for zooms on stations sites, restructured junctions, and elevated or underground sections;
- d. 1:50 - Detailed engineering solutions and relevant details for sidewalks, stairways, pedestrian crossings, station arrangements and proposed structures, if any; and
- e. 3D Renderings of each infrastructure component “before and after”.

19. The specific sub-components include, but are not limited to, the following:

- (i) **Peshawar Trunk and Direct Services BRT infrastructure:** The Consultant will develop station and roadway designs for a new BRT corridor in Peshawar. These designs should be consistent with the existing Phase 1 and 2a designs and improved as required and possible. Where the BRT is at-grade, the Consultant will design the full street, building wall-to-building wall, including NMT, parking,

structured vending, mixed traffic, BRT lanes, and stations. Where the BRT is grade-separated, the Consultant will design both the busway (elevated or underground) and the surface road (underneath or above). Roadway designs for the surface road must include upgraded footpaths, structured parking, dedicated cycle tracks, and any structured vending locations.

Additionally, the Peshawar BRT system is designed as a Third-Generation BRT system. That means that many of the routes operate both on the trunk BRT corridors, and off the corridors in mixed traffic. While full BRT infrastructure will not be built on these roads, curbside bus shelters, similar to those operating on Phase 1 direct service roads, will be built roughly every 450 meters. Specific direct services, and the roads on which they will operate, will be identified in the Feasibility Study. Additionally, bicycle and pedestrian infrastructure will be upgraded along these roads, and parking locations will be provided, where appropriate. Any site-specific bottlenecks, such as poorly timed or congested intersections, will be addressed with localized measures. Finally, the pavement may be upgraded, depending on the current state of the pavement. The Consultant will prepare the preliminary designs for the direct services roads, curbside bus shelters, NMT, and infrastructure at specific sites, including intersections, to address bottlenecks.

For all trunk and direct services roads, the Consultant will design roadway signage and pavement markings. Specifically, there will be markings at bus stop areas to assist in guiding the buses to a consistent and close docking position with the bus stop platforms, as well signage and pavement markings for pedestrian and cycle facilities. The Consultant will also design a bus turnaround at the end of each bus route. The Consultant will also design intersections to include bus priority measures and tabletop crossings for pedestrians, a traffic signal system. They will provide specifications for new traffic signals, as well as signal timings. They will conduct a pavement analysis wherever the BRT and its direct services will operate at-grade, and will recommend upgraded pavement, where needed. The Consultant will also develop a signage plan for informational signage inside stops and stations, and for wayfinding around the corridor.

The designs should include complete streets elements, such as street lighting, bicycle parking, street furniture such as benches, children's play equipment, pocket parks, etc., and a landscaping plan. An initial design will be provided in the Feasibility Study.

The Consultant will also develop preliminary specifications for a new fleet of buses. The number and type of buses will be provided in the Feasibility Study. Finally, the Consultant will design a new bus depot to house the buses which will operate on this corridor. The depot location and approximate sizing will be provided in the Feasibility Study. The Consultant will develop a circulation plan for buses, staff vehicles, and people; evaluate pavement options for the facility; carry out preliminary design of the depot based on depot design best practices; and specify needed equipment.

- (ii) **Bus priority treatments in Mingora:** In Mingora, where a conventional bus system operates, there are many bottlenecks which inhibit buses. The Consultant will design infrastructure to address these bottlenecks. For example, poorly timed

intersections might be addressed by adjusting signal timing; congested intersections might be addressed by providing a queue jump for buses; poor pavement may be upgraded. The Feasibility Study has identified these locations and proposed treatments. The Consultant will provide preliminary design for these bus priority treatments.

- (iii) **Aerial tramway system in Abbottabad:** In Abbottabad, the Consultant will prepare the detailed design and equipment specifications for an aerial tramway system. The Feasibility Study on the aerial tramway will be provided to the consultant prior to the commencement of the assignment. The civil works design will encompass: i) pillar support structures for the tramway; ii) stations; iii) electrical substation construction; and, iv) accompanying road works. The equipment specification will encompass: i) gondolas; ii) motor and power supply equipment; and, iii) cable device. The road works will include a complete façade-to-façade redevelopment of the corridor, including mixed traffic lanes, public space, and pedestrian facilities. The Consultant will also design the dedicated areas for integration with bus services, along with the design of the accompanying bus shelters.

d. Preliminary project bill of quantity and engineer's cost estimate

20. As the preliminary design work proceeds, the Consultant will determine the required quantity of each project cost component. The Consultant will also prepare a preliminary budget and cost estimate of all project costs related to each project component. These costs shall also include all costs related to safeguard issues. The costs shall also be broken out by individual procurement under this TOR, and also totaled. Among the key cost components to be itemized (as applicable) are:

- Roadway civil works
- Flyover and bridges
- Tramway infrastructure
- Non-motorized civil works (pedestrian and cycling facilities)
- Utility relocation and provision
- Signage and road markings
- Street lighting
- Landscaping.

e. Final detailed engineering design

21. For each of the project's physical components, the Consultant will prepare the detailed engineering design that will form the basis for the subsequent construction specifications under the construction tender document. The detailed engineering design will encompass detailed component descriptions, detailed drawings, and the associated detailed technical specifications. The detailed engineering design will incorporate the agreed upon comments and modifications provided from the presentation of the preliminary detailed engineering design.

f. Final bill of quantity and engineer's cost estimate

22. After the approval of all preliminary designs, including the incorporation of all accepted review comments and considerations, the Consultant will prepare and then finalize the BoQ for all design components.

23. The Consultant will prepare the final detailed engineer's cost estimate for each of the components to be tendered. Both a price contingency and physical contingency shall be calculated for the project, based on the contingency calculation procedures of the Government of Pakistan.

g. Due Diligence

24. The Consultant will carry out all due diligence activities in accordance with Annex C.

h. Procurement Support

25. The Consultant will provide procurement support in accordance with Annex D.

i. Deliverables

26. The Consultant shall produce the following deliverables for Output 2:

- (i) Project management plan
 - a. Project Management Information System (MIS)
 - b. Master project schedule
 - c. Precedents chart
 - d. Master budget
 - e. Risk registry
 - f. Quality assurance plan
 - g. Project governance plan.
- (ii) Communications and stakeholder engagement plan
 - a. Project stakeholder directory
 - b. Stakeholder engagement plan
 - c. Public participation workshop schedule
 - d. Program and information package for public participation workshops.
- (iii) Preliminary design report
 - a. Engineering Survey Report including all memoranda prepared for each survey, as well as accompanying maps
 - b. Preliminary design specifications, drawings, and renderings
 - c. Preliminary BOQ and cost estimates.
- (iv) Final design report
 - a. Final design specifications, drawings, and renderings
 - b. Final BOQ and cost estimates
 - c. Simulation video.
- (v) Environmental safeguards reports
 - a. Rapid Environmental Assessment (REA)
 - b. Environmental Impact Assessment / Initial Environmental Evaluation (EIA/IEE)
 - c. Environmental Management Plan (EMP)
 - d. Detailed Climate Risk Assessment Supplementary Document.
- (vi) Social due diligence reports (SDDR)
 - a. Land acquisition and resettlement plans (LARP)
 - b. Gender pre-assessment and methodology report
 - c. Gender Assessment Report.
- (vii) Grievance redress mechanism (GRM)
- (viii) Economic and financial assessment report

- (ix) Institutional capacity reports
 - a. Procurement capacity assessment action plan and mitigation measures
 - b. Financial management assessment action plan
- (x) Guidance manual on permits, clearances, and licenses
- (xi) PC-1 document
- (xii) Procurement support documents
 - a. Procurement plan
 - b. Specifications, tender documents, and contracts for construction services
 - c. Maintenance specifications and protocols
 - d. Bid evaluation report (BER).

2. Output 2: Non-Motorised Transport (NMT) facilities

a. Project Management

27. The Consultant will carry out all project management activities in accordance with Annex A.

b. Engineering Surveys

28. The Consultant will carry out all engineering surveys in accordance with Annex B.

c. Preliminary Design

29. The Consultant will produce drawings with the following scales:
- a. 1:500 - General horizontal alignment and overall layout;
 - c. 1:200 - Vertical alignments (typical cross-sections);
 - d. 1:200 - Horizontal and vertical alignments for zooms on stations sites, restructured junctions, and elevated or underground sections;
 - e. 1:50 - Detailed engineering solutions and relevant details for sidewalks, stairways, pedestrian crossings, station arrangements and proposed structures, if any; and
 - f. 3D Renderings of each infrastructure component “before and after”.
30. The Consultant should design the following specific sub-components for all three cities. They include, but are not limited to, the following:
- (i) **Pedestrian facility upgrades:** This sub-component will include upgraded, continuous, widened sidewalks, free of obstructions or abrupt grade changes. It will also include new pedestrian crossings at intersections and mid-block, where needed. Crossings should be tabletop (i.e., raised) where possible. Pedestrian bridges may also be included. Shade and street lighting should be provided along every new footpath.
 - (ii) **Public space enhancements:** This sub-component will include public space enhancement, such as new pocket parks and plazas. For both new and existing public spaces, the space should be easily accessible and not fenced off, should include benches, landscaping (including shade), bicycle racks, children’s play equipment, where possible, and should be free of cars.
 - (iii) **Cycling facilities:** This sub-component will include the provision of new bicycle lanes, fully protected from traffic, where possible. It may also include off-street cycle tracks and safe crossings for cyclists through intersections. Where space is particularly constrained, the Consultant will include bicycle markings on the street to denote bicycle priority. Bicycle racks should be provided at every major public

transport stop and at major destinations. The Consultant will develop specifications for the bike racks. Shade and street lighting should be provided along every new bicycle path.

d. Preliminary project bill of quantity and engineer's cost estimate

31. As the preliminary design work proceeds, the Consultant will determine the required quantity of each project cost component. The Consultant will also prepare a preliminary budget and cost estimate of all project costs related to each project component. These costs shall also include all costs related to safeguard issues. The costs shall also be broken out by individual procurement under this TOR, and also totaled. Among the key cost components to be itemized (as applicable) are:

- Non-motorized civil works (pedestrian and cycling facilities)
- Bicycle racks
- Street lighting
- Landscaping.

e. Final detailed engineering design

32. For each of the project's physical components, the Consultant will prepare the detailed engineering design that will form the basis for the subsequent construction specifications under the construction tender document. The detailed engineering design will encompass detailed component descriptions, detailed drawings, and the associated detailed technical specifications. The detailed engineering design will incorporate the agreed upon comments and modifications provided from the presentation of the preliminary detailed engineering design.

f. Final bill of quantity and engineer's cost estimate

33. After the approval of all preliminary designs, including the incorporation of all accepted review comments and considerations, the Consultant will prepare and then finalize the BoQ for all design components.

34. The Consultant will prepare the final detailed engineer's cost estimate for each of the components to be tendered. Both a price contingency and physical contingency shall be calculated for the project, based on the contingency calculation procedures of the Government of Pakistan.

g. Due Diligence

35. The Consultant will carry out all due diligence activities in accordance with Annex C.

h. Procurement Support

36. The Consultant will provide procurement support in accordance with Annex D.

i. Deliverables

37. The Consultant shall produce the following deliverables for Output 3:

- (i) Project management plan
 - a. Project Management Information System (MIS)

- b. Master project schedule
- c. Precedents chart
- d. Master budget
- e. Risk registry
- f. Quality assurance plan
- g. Project governance plan.
- (ii) Communications and stakeholder engagement plan
 - a. Project stakeholder directory
 - b. Stakeholder engagement plan
 - c. Public participation workshop schedule
 - d. Program and information package for public participation workshops.
- (iii) Preliminary design report
 - a. Engineering Survey Report including all memoranda prepared for each survey, as well as accompanying maps
 - b. Preliminary design specifications, drawings, and renderings
 - c. Preliminary BOQ and cost estimates.
- (iv) Final design report
 - a. Final design specifications, drawings, and renderings
 - b. Final BOQ and cost estimates.
- (v) Environmental safeguards reports
 - a. Rapid Environmental Assessment (REA)
 - b. Environmental Impact Assessment / Initial Environmental Evaluation (EIA/IEE)
 - c. Environmental Management Plan (EMP)
 - d. Detailed Climate Risk Assessment Supplementary Document.
- (vi) Social due diligence reports (SDDR)
 - a. Land acquisition and resettlement plans (LARP)
 - b. Gender pre-assessment and methodology report
 - c. Gender Assessment Report.
- (vii) Grievance redress mechanism (GRM)
- (viii) Economic and financial assessment report
- (ix) Institutional capacity reports
 - a. Procurement capacity assessment action plan and mitigation measures
 - b. Financial management assessment action plan
- (x) Guidance manual on permits, clearances, and licenses
- (xi) PC-1 document
- (xii) Procurement support documents
 - a. Procurement plan
 - b. Specifications, tender documents, and contracts for construction services
 - c. Maintenance specifications and protocols
 - d. Bid evaluation report (BER).

