

Project Administration Manual

Project Number: 51036-002

Loan and/or Grant Number(s): {LXXXX; GXXXX; TXXXX}

November 2021

Islamic Republic of Pakistan: Khyber Pakhtunkhwa
Cities Improvement Project

ABBREVIATIONS

ADB	–	Asian Development Bank
ADF	–	Asian Development Fund
AIIB	–	Asian Infrastructure Investment Bank
CIU	–	city implementation unit
EA	–	executing agency
EIA	–	environmental impact assessment
EMP	–	environmental management plan
FM	–	financial management
FMA	–	financial management assessment
GOKP	–	Government of Khyber Pakhtunkhwa
GRM	–	grievance redress mechanism
IA	–	implementing agency
IEE	–	initial environmental examination
IR	–	involuntary resettlement
km	–	Kilometer
KPCIP	–	Khyber Pakhtunkhwa Cities Improvement Project
KPK	–	Khyber Pakhtunkhwa Province
KPRO	–	Khyber Pakhtunkhwa Municipal Regulatory Office
LAR	–	land acquisition and resettlement
LARP	–	land acquisition and resettlement plan
LGE&RDD	–	Local Government, Elections and Rural Development Department
PAM	–	Project Administration Manual
PIU	–	project implementation unit
PMU	–	Project Management Unit
PSC	–	project steering committee
RRP	–	report and recommendation to the President
SOE	–	statement of expenses
SWM	–	solid waste management
SWMF	–	solid waste management facility
UCCRTF	–	Urban Climate Change Resilience Trust Fund
WASH	–	water, sanitation, and hygiene
WSSC	–	water and sanitation services company
WWTP	–	wastewater treatment plant

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Project Administration Manual Purpose and Process

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

The Project Management Unit (PMU) on behalf of Local Government, Elections, and Rural Development Department (LGE&RDD), the Government of Khyber Pakhtunkhwa (GOKP) are wholly responsible for the implementation of ADB-financed projects, as agreed jointly between the borrower and ADB, and in accordance with the policies and procedures of the government and ADB. ADB staff is responsible for supporting implementation including compliance by participating city governments and water and sanitation services companies (WSSCs) of the participating cities of their obligations and responsibilities for project implementation in accordance with ADB's policies and procedures.

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

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

^a The name of the operational financing document may vary on a project-to-project basis; this reference shall be deemed to encompass such variations, e.g., a Framework Financing Agreement, as applicable

I. PROJECT DESCRIPTION

1. **Background.** Khyber Pakhtunkhwa Province (KPK) is one of the four administrative provinces of Pakistan, located about 130 kilometers (km) northwest of Islamabad, the country's capital, sharing a border with Afghanistan. In 2000–2017, KPK accounted for about 11% of Pakistan's gross domestic product and had the fastest annual economic growth rate—about 5%—among the four provinces.¹ KPK has a population of about 32 million which is expected to increase to about 58 million by 2035.² By the same year, it is also projected that 35% of KPK's population will be concentrated in cities, up from 16% in 2017 (footnote 3). KPK's rapid urban population growth rate (about 3.4% per annum) is placing a tremendous strain on its cities. Inadequate infrastructure and limited capacity to manage municipal water, sanitation, and solid waste services are further exposing the population to health risks and making the cities more vulnerable to the effects of climate change.³

2. **Issues.** Supply of basic urban services such as water supply, wastewater collection and treatment, solid waste management (SWM), and green urban spaces (e.g., parks) has failed to meet increasing urban domestic and commercial demand, leading to gradual degradation of the urban environment and living standards. In KPK, only 42% of the urban population has access to piped water, and typically for only 6 hours per day. Poor maintenance and leakage contribute to significant losses in piped water networks and contamination of the water supply. In 2014, 75% of supplied water in Abbottabad was unsafe for consumption, while water loss in Peshawar was estimated at 67% in 2015.⁴ Operational sewerage systems serve less than 5% of urban areas; where networks exist, they are poorly maintained and prone to overflow.⁵ Most wastewater is conveyed through open drains, and there are no functional wastewater treatment plants in KPK. Wastewater and sewage are discharged untreated into natural drains, or onto farmland for irrigation purposes, which poses a significant health risk to the local farmers and communities.

3. SWM in KPK is poor because of a lack of proper infrastructure, equipment, and management capacity. Less than 30% of municipal solid waste produced is collected.⁶ Pakistan is one of the 10 weakest countries in management of plastic waste in Asia.⁷ Cities in KPK are also among the main contributors of plastic waste trapped in rivers and drains. Without large-scale and properly engineered sanitary landfills, collected waste is either burned or disposed of in open dumps, typically along rivers and drains, severely polluting the surrounding environment.

4. Caregiving and household work primarily fall to women. Unreliable and inadequate water supply and sanitation services increase women's time poverty and drudgery, and restricts their ability to access the economic opportunities and social benefits offered by urbanization. The overall green urban space allocation in KPK cities is estimated at 3.5%, which is below the recommended international norm of 15%–20%. This represents a missed opportunity to provide intrinsic environmental and aesthetic benefits to the urban population.⁸ KPK cities are highly vulnerable to disasters triggered by natural hazards and climate change. Since 2010, KPK has experienced at least four major floods because of extreme climate events, causing economic loss

¹ Hafiz Pasha. 2018. *Growth and Inequality in Pakistan: Agenda for Reforms*. Islamabad: Friedrich Ebert Stiftung.

² Government of Pakistan. 2017. *Population Census*. Islamabad.

³ The Climate Change Vulnerability Index rates Pakistan as one of the 16 countries most vulnerable to extreme climate change risk. V. Maplecroft. [Climate Change Vulnerability Index](#).

⁴ Cities Development Initiative for Asia. 2017. *Pre-Feasibility Studies for Khyber Pakhtunkhwa Project*. Manila.

⁵ R. Cooper. 2018. Water, Sanitation, and Hygiene Services in Pakistan. *Knowledge, Evidence and Learning for Development*. 28 November. Brighton, UK: Institute of Development Studies.

⁶ Government of Khyber Pakhtunkhwa (GOKP). 2019. *Sector Roadmap*. Peshawar.

⁷ C.M. Laurent et al. 2017. [River Plastic Emissions to the World's Oceans](#). *Nature Communications* 8. 15611 (2017).

⁸ World Health Organization. 2010. *Urban Planning, Environmental Health: From Evidence to Policy Action*. Geneva.

and physical damage of urban infrastructure. The coronavirus disease (COVID-19) pandemic underscores the need for adequate social infrastructure to protect public health.

5. **Institutional challenges.** The Government of Khyber Pakhtunkhwa (GOKP) is promoting the decentralization and corporatization of municipal services to improve their operational efficiency and sustainability. In 2015, the GOKP established seven independent utility companies to take over the provision of water supply, wastewater, and SWM from local government institutions in seven primary cities in KPK. These water and sanitation services companies (WSSCs) are contracted under asset management arrangements. The WSSCs have begun introducing improvements by strengthening client relationships, increasing accountability in municipal services provision, and improving both the quality and the coverage of services through performance enhancement measures.

6. However, the WSSCs in KPK are relatively new and still face several start-up challenges. Existing tariffs are insufficient to sustain their operations, and the WSSCs require further assistance in improving the quality and coverage of their services. In the absence of technical and financial resources, the WSSCs have limited capacity to prepare and implement new projects, which has contributed to the low quality of feasibility studies, safeguards, and engineering designs for their municipal operations. Although the WSSCs have started reforming tariffs to support cost recovery on a trial basis, they will require additional support to rationalize tariffs, improve revenue collection, and strengthen commercial performance. Women's participation at WSSCs is negligible, with only a handful of women recruited for junior administrative positions, which restricts the ability of WSSCs to engage effectively with women clients. Overall, the WSSCs need support in (i) strengthening governance and developing sustainable business models; (ii) promoting effective outsourcing and partnership arrangements; (iii) building staff capacity; and (iv) improving the gender balance to better cater to the needs of their clients, especially women.

7. **ADB's engagement.** In November 2017, the Asian Development Bank (ADB), in partnership with the Urban Climate Change Resilience Trust Fund and the Cities Development Initiatives for Asia (CDIA), both under the Urban Financing Partnership Facility,⁹ completed prefeasibility studies and climate change risk and vulnerability assessments. These studies form the basis of project scope and approaches. In March 2019, ADB financed its first project readiness financing (PRF) facility to complete the detailed engineering designs, safeguard assessments, advanced procurement, and establishment and staffing of the project management unit (PMU).¹⁰ Consequently, the project meets all the project readiness requirements for immediate project implementation upon approval. ADB also processed technical assistance to regional development plans using an integrated urban planning approach.¹¹ In May 2020, ADB approved the allocation of the Asian Development Fund (ADF) 13 Thematic Pool resources that will enable the project to directly support the SDG 5 transformative gender agenda—especially by reducing unpaid care and domestic work, and ensuring women's access to economic and productive resources.

8. The project will improve households' access to water and sanitation services, which will ease women's domestic work, and provide women with safe access to urban green spaces. The project will also facilitate institutionalization of gender-sensitive policies and programs to enable the recruitment and retention of female technical workers in WSSCs. The ADF 13 grant enables

⁹ Financing partners for Urban Climate Change Resilience Trust Fund: the Rockefeller Foundation and the governments of Switzerland and the United Kingdom. CDIA donors include the governments of Austria, France, Germany, and Switzerland, as well as the European Union.

¹⁰ Development Coordination (accessible from the list of linked documents in [Appendix 2](#)).

¹¹ ADB. 2016. *Technical Assistance to the Islamic Republic of Pakistan for Provincial Strategy for Inclusive and Sustainable Urban Growth*. Manila.

the project to go beyond its project scope to (i) provide women with scholarship and internship support and enlarge the pool of female technical and professional workers in urban governance and water supply and sanitation, (ii) rehabilitate and upgrade the women's business development center (WBDC) in Kohat, which will provide livelihood training and support to women entrepreneurs, (iii) establish a women's technical training center, which will provide women with formal technical skills so they can find employment in the water and other urban infrastructure and services sector, and (iv) facilitate the establishment of childcare facilities in WSSCs. KPK shares a border with Afghanistan. Investment in social infrastructure—in particular water supply and sanitation—will reduce the burden of Pakistan for possible new influx of Afghan refugees.

9. **Alignment with strategies.** The project supports the government's development priorities established in (i) the KPK Water Act (2020), (ii) the amended Local Government Act (2019), (iii) the Integrated Water Resource Management (IWRM) Strategy for KPK (2018), and (iv) Pakistan's Nationally Determined Contributions.¹² The IWRM strategy highlights the need to (i) improve spatial planning, (ii) address climate change, (iii) streamline municipal operation structures, and (iv) increase the role of public–private partnerships. The project is aligned with ADB's country partnership strategy for Pakistan, 2021–2025 and the Strategy 2030 operational priorities (OPs) of (i) addressing remaining poverty and reducing inequalities (OP1); (ii) accelerating progress in gender equity (OP2); (iii) tackling climate change, building climate and disaster resilience, and enhancing environmental sustainability (OP3); (iv) making cities more livable (OP4); and (v) strengthening governance and institutional capacity (OP6).¹³ The project is also aligned with ADB's Action Plan for Healthy Oceans and Sustainable Blue Economies through its focus on the circular economy (recycle and reuse) and reducing riverine and marine plastic pollution; and with the priorities identified under the country's nationally determined contributions, which include a focus on use of renewable energy and building climate-resilient infrastructure.

10. **Impact and Outcome:** The project is aligned with the following impact: livability and community health in urban centers of KPK improved.¹⁴ The project will have the following outcome: access to reliable and resilient urban services in Abbottabad, Kohat, Mardan, Mingora, and Peshawar improved. The outcome will be achieved through three outputs:

11. **Output 1: Climate-resilient and gender-friendly urban infrastructure improved.** This output will comprise three subcomponents: (i) water supply and sanitation, (ii) solid waste management, and (iii) green urban infrastructure. The water supply and sanitation component will include improvements and augmentation of more than 1,200 km of water supply and 156 km of sewerage network and household connection, and construction of two clean water supply treatment facilities, two sewage treatment facilities, and at least 10 tube wells. About 150,000 new households will be connected to water supply systems. To increase efficiency of operations and conserve water, about 150,000 smart water meters and supervisory control and data acquisition (SCADA) systems will be installed. The SWM component will include the development of primary and secondary waste collection systems and five third-generation integrated solid waste management (ISWM) facilities that support waste-to-energy conversion, material recovery, and waste reduction and recycling. The green urban infrastructure component will finance the development of green infrastructure to promote healthy and sustainable living environments. This component will also finance the rehabilitation of seven existing green spaces and nature trails, improvement of pedestrian sidewalks and streets, and conversion of one existing informal

¹² Government of Pakistan. 2016. [Pakistan's Intended Nationally Determined Contribution](#). Islamabad.

¹³ ADB. 2018. *Strategy 2030: Achieving a Prosperous, Inclusive, and Sustainable Asia and the Pacific*. Manila; and ADB. 2020. [Country Partnership Strategy: Pakistan, 2021–2025—Lifting Growth, Building Resilience, Increasing Competitiveness](#). Manila.

¹⁴ The Government of Khyber Pakhtunkhwa. KPK Local Government Act, Amended, 2019. Pakistan.

dumpsite to a park. Infrastructure under this output has been engineered to adapt to projected climate impacts, and will contribute to urban climate adaptation by improving the overall quantity and quality of water resources and reducing the impacts of floods. The green urban spaces will include women-friendly facilities such as women's sports complexes, family areas, and well-lit rest areas and toilets, as well as street beautification with streetlights and closed-circuit television cameras. The output 1 will significantly contribute to the overall improvement of environment and livability of the KPK cities.

12. Output 2: Institutional capacity and gender inclusiveness of urban service providers, provincial government, and city governments strengthened. Under this output, the project will finance the (i) establishment of Khyber Pakhtunkhwa Municipal Regulatory Office (KPRO), a new and dedicated regulatory body, to improve the regulatory and oversight mechanism of municipal services; (ii) launch of a financial sustainability action plan to introduce cost-recovery tariff programs based on a new set of service standards; (iii) development of enterprise resource planning (ERP) systems for the WSSCs to strengthen their operational systems and management of assets and resources; and (iv) improvement of a local government academy to train the staff of municipal service institutions, including WSSCs. These capacity-building initiatives will promote community ownership, also ensuring the sustainability of these investments. The project will capacitate communities and WSSCs in improving efficiency of operation and raising awareness and knowledge about adaptation, including reduction and management of waste, water conservation, increasing green cover in communities, and maintaining the efficacy of drainage systems to reduce flooding. New customer service functions will be established to increase participation of clients, especially women, in service provision. A feedback mechanism will be set up to improve billing and complaint-handling systems, and an effective communication strategy will be prepared to promote behavior change in water, sanitation, and hygiene (WASH) practices that will contribute to COVID-19 recovery.

13. Output 3: Women's participation in urban governance and access to economic opportunities increased. This output will improve women's access to economic opportunities and increase their participation in urban governance and services. First, the WBDC in Kohat will be rehabilitated and upgraded.¹⁵ This center is a dedicated space for women's skills development and income-generating activities. It has a multipurpose community hall and exhibition center, an outdoor community recreational space, an area for selling home-based products, a day-care facility for working mothers, and a food-selling area. The project will implement a livelihood skills development program for women that includes training and materials support. Second, a scholarship program will be created for qualified female students to pursue education and research in urban development, engineering, environment, climate change, and similar fields. Third, the facilities of the Polytechnic Institute for Women in Peshawar will be equipped with better trained teaching staff and improved day-care facilities, transportation, and hostel facilities. Last, an extensive formal and on-the-job WASH and climate change training program for women will be provided. Outputs 2 and 3 will also support a new community-led climate adaptation and WASH initiative called "SAFA KHAR DA TOLO" (Clean City for All) within the new woman wings in WSSCs. The initiative will promote appropriate use of the project sanitation and water facilities and good hygiene practices at home and in the community.

II. IMPLEMENTATION PLANS

¹⁵ The GOKP is already operating this center but the facility requires upgrading with additional management capacity.

A. Project Readiness Activities

14. In November 2017, Asian Development Bank (ADB), in partnership with Urban Climate Change Resilience Trust Fund (UCCRTF) and Cities Development Initiatives for Asia, completed prefeasibility studies and climate change resilience vulnerability assessments. In March 2019, ADB and UCCRTF financed ADB's first project readiness financing (PRF) loan to complete (i) detailed engineering design, (ii) government reform plans, (iii) advance procurement, (iv) government approval based on detailed engineering design, and (v) establishment and staffing of project management unit and city implementation offices. The proposed project meets all of the above project readiness filters for immediate project implementation upon approval. ADB also processed a policy and advisory technical assistance grant to prepare medium- to long-term urban road maps and regional development plans with viable innovations for the project.

Table 1: Project Processing Schedule

Indicative Activities	2021				Responsible Agency	Remarks
	Q1	Q2	Q3	Q4		
Advance contracting actions					PMU	Ongoing
Establish project implementation arrangements					GOKP	Completed in 2019
ADB Board approval					ADB	
AIIB Board approval					AIIB	
ADB loan/grant signing					ADB, GOKP	
AIIB signing					AIIB, GOKP	
Government legal opinion provided					GOP	
Government budget inclusion					GOP	Achieved
ADB loan/grant effectiveness					GOP	
AIIB loan effectiveness					GOP	

ADB = Asian Development Bank, AIIB = Asian Infrastructure Investment Bank, GOKP = Government of Khyber Pakhtunkhwa, GOP = Government of Pakistan, PMU = Project Management Unit.