3. Output 3: Traffic management

38. This component will cover improvements in signalization, junction design, pedestrian crossings, road markings, and road signage. These investments may also include upgrades and additions to the road network in the urban area, including the provision of missing roadway links that will help decongest city centers.

a. Project Management

39. The Consultant will carry out all project management activities in accordance with Annex A.

b. Engineering Surveys

40. The Consultant will carry out all engineering surveys in accordance with Annex B.

c. Preliminary Design

41. The Consultant will produce drawings with the following scales:
- a. 1:500 - General horizontal alignment and overall layout;
 - b. 1:200 - Vertical alignments (typical cross-sections);
 - c. 1:200 - Horizontal and vertical alignments for zooms on stations sites, restructured junctions, and elevated or underground sections;
 - d. 1:50 - Detailed engineering solutions and relevant details for sidewalks, stairways, pedestrian crossings, station arrangements and proposed structures, if any; and
 - e. 3D Renderings of each infrastructure component “before and after”.
42. The specific sub-components include, but are not limited to, the following:
- (i) **Intersection design:** At specific intersections which face significant delays (to be determined in the Feasibility Study), the Consultant will provide improved designs which reduce delay and improve traffic flow. This might include intersection redesigns or new or improved traffic signals and phasings. Intersections which face higher rates of crashes and fatalities should be targeted for pedestrian improvements, including new crossings (ideally raised, tabletop crossings) and pedestrian signal phases,
 - (ii) **Roadway links:** The Consultant will design certain roadway links that are missing from the network and will help to decongest the city center. All new roadway links will be designed as complete streets with upgraded sidewalks of at least one meter and bicycle paths, width permitting. New links should be landscaped and well-lit and opportunities for street furniture should be sought.

d. Preliminary project bill of quantity and engineer’s cost estimate

43. As the preliminary design work proceeds, the Consultant will determine the required quantity of each project cost component. The Consultant will also prepare a preliminary budget and cost estimate of all project costs related to each project component. These costs shall also include all costs related to safeguard issues. The costs shall also be broken out by individual procurement under this TOR, and also totaled. Among the key cost components to be itemized (as applicable) are:

- Roadway civil works
- Traffic signals
- NMT civil works
- Utility relocation and provision
- Signage and road markings
- Street furniture
- Street lighting
- Landscaping.

e. Final detailed engineering design

44. For each of the project's physical components, the Consultant will prepare the detailed engineering design that will form the basis for the subsequent construction specifications under the construction tender document. The detailed engineering design will encompass detailed component descriptions, detailed drawings, and the associated detailed technical specifications. The detailed engineering design will incorporate the agreed upon comments and modifications provided from the presentation of the preliminary detailed engineering design.

f. Final bill of quantity and engineer's cost estimate

45. After the approval of all preliminary designs, including the incorporation of all accepted review comments and considerations, the Consultant will prepare and then finalize the BoQ for all design components.

46. The Consultant will prepare the final detailed engineer's cost estimate for each of the components to be tendered. Both a price contingency and physical contingency shall be calculated for the project, based on the contingency calculation procedures of the Government of Pakistan.

g. Due Diligence

47. The Consultant will carry out all due diligence activities in accordance with Annex C.

h. Procurement Support

48. The Consultant will provide procurement support in accordance with Annex D.

i. Deliverables

49. The Consultant shall produce the following deliverables for Output 4:
- (i) Project management plan
 - a. Project Management Information System (MIS)
 - b. Master project schedule
 - c. Precedents chart
 - d. Master budget
 - e. Risk registry
 - f. Quality assurance plan
 - g. Project governance plan.
 - (ii) Communications and stakeholder engagement plan
 - a. Project stakeholder directory
 - b. Stakeholder engagement plan
 - c. Public participation workshop schedule
 - d. Program and information package for public participation workshops.
 - (iii) Preliminary design report
 - a. Engineering Survey Report including all memoranda prepared for each survey, as well as accompanying maps
 - b. Preliminary design specifications, drawings, and renderings
 - c. Preliminary BOQ and cost estimates.
 - (iv) Final design report

- a. Final design specifications, drawings, and renderings
 - b. Final BOQ and cost estimates.
- (v) Environmental safeguards reports
 - a. Rapid Environmental Assessment (REA)
 - b. Environmental Impact Assessment / Initial Environmental Evaluation (EIA/IEE)
 - c. Environmental Management Plan (EMP)
 - d. Detailed Climate Risk Assessment Supplementary Document.
- (vi) Social due diligence reports (SDDR)
 - a. Land acquisition and resettlement plans (LARP)
 - b. Gender pre-assessment and methodology report
 - c. Gender Assessment Report.
- (vii) Grievance redress mechanism (GRM)
- (viii) Economic and financial assessment report
- (ix) Institutional capacity reports
 - a. Procurement capacity assessment action plan and mitigation measures
 - b. Financial management assessment action plan
- (x) Guidance manual on permits, clearances, and licenses
- (xi) PC-1 document
- (xii) Procurement support documents
 - a. Procurement plan
 - b. Specifications, tender documents, and contracts for construction services
 - c. Maintenance specifications and protocols

50. Bid evaluation report (BER).

4. Output 4: Parking management

51. Reforming on-street parking in each of the cities will help to shift people out of their cars and onto more sustainable modes like bicycle and public transport. It also has the potential to create a new revenue stream from which to fund public transport operations. On-street parking equipment and enforcement will be managed by a firm and the tender for that firm will be prepared under this component.

52. For off-street parking, a parking levy is an effective tool to both manage parking and generate revenues for the public transport system. A parking levy is a special tax similar to a general property tax, but charged specifically on non-residential off-street parking spaces, regardless of whether it is utilized or not.

53. A parking levy has a dual purpose:

- (i) To act as a transport demand management tool by either encouraging people to shift to alternative modes (as a result of the increase of the cost of commuting by car when the charge is passed on to the employee) or reducing parking supply because it is less profitable for employers/owners to maintain off-street parking.
- (ii) To fund transport improvements (revenue collected from the tax can be used as a dedicated tool), and as practiced elsewhere, a parking levy is an effective instrument for ensuring the financial sustainability of the overall sustainable urban transport system.

54. The intent in each city is to find a hypothecated source of funding for current or future public transport operations.

55. An on- and off-street parking strategy exists already for Peshawar. Therefore, the focus of this task will be on developing a parking strategy for Mingora and Abbottabad; however, the existing parking management system in Peshawar will need to be expanded to cover the new trunk BRT corridor.

a. Project Management

56. The Consultant will carry out all project management activities in accordance with Annex A.

b. Parking Strategy for Mingora and Abbottabad

57. The Consultant will develop a parking strategy for both Mingora and Abbottabad, which will consider both on- and off-street parking management, with a focus on creating new revenue streams to be earmarked for public transport operations.

58. **Illegal parking enforcement strategy:** Illegal parking is rampant in both Mingora and Abbottabad. The Consultant should create a strategy for enforcing illegal parking citywide. They should detail out the rules against illegal parking and should recommend an enforcement strategy. This might include capacity building of local traffic police, the type of equipment needed to enforce, and perhaps some locations to build off-street parking lots.

59. **On-street parking management:** The Consultant will propose an overall design for an on-street parking management system and will define the controlled-parking boundary zone. On-street parking surveys will be conducted in both cities and survey results and maps will be provided to the Consultant. The Consultant will describe the equipment and software needed and specify the monitoring and enforcement requirements. Pay-by-phone and mobile parking enforcement with hand-held devices should be considered as that is the state-of-the-art in parking management systems. The equipment component should include the devices and software required for parking enforcement, as well as variable message signage to indicate parking availability in the area, and occupancy sensors at the controlled on-street parking spaces.

60. The Consultant will determine whether it is feasible to contract out the parking management system or whether it should be done in-house. The Consultant will specify the public-private partnership (PPP) model for the financing of the parking management and enforcement component, noting the role and responsibilities of each contracted party and the institutional arrangements, the duration of the contract, and the revenue distribution mechanisms. If it is recommended to manage the parking system publicly, the Consultant should identify the best institutional structure for doing this and will also note the revenue distribution mechanisms.

61. **Off-street parking levy:** Off-street parking surveys will be conducted by a separate consultant and survey results and maps will be provided to the Consultant. The Consultant will complete a general analysis of a parking levy for off-street, non-residential parking spaces, to be housed within the downtown core. The Consultant will also detail the implementation steps for the realization of the parking levy.

c. Specifications, Tender, and Contract for On-Street Parking Management System

62. The Consultant will develop the specifications, tender documents, and contract for the parking management companies in all three cities. For Mingora and Abbottabad, this will be

based on the strategy developed above. For Peshawar, the Consultant will develop an expanded on-street parking management system to cover the new trunk BRT corridor.

63. The specifications for the smart parking management system will include all components (software and hardware) as follows:

- (i) On-street occupancy sensors for parking spaces;
- (ii) Real-time information on parking availability displayed on electronic boards across an area;
- (iii) Intelligent management system for parking linked to the bus/BRT control center, where applicable;
- (iv) Smart card payment system for parking (utilizing the same smart card as that for the bus/BRT system, where applicable).
- (v) Pay-by-phone systems and hand-held devices for mobile parking enforcement and centralized meters should be specified if it was determined in the business plan to include these systems.

64. The specifications will detail the protocols and performance standards for this equipment and will include renderings. Documentation will include provisions for the equipment warranty, spare parts, required tools, manuals and instructions, and system testing and commissioning.

65. The Consultant will also undertake an analysis of the legal and regulatory policies and structures required to implement the on-street parking management system.

d. Parking Levy Tender for Off-Street Parking Management in Mingora and Abbottabad

66. The Consultant will prepare and manage a tender for the procurement of a firm in both Mingora and Abbottabad who will serve three functions:

- (i) Verify the number of commercial parking units on private premises within the parking zone shown in the figure below. A full-scale survey of off-street parking spaces will be performed under a separate contract and provided to the Consultant in order to do this work.
- (ii) Billing and collection: Manage the billing and collection of the levy and its deposit into an earmarked account hypothecated for the use by public transport operators.
- (iii) Provide clear and transparent record keeping of all transactions and audit these transactions on an annual basis.

67. The Consultant will also undertake an analysis of the legal and regulatory policies and structures required to implement the parking levy system.

e. Due Diligence

68. The Consultant will carry out all due diligence activities in accordance with Annex C.

f. Procurement Support

69. The Consultant will provide procurement support in accordance with Annex D.

g. Deliverables

70. The Consultant shall produce the following deliverables for Output 8:

- (i) Project management plan
 - a. Project Management Information System (MIS)
 - b. Master project schedule
 - c. Precedents chart
 - d. Master budget
 - e. Risk registry
 - f. Quality assurance plan
 - g. Project governance plan.
- (ii) Communications and stakeholder engagement plan
 - a. Project stakeholder directory
 - b. Stakeholder engagement plan
 - c. Public participation workshop schedule
 - d. Program and information package for public participation workshops.
- (iii) Preliminary design report
 - a. Engineering Survey Report including all memoranda prepared for each survey, as well as accompanying maps
 - b. Preliminary design specifications, drawings, and renderings
 - c. Preliminary BOQ and cost estimates.
- (iv) Final design report
 - a. Final design specifications, drawings, and renderings
 - b. Final BOQ and cost estimates.
- (v) Environmental safeguards reports
 - a. Rapid Environmental Assessment (REA)
 - b. Environmental Impact Assessment / Initial Environmental Evaluation (EIA/IEE)
 - c. Environmental Management Plan (EMP)
 - e. Detailed Climate Risk Assessment Supplementary Document.
- (vi) Social due diligence reports (SDDR)
 - a. Land acquisition and resettlement plans (LARP)
 - b. Gender pre-assessment and methodology report
 - c. Gender Assessment Report.
- (vii) Grievance redress mechanism (GRM)
- (viii) Economic and financial assessment report
- (ix) Institutional capacity reports
 - a. Procurement capacity assessment action plan and mitigation measures
 - b. Financial management assessment action plan
- (x) Guidance manual on permits, clearances, and licenses
- (xi) PC-1 document

- (xii) Procurement support documents
 - a. Procurement plan
 - b. Specifications, tender documents, and contracts for construction services
 - c. Maintenance specifications and protocols
 - d. Bid evaluation report (BER).

V. LOGISTICS AND TIMING

71. **Assignment's location.** The Consultant will perform this assignment with a field presence in each of the three cities of Peshawar, Mingora, and Abbottabad. The office rental is part of the consultant's contract and budget. The Consultant is expected to locate some of its national team members in each city. Some work of the Consultant may also be provided at the home office of the Consultant with the consent of TMTD/KPUMA and ADB. The task description and experts' profile will indicate the amount of consultant time allocated at each location. In the case travel restrictions are still in place during this study (COVID-19), international experts may work remotely, with the consent of TMTD/KPUMA and ADB. In all other cases, the Consultant must make all efforts to work in the field.

72. The duration of the Consultant services shall be 15 months, commencing approximately in June 2024.

VI. PERSONNEL REQUIREMENTS

A. Personnel

73. **Selection of Consultants.** The Consulting Services will use an international firm, preferably associated with a consortium partner for local operation. All Consultants will be selected in accordance with ADB's Guidelines on the Use of Consultants by Asian Development Bank and Its Borrowers (2017, as amended from time to time).

74. In the Full Technical Proposal (FTP), the consulting firm shall provide details of staff that are proposed to comprise the project team. Proposing firms will be responsible for determining, budgeting and assigning team members to each task to produce the required outputs as effectively and efficiently as possible, in accordance with their proposed approach and methodology. One curriculum vitae (CV) shall be submitted for each proposed team member. Only the CVs of required and mandatory key positions will be scored as part of the personnel evaluation of FTPs. The CVs of non-mandatory team members will not be scored individually.

75. In the FTP, the consulting firm shall also produce a Personnel Work Plan and Schedule which indicates the total time allocation of each team member (in terms of person-months), the projected timing of each team member's contribution (by month), and the location (home office or field work) of the activity. The overall team composition, person-month allocation and work program will be reviewed by ADB's evaluation team and will be scored under "Approach and Methodology", while only CVs for required and mandatory key experts will be evaluated and scored under "Personnel".

76. **Staffing. Table 1** below lists all staff required for this project. As a mandatory requirement, the consulting team shall include the fourteen experts listed under "Key Experts" in Table 1 below, for which CVs will be evaluated. Minimum person-month allocations for all experts are also provided in Table 1.

Table 1: Staffing Summary

International Consultants	Minimum Person-Months	National Consultants	Minimum Person-Months
Key Staff			
Team Leader / Senior Project Manager	10	Deputy Team Leader / Project Management Specialist	12
Senior BRT Design Engineer	7	Urban Transport Specialist	6
Senior Architect	5	Procurement Specialist	8
		Architect 1	6
		BRT Design Engineer	8
		NMT Specialist 1	6
Sub-Total	22	Sub-Total	46
Non-Key Staff			
Senior Parking Specialist	6	Project Coordinator - Peshawar	10
Senior Procurement Specialist	4	Project Coordinator - Mingora	10
Senior ITS Specialist	3	Project Coordinator - Abbottabad	10
Probity Auditor	1	Architect 2	6.00
Senior Complete Streets Specialist	6	Public Transport Specialist	8.00
Senior Drainage Design Engineer	5	NMT Specialist 2	6
Senior Electric and Telecommunications Utility Specialist	3	Communications Specialist 1	12
Senior Road Design Engineer	5	Communications Specialist 2	12
Senior Structural Engineer	5	Public Participation Specialist 1	4
Senior NMT Design Specialist	7	Public Participation Specialist 2	4
Senior Aerial Tramway Specialist	6	Bus Industry Specialist 1	4
		Bus Industry Specialist 2	4
		Engineering Survey Manager 1	5
		Engineering Survey Manager 2	5
		Traffic Engineer 1	6
		Traffic Engineer 2	6
		Parking Management Specialist	8
		Legal and Regulatory Specialist	6
		Urban Designer 1	5
		Urban Designer 2	5
		Landscape Architect	5
		Environmental Specialist	5
		Resettlement Specialist	5
		Gender Specialist	5
		Road Design Engineer 1	6
		Road Design Engineer 2	6
		Drainage Design Engineer	5
		Geotechnical/Foundation Engineer 1	5
		Geotechnical/Foundation Engineer 2	5
		Cadastral Analyst 1	3
		Cadastral Analyst 2	3
		Structural Design Engineer 1	5
		Structural Design Engineer 2	5
		Electrical Design Engineer	5
		Road Signage Specialist	2
		CAD Specialist 1	6
		CAD Specialist 2	6
		Quantity Surveyor 1	4
		Quantity Surveyor 2	4
		Video Production Specialist	4
		Website Developer	4
Sub-Total	51	Sub-Total	234
Total	73	Total	280

77. The required qualifications and experience of the key international experts and the key tasks they are to undertake are shown in Table 2.

Table 2: International key experts

	Position	Person-months	Experience requirements
1	Team Leader, Senior Project Manager	10.0	<p>The Team Leader/Senior Project Manager will possess at least bachelor's degree in civil engineering, transport engineering, transport / urban planning, project management, or a related field, and preferably the expert will also possess a post-graduate degree. The expert will possess a minimum 12 years of relevant experience in implementing sustainable urban transport projects, including a minimum 10 years in developing and implementing quality public transport systems, including specific experience with BRT. The expert will also have at least 10 years of experience in a position managing large sustainable urban transport projects as the Team Leader. The expert may be based in Peshawar but also spend time in Mingora and Abbottabad.</p> <p>Among the key responsibilities of the Team Leader / Senior Project Manager are:</p> <ul style="list-style-type: none"> ▪ Project reporting ▪ Project team management ▪ Stakeholder engagement and presentations ▪ Technical inputs to each planning component.
2	Senior BRT Design Engineer	7.0	<p>The Senior BRT Designer will possess a university degree in transport / urban planning, engineering, or a related field. The expert will possess at least 10 years of relevant experience in designing BRT systems.</p> <p>Among the key responsibilities of the BRT Designer are:</p> <ul style="list-style-type: none"> ▪ Input into engineering surveys ▪ Preliminary and detailed design of the Peshawar trunk BRT corridor, bus depot, and direct services roads ▪ Input into Mingora bus priority treatments ▪ Input into station design
3	Senior Architect	5.0	<p>The Senior Architect will possess a university degree in architecture, design, or a related field. The expert will possess at least 10 years of relevant experience in designing quality urban public transport systems, including experience with BRT.</p> <p>Among the key responsibilities of the Architect are:</p> <ul style="list-style-type: none"> ▪ Station/shelter component development

	Position	Person-months	Experience requirements
			<ul style="list-style-type: none"> Station/shelter architectural design Inputs to renderings

78. The required qualifications and experience of the key national experts and the key tasks they are to undertake are shown in **Table 3**.

Table 3: National Key Experts

	Position	Person-Months	Experience requirements
4	Deputy Team Leader / Project Management Specialist	12.0	<p>The Deputy Team Leader / Project Management Specialist will possess a university degree in project management, business, engineering, transport / urban planning, or a related field. The expert will possess at least 10 years of relevant experience in developing and managing urban transport projects, preferably with BRT experience in the region.</p> <p>Among the key responsibilities of the Deputy Team Leader are:</p> <ul style="list-style-type: none"> Coordination between the three cities Coordination of project reports from among the Project Coordinators Management of Project Coordinators MIS oversight Gantt and precedent chart management Risk registry management Quality control plan Procurement support
5	Urban Transport Specialist	6.0	<p>The Urban Transport Specialist will possess a university degree in transport / urban planning, engineering, or a related field. The expert will possess at least 7 years of relevant experience in developing sustainable urban transport initiatives, preferably with BRT experience in the region.</p> <p>Among the key responsibilities of the Urban Transport Specialist are:</p> <ul style="list-style-type: none"> Coordination between feasibility studies and preliminary/detailed design Assistance with the integration design of non-motorized transport components Infrastructure maintenance protocols Inputs to physical design of BRT corridor Inputs to physical design of urban tramway Inputs to Mingora bus priority treatments Inputs to intermodal terminal development

	Position	Person-Months	Experience requirements
			<ul style="list-style-type: none"> Capacity development support
6	Procurement Specialist	8.0	<p>The Procurement Specialist will possess a university degree in business, finance, accounting, law, engineering, or a related field. The expert will possess at least 5 years of relevant experience in managing procurement for development projects.</p> <p>Among the key responsibilities of the Procurement Specialist are:</p> <ul style="list-style-type: none"> Inputs into construction tender development Specification review Inputs into infrastructure maintenance contract Procurement support Grievance Redress Mechanism Inputs into bid evaluation report
7	Architect 1	5.0	<p>The Architect 1 will possess a university degree in architecture, design, or a related field. The expert will possess at least 10 years of relevant experience in designing top structure elements for urban projects.</p> <p>The Architect 1 will focus on architecture for the work in Peshawar. Among the key responsibilities of the Architect 1 are:</p> <ul style="list-style-type: none"> Analysis of station components for the Peshawar trunk BRT stations Peshawar BRT station and shelter architectural design Peshawar Bus depot design Inputs to renderings
8	BRT Design Engineer	8.0	<p>The BRT Design Engineer will possess a university degree in civil engineering (nationally recognised professional qualification). The experts will possess at least 5 years of professional experience with 2 years working in similar assignments/ positions. Among the key responsibilities of the BRT Design Engineer are:</p> <ul style="list-style-type: none"> Inputs to engineering surveys Inputs to Preliminary design for Dalazak Road BRT, Eid-Gah spur, Kohat Road BRT, and direct services roads Inputs to Detailed design for Dalazak Road BRT, Eid-Gah spur, Kohat Road BRT, and direct services roads
9	NMT Specialist 1	6.0	<p>The NMT Specialist 1 will possess a university degree in engineering, transport / urban planning, environmental management, or a related field. The expert will possess at least 3 years of relevant experience in developing urban transport projects.</p>

	Position	Person-Months	Experience requirements
			<p>The NMT Specialist 1 will focus on NMT design for the work in Peshawar. Among the key responsibilities of the Non-Motorized Transport (NMT) Specialist 1 are:</p> <ul style="list-style-type: none"> ▪ Design of NMT upgrades along the trunk BRT corridor and direct service roads ▪ Design of other NMT components ▪ Bike rack placement and specifications

79. In addition to the nine key experts noted above, the Consultant will also include additional required experts in order to deliver the project activities in a timely and quality manner. While these additional required experts will not be evaluated for purposes of the selection scoring, the contracting authority reserves the right to request the replacement of any expert should they be deemed inadequate for the described tasks. Table 4 describes the additional required international experts. Table 5 describes the additional required national experts.