Source: Asian Development Bank

Table 2: Indicative Project Implementation Schedule

[illegible]

	2021				2022				2023				2024				2025				2026				2027			
	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4
3.5. Design and roll-out of Scholarship and internship program by Q2 2023																												
3.6. Women-owned small enterprises development (Q3 2027)																												
3.7. Rehabilitation of Women's Polytechnique College in Peshawar completed by Q4 2027																												

GIS = geographic information system, PMU = Project Management Unit, SCADA = supervisory control and data acquisition, SWM = solid waste management, TMA = Tehsil Municipal Administration, WASH = water, sanitation, and hygiene, WSSC = water and sanitation services company,
Source: Project Management Unit

III. PROJECT MANAGEMENT ARRANGEMENTS

A. Project Implementation Organizations: Roles and Responsibilities

Table 3: Summary of Project Implementation Roles and Responsibilities

Project Implementation Organizations	Management Roles and Responsibilities
<p>Executing agency Local Government, Election and Rural Development Department (LGE&RDD), Government of Khyber Pakhtunkhwa (GoKP).</p>	<p>The LGE&RDD, GoKP will mainly be responsible for:</p> <ul style="list-style-type: none"> • Act as the project executing agency (EA) for Khyber Pakhtunkhwa Cities Improvement Project (KPCIP). • Establish a Project Management Unit (PMU), with adequate staff acceptable to Asian Development Bank (ADB). • Liaise with ADB to address any issues during design and implementation. • Approve Procurement Plan of KPCIP. • Coordinate will relevant provincial department for project implementation, including social, gender action plan and environmental safeguard approval and plans. • Responsible for institutional reforms road map, including processing tariff reforms/revisions and signing and execution/oversight of SAMAs. • Approve Annual Budget as per recommendation of PMU and water and sanitation services companies (WSSCs); and • Approve delegation of authorities to PMU and WSSCs.
<p>Project steering committee (PSC)</p> <p>The PSC will comprise of the following officials:</p> <ol style="list-style-type: none"> 1. Additional Chief Secretary (Dev) P&D GoKP – Chair 2. Secretary, LGE&RDD – Deputy Chair 3. Secretary P&D 4. Secretary Finance 5. CEOs of the five WSSCs 6. MC representatives of respective cities 7. Executive Officer of Cantt Board (where applicable) 8. Project Director – Secretary; 	<p>The PSC will meet at least once in each quarter.^a The key mandate of the PSC will be:</p> <ul style="list-style-type: none"> • policy direction and strategic oversight for the KPCIP. • principle approvals of the investment. • annual budget, and counterpart fund provision. • Higher level decisions to facilitate timely execution of the project, including major variations and changes in scope and cost. • quarterly and annual performance monitoring including Gender Action Plan (GAP). • project implementation in line with and financing agreements and provisions of the Project Administration Manual (PAM); and • approval of annual business plans of WSSCs and allocation of operational funds. • Oversight and monitoring of key internal audit findings
<p>Central Procurement Committee (CPC)</p> <p>The CPC will be composed of:</p> <ol style="list-style-type: none"> 1. Secretary LGE&RDD - Chair 2. Project Director, KPCIP 3. Procurement Specialist - PMU 4. Procurement Staff – WSSCs 	<p>The CPC's key responsibilities are:</p> <ul style="list-style-type: none"> • Finalization of bidding documents including technical specifications. • Review/approve bids for procurement of works, and goods (technical and financial bids evaluation, contract negotiations); and • Review/approve hiring of PMU and CKU Consultants (technical and financial evaluation of proposals, and contract negotiations)
<p>Central Project Administration and Management Committee (CPAMC)</p>	<p>The key mandate of the CPAMC will be:</p> <ul style="list-style-type: none"> • Oversee and decide on project administration issues of common interest between all cities including centrally

Project Implementation Organizations	Management Roles and Responsibilities
<p>The CPAMC will be composed of:</p> <ol style="list-style-type: none"> 1. Secretary LGE&RDD - Chair 2. Project Director, KPCIP 3. Heads of all WSSCs 	<p>procured managed contracts or works, equipment and consultants.</p> <ul style="list-style-type: none"> • Ensure effective coordination between PMU, TMAs, and WSSCs, and between these agencies' and other government departments. • Provide guidance and take all operational decisions related to institutional reforms components of the project, and; • Manage any project implementation disputes between the PMU and WSSCs.
<p>City-Level Project Administration and Management Committee (CLPAMC)</p> <p>The CLPAMC will comprise:</p> <ol style="list-style-type: none"> 1. WSSCs Board of Directors, along with their current chairpersons* 2. Project Director, KPCIP or his representative as co-opted member for the purpose of the project 	<p>The CLPAMC's role and responsibilities are:</p> <ul style="list-style-type: none"> • Oversee project implementation through regular review of IA/WSSCs implementation of the project. • Undertake decisions on key aspects of the project administration and management that require board approval. • Facilitate interdepartmental coordination required at the city level for project implementation. • Conduct periodic review of project's Gender Action Plan (GAP) progress and facilitate interdepartmental coordination required at the city level for GAP implementation. • Approve new hiring, training, tariff and operational/HR budgets required for operation of project investments and their sustainable operation at the city level. • Approve outsourcing arrangements where applicable, and; • Recommend subsector master plans for approval.
<p>Project management unit (PMU) within the executing agency</p>	<p>The key responsibilities of the PMU are:</p> <ul style="list-style-type: none"> • Overall coordination with both provincial and city level stakeholders. • Centralized procurement of works/equipment and hiring of consulting services. • Management/administration of central construction supervision contracts and capacity building and/or reform contracts. • Advance fund account operations, and direct withdrawal and liquidation applications submission to ADB, oversight on second generation advance fund accounts and maintaining record and accounts of the whole projects. • Compliance monitoring of safeguards and financial management, auditing, and gender action plan. • Project performance monitoring and reporting; and • Coordinating implementation of institutional reforms
<p>Water and Sanitation Services Companies (WSSC) of all five participating cities – through respective city implementation unit (CIU) (Abbottabad, Kohat, Mardan, Mingora, and Peshawar)</p>	<p>CIUs will be established within the WSSCs of the five project cities. The key responsibilities of the WSSCs through the CIUs will be:</p> <ul style="list-style-type: none"> • Contract administration/management of respective contractors/consultants/suppliers. • Small procurements (where applicable) and facilitating outsourcing contracts. • Administer civil work /suppliers/consultants' contracts, verify invoices and processing payments as a client/top supervisor.

Project Implementation Organizations	Management Roles and Responsibilities
	<ul style="list-style-type: none"> • Second generation advance fund accounts operations (where applicable). • Compliance of safeguards and entity level financial requirements, including auditing. • Facilitate operational reforms, related hiring and capacity building activities. • Project monitoring and reporting (including update on gender action plan; and • Oversee/guide subsector master planning, stakeholder consultation & approval.
Financiers Asian Development Bank (ADB) Asian Infrastructure Investment Bank (AIIB)	<p>The ADB will:</p> <ul style="list-style-type: none"> • Support the coordination and administration of the project. • Provide technical and financial support and oversight to EA, PMU and CIUs, in accordance with loan and project agreements. • Guide the EA, PMU, MCs, and CIUs on resolution of implementation issues and project design. • Review and approve PMU's actions related to procurement of goods and services, and recruitment of consultants. • Ensure timely processing of withdrawal applications. • Disclose all safeguards documents, and monitor safeguards implementation. • Provide technical backstopping to PMU and CIUs for the compliance of Gender Action Plan (GAP) • Monitor borrower's PMU's and CIU's compliance of loan and project covenants – including all safeguards requirements. • Conduct periodic review of the project, • Carry out policy dialogue with the government and the borrower when required – particularly on institutional reforms to ensure sustainability of the operations; • Review withdrawal applications for AIIB (ADB). • Send advice to AIIB for disbursement of their portion of expenditures (ADB) • Update project performance records in ADB's eOperations database. <p>The AIIB will:</p> <ul style="list-style-type: none"> • Join ADB team in conducting periodic reviews, including midterm and completion review missions to assess the project implementation progress • Ensure AIIB's fund flows to the project activities are achieved in a timely and efficient manner and in compliance with the cofinancing agreement between ADB and AIIB

^a The minutes of the meeting will be prepared by the PMU and shared with ADB.

Sources: Asian Development Bank.

B. Key Persons Involved in Implementation

Executing Agency

Local Government, Elections,
and Rural Development
Department, Government of
Khyber Pakhtunkhwa

Officer's Name
Position
Telephone
Email address
Office Address

Project Management Unit

Officer's Name
Position
Telephone
Email address

Asian Development Bank

Urban Development and Water
Division Central and West Asia
Department

Office Address: 6 ADB Avenue, Mandaluyong City 1550
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Mission Leader

Staff Name Kiyoshi Oswin Nakamitsu
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Telephone No.: +63 (2) 8632 5884
Email address: knakamitsu@adb.org

Staff Name: Shaukat Shafi
Position: Head, Urban Unit, Pakistan Resident Mission
Telephone No.: +92 (51) 208 7300
Email address: mshafi@adb.org

C. Project Organization Structure

Figure 1: Project Organization Structure

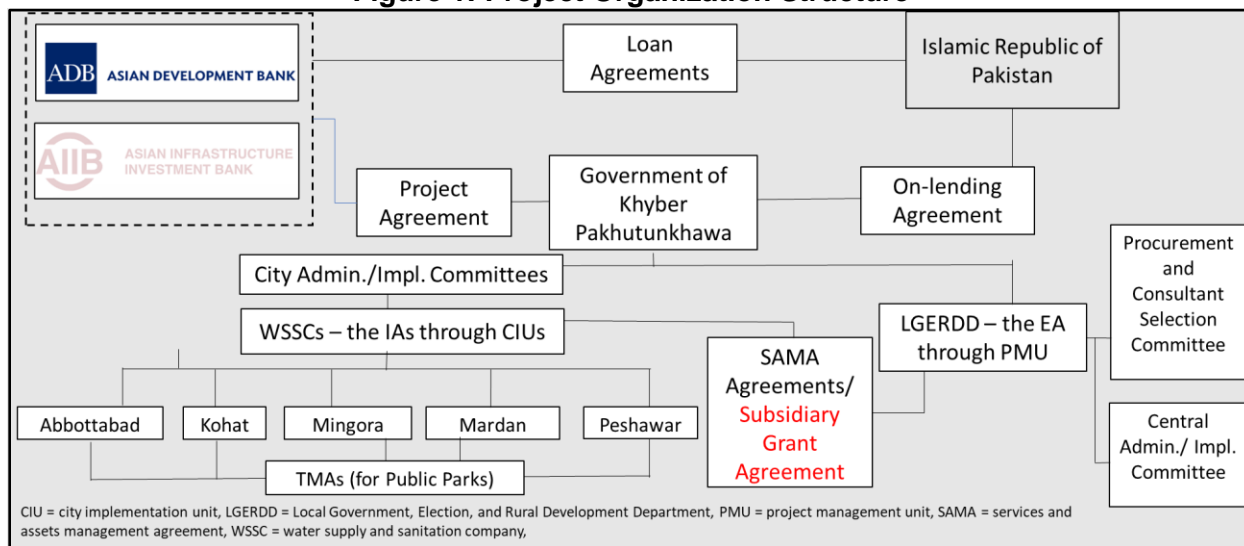
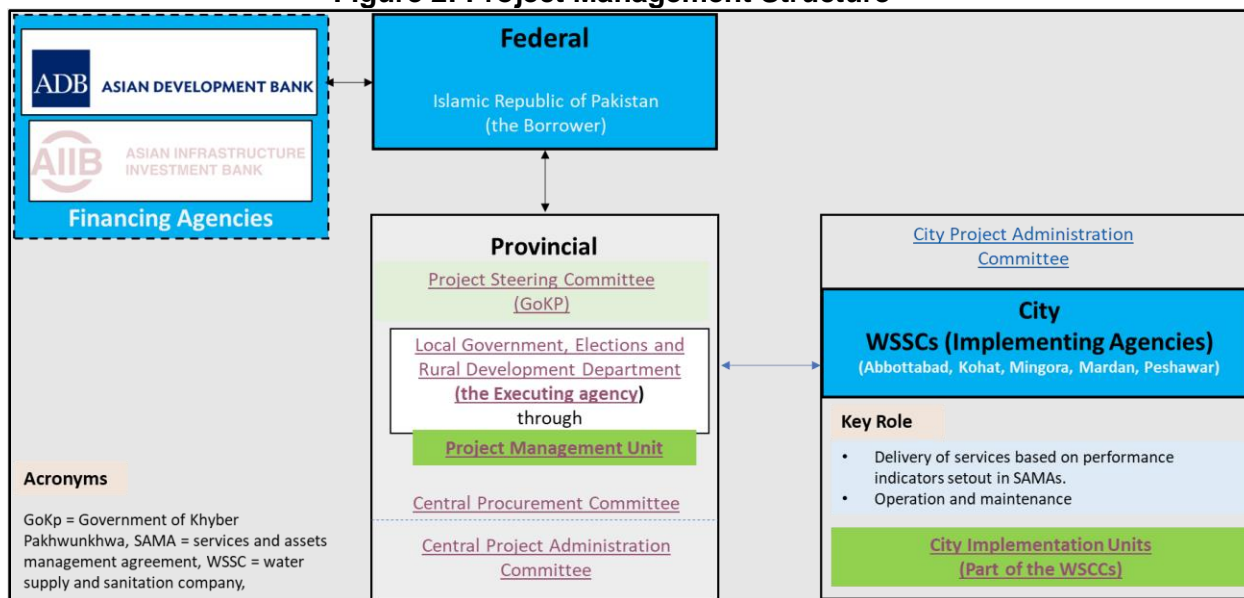


Figure 2: Project Management Structure



16. **Project Management Unit.** A Project Management Unit (PMU) will be established within the LGE&RDD (executing agency) to be headed by a Project Director and supported by (i) Director Finance and Administration, (ii) Director Compliance, (iii) Director Technical, and (iv) Director Reforms. There will also be an Internal Auditor who will be part of the PMU but directly reporting to the Project Steering Committee (PSC) to ensure the independence of the position. These four positions, including that of the Project Director will be filled-in by The PMU key positions (including that of the Internal Auditor) will be filled-in through competitive selection process, considering the qualifications and experience relevant to the respective positions, and acceptable to ADB. The PMU will also have specialists and incremental staff positions, including but not limited to institutional development, tourism, training and capacity building.

communication, urban planning, infrastructure engineering, municipal finance, procurement, safeguards, gender, accounting, monitoring and evaluation, and information communication technology. The organogram and staffing needs of the PMU are shown in Figure 3 and Table 4 respectively:

Figure 3: Organogram of the Project Management Unit

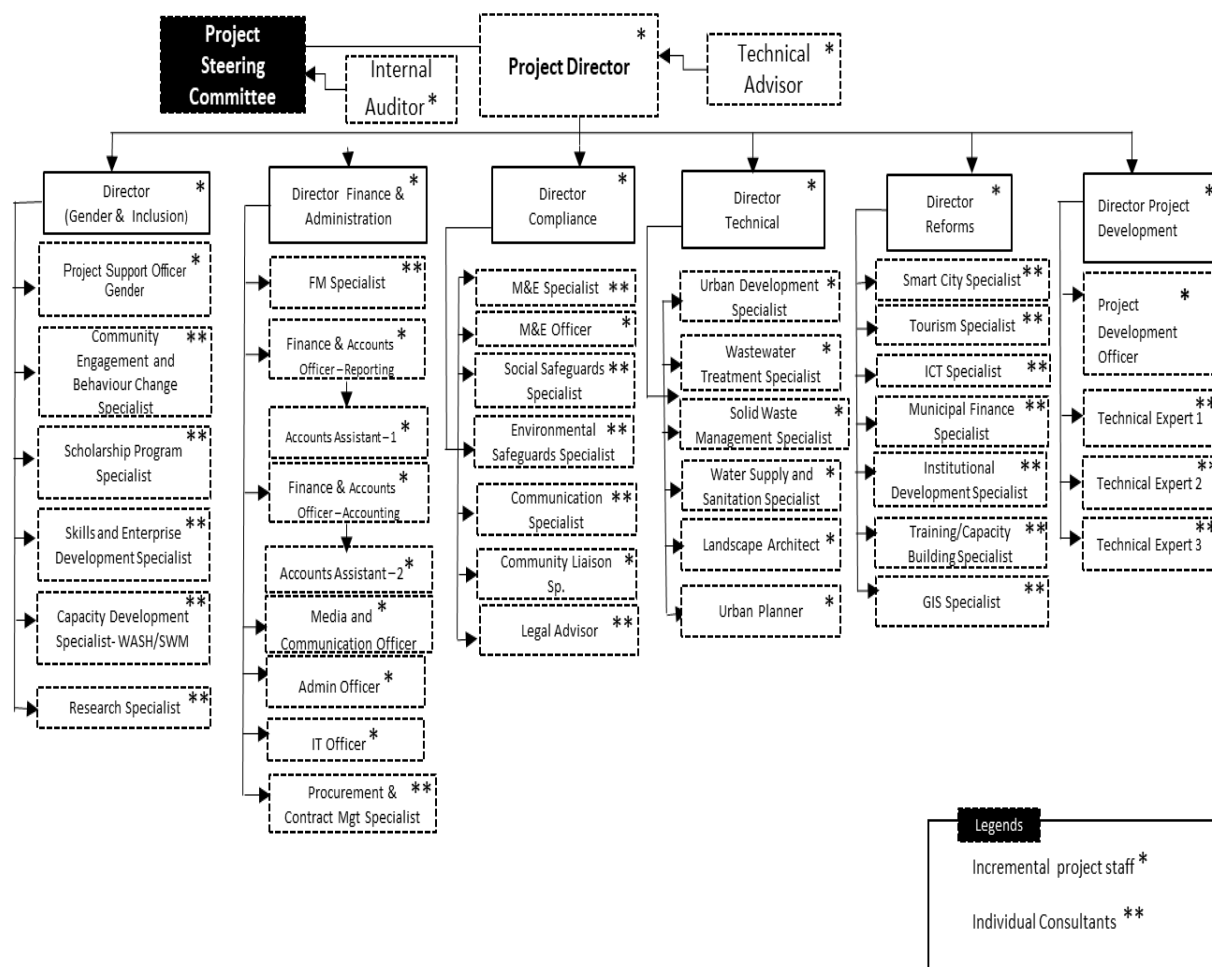


Table 4: Indicative Staffing Requirements of Project Management Unit

Title	No. of Positions	Person-months (PM) per Position	Total PM
1. Project Director	1	60	60
2. Internal Auditor	1	60	60
3. Technical Director	1	60	60
4. Compliance Director	1	60	60
5. Finance and Administration Director	1	60	60
6. Projects Development Director	1	60	60
7. Gender and Inclusion Director	1	60	60
8. Reforms Director	1	60	60
9. Project Support Officer (Gender)	1	60	60
10. Urban Development Specialist	1	60	60
11. Wastewater Treatment Specialist	1	60	60
12. Solid Waste Management Specialist	1	60	60
13. Water Supply and Sanitation Specialist	1	60	60
14. Landscape Architect	1	60	60
15. Urban Planner	1	60	60
16. Municipal Finance Specialist	1	60	60
17. Community Liaison Specialist	1	60	60
18. ICT Officer	1	60	60
19. Project Development Officer	1	60	60
20. Monitoring and Evaluation Officer	1	60	60
21. Media and Communication Officer	1	60	60
22. Administration Officer	1	60	60
23. Finance and Accounts Officer (Reporting)	1	60	60
24. Finance and Accounts Officer (Accounting)	1	60	60
25. Accounting Assistants	3	60	180
26. Administrative / Office Assistants	2	60	120
27. Procurement Assistants	2	60	120
28. Computer Operators / Draftsman	6	60	360
29. Drivers	24	60	1440
30. (i) Diary & Dispatch	4	60	960
(ii) Office Boys	4	60	240
(iii) Cleaners	4	60	240
(iv) Security Guards	4	60	240

17. **City Implementation Unit (CIU).** At the city level, project implementation units (PIUs) will be established within the respective water and sanitation services companies (WSSCs) – five in total. Each PIU shall be headed by a chief engineer, who will be a regular employee of the WSSC. The CIU will have three types of staff; (i) existing staff of WSSC for the functions that are already integral part of the WSSC e.g. (a) administration and finance, human resource, and (b) information technology, (ii) incremental staff to be hired under the Project, and (iii) individual consultants – again to be hired under the Project. The key positions of incremental staff of PIU will be appointed by selecting the individuals having the qualification and experience relevant to the respective job, and also acceptable to the ADB.

18. The current arrangement of WSSC staff working for PIUs will remain intact. However, those staff will also provide necessary support to the Chief Engineer¹⁶ heading the PIUs in the day-to-day project implementation activities. The organogram and staffing needs of the PIUs are shown in Figure 4 and Table 5 respectively:

¹⁶ The Chief Engineer will also be a regular staff of the WSSC.