Table 4: Additional required international experts

	Additional required international experts	Person - months	Experience requirements
1	Senior Parking Specialist	6.0	<p>The Senior Parking Specialist will possess a university degree in transport / urban planning, engineering, or a related field. The expert will possess at least 7 years of relevant experience in parking management, as well as ITS systems.</p> <p>Among the key responsibilities of the Senior Parking Specialist are:</p> <ul style="list-style-type: none"> ▪ Write the specifications for the on-street parking ITS equipment ▪ Inputs into the parking management firm contract and tender documents ▪ Inputs into the parking levy firm contract and tender documents
2	Senior Procurement Specialist	4.0	<p>The Senior Procurement Specialist will possess a university degree in business, finance, accounting, law, engineering, or a related field. Chartered institute of procurement and supply (CIPS) or similar procurement qualification is an asset. The expert will possess at least 7 years of relevant experience in managing procurement for transport projects and contract management, including specific experience with projects financed through international financial institutions. Among the key responsibilities of the Senior Procurement Specialist are:</p> <ul style="list-style-type: none"> ▪ Construction tender development ▪ Parking management tender development

	Additional required international experts	Person - months	Experience requirements
			<ul style="list-style-type: none"> ▪ Parking levy tender development ▪ Specification review ▪ Equipment / goods procurement ▪ Infrastructure maintenance contract ▪ Procurement support ▪ Preparation of bid evaluation report
3	Senior ITS Specialist	3.0	<p>The Senior ITS Specialist will possess a university degree in transport / urban planning, engineering, or a related field. The expert will possess at least 7 years of relevant experience in ITS systems.</p> <p>Among the key responsibilities of the Senior ITS Specialist are:</p> <ul style="list-style-type: none"> ▪ Prepare the technical specifications for the bus and BRT fare system and ITS ▪ Inputs into the specifications for the on-street parking ITS equipment
4	Probity Auditor	1.0	<p>The Probity Auditor will possess a university degree in law, accounting, business, or a related field. The expert will possess at least 7 years of relevant experience in monitoring and evaluating projects from the perspective of anti-corruption.</p> <p>Among the key responsibilities of the Probity Auditor are:</p> <ul style="list-style-type: none"> ▪ Probity plan ▪ Probity and anti-corruption audit of the procurement process
5	Senior Complete Streets Specialist	6.0	<p>The Senior Complete Streets Specialist will possess a university degree in transport / urban planning, engineering, or a related field. The expert will possess at least 7 years of relevant experience in complete streets design.</p> <p>Among the key responsibilities of the Senior Complete Streets Specialist are:</p> <ul style="list-style-type: none"> ▪ Develop specifications for street furniture along complete streets corridors and in public spaces ▪ Inputs into specifications for street lighting ▪ Inputs into the design of the cross sections for all street redesigns
6	Senior Drainage Design Engineer	5.0	<p>The Senior Drainage Design Engineer will possess a university degree in engineering, transport planning, or a related field. The expert will possess at least 7 years of relevant experience in developing roadway drainage systems, including experience with drainage systems for public transport corridors.</p>

	Additional required international experts	Person - months	Experience requirements
			<p>Among the key responsibilities of the Senior Drainage Design Engineer are:</p> <ul style="list-style-type: none"> ▪ Oversight of hydrological/drainage surveys ▪ Drainage system design ▪ Bioswale development
7	Senior Electric and Telecommunication s Utility Specialist	3.0	<p>The Senior Electric and Telecommunications Utility Specialist will possess a university degree in engineering or a related field. The expert will possess at least 7 years of relevant experience in working with electric and telecommunications utilities, including experience with managing these utilities for public transport corridors.</p> <p>Among the key responsibilities of the Senior Electric and Telecommunications Utility Specialist are:</p> <ul style="list-style-type: none"> ▪ Oversight of electric and telecommunications surveys ▪ Electric and telecommunications utility design
8	Senior Road Design Engineer	5.0	<p>The Senior Road Design Engineer will possess a university degree in civil engineering or a related field. The expert will possess at least 10 years of relevant experience in designing quality urban public transport systems, including experience with BRT.</p> <p>Among the key responsibilities of the Senior Road Design Engineer are:</p> <ul style="list-style-type: none"> ▪ Inputs into preliminary and detailed road design on the trunk BRT corridor and on the direct services roads ▪ Bus turnaround design ▪ Design of NMT upgrades ▪ Road design at the new bus depot ▪ Intersection designs ▪ Designs of roadways to complete the roadway network ▪ Design of priority treatments for bus routes in Mingora ▪ Pavement analysis and design ▪ Inputs into engineering surveys
9	Senior Structural Engineer	5.0	<p>The Senior Structural Engineer will possess a university degree in civil engineering, architecture, or a related field. The expert will possess at least 7 years of relevant experience with the design of public transport structures, including specific experience with BRT.</p> <p>Among the key responsibilities of the Senior Structural Engineer are:</p> <ul style="list-style-type: none"> ▪ Station and shelter structural design

	Additional required international experts	Person - months	Experience requirements
			<ul style="list-style-type: none"> ▪ Bus depot structural design ▪ Structural design of the elevated BRT structure, if applicable ▪ Structural design of the aerial tramway pillars and stations
9	Senior NMT Design Specialist	7.0	<p>The Senior NMT Design Specialist will possess a university degree in transport / urban planning, engineering, environmental management, or a related field. The expert will possess at least 7 years of relevant experience in designing pedestrian and bicycle infrastructure.</p> <p>Among the key responsibilities of the Senior NMT Design Specialist are:</p> <ul style="list-style-type: none"> ▪ Pedestrian facility design along the trunk BRT corridor and direct services roads ▪ Pedestrian crossings and access at stations, intersections, and mid-block ▪ Sidewalk upgrades ▪ Bicycle parking design ▪ Bicycle infrastructure design
10	Senior Aerial Tramway Specialist	6.0	<p>The Senior Aerial Tramway Specialist will possess a university degree in transport / urban planning, engineering, or a related field. The expert will possess at least 10 years of relevant experience in designing aerial tramway systems.</p> <p>Among the key responsibilities of the Senior Aerial Tramway Specialist are:</p> <ul style="list-style-type: none"> ▪ Input into engineering surveys ▪ Preliminary and detailed design of the Aerial Tramway ▪ Input into tramway station design.

Table 5: Additional required national experts

	Additional required national experts	Person-months	Experience requirements
11	Project Coordinator – Peshawar	10.0	<p>The Project Coordinator – Peshawar will possess a university degree in project management, business, engineering, transport / urban planning, or a related field. The expert will possess at least 7 years of relevant experience in developing and managing urban transport projects, preferably with BRT experience in the region.</p>

	Additional required national experts	Person-months	Experience requirements
			<p>Among the key responsibilities of the Project Coordinator – Peshawar are:</p> <ul style="list-style-type: none"> ▪ Detailed project reporting ▪ Team management ▪ Contact directory and stakeholder engagement ▪ Inputs into Gantt and precedent chart ▪ Procurement support
12	Project Coordinator – Mingora	10.0	<p>The Project Coordinator – Mingora will possess a university degree in project management, business, engineering, transport / urban planning, or a related field. The expert will possess at least 7 years of relevant experience in developing and managing urban transport projects, preferably with bus-based public transport experience in the region.</p> <p>Among the key responsibilities of the Project Coordinator – Mingora are:</p> <ul style="list-style-type: none"> ▪ Detailed project reporting ▪ Team management ▪ Contact directory and stakeholder engagement ▪ Inputs into Gantt and precedent chart ▪ Procurement support
13	Project Coordinator – Abbottabad	10.0	<p>The Project Coordinator – Abbottabad will possess a university degree in project management, business, engineering, transport / urban planning, or a related field. The expert will possess at least 7 years of relevant experience in developing and managing urban transport projects, preferably with public transport experience in the region.</p> <p>Among the key responsibilities of the Project Coordinator – Abbottabad are:</p> <ul style="list-style-type: none"> ▪ Detailed project reporting ▪ Team management ▪ Contact directory and stakeholder engagement ▪ Inputs into Gantt and precedent chart ▪ Procurement support
14	Architect 2	6.0	<p>The Architect 2 will possess a university degree in architecture, design, or a related field. The expert will possess at least 10 years of relevant experience in designing top structure elements for urban projects. The Architect 2 will focus on architecture for the work in Mingora and Abbottabad. Among the key responsibilities of the Architect 2 are:</p> <ul style="list-style-type: none"> ▪ Design of bus shelters for Mingora

	Additional required national experts	Person-months	Experience requirements
			<ul style="list-style-type: none"> ▪ Design of tramway stations and connecting infrastructure for Abbottabad ▪ Design of associated staging facilities ▪ Inputs to renderings
15	Public Transport Specialist	8.0	<p>The Public Transport Specialist will possess a university degree in civil engineering, transport/urban planning, or a related field. The expert will possess at least seven (7) years of relevant experience in developing public transport systems.</p> <p>Among the key responsibilities of the Public Transport Specialist are:</p> <ul style="list-style-type: none"> ▪ Inputs to the designs of the Peshawar BRT trunk corridor and direct services ▪ Inputs to the design of the Mingora bus priority measures ▪ Inputs to the design of the Abbottabad aerial tramway ▪ Inputs to renderings
16	NMT Specialist 2	6.0	<p>The NMT Specialist 2 will possess a university degree in engineering, transport / urban planning, environmental management, or a related field. The expert will possess at least 3 years of relevant experience in developing urban transport projects.</p> <p>The NMT Specialist 2 will focus on NMT design for the work in Mingora and Abbottabad. Among the key responsibilities of the Non-Motorized Transport (NMT) Specialist 2 are:</p> <ul style="list-style-type: none"> ▪ Design of NMT upgrades around the bus priority upgrades in Mingora, including access to stops ▪ Design of NMT access to aerial tramway in Abbottabad. ▪ Design of other NMT components ▪ Bike rack placement and specifications
17	Communications Specialist 1	12	<p>The Communications Specialist 1 will possess a university degree in communications, media relations, journalism, business, or a related field. The expert will possess at least 7 years of relevant experience in providing communications and stakeholder engagement assistance to projects.</p> <p>The Communications Specialist 1 will be focused on communications for the work in Peshawar. Among the key responsibilities of the Communications Specialist 1 are:</p> <ul style="list-style-type: none"> ▪ Project stakeholder directory ▪ Communications plan ▪ Contact management database

	Additional required national experts	Person-months	Experience requirements
			<ul style="list-style-type: none"> ▪ Project presentations ▪ Management of media relations ▪ Stakeholder sessions ▪ Project team communications ▪ Capacity development support
18	Communications Specialist 2	12	<p>The Communications Specialist 2 will possess a university degree in communications, media relations, journalism, business, or a related field. The expert will possess at least 7 years of relevant experience in providing communications and stakeholder engagement assistance to projects.</p> <p>The Communications Specialist 2 will be focused on communications for the work in Mingora and Abbottabad. Among the key responsibilities of the Communications Specialist 2 are:</p> <ul style="list-style-type: none"> ▪ Project stakeholder directory ▪ Communications plan ▪ Contact management database ▪ Project presentations ▪ Management of media relations ▪ Stakeholder sessions ▪ Project team communications ▪ Capacity development support
19	Public Participation Specialist 1	4.0	<p>The Public Participation Specialist 1 will possess a university degree in communications, development studies, business, or a related field. The expert will possess at least 5 years of relevant experience in implementing public participation processes for development projects.</p> <p>The Public Participation Specialist 1 will be focused on public participation for the work in Peshawar. Among the key responsibilities of the Public Participation Specialist 1 are:</p> <ul style="list-style-type: none"> ▪ Assistance in the design of public participation program ▪ Development of public participation materials ▪ Conducting of public participation sessions
20	Public Participation Specialist 2	4.0	<p>The Public Participation Specialist 2 will possess a university degree in communications, development studies, business, or a related field. The expert will possess at least 5 years of relevant experience in implementing public participation processes for development projects.</p>

	Additional required national experts	Person-months	Experience requirements
			<p>The Public Participation Specialist 2 will be focused on public participation for the work in Mingora and Abbottabad. Among the key responsibilities of the Public Participation Specialist 2 are:</p> <ul style="list-style-type: none"> ▪ Assistance in the design of public participation program ▪ Development of public participation materials ▪ Conducting of public participation sessions
21	Bus Industry Specialist 1	4.0	<p>The Bus Industry Specialist 1 will possess a bachelor's degree in urban planning, engineering, business, or a related field. The expert will possess at least 7 years of relevant experience in developing urban bus systems in Pakistan, including specific experience working directly with private bus operators.</p> <p>The Bus Industry Specialist 1 will be focused on the existing bus industry in Peshawar. Among the key responsibilities of the Bus Industry Specialist 1 are:</p> <ul style="list-style-type: none"> ▪ Identify affected buses, bus owners and drivers ▪ Identify any associations to which the affected owners and operators belong ▪ Estimate the value of their business
22	Bus Industry Specialist 2	4.0	<p>The Bus Industry Specialist 2 will possess a bachelor's degree in urban planning, engineering, business, or a related field. The expert will possess at least 7 years of relevant experience in developing urban bus systems in Pakistan, including specific experience working directly with private bus operators.</p> <p>The Bus Industry Specialist 2 will be focused on the existing bus industry in Mingora and Abbottabad. Among the key responsibilities of the Bus Industry Specialist 2 are:</p> <ul style="list-style-type: none"> ▪ Identify affected buses, bus owners and drivers ▪ Identify any associations to which the affected owners and operators belong ▪ Estimate the value of their business
23	Engineering Survey Manager 1	5.0	<p>The Engineering Survey Manager 1 will possess a university degree in civil engineering. The expert will possess at least 7 years of relevant experience in managing surveys for preparing detailed engineering designs.</p> <p>The Engineering Survey Manager 1 will be focused on engineering surveys in Peshawar. Among the key responsibilities of the Engineering Survey Manager 1 are:</p>

	Additional required national experts	Person-months	Experience requirements
			<ul style="list-style-type: none"> ▪ Design engineering surveys ▪ Manage and hire surveyors ▪ Oversee engineering surveys ▪ Survey reports ▪ Data processing
24	Engineering Survey Manager 2	5.0	<p>The Engineering Survey Manager 2 will possess a university degree in civil engineering. The expert will possess at least 7 years of relevant experience in managing surveys for preparing detailed engineering designs.</p> <p>The Engineering Survey Manager 2 will be focused on engineering surveys in Mingora and Abbottabad. Among the key responsibilities of the Engineering Survey Manager 2 are:</p> <ul style="list-style-type: none"> ▪ Design engineering surveys ▪ Manage and hire surveyors ▪ Oversee engineering surveys ▪ Survey reports ▪ Data processing
25	Traffic Engineer 1	6.0	<p>The Traffic Engineer 1 will possess a university degree in civil engineering, transport / urban planning, or a related field. The expert will possess at least 5 years of relevant experience with urban transport systems and traffic management.</p> <p>The Traffic Engineer 1 will be focused on the work in Peshawar.</p> <p>Among the key responsibilities of the Traffic Engineer are:</p> <ul style="list-style-type: none"> ▪ Traffic signal system upgrades ▪ Traffic management planning ▪ Intersection re-designs <p>Traffic road markings and signage</p>
26	Traffic Engineer 2	6.0	<p>The Traffic Engineer 2 will possess a university degree in civil engineering, transport / urban planning, or a related field. The expert will possess at least 5 years of relevant experience with urban transport systems and traffic management.</p> <p>The Traffic Engineer 2 will be focused on the work in Mingora and Abbottabad.</p> <p>Among the key responsibilities of the Traffic Engineer are:</p> <ul style="list-style-type: none"> ▪ Traffic signal system upgrades ▪ Traffic management planning ▪ Intersection re-designs ▪ Traffic road markings and signage

	Additional required national experts	Person-months	Experience requirements
27	Parking Management Specialist	8.0	<p>The Parking Management Specialist will possess a university degree in transport / urban planning, engineering, or a related field. The expert will possess at least 7 years of relevant experience in parking management, as well as ITS systems.</p> <p>Among the key responsibilities of the Parking Management Specialist are:</p> <ul style="list-style-type: none"> ▪ Interpret the parking survey data ▪ Assist in the preparation of the specifications for the on-street parking ITS equipment ▪ Inputs into the parking management firm contract and tender documents ▪ Inputs into the parking levy firm contract and tender documents.
28	Legal and Regulatory Specialist	6.0	<p>The Legal and Regulatory Specialist will possess a university degree in Law or a related field. The expert will possess at least 10 years of relevant experience on the provision of legal support to investment projects and specific experience on regulatory frameworks for the management of urban services.</p> <p>Among the key responsibilities of the Legal and Regulatory Specialist are:</p> <ul style="list-style-type: none"> ▪ Evaluate the current legal and regulatory structure and policies regarding urban parking management in Peshawar ▪ Provide a roadmap on the legal and regulatory requirements to implement the envisioned on-street parking management system and the off-street parking levy in Peshawar ▪ Provide legal opinions when requested.
29	Urban Designer 1	5.0	<p>The Urban Designer 1 will possess a university degree in transport / urban planning, engineering, or a related field. The expert will possess at least 7 years of relevant experience in people-centric urban design. The Urban Designer 1 will be focused on the work in Peshawar.</p> <p>Among the key responsibilities of the Urban Designer 1 are:</p> <ul style="list-style-type: none"> ▪ Inputs into street furniture, street lighting, and landscaping for all components ▪ Inputs into the design of public space ▪ Public space design, including adjacent to commercial properties

	Additional required national experts	Person-months	Experience requirements
30	Urban Designer 2	5.0	<p>The Urban Designer 2 will possess a university degree in transport / urban planning, engineering, or a related field. The expert will possess at least 7 years of relevant experience in people-centric urban design.</p> <p>The Urban Designer 2 will be focused on the work in Mingora and Abbottabad.</p> <p>Among the key responsibilities of the Urban Designer 2 are:</p> <ul style="list-style-type: none"> ▪ Inputs into street furniture, street lighting, and landscaping for all components ▪ Inputs into the design of public space ▪ Public space design, including adjacent to commercial properties
31	Landscape Architect	5.0	<p>The Landscape Architect will possess a university degree in landscape architecture, urban design, or a related field. The expert will possess at least 7 years of relevant experience in applying landscape designs to urban public spaces.</p> <p>Among the key responsibilities of the Landscape Architect are:</p> <ul style="list-style-type: none"> ▪ Identification of appropriate plant and tree species ▪ Landscape preliminary plan for all relevant project components ▪ Landscape detailed plan for all relevant project components ▪ Landscape maintenance plan
32	Environmental Specialist	5.0	<p>The Environmental Specialist will possess a university degree in environmental assessment, environmental management, urban planning, engineering, or a related field. The expert will possess at least 5 years of relevant experience on preparation of EIA / IEE studies for similar projects, monitoring and implementation of environmental safeguards, including specific experience with projects financed through international financial institutions.</p> <p>Among the key responsibilities of the Environmental Specialist are:</p> <ul style="list-style-type: none"> ▪ Greenhouse gas methodology ▪ Greenhouse gas calculations ▪ Quantitative assessment of air quality, noise and vibration ▪ Environmental management plan ▪ Environmental monitoring
33	Resettlement Specialist	5.0	<p>The Resettlement Specialist will possess a university degree in social science, development studies, or a related</p>

	Additional required national experts	Person-months	Experience requirements
			<p>field. The expert will possess at least 7 years of relevant experience on the monitoring and implementation of resettlement safeguards, including specific experience with projects financed through international financial institutions. Among the key responsibilities of the Resettlement Specialist are:</p> <ul style="list-style-type: none"> ▪ Resettlement evaluation ▪ Resettlement plan ▪ Resettlement technical support
34	Gender Specialist	5.0	<p>The Gender Specialist will possess a university degree in social sciences, public policy, urban planning and governance sector, gender or another relevant field. The Gender Specialist should preferably have more than 10 years in the field of Social Development and at least 5 years gender specific expertise. They should be well-versed with gender related issues in relation to Urban Development sector with a focus on municipal services and urban transport. They should demonstrate extensive technical experience in developing gender action plans (GAPs) and institutional level gender policies and strategies for Urban Mobility and Transport or similar sectors. Familiarity with ADB or other international donor-funded projects would be an added advantage.</p> <p>The Gender Specialist will have a role in the following:</p> <ul style="list-style-type: none"> ▪ Evaluation of each project ▪ Gender Assessment Report ▪ Gender Action Plan ▪ Stakeholder outreach ▪ Preparation of bidding documents ▪ Bid evaluation
35	Road Design Engineer 1	6.0	<p>The Road Design Engineer 1 will possess a university degree in civil engineering or a related field. The expert will possess at least 5 years of relevant experience in designing transport infrastructure, including experience in the urban transport sub-sector.</p> <p>The Road Design Engineer 1 will be focused on the work in Peshawar.</p> <p>Among the key responsibilities of the Road Design Engineer 1 are:</p> <ul style="list-style-type: none"> ▪ Road layout design along the trunk BRT and along the direct services roads ▪ Pavement design ▪ Intersection designs ▪ Designs of roadways to complete the roadway network

	Additional required national experts	Person-months	Experience requirements
			<ul style="list-style-type: none"> Support to engineering survey work
36	Road Design Engineer 2	6.0	<p>The Road Design Engineer 2 will possess a university degree in civil engineering or a related field. The expert will possess at least 5 years of relevant experience in designing transport infrastructure, including experience in the urban transport sub-sector.</p> <p>The Road Design Engineer 2 will be focused on the work in Mingora and Abbottabad.</p> <p>Among the key responsibilities of the Road Design Engineer 2 are:</p> <ul style="list-style-type: none"> Road layout design at bus priority locations in Mingora and Abbottabad Location of the tramway support pillars in Abbottabad Pavement design Intersection designs Designs of roadways to complete the roadway network Support to engineering survey work
37	Drainage Design Engineer	5.0	<p>The Drainage Design Engineer will possess a university degree in civil engineering or a related field. The expert will possess at least 5 years of relevant experience in developing roadway drainage systems.</p> <p>Among the key responsibilities of the Drainage Design Engineer are:</p> <ul style="list-style-type: none"> Support to hydrological/drainage survey Drainage system design Bioswale development
38	Geotechnical / Foundation Engineer 1	5.0	<p>The Geotechnical / Foundation Engineer 1 will possess a university degree in civil engineering, soil mechanics, or a related field. The expert will possess at least 5 years of relevant experience in soil analysis and developing roadway and structural foundations.</p> <p>The Geotechnical/Foundation Engineer 1 will be focused on the work in Peshawar.</p> <p>Among the key responsibilities of the Geotechnical / Foundation Engineer 1 are:</p> <ul style="list-style-type: none"> Support to topographical survey Foundation design
39	Geotechnical / Foundation Engineer 2	5.0	<p>The Geotechnical / Foundation Engineer 2 will possess a university degree in civil engineering, soil mechanics, or a related field. The expert will possess at least 5 years of</p>

	Additional required national experts	Person-months	Experience requirements
			<p>relevant experience in soil analysis and developing roadway and structural foundations.</p> <p>The Geotechnical/Foundation Engineer 2 will be focused on the work in Mingora and Abbottabad.</p> <p>Among the key responsibilities of the Geotechnical / Foundation Engineer 2 are:</p> <ul style="list-style-type: none"> ▪ Support to topographical survey ▪ Foundation design
40	Cadastral Analyst 1	3.0	<p>The Cadastral Analyst 1 will possess a university degree in business, planning, property development, or a related field. The expert will possess at least 5 years of relevant experience on urban development and/or property development.</p> <p>The Cadastral Analyst 1 will be focused on the work in Peshawar.</p> <p>Among the key responsibilities of the Cadastral Analyst 1 are:</p> <ul style="list-style-type: none"> ▪ Mapping of property boundaries around all project components ▪ Mapping of property boundaries along pedestrian access ways to the stations
41	Cadastral Analyst 2	3.0	<p>The Cadastral Analyst 2 will possess a university degree in business, planning, property development, or a related field. The expert will possess at least 5 years of relevant experience on urban development and/or property development.</p> <p>The Cadastral Analyst 2 will be focused on the work in Mingora and Abbottabad.</p> <p>Among the key responsibilities of the Cadastral Analyst 2 are:</p> <ul style="list-style-type: none"> ▪ Mapping of property boundaries around all project components ▪ Mapping of property boundaries along pedestrian access ways to the stations
42	Structural Design Engineer 1	5.0	<p>The Structural Design Engineer 1 will possess a university degree in civil engineering, architecture, or a related field. The expert will possess at least 5 years of relevant experience with the design of public transport structures, including specific experience with BRT.</p> <p>The Structural Design Engineer 1 will be focused on the work in Peshawar.</p> <p>Among the key responsibilities of the Structural Design Engineer 1 are:</p>

	Additional required national experts	Person-months	Experience requirements
			<ul style="list-style-type: none"> ▪ Station and shelter structural design ▪ Depot structural design
43	Structural Design Engineer 2	5.0	<p>The Structural Design Engineer 2 will possess a university degree in civil engineering, architecture, or a related field. The expert will possess at least 5 years of relevant experience with the design of public transport structures, including specific experience with aerial tramways.</p> <p>The Structural Design Engineer 2 will be focused on the work in Mingora and Abbottabad. Among the key responsibilities of the Structural Design Engineer 2 are:</p> <ul style="list-style-type: none"> ▪ Station structural design ▪ Aerial tramway structural design ▪ Depot structural design
44	Electrical Design Engineer	5.0	<p>The Electrical Design Engineer will possess a university degree in electrical engineering, physics, or a related field. The expert will possess at least 5 years of relevant experience in developing electrical design plans, including experience in the transport sector. Among the key responsibilities of the Electrical Design Engineer are:</p> <ul style="list-style-type: none"> ▪ Support to public utilities survey ▪ Station electrical design ▪ Depot electrical design ▪ Street lighting design
45	Road Signage Specialist	2	<p>The Road Signage Specialist will possess a university degree in transport / urban planning, communications, engineering, business, marketing, or a related field. The expert will possess at least 7 years of relevant experience with customer information systems and signage for transport applications, including specific experience with urban public transport systems. Among the key responsibilities of the Road Signage Specialist are:</p> <ul style="list-style-type: none"> ▪ BRT station, aerial tramway station, and bus shelter signage design and specifications ▪ Way-finding signage design and specifications
46	CAD Specialist 1	6.0	<p>The CAD Specialist 1 will possess a university degree in design, engineering, or a related field. The expert will possess at least 3 years of relevant experience in developing CAD drawings and renderings for transport projects. The CAD Specialist 1 will be focused on the work in Peshawar. Among the key responsibilities of the CAD Specialist 1 are:</p>