Figure 4: Organogram of City Implementation Unit, Abbottabad

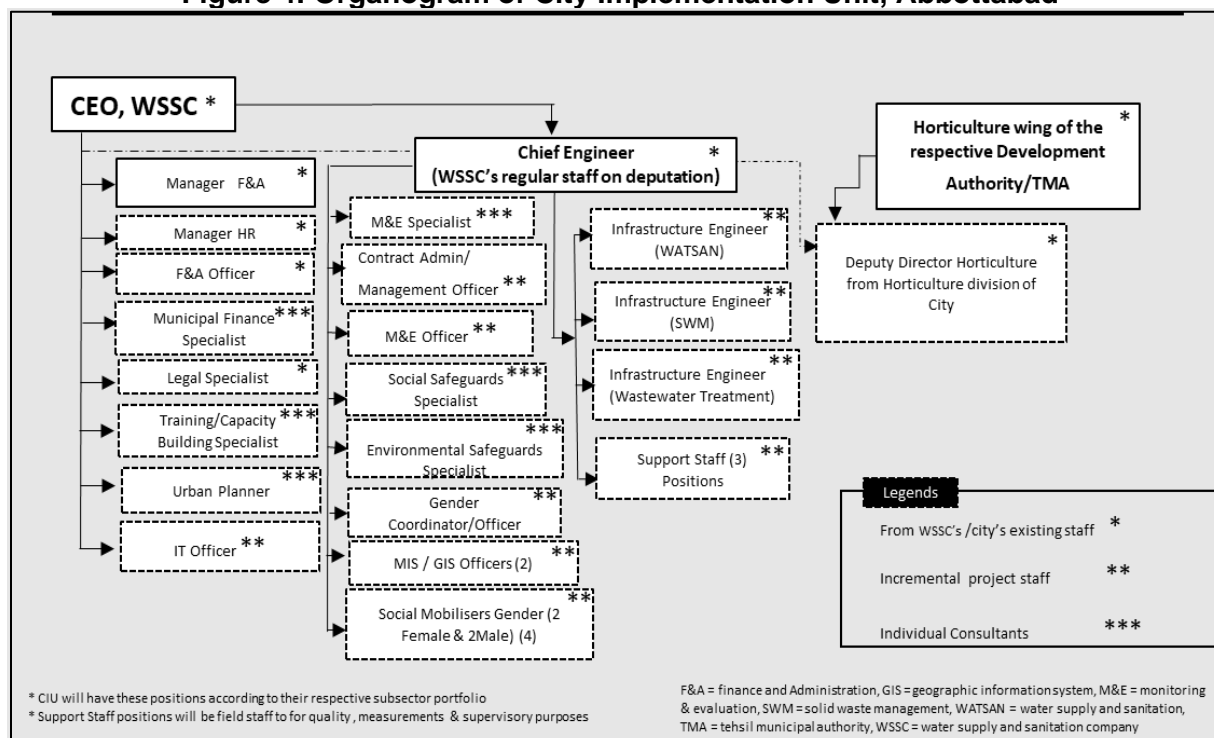


Figure 5: Organogram of City Implementation Unit, Kohat

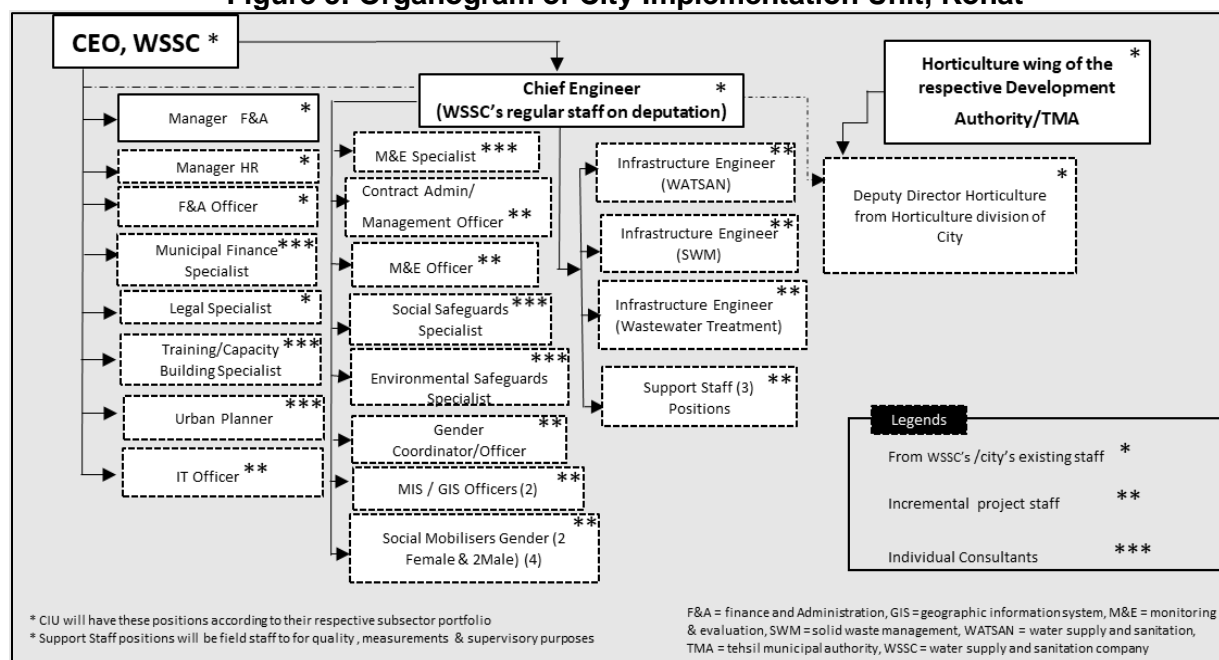


Figure 6: Organogram of City Implementation Unit, Mardan

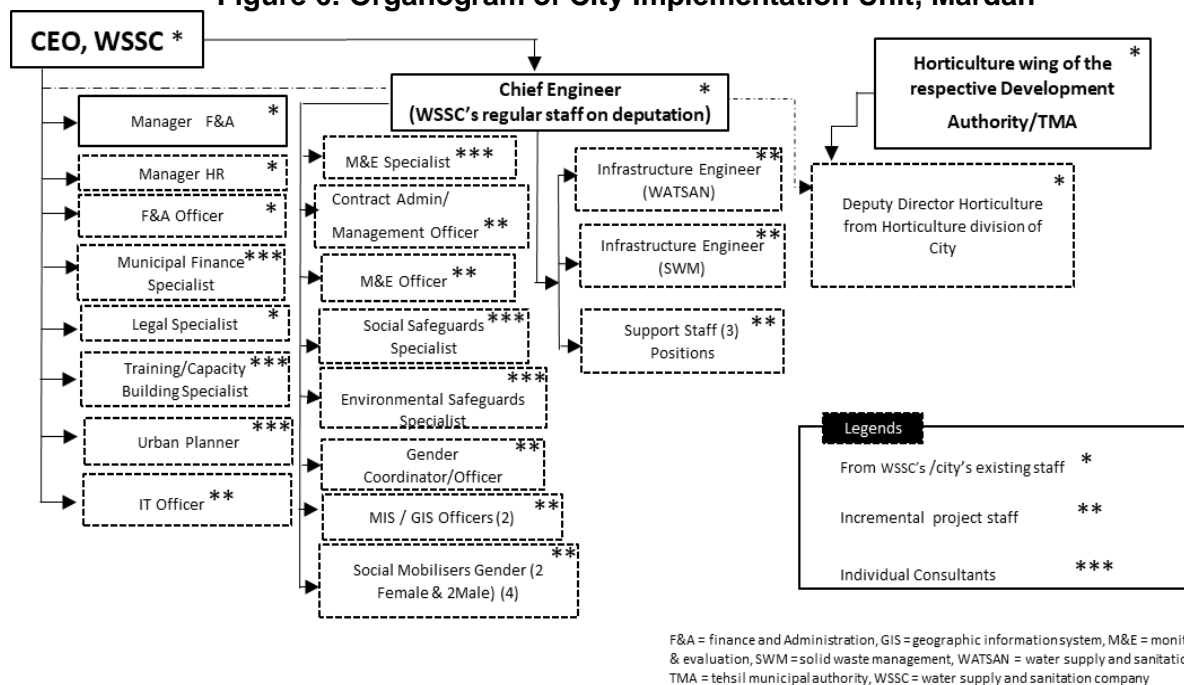


Figure 7: Organogram of City Implementation Unit, Mingora

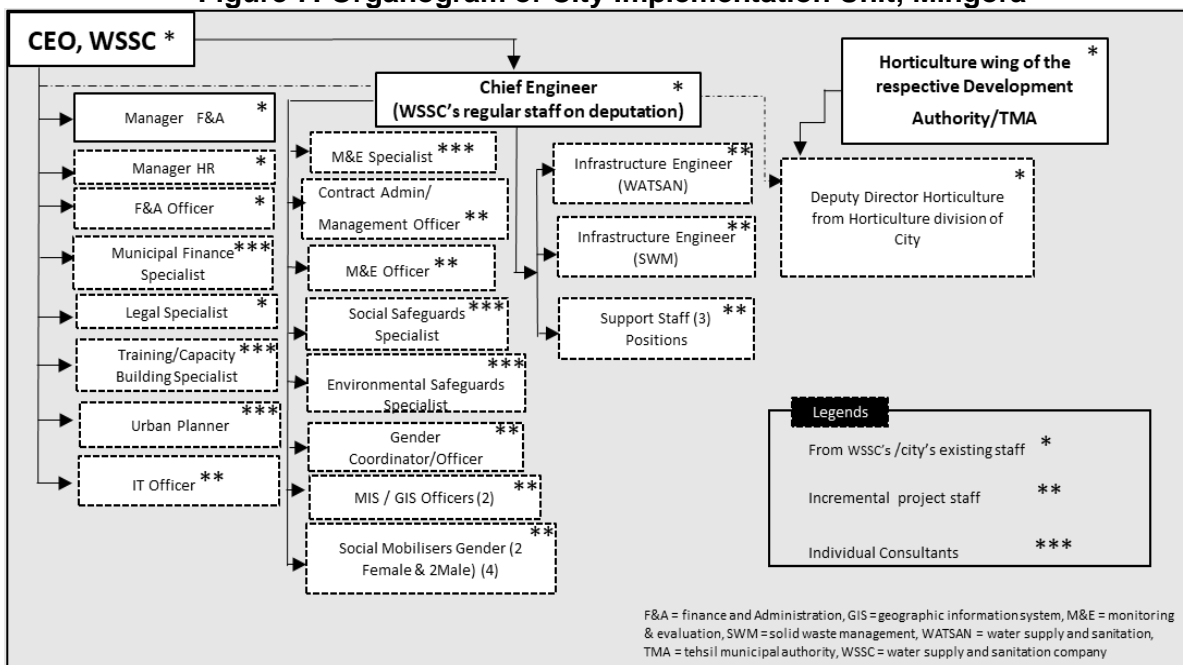


Figure 8: Organogram of City Implementation Unit, Peshawar

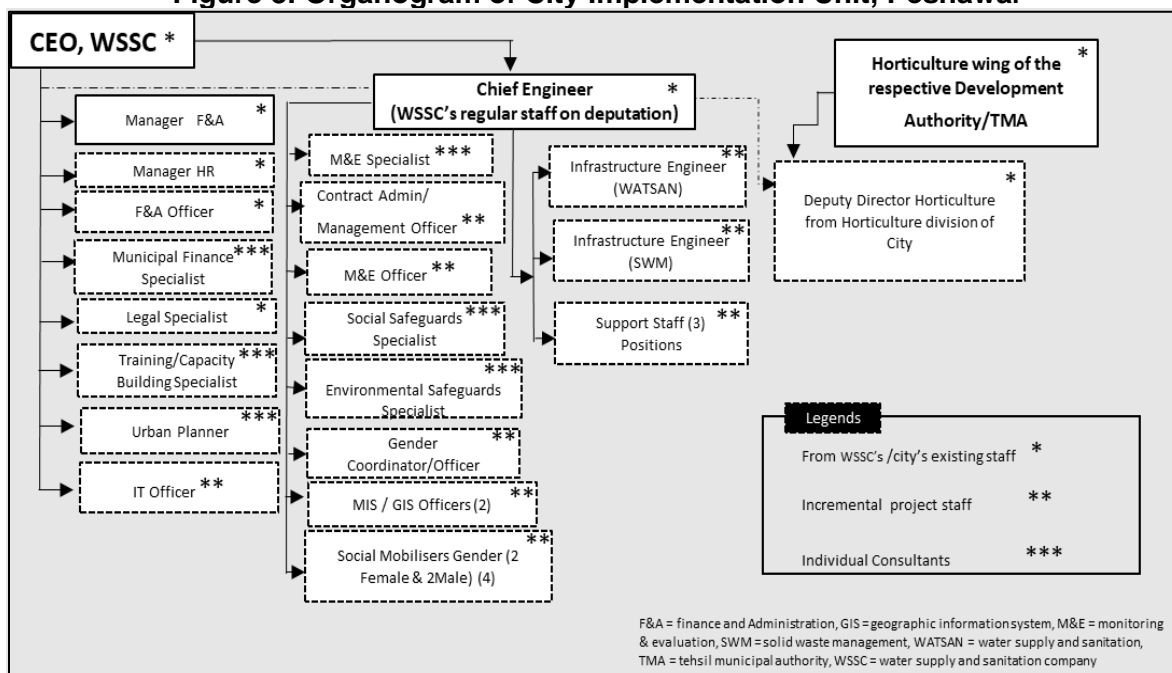


Table 5: Staffing Requirements of City Implementation Units

e Title	No. of Positions	Person-months (PM)	Total PM
CIU – Peshawar			
1. Chief Engineer (WSSC's existing staff)	1	60	60
2. Manager Finance (existing WSSC's staff)	1	60	60
3. Manager HR (existing WSSC staff)	1	60	60
4. Finance and Admin Officer (Existing WSSC staff)	1	60	60
5. Infrastructure Engineer (WATSAN)	1	60	60
6. Infrastructure Engineer (SWM)	1	60	60
7. Contract Admin / Management Officer	1	60	60
8. M&E Officer	1	60	60
9. MIS Officer	1	60	60
10. GIS Officer	1	60	60
11. Gender Coordinator/Officer	1	60	60
12. Social Mobilisers	4	60	240
13. IT Officer	1	60	60
14. Support Staff	3	100	300
Total	19		1,260
CIU – Abbottabad			
1. Chief Engineer (WSSC's existing staff)	1	60	60
2. Manager Finance (existing WSSC's staff)	1	60	60
3. Manager HR (existing WSSC staff)	1	60	60
4. Finance and Admin Officer (Existing WSSC staff)	1	60	60
5. Infrastructure Engineer (WATSAN)	1	60	60
6. Infrastructure Engineer (Wastewater Treatment)	1	60	60
7. Infrastructure Engineer (SWM)	1	60	60
8. Contract Admin / Management Officer	1	60	60
9. M&E Officer	1	60	60
10. MIS Officer	1	60	60
11. GIS Officer	1	60	60
12. Gender Coordinator/Officer	1	60	60
13. Social Mobilisers	4	60	240
14. IT Officer	1	60	60

e Title	No. of Positions	Person-months (PM)	Total PM
15. Support Staff	4	60	240
Total	21		1,260
CIU – Kohat			
1. Chief Engineer (WSSC's existing staff)	1	60	60
2. Manager Finance (existing WSSC's staff)	1	60	60
3. Manager HR (existing WSSC staff)	1	60	60
4. Finance and Admin Officer (Existing WSSC staff)	1	60	60
5. Infrastructure Engineer (WATSAN)	1	60	60
6. Infrastructure Engineer (Wastewater Treatment)	1	60	60
7. Infrastructure Engineer (SWM)	1	60	60
8. Contract Admin / Management Officer	1	60	60
9. M&E Officer	1	60	60
10. MIS Officer	1	60	60
11. GIS Officer	1	60	60
12. Gender Coordinator/Officer	1	60	60
13. Social Mobilisers	4	60	240
14. IT Officer	1	60	60
15. Support Staff	4	60	240
Total	21		1,260
CIU – Mardan			
1. Chief Engineer (WSSC's existing staff)	1	60	60
2. Manager Finance (existing WSSC's staff)	1	60	60
3. Manager HR (existing WSSC staff)	1	60	60
4. Finance and Admin Officer (Existing WSSC staff)	1	60	60
5. Infrastructure Engineer (WATSAN)	1	60	60
6. Infrastructure Engineer (SWM)	1	60	60
7. Contract Admin / Management Officer	1	60	60
8. M&E Officer	1	60	60
9. MIS Officer	1	60	60
10. GIS Officer	1	60	60
11. Gender Coordinator/Officer	1	60	60
12. Social Mobilisers	4	60	240
13. IT Officer	1	60	60
14. Support Staff	3	60	180
Total	19		1,140
CIU – Mingora			
1. Chief Engineer (WSSC's existing staff)	1	60	60
2. Manager Finance (existing WSSC's staff)	1	60	60
3. Manager HR (existing WSSC staff)	1	60	60
4. Finance and Admin Officer (Existing WSSC staff)	1	60	60
5. Infrastructure Engineer (WATSAN)	1	60	60
6. Infrastructure Engineer (SWM)	1	60	60
7. Contract Admin / Management Officer	1	60	60
8. M&E Officer	1	60	60
9. MIS Officer	1	60	60
10. GIS Officer	1	60	60
11. IT Officer	1	60	60
12. Gender Coordinator/Officer	1	60	60
13. Social Mobilisers	4	60	240
14. Support Staff	3	60	180
Total	19		1,140

IV. COSTS AND FINANCING

19. The Project is estimated to cost €563.747 million (\$650 million equivalent), comprising (i) ADB loan of €329.575 million (\$380.0 million equivalent) from its Ordinary Capital Resources, (ii) €173.461 million loan (\$200 million equivalent) from AIIB, (iii) \$5 million ADF financed by ADB on grant basis, and (iv) government contribution of €56.375 million (\$65.0 million equivalent).¹⁷

20. The ADB and AIIB will finance all project costs including taxes and duties. ADB will also finance part of the social and environmental mitigation costs including acquisition of land and rights of way, resettlement costs, and implementation cost of the environmental management plans. Government will finance a part of social and environmental costs and contingencies.

A. Cost Estimates Preparation and Revisions

21. The ADB project team in consultation with the PMU prepared the cost estimates. For estimating civil works costs, the schedule rates of GoKP were used, whereas for non-scheduled items, the rates are based on the quotations obtained by the PMU from the market and building on some cushion for transportation, and profit margin of the contractors/suppliers. The project costs estimates are indicative and may be updated if needed during the project implementation and upon request of the executing and/or implementing agency through the borrower.

B. Key Assumptions

22. The following key assumptions underpin the cost estimates and financing plan:

- (i) Exchange rate: PKR 171.25 = \$1.00, and \$1.00 = € 0.867303 as of 15 October 2021.
- (ii) Price contingencies based on expected cumulative inflation over the implementation period are as follows:

Table 6: Escalation Rates for Price Contingency Calculation

Item	2021	2022	2023	2024	2025	2026	Average
Foreign rate of price inflation	1.6%	1.7%	1.7%	1.8%	1.8%	1.8%	1.7%
Domestic rate of price inflation	8.7%	7.5%	7.0%	6.5%	6.5%	6.5%	7.1%

Source: Asian Development Bank Domestic Cost Escalation Factors 2021–2025; Central and West Asia Department

¹⁷ The government share will be used to finance about 74% of the total of physical and financial contingencies. The remaining contingencies will be financed as follows: (16% from AIIB loan, 9% from ADB loan, and 1% from ADF Grant).