	Additional required national experts	Person-months	Experience requirements
			<ul style="list-style-type: none"> ▪ Rendering perspective identification ▪ Rendering design ▪ Cross-sectional roadway drawings ▪ Utility drawings ▪ Top structure drawings
47	CAD Specialist 2	6.0	<p>The CAD Specialist 2 will possess a university degree in design, engineering, or a related field. The expert will possess at least 3 years of relevant experience in developing CAD drawings and renderings for transport projects.</p> <p>The CAD Specialist 2 will be focused on the work in Mingora and Abbottabad.</p> <p>Among the key responsibilities of the CAD Specialist 2 are:</p> <ul style="list-style-type: none"> ▪ Rendering perspective identification ▪ Rendering design ▪ Cross-sectional roadway drawings ▪ Utility drawings ▪ Top structure drawings
48	Quantity Surveyor 1	4.0	<p>The Quantity Surveyor 1 will possess a university degree in civil engineering or a related field. The expert will possess at least 7 years of relevant experience in cost estimation of urban transport civil works, including specific experience with BRT.</p> <p>The Quantity Surveyor 1 will be focused on the work in Peshawar.</p> <p>Among the key responsibilities of the Quantity Surveyor 1 are:</p> <ul style="list-style-type: none"> ▪ Infrastructure quantity estimate ▪ Infrastructure cost estimate
49	Quantity Surveyor 2	4.0	<p>The Quantity Surveyor 2 will possess a university degree in civil engineering or a related field. The expert will possess at least 5 years of relevant experience in cost estimation of transport projects.</p> <p>The Quantity Surveyor 2 will be focused on the work in Mingora and Abbottabad.</p> <p>Among the key responsibilities of the Quantity Surveyor are:</p> <ul style="list-style-type: none"> ▪ Infrastructure quantity estimate ▪ Infrastructure cost estimate
50	Video Production Specialist	4.0	<p>The Video Production Specialist will possess a university degree in film production, communications, journalism, or a related field. The expert will possess at least 5 years of</p>

	Additional required national experts	Person-months	Experience requirements
			experience in developing short films for documentary or project simulation purposes. Among the key responsibilities of the Video Production Specialist are: <ul style="list-style-type: none"> ▪ Video scripting ▪ Video production ▪ Final video editing
51	Website Developer	4.0	The Website Developer will possess a university degree in communications, business, or related field. The expert will possess at least 3 years of relevant experience in website development. Among the key responsibilities of the Video Production Specialist are: <ul style="list-style-type: none"> ▪ Review of current website ▪ Design of project webpages ▪ Assistance with website content ▪ Provision of ongoing website updates

B. Office accommodation, facilities, equipment

80. The Consultant will be responsible for providing the long-term office space for its team in Peshawar, as well as functional satellite workspaces in Mingora and Abbottabad.

81. TMTD/KPUMA will provide all relevant existing reports and available documents to the Consultant during the implementation of the consultancy. TMTD/KPUMA will facilitate access of the Consultant to other government agencies for communications, collecting of relevant information, data, documents, etc. and other activities related to the consultant's assignment.

82. The Consultant is expected to provide for their own domestic and international travel, insurance, subsistence, computer equipment, and all consumables, and make provision for the cost of office operation, including electricity and telephone, and all other costs to fulfill the consultancy services. A line item within the budget does provide for some office equipment to be procured by the Consultant.

83. The Consultant shall ensure that experts are adequately supported and equipped. In particular, it shall ensure that there is sufficient administrative, secretarial, translation and interpreting provision to enable experts to concentrate on their primary responsibilities. It must also transfer funds as necessary to support its activities under the contract and to ensure that its employees are paid regularly and in a timely fashion.

VII. DELIVERABLES, REPORTING REQUIREMENTS AND CONTRACT ADMINISTRATION

84. **Duration.** The consulting services under the proposed contract will be implemented over a maximum period of **15 months** (June 2024 to September 2024) in two stages, such as follows:

- (i) Preliminary and Detailed Design and Due Diligence stage of 10 months during which the preliminary and detailed design and due diligence for all outputs will be completed;
- (ii) Procurement stage of five months during which the Consultant will be expected to provide support as necessary to the Client during the tender process and write the Bid/Tender Evaluation Report (Annex D), leading to the award of contracts.

85. **Payments.** Payments will be linked to the submission of outputs, as shown in **Table 6**.

Table 6: Summary of Milestone Reports and Payments

Milestone
Mobilization
Output 1: Public Transport Planning
Output 2: NMT Facilities
Output 3: Traffic Management
Output 4: Parking Management

86. **Workshops.** The Consultant will organize and conduct meetings with project stakeholders as needed, as well as several workshops and thematic working sessions at specific milestones, as defined in the scope of work above, to guarantee mutual understanding of project issues and proposed options. The Consultant will prepare illustrated Power Point presentations for all workshops. All expenses for those workshops should be borne by the Consultant under their consulting contract.

87. **Reporting requirements.** In addition to the main deliverables, the Consultant will prepare monthly progress reports (main text of maximum 10 pages), summarizing:

- (i) Main technical issues encountered during the past month and major technical decisions to be taken urgently;
- (ii) Administrative issues such as (a) financial and physical progress of the consultancy contract; (b) arrivals and departures of each team member; (c) elapsed time and person days on the assignment in the preceding month and forecast for the coming month; (d) expenditures, billing and payments received; and (e) consultants proposed changes in personnel schedule and team composition;
- (iii) Minutes of important meetings with project stakeholders; and
- (iv) Main challenges ahead and main recommendations from the Consultant.

88. At the end of the assignment, the Consultant will also provide a summary final report including comparison of actual expenditures compared to budget, consultant inputs compared to work plan, and other assessments which could be useful in designing future assignments of a similar type.

89. **Language requirements.** All reports will be presented in English language. If required by TMTD/KPMUA, a translation in Pakistani language (Urdu) of main reports may be provided. In such case, the Consultant will ensure that documents in Urdu will have the same title as the

English version, and will follow exactly the same page layout as the English version. Consistency and integration of proposed changes (track change mode) will be ensured.

90. **Procedure for review and acceptance of project outputs.** Outputs are to be supplied under an output-based lump sum contract. Before formal acceptance, each of the outputs will be peer reviewed by a review panel composed of:

- (i) Executing Agency
- (ii) Implementing Agency; and,
- (iii) ADB project Team Leader.

91. At each workshop held after submission of the inception, interim, draft final and final reports, the review panel will jointly:

- (i) Determine if all key deliverables were provided as agreed;
- (ii) Review and discuss the quality of the outputs submitted in each report; and
- (iii) Reach consensus on whether to authorize the progress payments on a lump sum basis.

92. If a progress payment is not authorized, the Consultant will be given a written list of deficiencies to be corrected and requested date of revised submission. The Consultant will be given the opportunity to clarify the nature and extent of the deficiencies and agree with ADB and the government on the needed revisions and resubmission date. The new submission will then be reviewed again by ADB and the government to determine whether the deficiencies have been sufficiently addressed, in which case the report/output will be deemed as “final” and the progress payment will be approved.

93. **Budget and lump sum payment schedule.** The maximum budget is fixed at \$3,840,000 (excluding taxes) for “Khyber Pakhtunkhwa’s Sustainable Urban Mobility Project 2”, including mainly, but not limited to:

- (i) Remuneration for all proposed experts;
- (ii) All out-of-pocket expenses (per diems, international and local air travels, equipment, office space, land transport, communication, report preparation, etc.);
- (iii) All provisional sums for technical surveys [potentially outsourced to local entities], workshops and trainings, etc.; and
- (iv) Any contingencies.

ANNEX A: PROJECT MANAGEMENT AND COMMUNICATIONS TASKS

1. The Consultant will develop and implement project management tools to ensure project quality and the timely delivery of outputs. This will include developing and maintaining outreach and communications with key project stakeholders to ensure full engagement in the process. The Consultant will build off of existing project management tools which were developed under phase 1.
2. Specific Project Management tasks, responsibilities and deliverables include, but are not limited to, the following:
 - a. **Project management information system**
 3. The Consultant will establish and maintain a web-based project management information system (MIS) for the protection of project data and information.
 - b. **Master project schedule**
 4. The Consultant will prepare and maintain a master project schedule, in a standard Gantt chart format. The Gantt chart is to cover all activities, tasks and milestones necessary for the successful completion of the project, including activities managed by the IA, and any activities to be carried out by external entities including utility relocation and safeguard related activities. The Gantt chart will cover the period from the notice to proceed of the Consultant through evaluation of the construction and other procurement contracts.
 - c. **Precedents chart**
 5. The Consultant will prepare a project precedents chart in which the interdependence of each output is related visually to each project activity. The precedents chart is intended to show critical project pathways in the delivery process.
 - d. **Master budget and cost control program**
 6. The Consultant will prepare and maintain a master budgeting and cost control program using an appropriate cost management software package, making the necessary configurations/changes of the software as required for the specifics of the project. When implemented, the budget and cost control spreadsheet will provide a complete and accurate picture of all incurred, programmed and projected project costs.
 - e. **Risk Registry**
 7. The Consultant will create and maintain a risk registry for the project, categorizing risks according to size and risk likelihood, and develop/maintain recommendations for risk mitigation.
 - f. **Quality Assurance Plan**
 8. The Consultant will develop, monitor and maintain a quality assurance plan for all major project processes including: procurements, detailed design activities, and civil works construction to ensure a high-quality project is implemented.

g. Project governance plan and probity audits

9. The Consultant will identify all pertinent project governance issues to ensure an effective, transparent, and open implementation. The Consultant will audit and evaluate project processes to ensure project integrity and compliance with government and ADB anti-corruption standards.

h. Stakeholder directory and stakeholder engagement plan

10. The Consultant will develop a project stakeholder directory for each of the cities, that includes relevant contact information and project role details of organizations and individuals. Among the type of stakeholders to be included in the directory are national Government officials, local Government officials, traffic police, existing public transport operators, affected land and business owners along the corridors, business associations (e.g. Chamber of Commerce), civil society, news media, and international organizations.

11. The consultant will prepare a stakeholder engagement plan for each city.

i. Project update reports

12. The Consultant will produce and maintain all required project update reports to Government and funding organizations. The Consultant will produce brief (one page) project updates monthly with more detailed reporting at quarterly milestone points.

j. Public participation process

13. The Consultant will undertake a public participation process to inform the general public, businesses and related stakeholders of the new project. The public participation process will include workshops with presentations and colored hand-out brochures on the system, a system video as well as the provision of a question-and-answer period.

k. Simulation video

14. The Consultant will prepare a 5-minute simulation video for each sub-project. The video will briefly highlight the current situation and problems and show the proposed solutions. The simulation quality will be of near reality quality. The video may also include a message from Government officials. A short version of the video will also be prepared (1-2 min).

l. Project website

15. The Consultant will develop a project website for each city to include all of the sub-projects. Sections of the website will contain: description of each project, public transport route maps, bicycle maps, new pedestrian configurations, new public transport stop and station location descriptions and maps, new or reconfigured roadways and traffic patterns, new parking management system information. The Consultant will also update the frequently-asked questions (FAQs), user information such as operating hours, contact information and user input and feedback.

ANNEX B: ENGINEERING SURVEYS

1. The Consultant will conduct field surveys to enable the preliminary and detailed designs of all civil works. These surveys will build from studies conducted under BRT phase 1. Field surveys will be conducted at the locations where new infrastructure will be designed.
2. The **topographic study** will build from the topographic study from the Phase 1 BRT. The Consultant will realize topographic surveys along all road sections where new infrastructure is planned. These topographic surveys will establish survey control monuments for future construction layout, produce base mapping and derive original ground cross-sections/terrain models. Topographic surveys shall comply with relevant national standards in Pakistan.
3. The surveys will gather information at terminal sites, station sites, bridge and drainage structures, and gather information about sidewalks, curbs, buildings, turning radius, post locations, traffic control locations, tree locations, and all other relevant elements.
4. Establish horizontal and vertical surveys using an approved coordinate and ground datum system for design purposes, with closed polygons every 2 longitudinal kilometres. Survey accuracy is to be within the limits set forth in the national standards.
5. The Consultant shall place 'permanent' survey control monuments for use by the Contractor during the construction stage. Monuments shall be placed at not more than 500 m intervals and are to be intervisible. Details of the x, y and z coordinates for each monument are to be reported in a Survey Control Report containing sketches of location and other details including local reference markers used and offset dimensions, etc. The detailed requirements for the topographic surveys are as follows:
 - (i) Vertical control monuments shall be set at locations where they shall not be disturbed during construction.
 - (ii) Horizontal and vertical monuments with reference shall be shown in the plans.
 - (iii) A detailed topographic survey shall be conducted to locate existing roads, buildings, etc. and natural features such as creeks, canals, slopes, etc.
 - (iv) Level identification shall be tied to the existing benchmarks in the area.
 - (v) Identify transport routes that cross new infrastructure alignment to identify locations where facilities are needed to maintain accessibility for local communities and regional transport.
 - (vi) After identification of the alignment centerline, centerline staking at the locations including intersections (P.I.), beginning and ending of the horizontal curves (P.C. and P.T.) shall be tied to permanent references points in accordance with Government of Pakistan (GoP) standard practice.
 - (vii) Cross sections shall be taken at all locations requiring infrastructure, at 20-meter intervals, unless local conditions require cross sections at closer intervals so as to provide the necessary details for the earthwork, quantity calculation with accuracy of five percent (5%) of final quantities.
 - (viii) All survey information and data shall be recorded in standard survey notebooks. Upon completion of the works, all survey notes shall become the property of GoP.
6. **Roadway Pavement Strength.** For the BRT route along Dalazak Road, if the feasibility recommends at-grade BRT operations, the roadway will require new concrete pavement construction for BRT lanes throughout, or only at BRT stations. However, in other road sections existing surfaces may be retained with local asphalt overlays. Accordingly, some investigation

into residual pavement is required, and notably (i) two (2) test pits per km.; and (ii) ten (10) Beam Deflection Tests per km. Pavement strength surveys shall comply with relevant GoP Standards.

7. **Hydrological investigations.** Study the existing hydrological regime, based on an analysis of rainfall and flood records, including subsurface water characteristics supplemented by detailed field investigations, to establish road embankment levels, bridge elevations, culverts and side ditches invert levels. Where necessary, these structures should be modified to ensure they control sedimentation and erosion during construction and during subsequent operation.

8. At key bridge sites, riverbed measurements are to be made with at least one cross-section on the upstream and downstream and one at the centerline. Water samples are to be taken for testing of corrosive substances. The detailed requirements for the hydrological investigations are:

- (i) Meteorological and hydrographical data related to rainfall, wind, temperature, humidity shall be collected from the meteorological stations and authorities, and survey of flow rate and water level in rivers from hydrographical stations in the project area shall be carried out.
- (ii) Existing drainage works and irrigation systems along and through the Project corridor shall be surveyed to identify existing cross-section of canals and dykes, functions, flow direction and longitudinal slope, etc.
- (iii) Hydrographic surveys shall be conducted at bridge sites and channel structures to measure cross section of flow, estimate the high water level and other necessary information.
- (iv) Flood record survey shall be conducted in order to confirm the historical flood level along the roadway.

9. **Geotechnical Survey and Soil Investigation.** A review shall be made of all existing relevant data, followed by a study of the soils and materials along the road sections. The Consultant shall identify the varying soil and sub-strata types by visual inspection and by testing of recovered samples to be taken at appropriate intervals to determine the classification and specific properties of the materials present. As a minimum, the following surveys and investigations shall be made to obtain the geologic information for detailed design:

- (i) Mechanical boring for the foundation design of the flyovers, bridges and approach roads. Deep drilling with standard penetration test (SPT) shall be conducted at abutment and specified piers. Minimum depth shall be determined based on the confirmation of hard strata bedrock. Drilling can be stopped after three (3) meters penetration into identified bearing layer, hard strata or bedrock.
- (ii) Disturbed and undisturbed soil sampling for the design of roads, bridges and other structures and disturbed samples from borrow pits, quarry sites and other sources of material. The samples shall be tested for the determination of the main characteristics, including:
 - a. Grain size distribution and classification
 - b. Moisture contents
 - c. Atterberg limits
 - d. Shear strength
- (iii) Analysis for slope stability, both for high embankment section and deep cut section, shall be conducted. Analysis for consolidation due to soft ground should also be done.

10. **Road Works.** Work in this area will be required to identify the properties of native soils and to determine the suitability of locally available construction materials for use in the works. The

following frequency of testing shall be adopted as a minimum: (i) Test pits (1/km); and (ii) Boreholes (15m deep, 1/km)

11. At a minimum, the following tests on recovered samples will be required:

- (i) Grain Size Analysis
- (ii) Atterberg Limits
- (iii) Moisture / Density relationship (AASHTO T180)
- (iv) Soaked CBR

12. The Consultant shall give attention to any sections containing swelling soils and shall determine relevant consolidation properties and likelihood of future settlement problems. Where appropriate, construction techniques to minimize the effect of such soils shall be determined, including use of: (i) Soil replacement; (ii) PVD, Drainage blankets and/or geo-textiles, Pre-consolidation/surcharging; and (iii) Stabilization with sand or bamboo piles, etc.

13. **Fill Materials.** Similarly, investigation into the stability of materials intended to be used for the construction of embankment sand fills will be necessary. The Consultant shall also investigate the suitability of locally available construction materials and identify the location of potential quarry sites, borrow pits and disposal/spoil areas – complete with estimates of quality and quantity of materials and hauling distances. Sample recovery and testing will be required to establish properties by the following test procedures, as appropriate:

- (i) Los Angeles Abrasion,
- (ii) Grain Size Analysis
- (iii) Aggregate Crushing Value,
- (iv) Sodium Sulphate Soundness,
- (v) Bitumen Affinity,
- (vi) Specific Gravity and Water Absorption
- (vii) Chloride and Sulphate Content.

14. Geotechnical recommendations shall then be prepared (Technical Memorandum) with respect to earthworks and pavement construction - including special treatments for sub-grades and for the subsequent sub-base and base materials as necessary.

15. **Structures.** A review shall be made of all existing relevant data, followed by a study of the soil strata at the sites of the major structures in each road section. The Consultant shall identify varying soil by visual inspection and testing of recovered samples taken at appropriate depths to determine classification and properties of the sub-surface materials.

16. As a minimum the Consultant's testing program is expected to include any proposed bridge, interchange, flyover, underpasses and box culvert sites. The number of boreholes (up to 70m deep) is to be in accordance with GoP standards applicable at the time of proposal submission and to be specified at the pre bid conference.

17. The Consultant shall also investigate the properties of the strata encountered through a sample recovery and testing program using at least the following procedures:

- (i) Logs of soil types and water table measurements;
- (ii) Standard Penetration tests (1.5 m interval) in alternate holes (using split barrel sampler);
- (iii) Shear vane tests (in alternate holes);
- (iv) Atterberg Limits on each clearly identified soil stratum (minimum 3-5 per borehole);

- (v) Density and moisture content on each stratum;
- (vi) Tri-axial tests on a selective basis to establish a design value for the angle of internal friction of soil strata (say, at total of 50 tests); and
- (vii) Unconsolidated, un-drained tri-axial test (say, a total of 50 tests) to determine cohesion, angle of internal friction etc.

18. A Technical Memorandum on geotechnical recommendations shall then be prepared with respect to foundation design (pile type, depth, axial loading limitations etc), bearing pressures for culvert and retaining wall foundations, requirements for structural backfill materials including abutment drainage provisions needed, and soft soil treatment design.

19. **Utilities.** In conjunction with Owner agencies, the Consultant shall carry out surveys (including test pit excavations and leak detection surveys) to determine the locations, present condition and life expectancy of the existing utilities and prepare a Technical Memorandum accordingly for design purposes. A separate Technical Memorandum shall be prepared for each utility as Supporting Documents.

20. **Materials Source Survey.** The Consultant shall:

- (i) Identify potential borrow pits, quarry sites and other sources of material taking into account of the quality necessary for the construction of the project components, and identify preferred sources based on discussions with local authorities.
- (ii) At each preferred source of materials, prepare four test pits and extract sufficient samples for laboratory testing.
- (iii) Conduct a consultation meeting with the local community regarding the location, potential socio-environmental impacts and management plan for each borrow pit and quarry and related matters.
- (iv) Gain approval of local authorities and competent environmental authority for sources of materials such as sand, stone, etc to be used for the road and bridge construction.
- (v) Evaluate the respective material costs, supply routes and transport costs.

21. **Preparation of Base Maps and Digital Terrain Modeling.** The Consultant will prepare base maps (and terrain models) for the project areas showing details of all existing topographical features including affected properties and areas of particular environmental concern.

22. Base mapping shall indicate the locations and nature of all identifiable utilities (both underground and surface features) for which research of records and/or field investigations in conjunction with owner agencies, will be required.

23. For all watercourses, additional mapping shall be compiled from available records (and supplemented by localized field surveys as necessary) in order to determine catchments features, flow regimes and present capacities.

24. **Cadastral / parcellary study.** The Consultant will precisely define the right-of-way boundary between public space and private property along Dalazak Road and the streets on which direct services will operate. The Consultant will first research the appropriate government agencies to obtain and collate the necessary documents, such as base cadastral maps, index maps, list of historical sites, easements for water bodies, etc. The final cadastral boundaries will be documented in mapping form. The study will describe the boundary impacts of the proposed

infrastructure. The survey team will coordinate with the social analysis team to document any impacts on current property owners or property users.

25. For each survey, a summary report will be produced, which will then be compiled into a larger Engineering Survey Report. The summaries will include a description of the methodology employed and the survey findings. The level of detail of the surveys must be sufficient to form the basis of the construction tender documents and thus constitute a full detailed design of the infrastructure.

ANNEX C: DUE DILIGENCE TASKS

1. Specific due diligence tasks, responsibilities, and deliverables include, but are not limited to the following:

a. Assessment of Public–Private Partnership Options

2. The PPP specialist will work closely with the other international and national specialists on the consultant team and all relevant stakeholders (including but not limited to Government of KP Province, Ministry of Finance (MoF), Transport department and other government officials, ADB project team, representatives of other International Finance Institutions, operators and private sector investors) for strengthened PPP options and recommendations for the public transport operations in each city (for which detailed design is prepared as part of this assignment) and for possible subsequent phases of the each public transport project.

b. Environmental safeguards

3. The Consultant will prepare various environmental safeguard documents. The broad terms of reference are as follows:

- (i) Preparation of Rapid Environmental Assessments (REA) to confirm project environmental categorization. This will be submitted to ADB for review and endorsement.
- (ii) Based on the confirmed category, either an Environmental Impact Assessment (EIA) for Category A, or Initial Environmental Examination (IEE) for category B, subprojects will need to be prepared. The scope of study will include (but not limited to):
 - (a) Evaluation of direct, indirect, induced and cumulative environmental impacts of the Project, its alternatives and associated facilities including physical impacts (air and water quality, noise and vibration, soils and wastes, etc.), ecological impacts (plants, wildlife, and protected areas), socio-economic impacts (impacts to social environment, infrastructure, traffic, etc.) and physical cultural resources in context of the project area of influence. A quantitative assessment (through modeling) will be carried out to assess impacts related with noise, air quality, and vibration, greenhouse gas emissions. Moreover, various tools such as integrated biodiversity assessment tool (IBAT) will also be used to interpret any impacts on Biodiversity.
 - (b) Prepare an Environmental Assessment Study and Environmental Management Plan (EMP) following the format and contents as specified in the ADB Safeguards Policy Statement (SPS) 2009. It will also be ensured that the EMP is included in all tender and contract documents for all project components regardless of financing source.
 - (c) Confirm alternatives to the project's location, design, technology, and components and their potential environmental and social impacts and document the rationale for selecting the proposed alternative, including the no project alternative.
 - (d) Provide avoidance, minimization, mitigation, and/or compensation of adverse impacts and enhancing positive impacts of the project by means of environmental planning and management.
 - (e) In coordination with the Executing/Implementation Agency and local administrations, participate in meaningful additional consultation with