1. Detailed Cost Estimates by Expenditure Category

Table 7: Detailed Cost Estimates by Expenditure Category
(\$ million^a)

Item	Project Cost			% of base cost
	Foreign Exchange	Local Currency	Total Cost	
A. Investment Costs				
1. Civil Works	68.832	395.425	464.257	85.7%
2. Mechanical and Equipment - Loan		5.350	5.350	1.0%
3. Mechanical and Equipment - Grant		0.098	0.098	0.0%
4. Environment and Social mitigation ^b		12.944	12.944	2.4%
5. Gender Mainstreaming				
a. Community and Social Wings - WSSCs		1.009	1.009	0.2%
b. Capacity building/Institutional strengthening		0.532	0.532	0.1%
c. Scholarship and internship program		1.021	1.021	0.2%
d. Women Business Development Centre, Kohat		1.009	1.009	0.2%
6. Consultants				
a. Project Management	2.065	22.769	24.834	4.6%
b. Reforms and Capacity Building		13.497	13.497	2.5%
c. Gender Mainstreaming		0.818	0.818	0.2%
Subtotal (A)	70.897	454.473	525.370	97.0%
B. Recurrent Costs				
1. Incremental Staff Salaries - Loans		12.947	12.947	2.4%
2. Incremental Staff salaries - Grant		1.072	1.072	0.2%
3. Office Operations - Loans Component		2.230	2.230	0.4%
4. Office Operations - Grant Component		0.094	0.094	0.0%
Subtotal (B)	-	16.343	16.343	3.0%
Total Base Cost	70.897	470.817	541.714	100.0%
C. Contingencies				
1. Physical	5.424	36.835	42.259	7.8%
2. Price ^b	1.323	33.113	34.436	6.4%
Subtotal (C)	6.747	69.948	76.695	14.2%
D. Financial Charges During Implementation				
1. Interest during construction	28.292		28.292	5.2%
2. Commitment charges	3.300		3.300	0.6%
Subtotal (D)	31.592		31.592	5.8%
Total Project Cost (\$)	109.235	540.765	650.000	
Total Project Cost (Euro)^a	94.740	469.007	563.747	

WSSC = water and sanitation services company.

Note: Numbers may not sum precisely because of rounding.

^a €0.867303 = \$1.00 as of 15 October 2021. Rounded in thousands place value.

^b This includes cost for EMP implementation, land acquisition, and LARP implementation. Land acquisition and LARP implementation costs include (i) actually disbursed compensation for land and non-land assets (structures, crops, trees and other improvements) based on the IVS results and LAC rates, transitional support, relocation assistance, vulnerability assistance, severe impact allowance and livelihood restoration activities as provided in the approved LARPs and CAPs. A total of \$6.5 million has been deposited by the government at the district treasury to cover land acquisition and resettlement cost. Amounts that are confirmed to have been received by the DPs will be reimbursed to government, while compensation amounts that are kept undisbursed and uncollected by the entitled DPs will be shouldered by the government.

^c Price contingencies calculated as 7.1% of base costs (local currency), and 1.7% of base cost (foreign currency).

2. Allocation and Withdrawal of Loan and Grant Proceeds

Table 8: Allocation and Withdrawal of ADB Loan Proceeds

Category Number	Item	Total Amount Allocated for ADB Financing (€) ^a	Basis for Withdrawal from the Loan Account
01	Works ^b	261,723,000	65% of total expenditure claimed
02	Mechanical and Equipment ^b	4,640,000	100% of total expenditure claimed
03	Environment and Social Mitigation ^b	5,122,000	46% of total expenditure claimed
04	Project Management ^b	29,005,000	62.5% of total expenditure claimed
05	Interest and Commitment Charges	23,035,000	100% of amounts due
06	Community and Social Wings WSSC ^b	875,000	100% of total expenditure claimed
07	Unallocated	5,175,000	
Total		329,575,000	

ADB = Asian Development Bank.

^a €0.867303 = \$1.00 as of 15 October 2021. Rounded in thousands place value.

^b Subject to the condition for withdrawal described in paragraph 7, Schedule 3 of the Loan Agreement.

Source: ADB estimates.

Table 9: Allocation and Withdrawal of AIIB Loan Proceeds

Category Number	Item	Total Amount Allocated for AIIB Financing (€) ^a	Basis for Withdrawal from the Loan Account
01	Civil Works	140,928,000	35% of total expenditure claimed
02	Project Management	17,403,000	37.5% of total expenditure claimed
03	Interest and Commitment Charges	4,365,000	100% of amounts due
04	Unallocated	10,764,000	
Total		173,460,000	

AIIB = Asian Infrastructure Investment Bank

^a €0.867303 = \$1.00 as of 15 October 2021. Rounded in thousands place value.

Source: AIIB estimates.

Table 10: Allocation and Withdrawal of ADF Grant Proceeds

Category Number	Item	Total Amount Allocated for ADB	
		Financing (\$)	Basis for Withdrawal from the Grant Account
01	Gender Interventions ^a	1,651,307	100% of total expenditure claimed
02	Project Management ^a	1,984,600	100% of total expenditure claimed
03	Works: Women Business Development ^a	1,009,093	100% of total expenditure claimed
04	Unallocated ^b	355,000	
Total		5,000,000	

^a Subject to the condition for withdrawal described in paragraph 6, Schedule 2 of the Grant Agreement.

^b Includes contingencies and any other unforeseen changes.

Source: ADB estimates.

3. Detailed Cost Estimates by Financier

Table 11: Detailed Cost Estimates by Financier
(\$ million)^a

Item	ADB				AIIB		Government		Total Project Cost	Taxes and duties		
	OCR Loan	% of cost category	ADF Grant	% of cost category	Amount	% of cost category	Amount	% of cost category				
A.	Investment Costs ^b											
1.	Civil Works	301.767	65.00%			162.490	35.00%		464.257	14.176		
2.	Mechanical and Equipment - Loan	5.350	100.00%						5.350	0.909		
3.	Mechanical and Equipment - Grant			0.098	100.0%				0.098	0.017		
4.	Environment and Social mitigation ^b	5.906	45.63%					7.038	54.37%	12.944	1.294	
5.	Gender Component											
	a. Community and Social Wings - WSSCs	1.009			100.0%				1.009	0.101		
	b. Capacity building/ Institutional strengthening			0.532	100.0%				0.532	0.053		
	c. Scholarship and internship program			1.021	100.0%				1.021	0.102		
	d. Women Business Development Centre, Kohat			1.009	100.0%				-	-		
6.	Consultants											
	a. Project Management	15.521	62.50%			9.313	37.50%		24.834	3.239		
	b. Reforms and Capacity Building	8.436	62.50%			5.062	37.50%		13.497	1.761		
	c. Gender Mainstreaming			0.818	100.0%		0.00%		0.818	0.212		
	Subtotal (A)	337.989	64.33%	3.479	0.7%	176.864	33.66%	7.038	1.34%	525.370	22.266	
B.	Recurrent Costs											
1.	Incremental Staff Salaries - Loans	8.092	62.50%			4.855	37.50%		12.947	1.295		
2.	Incremental Staff salaries - Grant			1.072	100.0%				1.072	0.107		
3.	Office Operations-Loans Component	1.394	62.50%			0.836	37.50%		2.230	0.223		
4.	Office Operations-Grant Component			0.094	100.0%				0.094	0.009		
	Subtotal (B)	9.486	58.04%	1.166	7.1%	5.691	34.82%	-	16.343	1.634		
	Total Base Cost	347.475	64.14%	4.645	0.9%	182.556	33.70%	7.038	1.30%	541.714	23.900	
C.	Contingencies											
1.	Physical	3.367	7.97%	0.208	0.5%	7.007	16.58%	12.79%	31.677	74.96%	42.259	-
2.	Price	2.599	7.55%	0.147	0.4%	5.405	15.70%		26.286	76.33%	34.436	-
	Subtotal (C)	5.966	7.78%	0.355	0.5%	12.411	16.18%		57.963	75.58%	76.695	

		ADB		AIIB		Government		Total Project Cost	Taxes and duties		
		OCR Loan	% of cost category	ADF Grant	% of cost category	Amount	% of cost category			Amount	% of cost category
D.	Financial Charges										
	1. Interest during construction	24.222	85.61%			4.070	14.39%	100.00%	28.292	-	
	2. Commitment charges	2.337	70.82%			0.963	29.18%	100.00%	3.300	-	
	Subtotal (D)	26.559	84.07%	-		5.033	15.93%	100.00%	31.592	-	
	Total Project Cost (\$)	380.000	58.46%	5.000	0.8%	200.000	30.77%	65.001	10.00%	650.000	23.900
	% of Project Cost		58.46%	5.000	0.8%		30.77%		10.00%		-
	Project Cost in Euro ^a	329.575		4.337		173.461		56.375		563.747	20.729

Note: Numbers may not sum precisely because of rounding.

^a €0.867303 = \$1.00 as of 15 October 2021. Rounded in thousands place value.

^b This includes \$1.145 million equivalent for EMP implementation and \$11.799 million equivalent for land acquisition and LARP implementation. Land acquisition and LARP implementation costs include (i) actually disbursed compensation for land and non-land assets (structures, crops, trees and other improvements) based on the IVS results and LAC rates, transitional support, relocation assistance, vulnerability assistance, severe impact allowance and livelihood restoration activities as provided in the approved LARPs and CAPs. A total of \$7.038 million equivalent has already been deposited by the government at the district treasury to cover land acquisition and resettlement cost. Amounts that are confirmed to have been received by the DPs will be reimbursed to government, while compensation amounts that are kept undisbursed and uncollected by the entitled DPs will be shouldered by the government.

Source: Asian Development Bank estimates.

Table 12: Detailed Cost Estimates by Outputs
(\$ million^a)

Item	Total	Output 1: Climate resilient urban infrastructure and services improved		Output 2: Institutional capacities of urban service providers, provincial government, and city governments strengthened		Output 3: Women's participation in urban governance and access to economic opportunities increased	
		Amount	% of cost category	Amount	% of cost category	Amount	% of cost category
A. Investment Costs							
1. Civil Works	464.257	464.257		-			
2. Mechanical and Equipment - Loan	5.350	1.350	25%	4.000			0%
3. Mechanical and Equipment - Grant	0.098					0.098	
4. Environment and Social mitigation ^b	12.944	12.944	100%				
5. Gender Mainstreaming		-		-			0%
a. Community and Social Wings - WSSCs	1.009					1.009	100%
b. Capacity building/Institutional strengthening	0.532					0.532	100%
c. Scholarship and internship program	1.021					1.021	100%
d. Women Business Development Centre, Kohat	1.009					1.009	100%
6. Consultants							
a. Project Management	24.834	24.834	100%				
b. Reforms and Capacity Building	13.497			13.497	100.0%		
c. Gender Mainstreaming	0.818					0.818	100%
Subtotal (A)	525.370	503.385	95.8%	17.497	3.3%	4.488	0.9%
B. Recurrent Costs							
1. Incremental Staff Salaries - Loans	12.947	12.658	97.8%	0.289	2.2%		
2. Incremental Staff salaries - Grant	1.072					1.072	100.0%
3. Office Operations - Loans Component	2.230	2.221	99.6%	0.009	0.4%		
4. Office Operations - Grant Component	0.094					0.094	100.0%
Subtotal (B)	16.343	14.880	91.0%	0.298	1.8%	1.166	7.1%
Total Base Cost	541.714	518.264	95.7%	17.795	3.3%	5.654	1.0%
C. Contingencies							
1. Physical	42.259	42.050	99.5%	-	0.0%	0.208	0.5%
2. Price	34.436	34.289	99.6%	-	0.0%	0.147	0.4%
Subtotal (C)	76.695	76.340	99.5%	-	0.0%	0.355	0.5%

Item	Output 1: Climate resilient urban infrastructure and services improved			Output 2: Institutional capacities of urban service providers, provincial government, and city governments strengthened		Output 3: Women's participation in urban governance and access to economic opportunities increased	
	Total	Amount	% of cost category	Amount	% of cost category	Amount	% of cost category
D. Financial Charges During Implementation							
1. Interest during construction	28.292	27.571	97%	0.721	3%		
2. Commitment charges	3.300	3.216	97%	0.084	3%		
Subtotal (D)	31.592	30.786	97%	0.805	3%		
Total Project Cost (\$)	650.000	625.391	96.2%	18.600	2.9%	6.009	0.9%
% of Project Cost			96.2%		2.9%		0.9%
Total Project Cost (Euro)^a	563.747	542.403		16.132		5.212	

WSSC = Water and Sanitation Services Company

Note: Numbers may not sum precisely because of rounding.

^a €0.867303 = \$1.00 as of 15 October 2021. Rounded in thousands place value.

^b This includes \$1.145 million equivalent for EMP implementation and \$11.799 million equivalent for land acquisition and LARP implementation. Land acquisition and LARP implementation costs include (i) actually disbursed compensation for land and non-land assets (structures, crops, trees and other improvements) based on the IVS results and LAC rates, transitional support, relocation assistance, vulnerability assistance, severe impact allowance and livelihood restoration activities as provided in the approved LARPs and CAPs. A total of \$7.038 million has already been deposited by the government at the district treasury to cover land acquisition and resettlement cost. Amounts that are confirmed to have been received by the DPs will be reimbursed to government, while compensation amounts that are kept undisbursed and uncollected by the entitled DPs will be shouldered by the government.

Source: Asian Development Bank estimates.

4. Detailed Cost Estimates by Year

Table 13: Detailed Cost Estimates by Year
(\$ million^a)

Item	Year						
	Total	2022	2023	2024	2025	2026	2027
A. Investment Costs							
1. Civil Works	469.918	10.570	108.328	86.286	129.632	79.893	55.208
2. Mechanical and Equipment - Loan	5.350	0.930	1.122	1.127	0.994	0.544	0.632
3. Mechanical and Equipment - Grant	0.098	0.017	0.021	0.021	0.018	0.010	0.012
4. Environment and Social mitigation ^b	5.906	1.027	1.238	1.245	1.097	0.600	0.698
5. Gender Mainstreaming	-	-	-	-	-	-	-
a. Community and Social Wings - WSSCs	1.010	0.176	0.212	0.213	0.188	0.103	0.120
b. Capacity building/Institutional strengthening	0.532	0.092	0.112	0.112	0.099	0.054	0.063
c. Scholarship and internship program	1.021	0.178	0.214	0.215	0.190	0.104	0.121
d. Women Business Development Centre, Kohat	1.009	0.176	0.212	0.213	0.188	0.103	0.119
6. Consultants	-	-	-	-	-	-	-
a. Project Management	21.334	2.819	3.208	5.234	4.615	2.524	2.935
b. Reforms and Capacity Building	12.621	2.348	2.026	2.845	2.476	1.354	1.573
c. Gender Mainstreaming	0.818	0.142	0.172	0.172	0.152	0.083	0.097
Subtotal (A)	519.618	18.475	116.863	97.683	139.649	85.371	61.577
B. Recurrent Costs	-	-	-	-	-	-	-
1. Incremental Staff Salaries - Loans	12.017	1.395	2.679	2.692	2.406	1.316	1.530
2. Incremental Staff salaries - Grant	1.072	0.187	0.225	0.226	0.199	0.109	0.127
3. Office Operations - Loans Component	2.230	0.388	0.468	0.470	0.414	0.227	0.263
4. Office Operations - Grant Component	0.094	0.016	0.020	0.020	0.017	0.010	0.011
Subtotal (B)	15.413	1.985	3.391	3.407	3.037	1.661	1.931
Total Base Cost	535.031	20.461	120.254	101.090	142.686	87.032	63.508
C. Contingencies	-	-	-	-	-	-	-
1. Physical	10.374						10.374
2. Price	8.004						8.004
Subtotal (C)	18.377	-	-	-	-	-	18.377
D. Financial Charges During Implementation	-	-	-	-	-	-	-
1. Interest during construction	28.292	4.921	5.933	5.962	5.258	2.876	3.343
2. Commitment charges	3.300	0.574	0.692	0.695	0.613	0.335	0.390
Subtotal (D)	31.592	5.495	6.625	6.658	5.871	3.211	3.733
Total Project Cost (\$)	585.000	25.955	126.879	107.748	148.557	90.244	85.619
% Total Project Cost	100.0%	4.4%	21.7%	18.4%	25.4%	15.4%	14.6%
Total Project Cost (Euro)^a	507.373	22.511	110.043	93.450	128.844	78.269	74.257

WSSC = water and sanitation services company

Note: Numbers may not sum precisely because of rounding.

^a €0.867303 = \$1.00 as of 15 October 2021. Rounded in thousands place value.

- ^b This includes \$1.145 million equivalent for EMP implementation and \$11.799 million equivalent for land acquisition and LARP implementation. Land acquisition and LARP implementation costs include (i) actually disbursed compensation for land and non-land assets (structures, crops, trees and other improvements) based on the IVS results and LAC rates, transitional support, relocation assistance, vulnerability assistance, severe impact allowance and livelihood restoration activities as provided in the approved LARPs and CAPs. A total of \$7.038 million has already been deposited by the government at the district treasury to cover land acquisition and resettlement cost. Amounts that are confirmed to have been received by the DPs will be reimbursed to government, while compensation amounts that are kept undisbursed and uncollected by the entitled DPs will be shouldered by the government.

Source: Asian Development Bank estimates.

5. Contract and Disbursement S-Curve

Figure 9: Cumulative CAD Projections for ADB and AIIB Loans and ADF Grant

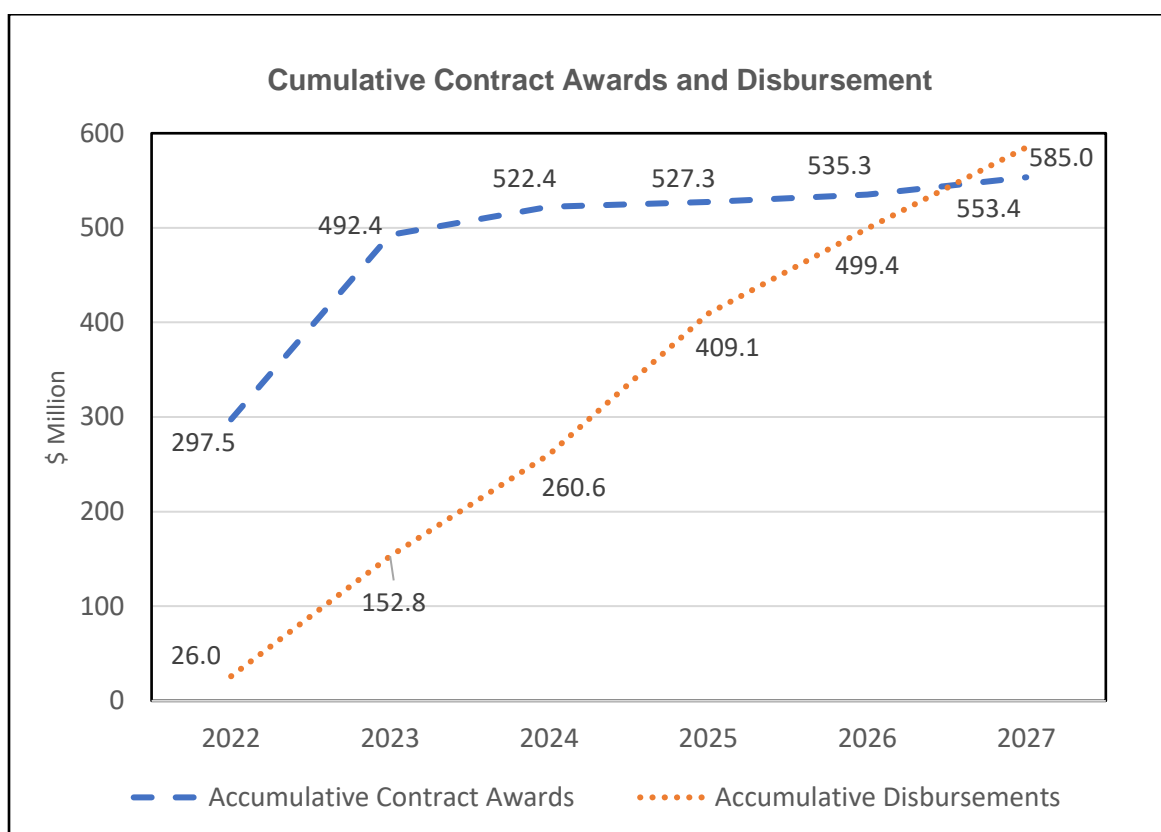
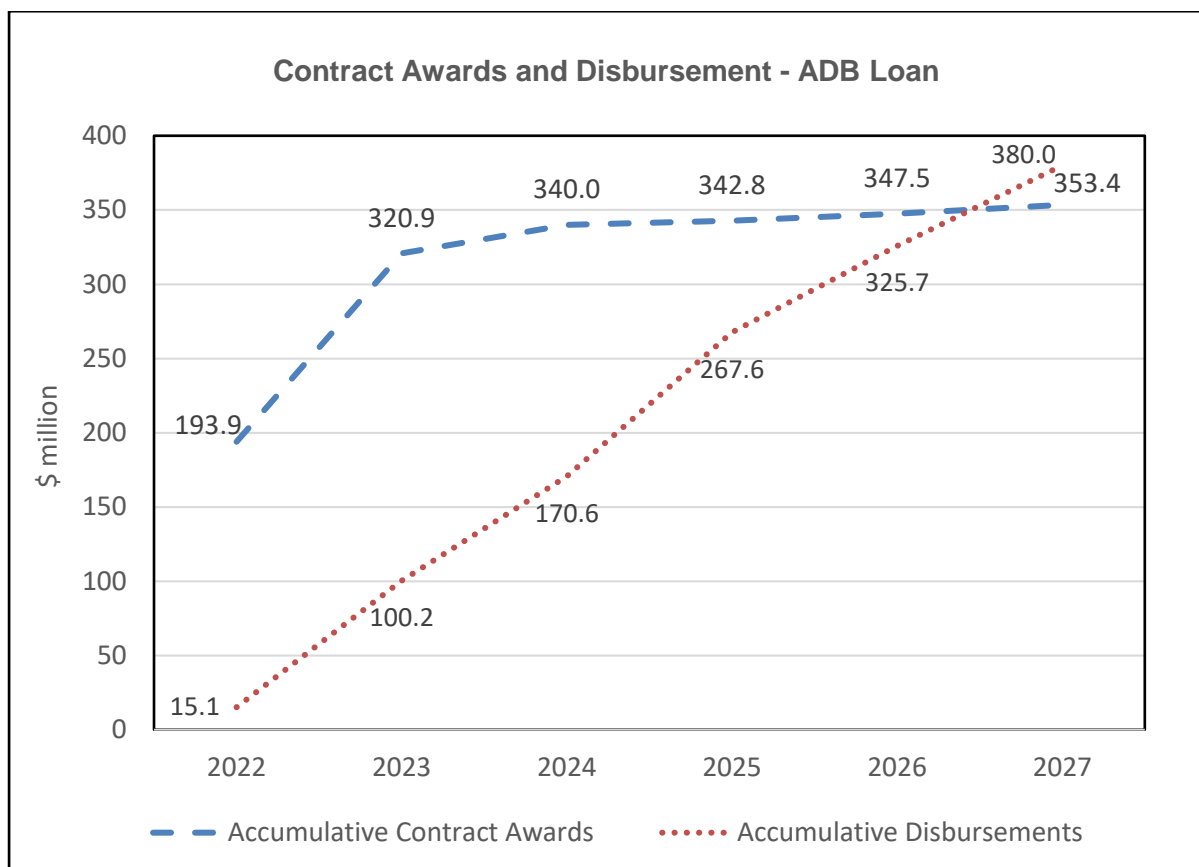


Table 14. Cumulative CAD Projections (ADB, AIIB, and ADF Grant)

Year	Contract Awards (in USD million)					Disbursements (in USD Million)				
	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total
2022	94.019	88.510	71.616	43.354	297.499	3.678	6.051	9.589	6.637	25.955
2023	99.794	72.175	3.585	19.389	194.943	31.784	16.868	25.324	52.904	126.879
2024	25.155	0.155	0.305	4.352	29.968	18.597	28.826	33.078	27.247	107.747
2025	0.166	0.166	0.166	4.363	4.861	29.701	33.441	39.286	46.129	148.557
2026	0.192	0.192	0.202	7.401	7.988	7.207	15.559	18.721	48.757	90.244
2027	0.177	0.177	3.343	14.463	18.154	1.603	7.335	5.054	71.627	85.619
	Total				553.414	Total				585.000

Note: Numbers may not sum precisely because of rounding. €0.867303 = \$1.00 as of 15 October 2021

Source: Asian Development Bank estimates.

Figure 10: CAD Projections Graph for ADB Loan**Table 15. CAD Projections for ADB Loan**

Year	Contract Awards (in USD million)					Disbursements (in USD Million)					
	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total	
2022	61.599	57.760	46.762	27.790	193.910	2.541	3.606	3.783	5.197	15.127	
2023	65.263	46.845	2.293	12.577	126.978	21.195	11.026	15.532	37.367	85.121	
2024	16.379			2.750	19.129	10.543	19.043	21.588	19.223	70.396	
2025				2.750	2.750	22.513	21.782	29.060	23.637	96.992	
2026				4.762	4.762	4.057	9.974	12.063	32.008	58.101	
2027			3.166	2.750	5.911	0.812	4.567	3.072	45.812	54.263	
Total					353.440	Total					380.000

Note: Numbers may not sum precisely because of rounding. €0.867303 = \$1.00 as of 15 October 2021

Source: Asian Development Bank estimates.

Figure 11: CAD Projections Graph for AIIB Loan

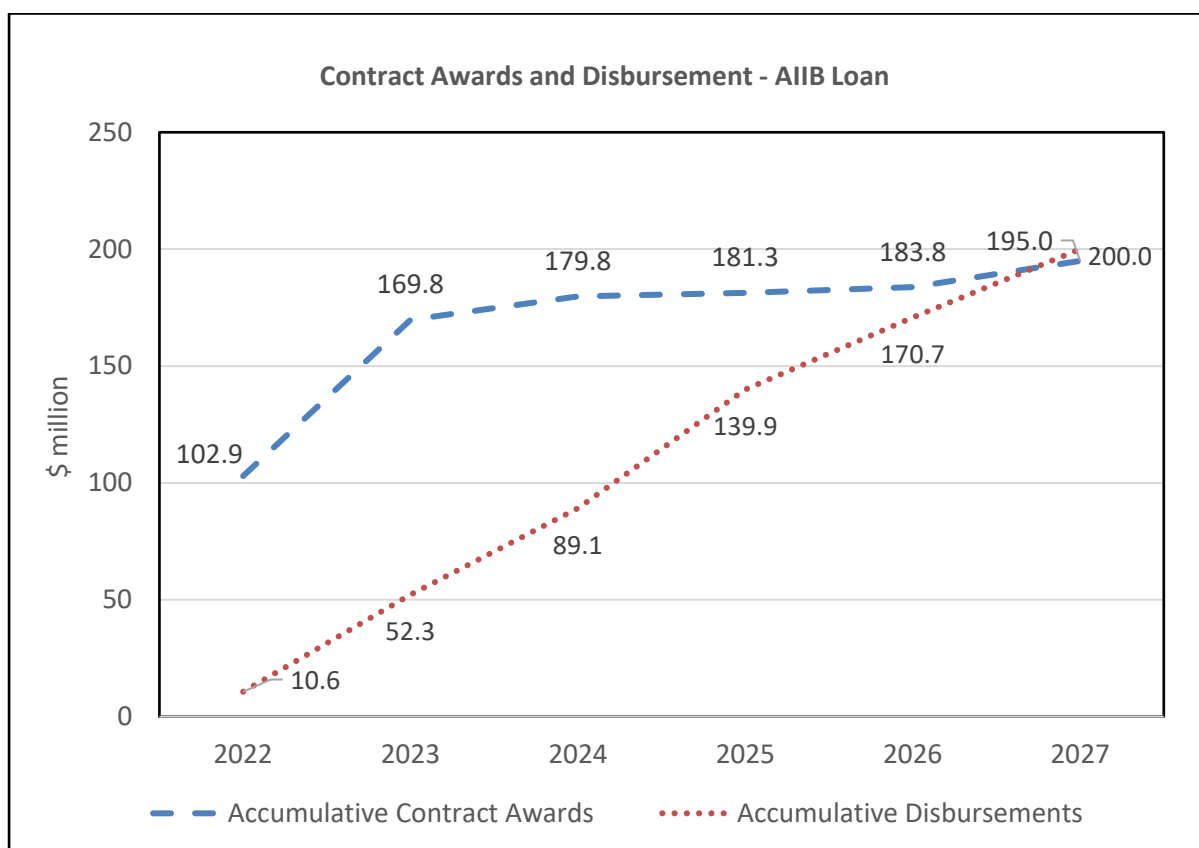
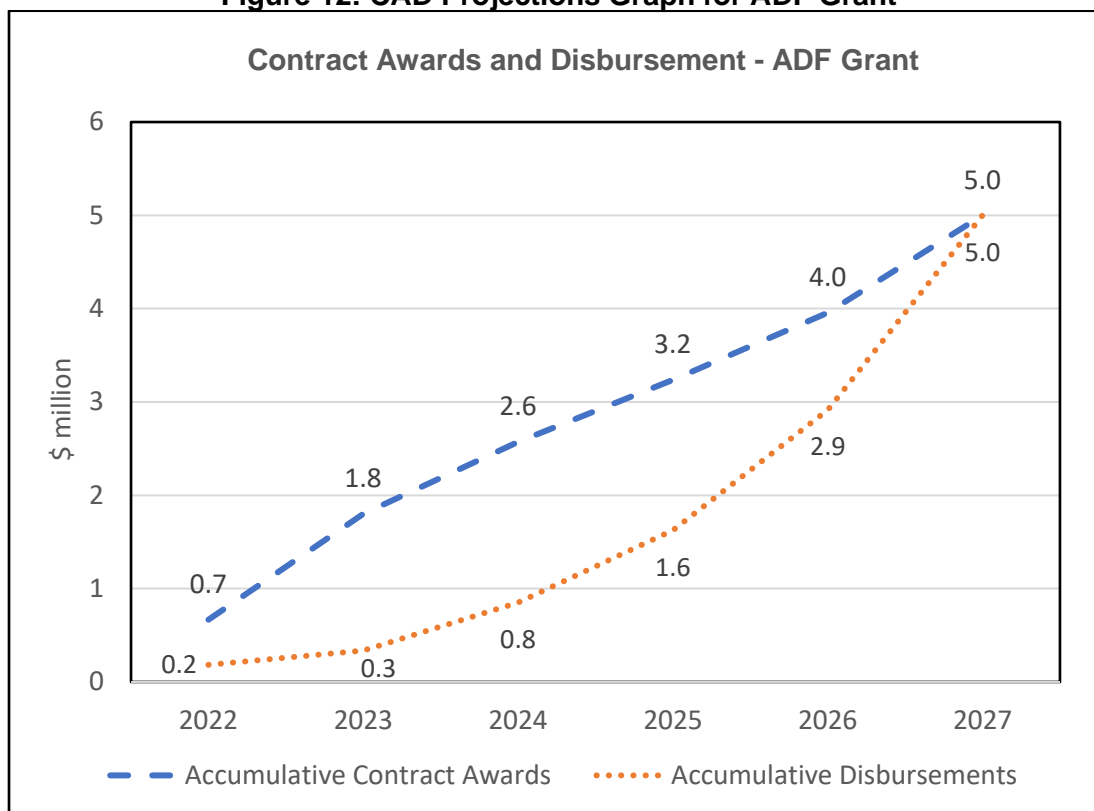


Table 16. CAD Projections for AIIB Loan

Year	Contract Awards (in USD million)					Disbursements (in USD Million)					
	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total	
2022	32.420	30.400	24.611	15.490	102.922	1.137	2.424	5.675	1.408	10.644	
2023	34.349	24.655	1.207	6.620	66.831	10.551	5.803	9.754	15.499	41.607	
2024	8.621			1.447	10.068	7.925	9.654	11.362	7.896	36.837	
2025				1.447	1.447	6.994	11.464	10.032	22.298	50.789	
2026				2.507	2.507	2.814	5.249	6.349	16.440	30.853	
2027				11.198	11.193	0.427	2.404	1.617	24.823	29.271	
Total					194.968	Total					200.000

Note: Numbers may not sum precisely because of rounding. €0.867303 = \$1.00 as of 15 October 2021
 Source: Asian Development Bank estimates.

Figure 12: CAD Projections Graph for ADF Grant**Table 17. CAD Projections (ADF Grant)**

Year	Contract Awards (in USD million)					Disbursements (in USD Million)					
	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total	
2022	0.000	0.350	0.243	0.073	0.667	0.000	0.020	0.131	0.032	0.183	
2023	0.182	0.675	0.085	0.192	1.133	0.038	0.038	0.038	0.038	0.151	
2024	0.155	0.155	0.305	0.155	0.771	0.129	0.129	0.129	0.129	0.515	
2025	0.166	0.166	0.166	0.166	0.664	0.194	0.194	0.194	0.194	0.776	
2026	0.192	0.192	0.202	0.132	0.719	0.336	0.336	0.309	0.309	1.290	
2027	0.177	0.177	0.177	0.515	1.045	0.364	0.364	0.364	0.991	2.084	
Total					5.000	Total					5.000

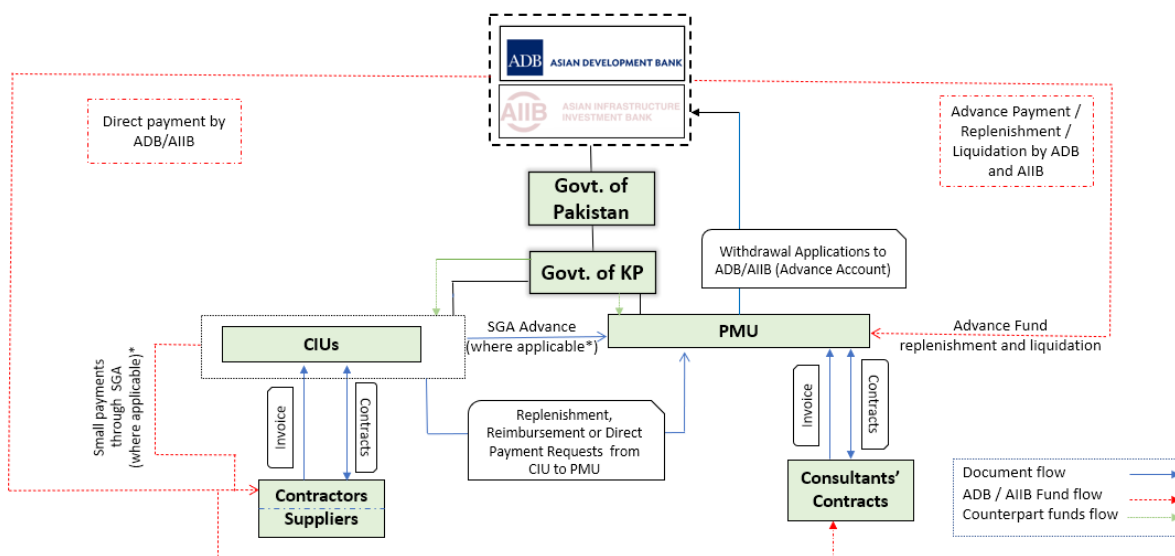
Note: Numbers may not sum precisely because of rounding.

Source: Asian Development Bank estimates.

6. Fund Flow Diagram

23. Fund Flow of the Project is summarized in the diagram below, and will be followed by the executing and implementing agencies.

Figure 13. Fund Flow Diagram



ADB = Asian Development Bank, AIIB = Asian Infrastructure Investment Bank, CIU = city implementation unit, KP = Khyber Pakhtunkhwa, PMU = project management unit, SGA = second generation account

*This will only be applicable to WSSC that meet fiduciary risk requirement and have second generation advance fund account. These advance payment will only be restricted to shopping contracts and operational expenditure - liquidation will have to be submitted to PMU with complete documentation for the purpose of audit

V. FINANCIAL MANAGEMENT

A. Financial Management Assessment

24. The financial management assessment (FMA) was conducted in March 2021 in accordance with ADB's Guidelines for the Financial Management and Analysis of Projects and the *Financial Due Diligence: A Methodology Note*. The FMA considered the capacity of the EA and IAs, including funds-flow arrangements, staffing, accounting and financial reporting systems, financial information systems, and internal and external auditing arrangements. Based on the assessment, the key financial management identified that the EA possess sufficient experience of managing ADB projects and FM related 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, need to update the policies and procedures to effectively cover aspects associated with envisaged FM role of the EA, and the nature of audit observations raised by the Auditor General of Pakistan (AGP) in relation with audit of ongoing ADB projects L-6015 and G-6016, the overall pre-mitigation FM risk at the EA is substantial. The IAs were assessed to possess adequate FM departmental structures, policies and procedures are adequately designed and documented, however, significant delays in the appointment of board of directors, FM staff turnover, absence of FM staff at various key positions, general absence of internal audit functions, delays in the finalization of entity level audits and lack of experience in managing ADB funded projects, the overall pre-mitigation FM risk at the IAs is High. In view of governance and FM risks identified, it was concluded that the financial management and funds flow will be centralized at the PMU. Accordingly, the overall pre-mitigation financial management risk is Substantial. The EA was assessed to possess sufficient capacity to manage advance fund and maintain adequate documentation for the use of statement of expenditure (SOE) procedures. The EA has agreed to implement an action plan as key measures to address the deficiencies. The financial management action plan is provided in Table 18.