- affected people and facilitate their informed participation. Ensure that their views and concerns are made known to and understood by decision makers and taken into account.
- (f) In coordination with the EA/IA and local administrations, propose a grievance redress mechanism to receive and facilitate resolution of the affected people's concerns and grievances regarding the project's environmental performance.
 - (g) Prepare an environmental management plan (EMP) that includes the proposed mitigation measures, environmental monitoring and reporting.
 - (h) Review the environmental management capability of the executing agency and recommended institutional strengthening measures, if any. Requirements, related institutional or organizational arrangements, capacity development and training measures, implementation schedule, cost estimates, and performance indicators would then be determined.
- (iii) Ensure that subprojects fully meet environmental safeguards requirements as defined in ADB's Safeguard Policy Statement (2009).
 - (iv) Meet and comply with requirement and guidelines of concerned National Regulatory Authorities (such as obtaining no objection certificates from Khyber Pakhtunkhwa Environmental Protection Agency-KP EPA) before starting any civil works.
 - (v) Provide any additional input related to environmental safeguards in the scoping study, bidding documents etc.

c. Social safeguards

4. The Consultant will lead the conduct of social safeguards due diligence for the proposed projects as required under ADB Safeguard Policy Statement (SPS) 2009. This includes:

- (i) social safeguards screening (IR/IP) and recommending IR/IP safeguards category,
- (ii) preparing social due diligence report (SDDR) including identifying and assessing any IR legacy issues (i.e., use of the LAA Section 17-urgency clause and pending complaints on sites that were acquired previously, or which are already owned/possessed by the relevant government agencies, recent anti-encroachment activities in project areas), and
- (iii) preparing an implementation-ready land acquisition and resettlement plans (LARPs) based on detailed design and following the notification of Section 5 of the LAA. The Consultant will also prepare a livelihood restoration plan (LRP) to be included in the LARP in case where there are livelihood losses to ensure that affected persons are able to improve or at least restore the livelihood that was lost. The Consultant will advise the concerned districts that no land would be acquired for Peshawar BRT Phase 2 using the LAA Section 17 urgency clause.

5. In the valuation of affected land and non-land assets, the Consultant will ensure that licensed valuers accredited with the State Bank of Pakistan are engaged to undertake an independent valuation study (IVS) to ensure that the calculation of compensation rates meet the ADB SPS replacement cost requirements. Results of the IVS shall be incorporated into the LARP.

6. In case of IR impacts that do not involve land acquisition, but will result in physical or economic displacement of unregistered landusers or persons who have no legal title or claim to the land (i.e. informal settlers, road side vendors, unregistered farmers or persons who have planted crops on government-owned land), the Consultant will prepare a resettlement plan (RP) following the provisions and requirements of the ADB SPS. To the extent possible, the Consultant

will engage with relevant units to assist those displaced to have formal access to land or vending spaces.

7. In case of land acquisition involving negotiated settlements, the Consultant will document the negotiation and settlement process. The Consultant will document and confirm if the process included offering adequate and fair price for land and/or other assets, and if the risks of asymmetry of information and bargaining power of the parties have been mitigated in the transactions.

8. The Consultant will coordinate closely with relevant units involved in land acquisition (i.e. respective district collectors/deputy commissioners, patwari, etc.) and brief them on the LAR-related conditions and standards to be applied to the acquisition of land for the ensuing projects and facilitate the fund allocation, required notifications and other activities. The Consultant will advise the District governments not to undertake clearing/demolition activities in anticipation of the Peshawar-BRT Phase 2.

9. The Consultant will review the project-based grievance redress mechanism (GRM) developed for Peshawar BRT and recommend measures to further strengthen the system for each of the sub-projects developed under this TOR. They will advise TMTD/KPUMA on the proper identification, handling and resolution of complaints. In conducting the safeguards due diligence work, the Consultant will ensure that meaningful consultations with affected people and key stakeholders is conducted and properly documented. They will also ensure that relevant information is disclosed in a timely manner. The Consultant will also identify vulnerable groups and households among the affected persons to ensure that they are provided with additional support to help them cope with their displacement and improve their condition. The Consultant will make certain that appropriate health and safety measures are observed in the conduct of consultations and field activities to avoid the risk spreading COVID-19 risks.

d. Gender Action Plan.

10. The Consultant will undertake, but not be limited to, the following key tasks:
 - (i) Prepare the GAP for each sub-project in close coordination with TMTD/KPUMA;
 - (ii) Recommend the gender entry points to be incorporated in the GAP of the ensuing project;
 - (iii) Prepare gender analysis and collate baseline data (gender-disaggregated) relevant to the scope and design of the sub-projects of the ensuing project;
 - (iv) Assess the institutional capacity of the IA in gender-inclusive planning and implementation; based on the assessment, identify the areas for capacity building as one of the gender actions under the GAP.
11. The Consultant shall produce the following deliverables:
 - (i) Pre-Assessment and Methodology Report including the outputs, methodology, gender parameters and instruments for data collection for gender specific due diligence and timelines.
 - (ii) Gender Assessment Report
 - (iii) Gender Action Plan (GAP) in accordance with the ADB specified gender mainstreaming guidelines and format.

e. Economic assessment and Financial Assessment

12. The Consultant will provide an economic analysis for each sub-project. This will include:

- (i) Identify the relevant costs and benefits associated with all components of the project
- (ii) Establish both the baseline case and the project case for these facilities
- (iii) Using the ADB standard guidelines for project economic analysis⁷, develop the economic analysis spreadsheet for the project, including the calculation of the project Economic Internal Rate of Return (EIRR) and the performance of a sensitivity analysis on the results.

13. The Consultant will also develop a financial assessment following ADB methodology for financial analysis.⁸

f. Procurement capacity assessment of the Implementing Agency.

14. A procurement assessment of the Implementing Agency for the projects will be conducted following ADB guidelines. An action plan and mitigation measures will be prepared accordingly.

g. Financial Management Capacity assessment of the Implementing Agency

15. A Financial Management assessment of the Implementing Agency for the projects will be conducted following ADB guidelines.⁹ An action plan and mitigation measures will be prepared accordingly.

h. Procurement plan and market engagement

16. The Consultant will prepare a Procurement Plan for each sub-project. They must provide the following information:

- (i) Definition of who is buying. This section will provide details to potential bidders as to who is making the purchase, using what sources of funds, and under the aegis of what set of procurement rules. The procurement plan must be consistent with the ADB Procurement Policy and Procurement Regulations for ADB Borrowers, the Government of Pakistan, and the various municipalities, so the Consultant should be familiar with these procurement rules.
- (ii) Definition of what is being bought, and under how many packages. This section will define the separate goods and services that are being sought by the buyer in a high degree of detail.
- (iii) Specification of the preferred procurement route. Under the procurement rules of the ADB, the Government of Pakistan, and the various municipalities, it is likely that more than one procurement process is allowable. The procurement options allowable under these governing regulations should be explained, and one particular route should be recommended.
- (iv) Specification of the number of procurement stages. The less sure that the buyer is of what exactly they want to buy, the more dialog-oriented and multi-staged the procurement should be. Different procurement routes allow for different levels of input from potential bidders. In this case, one and two-staged tenders should be considered. It is unlikely that a multi-staged tender with more than two stages will be needed unless a PPP is being considered.

⁷ <https://www.adb.org/sites/default/files/institutional-document/32256/economic-analysis-projects.pdf>

⁸ <https://www.adb.org/sites/default/files/institutional-document/535126/financial-analysis-evaluation-guidance-note.pdf>

⁹ ADB. 2015. *Financial Management Assessment Technical Guide Note*, Manila: ADB. 2009. *Financial Due Diligence: A Methodology Note*. Manila.

- (v) Specification of procurement methods together with source and scope of advertisement (international or national).
- (vi) Preparation of Procurement Timeline. The consultant will assist the client in completing a schedule for each stage of the procurement process.
- (vii) Preparation of pre-market engagement plan and implementation. The consultant will prepare a Procurement Plan which specifies how the client should engage the market in the tender to ensure a robust bidding process.

ANNEX D: PROCUREMENT SUPPORT

1. The Consultant will prepare all bidding documents, according to the Procurement Plan developed as part of due diligence.
2. The Bidding Documents are to be based on detailed engineering design, and include:
 - (i) Detailed design drawings
 - (ii) Technical specifications – This part of the tender documents will comprise the engineering specifications produced above. The technical specifications should include environmental mitigation measures as identified in the Environmental Management Plan (EMP)
 - (iii) Bill of quantities (BoQ)
 - (iv) Detailed cost estimates
 - (v) Contract - The form of contract is to be based on ADB Standard Form of Contract for, as appropriate, international advertisement, national advertisement, and Shopping, and include provision of an EMP/SEMP as required. The Consultant is to prepare each contract, including the required “Special Conditions of Contract”, Bid Data Sheet, etc.
 - (vi) Implementation schedule
 - (vii) Invitation to tender, instructions to tenderers, and tender forms
3. The Consultant will carry out the following tasks as related to the preparation of bidding documents:

a. Develop Specifications, tender, and contract for system construction

4. The Consultant will prepare specifications and tender documents for all construction and goods components. The Consultant will develop and include a construction schedule. The Consultant will develop an appropriate bid analysis regime. The Consultant will prepare the final contract(s) between the IA and the Civil Works Construction Firm(s), and between the IA and the Goods supplier(s).
5. The Consultant will develop gender specific guidelines, affirmative actions and instructions for the contractors’ ToRs and bidding documents. The Consultant will anticipate labor standards adherence and labor compliance in accordance with national law and national commitment to the International Labor Organization’s Core Labor Standards.

b. Infrastructure maintenance protocols, specifications, tender, and contract

6. The Consultant will review the current specifications and protocols for the maintenance of the infrastructure, against actual maintenance procedures. If maintenance is working as described in the protocols, and the infrastructure appears to be well-maintained, then the protocols should be expanded to include the new infrastructure. If there are issues with the existing protocols and/or practices, a memorandum should be written to document these issues and propose changes.
7. The Consultant will develop the contractual wording for the realization of the infrastructure maintenance services and integrate it into the appropriate contract(s).

c. Grievance redress mechanism (GRM)

8. Prior to commencement of site works/civil works, the Consultant will assist the KPUMA and TransPeshawar and contractors in establishing a grievance redress mechanism (GRM).

d. Bid evaluation support

9. The output for this activity is the selection of contractors. The Consultant is to assist in this process, support the preparation of the bid evaluation reports (BER), draft and obtain the agreement of the members of the evaluation committee to the recommendation in the BER. The number of civil works, goods and contracts will be determined in the Procurement Plan.

10. The Consultant shall provide necessary support to the client in all aspects of the procurement process for civil works contracts and goods contracts in accordance with the procurement regulations of GoP and ADB guidelines. The Consultant shall apply gender specific guidelines and affirmative actions within the bid evaluation process.

11. The support shall include the following:

- (i) Preparation of pre-qualification (if required) for each contract package, including support for the invitation of pre-qualification, evaluation of pre-qualification applications and preparation of pre-qualification evaluation reports for submission for review by concerned agencies including the client, and the ADB;
- (ii) Preparation of Special Procurement Notices (SPN);
- (iii) Preparation of contractor selection criteria and sample environmental non-conformance documentation with sufficient details to inform the contractors at the bidding stage that they will be assessed on environmental capability and that they must deploy staff to carry out and supervise the physical environmental mitigation measures and checking as they would for any other construction activity in line with other standards of quality and control;
- (iv) Support for the invitation for bids, pre-bid conference, pre-bid site visits for the pre-qualified interested bidders, preparation in response to bidders', of clarification answers and addendum to bidding documents;
- (v) Support for organizing the bid opening, the evaluation of bids, and preparation of bid evaluation report (BER) in accordance with the ADB's standard bid evaluation form and the GoP standards and procedures for submission for review by concerned agencies including the client, and the ADB; and
- (vi) Assisting the IA in contract award, contract negotiation, preparation and finalization of contracts submission for review by concerned agencies including the client, and the ADB, through to signature of the contracts.