Table 18: Financial Management Action Plan

S. no.	Key Risk	Action item	Responsibility
1	FM department is not adequately staffed and appropriately structured to manage the expected volume of work and ensure adequate segregation of duties. Risk rating: Substantial	By no later than 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

S. no.	Key Risk	Action item	Responsibility
2	<p>The SOPs related to FM are not sufficiently detailed and responsive to the proposed structure of FM department and increased FM oversight role, envisaged under the Project. this might result in lack of comprehensive mechanism for authority and accountability.</p> <p>Risk Rating: Substantial.</p>	<p>By no later than three months from the date of loan effectiveness, the PMU (LGE&RDD) shall update the SOPs, and notify their effectiveness, to provide adequate controls, procedural guidance and tools/templates for:</p> <ul style="list-style-type: none"> a) accounting and financial reporting at sub-project and consolidated levels; b) budget monitoring at sub-project and consolidated levels; c) segregation of duties in the payment authorization, accounting and financial reporting activities; d) review of contractors'/ suppliers' invoices in relation with project implementation activities; and e) recording, tagging, movement and reporting of the Project assets. <p>By no later than three months from the date of loan effectiveness, the LGE&RDD shall develop a comprehensive mechanism for independent validation of contractors'/suppliers' invoices related to project implementation activities. Such mechanism shall be duly notified as per Governmental procedures and formally endorsed by the respective managements of implementing partners.</p> <p>Within six months of loan effectiveness, the LGE&RDD shall hire the services of an independent construction supervision consultant firm.</p>	<p>LGE&RDD/ PMU</p>
3	<p>Internal audit function is not currently operational, thus an oversight function over the use of financial resources and compliance with applicable laws and regulations is not currently in place.</p> <p>Risk Rating: Substantial.</p>	<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 appoint an internal audit team comprising of two audit officers, who will report directly to the Internal Auditor – LGE&RDD. • 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. 	<p>LGE&RDD</p> <p>LGE&RDD/ PMU</p> <p>LGE&RDD/ PMU</p>

S. no.	Key Risk	Action item	Responsibility
4	Manual bookkeeping is performed exposing the project to risks related to human intervention and lack of audit trails. Risk Rating: Substantial.	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
5	WSSCs in target cities do not possess robust FM systems and capacities to manage ADB funds.	<p>For an WSSC to be considered eligible for managing ADB funds, the following conditions should be met at the time of making formal request to ADB for managing ADB funds:</p> <ul style="list-style-type: none"> a. An endorsement by the LGERDD of such request. b. The request shall be accompanied by: <ul style="list-style-type: none"> a) evidence that the BOD of the WSSC and its committees, remained effective during previous three years from the date of such request; b) complete description of accounting and financial reporting systems; c) list of sanctioned and vacant FM and internal audit positions; d) copies of internal audit reports for at least one year from the date of such request; copies of audited annual financial statements for the three preceding financial years, from the date of such request. c. An irrevocable authority letter approved by the BOD to the LGERDD, allowing its ADB PMU to access the accounting records and other supporting documentation of the WSSC, in relation with expenditure claimed for reimbursement and/or liquidation to be incurred under the Project. 	WSSC

S. no.	Key Risk	Action item	Responsibility
6	The financial sustainability of the WSSCs is dependent upon budgetary support from the GOKP.	The loan agreement includes a covenant requiring gradual improvement of operating ratio (calculated on the basis of internally generated revenue).	ADB
		Not later than nine months from the loan effectiveness, the financial sustainability action plan (FSAP) for each WSSC shall be approved by the competent authorities.	LGERDD
		Semi-annual reports on the implementation of financial sustainability action plan (FSAP) shall be submitted to ADB from the commencement of FSAP implementation.	LGERDD

B. Disbursement

1. Disbursement Arrangements for ADB and ADB-administered cofinancier Funds

25. The loan and grant proceeds will be disbursed in accordance with ADB's *Loan Disbursement Handbook* (2017, as amended from time to time)¹⁸, and detailed arrangements agreed upon between the government and ADB. Online training for project staff on disbursement policies and procedures is available.¹⁹ Project staff are encouraged to avail of this training to help ensure efficient disbursement and fiduciary control.

26. All invoices will be financed by ADB and AIIB based on cost sharing as determined by the ratio/share in the loan/grant agreements. The PMU-LGE&RDD will prepare disbursement projections; and prepare and send withdrawal applications to ADB for the ADB-financed portions, and AIIB for the AIIB-financed portions or as determined in the co-financing agreement between ADB and AIIB.

27. **Direct payment procedure.** The project will primarily use direct payment procedure for civil works, goods, non-consulting services, and consulting services firm/s. The finance team of the PMU-LGE&RDD 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/or authorized signatories; and (v) uploading the signed withdrawal applications on ADB's *Client Portal for Disbursements* (CPD)²⁰ system, or forwarding hardcopies to ADB, for payment.

28. **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. PMU-LGE&RDD will administer the advance account including preparation of applications for replenishment and liquidation. Separate advance accounts should be established

¹⁸ ADB's *Loan Disbursement Handbook* (2017, as amended from time to time).

¹⁹ Disbursement eLearning. http://wpqr4.adb.org/disbursement_elearning

²⁰ 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>.

and maintained by the PMU-LGE&RDD for ADB loan and ADF Grant. The currency of the ADB loan advance account is EUR, and for the ADF Grant advance account is US dollar. The advance accounts is to be used exclusively for ADB's share of eligible expenditures under the ADB loan and the ADF Grant. The borrower/PMU-LGE&RDD is responsible/accountable for advance accounts.

29. 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 PMU-LGE&RDD may request for initial and additional advances to the advance account based on an Estimate of Expenditure Sheet²¹ 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 PMU-LGE&RDD in accordance with ADB's *Loan Disbursement Handbook* (2017, as amended from time to time) when liquidating or replenishing the advance account.

30. **Statement of expenditure procedure.** The statement of expenditure (SOE)²² 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 \$150,000 or €130,000 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.

31. Before the submission of the first withdrawal application (WA), the borrower should submit to ADB sufficient evidence of the authority of the person(s) who will sign the withdrawal applications on behalf of the government, together with the authenticated specimen signatures of each authorized person. The minimum value per WA is stipulated in the *Loan Disbursement Handbook* (2017, as amended from time to time). Individual payments below such amount should be paid (i) by the LGE&RDD and subsequently claimed from ADB through reimbursement, or (ii) through the advance fund procedure, unless otherwise accepted by ADB. The borrower should ensure sufficient category and contract balances before requesting disbursements. Use of ADB's *Client Portal for Disbursements* (CPD) system is encouraged for submission of withdrawal applications to ADB.²³

32. The Borrower shall submit the original withdrawal application and copies of supporting documents to ADB, and concurrently one identical copy of such withdrawal applications and copies of supporting documents to AIIB. ADB shall review each withdrawal application, in accordance with ADB disbursement procedures and guidelines and advise AIIB to make the necessary payment, if any, subject to approval by AIIB. AIIB's approval shall be made in accordance with the AIIB Loan Agreement and other applicable guidelines and procedures. AIIB will promptly inform ADB once payment has been made. In case AIIB rejects the payment requested in the withdrawal application, it shall promptly inform ADB and the Borrower in writing

²¹ Estimate of Expenditure sheet is available in Appendix 8A of ADB's *Loan Disbursement Handbook* (2017, as amended from time to time).

²² SOE forms are available in Appendix 7B and 7D of ADB's *Loan Disbursement Handbook* (2017, as amended from time to time).

²³ ADB's Client Portal for Disbursements system facilitates online submission of withdrawal applications to ADB, resulting in faster disbursement. The forms to be completed by the borrower are available at ADB. [Guide to the Client Portal for Disbursements](#).

of its decision and the basis of such decision. ADB shall not be held liable for any decision made by AIIB with respect to payments requested in withdrawal applications or any delay in disbursement outside of ADB's control.

2. Disbursement Arrangements for Counterpart Fund

33. No withdrawals shall be made from the loan account until a loan agreement between ADB and the borrower, and a related on-lending agreement between the borrower and LGE&RDD, both for the purposes of the project and in form and substance satisfactory to ADB, shall have been duly executed and become effective in accordance with their terms.

34. LGE&RDD will ensure necessary budgetary allocations for their counterpart funds to be disbursed through the PMU. The PMU will receive and process the invoices from the contractors, consultants, or suppliers. Before making payments, GOKPas withholding government, will deduct the applicable tax following sections 151 and 153 of the *Income Tax Ordinance* (2001, as amended from time to time), and deposit the tax to the government treasury as applicable.

C. Accounting

35. The LGE&RDD will maintain, or cause to be maintained, separate books and records by funding source (ADB, AIIB, and Government) for all expenditures incurred on the project following International Public Sector Accounting Standard for cash-based accounting. The LGE&RDD will prepare consolidated project financial statements in accordance with the government's accounting laws and regulations which are consistent with international accounting principles and practices.

D. Auditing and Public Disclosure

36. The LGE&RDD will cause the detailed consolidated (ADB, AIIB and Government financing) project financial statements to be audited in accordance with the International Standards for Supreme Audit Institutions and the Audit Regulations of the Auditor General of Pakistan, by the office of the Auditor General of Pakistan, or in accordance with International Standards on Auditing by another independent auditor acceptable to ADB. The audited project financial statements together with the auditor's opinion will be presented in the English language to ADB within 6 months from the end of the fiscal year by the LGE&RDD.

37. The audited entity financial statements of the WSSCs, together with the auditor's report and management letter, will be submitted in the English language to ADB within 1 month after their approval by the relevant authority.

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

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

40. The government, LGE&RDD and the WSSCs have been made aware of ADB's approach to delayed submission, and the requirements for satisfactory and acceptable quality of the audited project financial statements.²⁴ ADB reserves the right to require a change in the auditor (in a manner consistent with the constitution of the borrower), or for additional support to be provided to the auditor, if the audits required are not conducted in a manner satisfactory to ADB, or if the audits are substantially delayed. ADB reserves the right to verify the project's financial accounts to confirm that the share of ADB's financing is used in accordance with ADB's policies and procedures.

41. Public disclosure of the audited project financial statements, including the auditor's opinion on the project financial statements, will be guided by ADB's *Access to Information Policy* 2018.²⁵ After the review, ADB will disclose the audited project financial statements and the opinion of the auditors on the project financial statements no later than 14 days of ADB's confirmation of their acceptability by posting them on ADB's website. The management letter, additional auditor's opinions, and audited entity financial statements will not be disclosed.²⁶

VI. PROCUREMENT AND CONSULTING SERVICES

A. Advance Contracting and Retroactive Financing

42. 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 invitations to bid and consulting service recruitment notices (CSRN) under advance contracting and retroactive financing will be subject to ADB prior approval. ADB has advised the Borrower and LGE&RDD that approval of advance contracting and retroactive financing does not commit ADB to finance the project.²⁷

43. **Advance contracting.** Advance contracting will apply up to eight contract award for (i) development of urban/green spaces and parks; (ii) procurement of works for improvement / construction of water supply system; (iii) construction of sewerage system including new sewage treatment plant at Kohat and Mardan; (iv) procurement and supply of solid waste management fleet and equipment for WSSP operations; (v) Mingora greater water supply scheme including new water treatment plant, intake structure, transmission, and distribution systems and SCADA; (vi) procurement, supply, and installation of water meters; (vii) procurement of vehicles, IT equipment, furniture and repairs of hostel and college under ADF-13 Grant; and (viii) project management and construction supervision consultants.

²⁴ ADB's approach and procedures regarding delayed submission of audited project financial statements:

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

²⁵ ADB. 2018. *Access to Information Policy*. Manila.

²⁶ This type of information would generally fall under the information policy exceptions to disclosure. ADB. 2018. *Access to Information Policy*. Chapter III.B.

²⁷ Retroactive financing will be used based on ADB board approved policy as stipulated in "Enhancing Operational Efficiencies of the Asian Development Bank" November 2021. Manila.

44. **Retroactive financing.** ADB may finance eligible expenditures up to \$76 million or €66 million or 20% of the total ADB loan/grant, incurred before loan effectiveness, but not more than 12 months before the signing of the loan/grant agreements.

B. Procurement of Goods, Works, and Consulting Services

45. All procurement of goods and works will be undertaken in accordance with ADB's *Procurement Policy* (2019, as amended from time to time) and *Procurement Regulations for ADB Borrowers* (2017, as amended from time to time) including works and goods to be financed from cofinancing funds. Details of the indicative Procurement Plan is in Section C. The procurement plan will be updated yearly or as necessary. Before the start of any procurement, ADB and the government will review the public procurement laws of the central and state governments to ensure consistency with the *ADB Procurement Policy*.

46. The project will finance the procurement of goods, works, and consulting services worth approximately \$517.8 million (€449.0 million) in total, including procurement of works \$464.0 million (€402.0 million), goods \$14.5 million (€12.5 million) and consulting services \$39.3 million (€34.0 million). The procurements under KPCIP will use international open competitive bidding (OCB), and will apply quality- and cost-based (QCBS) ratio of 90:10 and full technical proposal (FTP). The terms of reference (TOR) for all consulting services are provided in Appendix 1. Strategic Procurement Strategy and Risk Assessment were drafted for review by ADB.

C. Procurement Plan

Basic Data*		
Project Name: Khyber Pakhtunkhwa Cities Improvement Project (KPCIP)		
Project Number: 51036-003	Approval Number:	
Country: Islamic Republic of Pakistan	Executing Agency: Local Government Elections, and Rural Development Department, Government of Khyber Pakhtunkhwa	
Project Procurement Classification: Category A	Implementing Agency: Water and Sanitation Services Companies (Peshawar, Kohat, Mardan, Mingora and Abbottabad)	
Procurement Risk: Medium/High		
Project Financing Amount: \$ 650,000,000 (€563,550,000) ADB Financing (Loan): \$ 380,000,000 (€818,057,850) ADB Financing (Grant): \$ 5,000,000 (€4,335,000) AIIB Financing (ADB Administered): \$ 200,000,000 (€173,000,000) Non-ADB Financing: \$ 65,000,000	Project Closing Date: 30 June 2026	
Date of First Procurement Plan: 10 June 2021	Date of this Procurement Plan: 30 June 2021	
Procurement Plan Duration: 18 months	Advance contracting: Yes	eGP: No

*Exchange rate: PKR 171.25 = \$1.00, and \$1.00 = € 0.867303 as of 15 October 2021.

1. Methods, Review and Procurement Plan

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

Procurement of Goods, Works, and Nonconsulting Services	
Method	Comments
Open Competitive Bidding (OCB) for Goods	Prior review ADB standard bidding document Post-qualification
Open Competitive Bidding (OCB) for Works	Prior review ADB standard bidding document Post-qualification
Request For Quotation for Goods	The first RFQ is subject to prior review, thereafter, post review.
Request For Quotation for Works	The first RFQ is subject to prior review, thereafter, post review.

Consulting Services	
Method	Comments
Quality- and Cost-Based Selection for Consulting Firm	Quality-Cost Ratio: 90:10 Prior review. Advertisement posted in the ADB consultant management system. ADB standard request for proposals
Direct Contracting Consulting Firm (Single Source Selection)	ADB standard request for proposal.
Individual Consultant Selection for Individual Consultants	Prior review Advertisement posted in the ADB consultant management system.

	<p>Lot-2: Rehabilitation and upgrade of water supply system connected to the WTP with SCADA in Abbottabad including: New Water Treatment Plant</p> <p>Lot-3: Improvement of water supply system with SCADA in Kohat including: a. Rehabilitation and provision of water storage reservoirs b. New distribution network and water metering system c. Energization of existing tube-wells</p> <p>Lot-4: Improvement of Water Supply System with SCADA in Peshawar including: a. Rehabilitation and Provision of Water Storage Reservoirs; b. New Distribution Network and Water Metering System</p>	5.83					<p>Covid-19 Response? No</p> <p>Comments: Advance Contracting</p>
KPCIP-CW-03	<p>Construction of Sewerage System including New Sewage Treatment Plant (STP) at:</p> <p>Lot-1: Kotal Township (KDA) Sewerage System including New Sewage Treatment Plant (STP) and required SCADA system</p> <p>Lot-2: Catchment Area of Rorya STP Mardan including New Sewage Treatment Plant (STP) and required SCADA system</p>	21.59	28.09	OCB	Prior	1S2E	<p>Q3 / 2021</p> <p>Non-Consulting Services: No</p> <p>Advertising: International</p> <p>No. Of Contracts: 02</p> <p>Prequalification of Bidders: No</p> <p>Domestic Preference Applicable: No</p> <p>Advance Contracting: Yes</p> <p>Bidding Document: SBD Large Works</p> <p>High Risk Contract: No</p> <p>Covid-19 Response? No</p> <p>Comments: Advance contracting</p>
KPCIP-Goods-01	Procurement and Supply of Solid Waste Management Fleet and Equipment for WSSP Operations	2.67		OCB	Prior	1S2E	<p>Q3 / 2021</p> <p>Non-Consulting Services: No</p> <p>Advertising: International</p> <p>No. Of Contracts: 01</p> <p>Prequalification of Bidders: No</p> <p>Domestic Preference Applicable: No</p>

							Advance Contracting: Yes Bidding Document: Goods High Risk Contract: No Covid-19 Response? No Comments: Advance contracting
KPCIP-CW-04	Mingora Greater Water Supply Scheme including New Water Treatment Plant (WTP), Intake Structure, Transmission, and Distribution Systems and SCADA: Lot-1: Water Treatment Plant Lot 2 – Water Distribution System, Intake Structure and Transmission Main.	14.53 56.73	OCB	Prior	1S2E	Q3 / 2021	Non-Consulting Services: No Advertising: International No. of Contracts: 02 Prequalification of Bidders: No Domestic Preference Applicable: No Advance Contracting: Yes Bidding Document: SBD Large Works High Risk Contract: No Covid-19 Response? No Comments: Advance contracting
KPCIP-CW-05	Procurement, Supply, Installation, Commissioning, and Operations of Solid Waste Management System for Mardan	16.17	OCB	Prior	1S2E	Q1 / 2022	Non-Consulting Services: No Advertising: International No. Of Contracts: 01 Prequalification of Bidders: No Domestic Preference Applicable: No Advance Contracting: No Bidding Document: SBD Large Works High Risk Contract: No Covid-19 Response? No Comments: Customized bidding documents (Large Works/ or Plant) for a design/build-operate-maintain

							contract will be used.
KPCIP-CW-06	Construction of Urban / Green Spaces – Salhad Bagh, Abbottabad	3.54	OCB	Prior	1S2E	Q2 / 2022	Non-Consulting Services: No Advertising: National No. Of Contracts: 01 Prequalification of Bidders: No Domestic Preference Applicable: No Advance Contracting: No Bidding Document: SBD Large Works High Risk Contract: No Covid-19 Response? No
KPCIP-CW-07	Procurement, Supply, Installation, Commissioning, and Operations of Solid Waste Management System for: Lot 1: Peshawar Lot 2: Kohat Lot 3: Mingora; and Lot 4: Abbottabad	47.46 15.34 8.74 15.63	OCB	Prior	1S2E	Q3 / 2022	Non-Consulting Services: No Advertising: International No. of Contracts: 04 Prequalification of Bidders: No Domestic Preference Applicable: No Advance Contracting: No Bidding Document: SBD Large Works High Risk Contract: No Covid-19 Response? No Comments: Customized bidding documents (Large Works/ or Plant) for a design/build-operate-maintain contract will be used.
KPCIP-Goods-02	Procurement, Supply and Installation of Water Meters	2.60	OCB	Prior	1S2E	Q3 / 2023	Non-Consulting Services: No Advertising: International No. Of Contracts: 01 Prequalification of Bidders: No Domestic Preference Applicable: No Advance Contracting: Yes

							Bidding Document: Goods High Risk Contract: No Covid-19 Response? No Comments: Advance contracting. Customized bidding documents for a build-operate-maintain contract will be used.
KPCIP-Goods-03A, 03B, 03C, 03D, 03E, 03F	Procurement of General Office Equipment, IT Equipment and Furniture, Vehicles, Office Repair and Communication & Media Equipment under PMU/CIUs/LGE&RDD Lot 1: KPCIP-Goods-03A General Office Equipment Lot 2: KPCIP-Goods-03B IT Equipment Lot 3: KPCIP-Goods-03C Furniture Lot 4: KPCIP-Goods-03D Vehicles Lot 5: KPCIP-Goods-03E Office Repair Lot 6: KPCIP-Goods-03F Communication & Media Equipment	5.0 0.70 0.70 0.70 0.70 2.00 0.20	OCB	Prior	1S1E	Q3 / 2021	Non-Consulting Services: No Advertising: National No. Of Contracts: Multiple Prequalification of Bidders: No Domestic Preference Applicable: No Advance Contracting: No Bidding Document: Goods/Works High Risk Contract: No Covid-19 Response? No Comments: Package involves procurement of works and goods contracts. ADB standard bidding document for works and goods will be used for required procurements.
KPCIP-Shopping Goods-04A, 04B, 04C, 04D, 04E	Procurement of Vehicles, IT Equipment, Furniture and Repairs of Hostel and College under ADF-13 Grant 04A-Vehicles: 04B-IT Equipment: 04C-Furniture: 04D- Repairs of Hostel and College:	0.36 0.07 0.02 0.02 0.25	Shopping	Prior / Post	1S1E	Q3 / 2021	Non-Consulting Services: No No. of Contracts: Multiple Advance Contracting: Yes Bidding Document: RFQ High Risk Contract: No Covid-19 Response? No Comments: Advance Contracting. First shopping contract subject to prior approval. All remaining shall be subject to Post review.

OCB = Open Competitive Bidding, Q = Quarter

*Exchange rate: PKR 171.25 = \$1.00, and \$1.00 = € 0.867303 as of 15 October 2021.

Consulting Services-ADB Financing							
Package Number	General Description	Estimated Value (\$) Million*	Selection Method	Review	Type of Proposal	Advertisement Date	Comments
KPCIP-Cons-01	Project Management and Construction Supervision Consultants (PMCSC)	12.70	DC	Prior	STP	Q3 / 2021	<p>Non-Consulting Services: No</p> <p>Type: Firm</p> <p>Assignment: International</p> <p>Advance Contracting: Yes</p> <p>Covid-19 Response? No</p> <p>Comments: M/s Minconsult SDN BHD - Malaysia in joint venture with M/s Creative Engineering Consultants – Pakistan (EDCM Consultants) will also undertake the PMCSC activities during the implementation phase. SSS will be carried out in light of the continuity of professional approach & continuous professional liability requirements.</p>
KPCIP-Cons-02, 03,04	<p>Capacity Building of Local Government including:</p> <p>(i) ERP Solutions,</p> <p>(ii) Establishment of Water Regulator, Legislation and Institution Development</p> <p>(iii) Capacity Building, Reforms and Training of Local Government, Elections and Rural Development Department</p>	<p>2.38</p> <p>3.52</p> <p>3.62</p>	QCBS	Prior	FTP	Q1 / 2022	<p>Non-Consulting Services: No</p> <p>Type: Firm</p> <p>Assignment: International</p> <p>Quality-Cost Ratio: 90:10</p> <p>Advance Contracting: No</p> <p>Covid-19 Response? No</p> <p>Comments: Advance Contracting</p>
KPCIP-Cons-05	Individual Consultants (PMU and CIUs)	2.03	ICS	Prior	ICS	<p>Q3 & Q4 / 2021</p> <p>Q1 & Q2 / 2022</p>	<p>Non-Consulting Services: No</p> <p>Type: Individual</p> <p>Assignment: National</p> <p>Expertise: Project Management</p>

Consulting Services-ADB Financing							
Package Number	General Description	Estimated Value (\$) Million*	Selection Method	Review	Type of Proposal	Advertisement Date	Comments
							Advance Contracting: Yes Covid-19 Response? No Comments: Multiple contracts
KPCIP-Cons-06	Individual Consultants (Gender Component under ADF-13 Grant)	0.82	ICS	Prior	ICS	Q3 & Q4 / 2021	Non-Consulting Services: No Type: Individual Assignment: National Expertise: Project Management Advance Contracting: Yes Covid-19 Response? No Comments: Multiple contracts

*Exchange rate: PKR 171.25 = \$1.00, and \$1.00 = € 0.867303 as of 15 October 2021.

A. Non-ADB Financing: List of Active Procurement Packages (Contracts)

The following table lists goods, works, non-consulting and consulting services contracts for which 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 Nonconsulting Services-Non ADB Financing							
Package Number	General Description	Estimated Value (\$) Million*	Procurement Method	Review	Bidding Procedure	Advertisement Date (quarter/year)	Comments
KPCIP-CW-01	Development of Urban / Green Spaces and Parks: Lot-1: Pedestrianization of Market in Old City Centre; and Urban / Green Space Initiatives – Sherwan Adventure Family Park, Abbottabad Lot-2: Urban / Green Space Initiatives – Women's Business Development & Community Center; and Urban / Green Space Initiatives – Sports Complex, Kohat	1.82 0.57	OCB	Prior	1S2E	Q3 / 2021	Non-Consulting Services: No Advertising: International No. Of Contracts: 05 Prequalification of Bidders: No Domestic Preference Applicable: No Advance Contracting: Yes Bidding Document: SBD Large Works

Goods, Works and Nonconsulting Services-Non ADB Financing							
Package Number	General Description	Estimated Value (\$) Million*	Procurement Method	Review	Bidding Procedure	Advertisement Date (quarter/year)	Comments
	Lot-3: Urban / Green Space Initiatives – Ring Road Green Belt; and N-45 National Highway, Mardan Lot-4: Urban / Green Space Initiatives – Neighbourhood Park, Mingora Lot-5: Urban / Green initiatives – Besai Park Hayatabad Peshawar; Bagh-e-Naran Park Extension, Peshawar	0.98 0.40 1.55					High Risk Contract: No Covid-19 Response? No Comments: Advance Contracting
KPCIP-CW-02	Procurement of Works for Improvement / Construction of Water Supply System: Lot-1: Rehabilitation and upgrade of water supply system connected to the WTP with SCADA in Abbottabad including: a. Rehabilitation and provision of water storage reservoirs b. New distribution network and water metering system c. Intake structure including transmission main and associated structures Lot-2: Rehabilitation and upgrade of water supply system connected to the WTP with SCADA in Abbottabad including: a. New Water Treatment Plant Lot-3: Improvement of water supply system with SCADA in Kohat including: a. Rehabilitation and provision of water storage reservoirs b. New distribution network and water metering system Lot-4: Improvement of Water Supply System with SCADA in Peshawar including: a. Rehabilitation and Provision of Water Storage Reservoirs	14.43 3.14 8.85 4.41	OCB	Prior	1S2E	Q3 / 2021	Non-Consulting Services: No Advertising: International No. of Contracts: 04 Prequalification of Bidders: No Domestic Preference Applicable: No Advance Contracting: Yes Bidding Document: SBD Large Works High Risk Contract: No Covid-19 Response? No Comments: Advance Contracting

Goods, Works and Nonconsulting Services-Non ADB Financing							
Package Number	General Description	Estimated Value (\$) Million*	Procurement Method	Review	Bidding Procedure	Advertisement Date (quarter/year)	Comments
	b. New Distribution Network and Water Metering System.						
KPCIP-CW-03	Construction of Sewerage System including New Sewage Treatment Plant (STP) at: Lot-1: Kotal Township (KDA) Sewerage System including New Sewage Treatment Plant (STP) and required SCADA system Lot-2: Catchment Area of Rorya STP Mardan including New Sewage Treatment Plant (STP) and required SCADA system	11.62 15.12	OCB	Prior	1S2E	Q3 / 2021	Non-Consulting Services: No Advertising: International No. Of Contracts: 02 Prequalification of Bidders: No Domestic Preference Applicable: No Advance Contracting: Yes Bidding Document: SBD Large Works High Risk Contract: No Covid-19 Response? No Comments: Advance contracting
KPCIP-Goods-01	Procurement and Supply of Solid Waste Management Fleet and Equipment for WSSP Operations	1.44	OCB	Prior	1S2E	Q3 / 2021	Non-Consulting Services: No Advertising: International No. Of Contracts: 01 Prequalification of Bidders: No Domestic Preference Applicable: No Advance Contracting: Yes Bidding Document: Goods High Risk Contract: No Covid-19 Response? No Comments: Advance contracting
KPCIP-CW-04	Mingora Greater Water Supply Scheme including New Water Treatment Plant (WTP), Intake Structure, Transmission, and Distribution Systems and SCADA: Lot-1: Water Treatment	7.83	OCB	Prior	1S2E	Q3 / 2021	Non-Consulting Services: No Advertising: International No. of Contracts: 02 Prequalification of Bidders: No

Goods, Works and Nonconsulting Services-Non ADB Financing							
Package Number	General Description	Estimated Value (\$ Million*)	Procurement Method	Review	Bidding Procedure	Advertisement Date (quarter/year)	Comments
	Plant Lot 2 – Water Distribution System, Intake Structure and Transmission Main.	30.54					Domestic Preference Applicable: No Advance Contracting: Yes Bidding Document: SBD Large Works High Risk Contract: No Covid-19 Response? No Comments: Advance contracting
KPCIP-CW-05	Procurement, Supply, Installation, Commissioning, and Operations of Solid Waste Management System for Mardan	8.70	OCB	Prior	1S2E	Q1 / 2022	Non-Consulting Services: No Advertising: International No. Of Contracts: 01 Prequalification of Bidders: No Domestic Preference Applicable: No Advance Contracting: No Bidding Document: SBD Large Works High Risk Contract: No Covid-19 Response? No Comments: Customized bidding documents (Large Works/ or Plant) for a design/build-operate-maintain contract will be used.
KPCIP-CW-06	Construction of Urban / Green Spaces – Salhad Bagh, Abbottabad	1.90	OCB	Prior	1S2E	Q2 / 2022	Non-Consulting Services: No Advertising: National No. Of Contracts: 01 Prequalification of Bidders: No Domestic Preference Applicable: No Advance Contracting: No

Goods, Works and Nonconsulting Services-Non ADB Financing							
Package Number	General Description	Estimated Value (\$ Million*)	Procurement Method	Review	Bidding Procedure	Advertisement Date (quarter/year)	Comments
							Bidding Document: SBD Large Works High Risk Contract: No Covid-19 Response? No
KPCIP-CW-07	Procurement, Supply, Installation, Commissioning, and Operations of Solid Waste Management System for: Lot 1: Peshawar Lot 2: Kohat Lot 3: Mingora; and Lot 4: Abbottabad	25.55 8.26 4.71 8.41	OCB	Prior	1S2E	Q3 / 2022	Non-Consulting Services: No Advertising: International No. of Contracts: 04 Prequalification of Bidders: No Domestic Preference Applicable: No Advance Contracting: No Bidding Document: SBD Large Works High Risk Contract: No Covid-19 Response? No Comments: Customized bidding documents (Large Works/ or Plant) for a design/build-operate-maintain contract will be used.
KPCIP-Goods-02	Procurement, Supply and Installation of Water Meters	0.8	OCB	Prior	1S2E	Q3 / 2023	Non-Consulting Services: No Advertising: International No. Of Contracts: 01 Prequalification of Bidders: No Domestic Preference Applicable: No Advance Contracting: Yes Bidding Document: Goods High Risk Contract: No Covid-19 Response? No Comments: Advance contracting. Customized bidding documents for a build-operate-maintain contract will be used.

* Estimated based on exchange rate: PKR 171.25 = \$1.00, and \$1.00 = € 0.867303 as of 15 October 2021.

Consulting Services-Non ADB Financing							
Package Number	General Description	Estimated Value (\$) Million*	Selection Method	Review	Type of Proposal	Advertisement Date	Comments
KPCIP-Cons-01	Project Management and Construction Supervision Consultants (PMSCS)	7.30	DC	Prior	STP	Q3 / 2021	<p>Non-Consulting Services: No</p> <p>Type: Firm</p> <p>Assignment: International</p> <p>Advance Contracting: Yes</p> <p>Covid-19 Response? No</p> <p>Comments: M/s Minconsult SDN BHD - Malaysia in joint venture with M/s Creative Engineering Consultants – Pakistan (EDCM Consultants) will also undertake the PMSCS activities during the implementation phase. SSS will be carried out in light of the continuity of professional approach & continuous professional liability requirements.</p>
KPCIP-Cons-02, 03,04	<p>Capacity Building of Local Government including:</p> <p>(i) ERP Solutions,</p> <p>(ii) Establishment of Water Regulator, Legislation and Institution Development</p> <p>(iii) Capacity Building, Reforms and Training of Local Government, Elections and Rural Development Department</p>	<p>1.37</p> <p>2.03</p> <p>2.08</p>	QCBS	Prior	FTP	Q1 / 2022	<p>Non-Consulting Services: No</p> <p>Type: Firm</p> <p>Assignment: International</p> <p>Quality-Cost Ratio: 90:10</p> <p>Advance Contracting: No</p> <p>Covid-19 Response? No</p> <p>Comments: Advance Contracting</p>
KPCIP-Cons-05	Individual Consultants (PMU and CIUs)	1.17	ICS	Prior	ICS	<p>Q3 & Q4 / 2021</p> <p>Q1 & Q2 / 2022</p>	<p>Non-Consulting Services: No</p> <p>Type: Individual</p> <p>Assignment: National</p> <p>Expertise: Project Management</p> <p>Advance Contracting: Yes</p> <p>Covid-19 Response? No</p>

Consulting Services-Non ADB Financing							
Package Number	General Description	Estimated Value (\$) Million*	Selection Method	Review	Type of Proposal	Advertisement Date	Comments
							Comments: Multiple contracts

*Exchange rate: PKR 171.25 = \$1.00, and \$1.00 = € 0.867303 as of 15 October 2021.

3. List of Indicative Packages (Contracts) Required Under the Project

The following table lists goods, works, non-consulting and consulting services contracts for which 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 and Works						
Package Number	General Description	Estimated Value (in US\$)	Procurement Method	Review	Bidding Procedure	Comments
None						

Consulting Services						
Package Number	General Description	Estimated Value (in US\$)	Selection Method	Review	Type of Proposal	Comments
None						

D. Consultant's Terms of Reference

47. The Project includes recruitment of (i) firms for project management and construction supervision and capacity building of relevant government entities; and (ii) multiple individual consultants. The terms of reference of the consulting firms and the individual consultants are provided in Appendix 1.

VII. SAFEGUARDS

48. The executing and implementing agencies are responsible for compliance with ADB Safeguard Policy Statement (SPS), 2009.

49. **Environment (category A).** The GOKP prepared the environmental safeguards documentation to meet both the KPK Environmental Protection Agency requirements as well as ADB SPS, 2009.

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

51. **Solid waste management components.** A total of four draft environmental impact assessments (EIAs) including environmental management plans (EMPs) for the integrated SWM

facilities (SWMF) were published in March 2021.²⁸ The SWMFs may cause site specific adverse environmental impacts on air, water, and land quality. ADB chaired the EIA-peer review meeting on 10 May 2021, confirming that (i) almost all municipal waste disposal in five cities is currently uncontrolled—either burned or dumped at random on vacant land and rivers, threatening the environment, health, and welfare of a population of 3.5 million; (ii) integrated SWM operations will significantly contribute to KP cities environmentally overall; (iii) integrated landfill sites constitute only a part of the entire SWM operation (as part of reducing, recycling, and reusing approaches); and (iv) proposed SWMFs have adequate mitigation measures based on international standards on environmental safeguards (World Health Organization/International Finance Corporation). The Draft EIAs have been disclosed on ADB's website in June 2021. Any update in the EIA report(s) during implementation phase to account for any unanticipated impacts will also be disclosed. No works shall be allowed until ADB approves the updated EIAs and EMPs.

52. The EMPs will be incorporated into the SWMFs' contracts, giving contractors the primary responsibility for implementation, under oversight from PMU and CIUs. The PMU will retain an external environmental monitoring expert to monitor the implementation of the project's EMPs, compliance with ADB SPS, and conditions of the environmental permits/clearances. The external environmental monitoring expert will also be responsible for reviewing the environmental monitoring reports before submission to ADB. A corrective action plan will be prepared and implemented for any non-compliances.

53. If some residual impacts are likely to remain significant after mitigation, the EMPs will also include appropriate compensatory measures (offset) that aim to ensure that the project does not cause significant net degradation to the environment. Such measures may relate, for instance, to conservation of habitat and biodiversity, preservation of ambient conditions, and greenhouse gas emissions. Monetary compensation in lieu of offset is acceptable in exceptional circumstances if the compensation is used to provide environmental benefits of the same nature and is commensurate with the project's residual impact.

54. The findings and recommendations of the four Draft EIAs are:

- (i) An action plan with clear roles and responsibilities of stakeholders has been provided in the report. The CIU, Contractors and the CSC are the major stakeholders responsible for the action plan. The action plan must be implemented prior to commencement of construction work. In order to execute successful operation of SWMF facilities, institutional review and capacity building (IRCB) component is included in the project design to enhance services delivery of WSSCs.
- (ii) Mitigation measures will be assured by a program of environmental monitoring conducted during construction and operation to ensure that all measures in the EMP are implemented and to determine whether the environment is protected as intended. This will include observations on and off-site, document checks, and interviews with workers and beneficiaries, and any requirements for remedial action will be reported.
- (iii) Most of the environmental impacts are associated with the operation phase of the project since these will be long term, such as generation of objectionable odor and impact on air quality, attraction of vermin and disease vector generation, Leachate

²⁸ The Draft EIAs are prepared for packages (i) KPCIP-CW-05 Procurement, Supply, Installation, Commissioning, and Operations of Solid Waste Management System for Mardan; and (ii) KPCIP-CW-07 Procurement, Supply, Installation, Commissioning, and Operations of Solid Waste Management System for: Lot 1: Peshawar, Lot 2: Kohat, Lot 3: Mingora; and Lot 4: Abbottabad.

generation, Possible contamination of soil and groundwater, Generation of Landfill Gas etc., to name a few. These shall be mitigated through necessary measures.

- (iv) It is concluded that the proposed projects should proceed, with appropriate mitigation measures and monitoring programs identified in the EIA studies.

55. Water supply, sewage treatment plants, and green urban space components. A total of eight initial environmental examinations (IEEs) have been prepared for the water supply, sewage treatment plants, and green urban space subprojects. In addition, EMPs have been prepared to cover all other category C subprojects to various green initiatives and gender subprojects. The potential impacts from these subprojects have been assessed to be site specific, few are irreversible, and most can be readily mitigated and minimized using proven mitigation measures consistent with internationally recognized best practices. No contract will be awarded until ADB approves the updated/final IEE and EMPs. The EMPs will be included in bid and contract documents. Prior to execution of civil works, contractors will prepare site-specific EMPs, which will be approved by the CSC and the CIU.

56. Statutory clearances and applicable standards. Implementation of the project and its subprojects will be governed by Government of Pakistan environmental acts, rules, policies, and regulations. All statutory clearances shall be obtained prior to commencement of works. The PMU and CIUs will inform the CSC and contractors for any environmental clearance conditions related to execution of works and will ensure these are considered in the SSEMPs. During the design, construction, and operation of the project and its subprojects, ADB SPS requires the PMU and CIUs to apply pollution prevention and control technologies and practices consistent with international good practice, as reflected in internationally recognized standards such as the World Bank Group's (WBG) environment, health, and safety (EHS) Guidelines. These standards contain performance levels and measures that are normally acceptable and applicable to projects. In general, Government of Pakistan standards for environmental quality correspond to the WBG EHS Guidelines, however in case of differences more stringent standards are applicable. The EIAs, IEEs and EMPs provide the applicable environmental standards on water quality, air quality, noise level, and vibrations.

57. Asbestos-containing materials (ACMs). ADB SPS requires that a safe and healthy working environment is provided for workers taking into consideration the risks inherent to the sector and specific classes of hazards. Facilities to be rehabilitated or expanded may indicate presence of asbestos-containing materials (ACMs) in project sites. These include but are not limited to existing asbestos cement pipes, roofing, and insulation among others. PMU and CIUs shall ensure increased awareness of the health risks related to occupational asbestos exposure by engaging Asbestos Management Experts under the project management consultant team, if needed, to guide, facilitate and supervise works involving ACMs. In the event that ACMs are found in subproject sites, the Final EIAs, Final IEEs, and contract documents shall include specific provisions applicable to the contractors and subcontractors such as:

- (i) engaging certified and competent asbestos service provider to identify, handle and remove the ACMs present and encountered in the project sites;
- (ii) adopting good practices as per World Bank Group's Environment, Health and Safety (EHS) Guidelines²⁹ to minimize the health risks associated with ACMs by

²⁹ ADB SPS specifies application of pollution prevention and control technologies and practices consistent with international good practice, as reflected in internationally recognized standards such as the World Bank Group's EHS Guidelines. These standards contain performance levels and measures that are normally acceptable and applicable

- avoiding their use in new construction and renovation, and by using internationally recognized standards and best practices to mitigate their impact;³⁰
- (iii) training of workers and supervisors, possession of (or means of access to) adequate equipment and supplies for the scope of envisioned works, and a record of compliance with regulations on previous work;
- (iv) removal, repair, and disposal of asbestos-containing material (ACM) shall be carried out in a way that minimizes worker and community asbestos exposure, and requires the selected contractor to develop and submit a plan, subject to the PMU and PIU's acceptance, before doing so;
- (v) providing adequate protection to its personnel handling asbestos, including respirators and disposable clothing; and (vi) notifying the environmental regulatory agency of the removal and disposal according to applicable regulations as indicated in the technical requirements and cooperating fully with representatives of environmental regulatory agency during all inspections and inquiries.

58. **Physical cultural resources.** PMU will ensure subproject designs and implementation will avoid damage to physical cultural resources (PCRs)³¹ within or adjacent to project sites. For subprojects with potential PCRs, a heritage impact assessment (HIA) is to be conducted as part of the Final EIA or Final IEE. The HIA will document all PCRs, assess the potential impacts and recommends measures to avoid any negative impact. If an impact is unavoidable, mitigation measures and/or compensatory measures are to be implemented as part of the EMP. The HIA will also include the protocol and coordination arrangement with the regulatory in case of chance find during execution of works. No works will be allowed until the HIA is completed and reviewed by ADB and relevant regulatory agency.

59. **Pre- and Post-Work Site Conditions.** Prior to commencement of the work, the Contractor will submit a pre-works condition report to the PMU and CIUs ensuring that all identified pre-construction environmental impact mitigation measures will be undertaken. The contractor shall reinstate all properties whether public or private which are damaged in consequence of the execution and maintenance of the works to a condition at least to pre-works conditions. PMU and CIUs will include post-construction audit reports in project quarterly progress report and/or in the semi-annual environmental monitoring report.

to projects. When host country regulations differ from these levels and measures, the borrower/client will achieve whichever is more stringent. If less stringent levels or measures are appropriate in view of specific project circumstances, the borrower/client will provide full and detailed justification for any proposed alternatives that are consistent with the requirements presented in the SPS.

³⁰ EHS Guidelines specify that the use of ACM should be avoided in new buildings and construction or as a new material in remodeling or renovation activities. Existing facilities with ACM should develop an asbestos management plan that clearly identifies the locations where the ACM is present, its condition (e.g., whether it crumbles easily or has the potential to release fibers), procedures for monitoring its condition, procedures to access the locations where ACM is present to avoid damage, and training of staff who can potentially come into contact with the material to avoid damage and prevent exposure. The plan should be made available to all persons involved in operations and maintenance activities. Repair or removal and disposal of existing ACM in buildings should be performed only by specially trained personnel following host country requirements or, if the country does not have its own requirements, internationally recognized procedures. Decommissioning sites may also pose a risk of exposure to asbestos that should be prevented by using specially trained personnel to identify and carefully remove asbestos insulation and structural building elements before dismantling or demolition.

³¹ Movable or immovable objects, sites, structures, groups of structures, and natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance. Physical cultural resources may be located in urban or rural settings and may be above or below ground or under water. Their cultural interest may be at the local, provincial, national, or international level.

60. **Occupational Health and Safety (OHS).** ADB requires that the borrowers ensure that the workers are provided with a safe and healthy environmental, considering risks inherent to the sector and specific classes of hazards in the subproject areas including physical, chemical, biological and radiological hazards.

61. **Updating/finalization/revision of the EIA or IEE.** The Draft EIAs and IEEs will be updated in the event of any unanticipated environmental impacts during project implementation. The PMU will submit the updated/final/revised EIA(s) and/or IEE(s) to ADB for review and concurrence. The PMU shall ensure any additional requirements due to the updating/finalization/revision are communicated to the contractors in a timely manner and issue contract variations, if needed, to meet the compliance requirements.

62. **Environmental safeguards implementation arrangement.** The PMU and CIUs shall ensure the safeguards requirements and procedures in the table below are followed for the project to ensure compliance with ADB SPS, 2009. The PMU will:

- (i) Provide support to ADB missions;
- (ii) Coordinate activities with all stakeholders, review consultant's proposals, and provide overall guidance during various stages of project preparation;
- (iii) Manage and ensure safeguard due diligence and disclosure requirements including resettlement and environmental safeguards in accordance with ADB SPS and KP government requirements;
- (iv) Manage and ensure effective implementation of the each subproject's environmental management plans;
- (v) Ensure submission of all EIA/IEE requirements as per law by responsible entities; and
- (vi) Monitoring of activities of the projects.

Table 19: Summary Environmental Safeguard Compliance Requirements

Project Stage	Compliance Requirements
Bidding process	<ul style="list-style-type: none"> EIA or IEE is disclosed by ADB prior to bid invitation EIA or IEE included in bid document EMP provisions and compliance requirements explained to bidders in pre-bid meeting
Contract award	<ul style="list-style-type: none"> All the regulatory clearances / approvals are in place prior to award of contract Contractors to undertake Safeguards Orientation upon mobilization Mobilization of External Environmental Monitoring Expert
Construction	<ul style="list-style-type: none"> Contractor complied with all pre-construction procedures including preparation of contractor EMP (SSEMP), construction health and safety plan, traffic management plan, establishment of labor camps as per EMP provisions etc., External Environmental Monitoring Expert review of and confirmation that conditions of regulatory clearances / approvals are incorporated in CEMP EMP implemented by contractor during construction Monitoring conducted by CSC and CIU Submission of external monitoring report to ADB (quarterly monitoring during construction up to commissioning and semi-annual monitoring during operations) Submission of semi-annual environmental monitoring report to ADB including corrective action plan where non-compliance is identified,

Project Stage	Compliance Requirements
	<p>commencing six months after loan effectiveness up until project completion report is issued</p> <ul style="list-style-type: none"> Monitoring conducted by ADB
Post-construction	<ul style="list-style-type: none"> All the sites are cleaned up and restored as required prior to issuance of work completion certification to the contractor Post-construction monitoring conducted by PMU, and CIU through the external environmental monitoring expert Preparation of post-construction audit report to be included in the External Environmental Monitoring Expert's quarterly monitoring report to ADB, including corrective action plan where non-compliance is identified Monitoring conducted by ADB
Operation	<ul style="list-style-type: none"> All the operational stage regulatory clearances/approvals are in place prior to start of operation Submission of semi-annual monitoring report to ADB, including corrective action plan where non-compliance is identified, will continue until ADB issues the project completion report Monitoring conducted by ADB and External Environmental Monitoring Expert

63. Key tasks and responsibilities of the Environment Specialist hired under the CSC are as follows:

- (i) Update the draft IEE's / EIA's to account for any unanticipated impacts envisaged during implementation phase;
- (ii) identify requirements and prepare detailed TORs of technical experts that may be needed in the updating/finalizing the EIAs/IEEs and/or during implementation, such as but not limited to: environmental auditor, biodiversity expert, ACM management expert, and architect/heritage expert;
- (iii) submit Updated/Final EIA
- (iv) confirm EIAs and IEEs are included in bidding documents and civil works contracts;
- (v) confirm EIAs and IEEs are disclosed in language and form understandable by stakeholders and project-affected people, if any;
- (vi) provide oversight on environmental management aspects of the project and subprojects;
- (vii) prepare a project-focused Occupational Health and Safety Plan (OHS) to be adopted by contractors and subcontractors;
- (viii) ensure contractor submits Site Specific Environmental Management Plan (SSEMP) before start of works;
- (ix) review the SSEMP for adequacy in terms of compliance with the requirements of the EMP and instruct amendments and additions as necessary;
- (x) ensure contractor establish a system to monitor environmental safeguards of the project, including monitoring the indicators set out in the monitoring plan of the SSEMP;
- (xi) facilitate and confirm overall compliance with all government rules and regulations regarding site and environmental clearances, as well as any other environmental requirements (e.g., location clearance certificates, environmental clearance certificates, etc.), as relevant;
- (xii) ensure that relevant OHS provisions in the contract are abided by the contractor and subcontractors during the construction, commissioning and operation;

- (xiii) prepare environmental monitoring checklists and safeguards monitoring report templates for completion of the PIUs and contractors;
- (xiv) together with the external environmental monitoring expert: review, monitor, and evaluate the effectiveness with which the SSEMP is and recommend necessary corrective actions to be taken as necessary;
- (xv) consolidate monthly environmental monitoring reports from contractors and provide to External Environmental Monitoring Expert for preparation and submission of quarterly monitoring reports to ADB (until commissioning and project completion report has been issued by ADB);
- (xvi) prepare semi-annual environmental monitoring report and submit to External Environmental Monitoring Expert for review/clearance prior to submission to ADB (commencing 6 months after loan effectiveness until project completion report has been issued by ADB);
- (xvii) address any grievances brought about through the grievance redress mechanism in a timely manner;
- (xviii) provide orientation to bidders (during bid stage) and contractor upon mobilization regarding environmental safeguards requirements of the project;
- (xix) provide inputs to progress reports and the project completion report;
- (xx) visit worksites during construction and provide guidance relating to supervision and compliance monitoring;
- (xxi) visit completed works and prepare post-construction audit reports; and
- (xxii) assist with establishing environmental monitoring procedures for the operation phase of the improved infrastructure.

64. The contractors, including its subcontractors, will have the following main roles and responsibilities:

- (i) comply with all applicable government laws, rules and regulations
- (ii) comply with environmental safeguards and OSH requirements per ADB SPS and contract provisions;
- (iii) ensure any subcontractors/suppliers, who are utilized within the context of the contract, comply with all requirements of the EMP. The Contractor will be held responsible for non-compliance on their behalf;
- (iv) provides environmental awareness training to staff;
- (v) bear the costs of any damages/ compensation resulting from non-adherence to the EMP, contract provisions on environmental safeguard and OSH, or written site instructions;
- (vi) conduct all activities in a manner that minimizes disturbance to directly affected residents and the public in general, and foreseeable impacts on the environment;
- (vii) ensure that its staff or engineers are informed in a timely manner of any foreseeable activities that will require input from the environment and safety officers (or equivalent);
- (viii) submit monthly environmental safeguard, occupational health and safety report to PIU;
- (ix) appoint one full time environment and safety officer (or equivalent) for implementation of EMP, community liaising, reporting and grievance redressal on day to day basis; and
- (x) receives complaints/grievances from the public, immediately implements the remedial measures and reports to the PMU and PMDSC.

65. The external environmental monitoring expert³² will have the following roles and responsibilities:

- (i) familiarize with the project documents, including the EIA report, implementation arrangements, roles and responsibilities, ADB SPS, contract provisions related to environmental safeguards, labor standards, OSH, government rules and regulations and conditions of the environmental clearance;
- (ii) contribute to the review of the updated/final EIAs, IEEs and/or EMPs following the detailed engineering design, and provide comments and recommendations as necessary relating to (a) the adequacy of monitoring arrangements, (b) the construction work method statements, and (c) the proposed mitigation measures to address newly identified negative environmental impacts and risks;
- (iii) ;
- (iv) review semi-annual environmental monitoring reports prior to submission to ADB;
- (v) inspect the project construction works, assess actual environmental impacts of the subproject/on-going civil works, identify critical issues/concerns, and prepare a report on the findings;
- (vi) recommend improvements to effectively implement the EMP;
- (vii) provide professional opinion on the degree of impacts, if any; and
- (viii) submit all findings and reports directly to ADB.

66. A copy of the EMP/SSEMP shall be kept on site at all times. Non-compliance with, or any deviation from, the conditions set out in the EMP/SSEMP and contract provisions on environmental safeguards and OHS will constitute a failure in compliance.

67. **Technical Experts.** PMU and CIUs, through the project consultant teams, may engage the following specialists to address site-specific or subproject-specific environmental safeguard requirements per ADB SPS. The technical experts may be engaged as individuals or as member of the CSCs. The PMU/CIU may seek support of ADB in the preparation of specific TORs to undertake the required technical studies. The list below maybe expanded as needed during project implementation

- (i) **Architect/Heritage Management Specialist.** To provide guidance on ADB SPS requirements on PCRs including (a) undertake HIA, (b) prepare chance find procedure, (c) provide support on the statutory clearances to be obtained, (d) review and approval of all drawings from architectural and heritage perspective, (e) review and approve the detailed architectural drawings prepared by the contractor, (f) promptly address ant site-specific issues regarding architectural and heritage aspects, (g) monitor implementation of recommendations and (h) prepare documentation and reporting on the implementation of mitigation measures;
- (ii) **Biodiversity Expert.** To provide guidance on the ADB SPS requirements on Biodiversity Conservation and Critical Habitat Assessment including (a) screening (e.g. use of Integrated Biodiversity Assessment Tool or equivalent) and conduct of biodiversity assessment; (b) training and capacity building tasks; (c) monitoring and reporting; (d) undertake on-site verifications and consultations; (e) recommend specific measures, and (f) provide supervisory support during the planning and construction periods; and

³² External Environmental Monitor will be hired by the PMU/CIU and if additional compliance review is required by ADB, through the existing F-TRTA already under implementation for other Urban Development projects undergoing implementation in the country.

- (iii) **Asbestos Management Specialist.** To provide guidance on the ADB SPS requirements on ACM including: (a) identify ACMs, (b) conduct inventory, (c) prepare subproject-specific Asbestos Management Plan, (d) provide training and awareness on the risks and safe handling and management of ACMs, (e) coordinate with the asbestos management service provider(s), (f) monitor implementation of recommendations, and (g) prepare documentation and reporting on the implementation of mitigation measures.

68. **Involuntary resettlement (category A).** A consolidated social due diligence report (SDDR) screened all 24 subprojects for involuntary resettlement impacts. Consequently, 15 subprojects were assessed as not having any involuntary resettlement (IR) impact. For such subprojects, the actions are focused on obtaining no-objection certificates (NOCs) from the relevant agencies which manage the sites to be used for the subproject. PMU/CIU will do another due diligence during implementation in case unanticipated IR impacts occur. The remaining 9 SPs have IR impacts. Approximately 215.237 acres of private land comprising 30.43 acres of agriculture land and 184.807 acres of barren land will be required. An estimated 10,856 DPs will be affected. Of these, 21 households (with 143 members) will likely lose 10% or more of their agriculture land. Other DPs are losing barren land. While still to be further assessed, there is also a risk that 6 households (with 40-42 members) living within the buffer zone of one LFS may need to relocate. Although the number of severely affected DPs is below 200, the risk of having additional impacts may be expected given the location/alignment of the subprojects (urban, near settlements and busy commercial areas) which justifies a category A for IR. As per completed detailed engineering designs, a total of 4 land acquisition and resettlement plans (LARPs) have been prepared. Section 5 of Pakistan's Land Acquisition Act (LAA) has been notified for 3 subprojects. A resettlement plan has been prepared to address temporary impacts in one subproject. Corrective action plans (CAPs) have been prepared for three subprojects to address legacy issues and ensure that these subprojects are compliant with the requirements of the Safeguards Policy Statement. PMU has engaged a licensed valuer to conduct an independent valuation study (IVS) to ensure compliance with the Safeguards Policy Statement requirement. A land acquisition and resettlement framework (LARF) was also prepared to address unanticipated impacts during project implementation that were not considered in the SDDR, LARPs and CAPs. In case unanticipated impacts are identified, the PMU will prepare a new corrective action plan (CAP) and submit to ADB for review. Implementation of such CAP will be monitored and reported. Works in the section with the unanticipated impacts will be allowed only after the full implementation of the CAP and verification by the external monitoring agency.

69. These safeguard documents (SDDR, LARPs, RP, CAPs and LARF) have been disclosed on the project and ADB websites and will be shared with the affected persons. The LARPs and CAPs will be updated following the completion of the IVS, finalization of the DP acquaintance roll and completion/final verification of their socioeconomic condition which will be a condition for contract award. Commencement of civil works will be conditional to the full disbursement of compensation payments and assistance according to the approved LARPs/CAPs as verified in a compliance report to be prepared by an external monitoring agency/consultant. The IRCB consultant hired under the loan is responsible for supporting CIUs in strengthening their safeguards capacity and day-to-day implementation, periodical monitoring of LARPs, and the management of project-based GRM. The institutional arrangements to support social safeguards at the PMU are in place, GRM is being formulated and will be functioning prior to the award of the first contract.

70.

71. **Indigenous peoples (category C).** A consolidated SDDR assessed the impact on indigenous peoples through documentary reviews, field visits, and consultations with locals in the subproject areas. No indigenous peoples impact, involving direct or indirect impacts to the dignity, human rights, livelihood systems, territories, or natural and cultural responses that are used, owned, or occupied by indigenous peoples is anticipated per the ADB's SPS 2009. The project has therefore been classified as category C because no Ips or IP groups, as described in IP policy of SPS, exist in the project areas.

72. **Meaningful consultations, stakeholder's engagement, and information disclosure.** During PRF implementation, GOKP organized a series of meaningful stakeholder consultations and their views were incorporated into the EIAs, IEEs, EMP, as well as project designs. The meaningful consultation process will continue during project implementation. Consultations with surrounding landowners/users/communities if any, around subproject sites will be conducted and documented and will be reported in the semi-annual environmental monitoring reports and semi-annual social safeguards monitoring reports. Consultation and public participation will continue throughout implementation, and any environmental grievances will be handled in accordance with the grievance redress mechanism (GRM) developed for the project. ADB will disclose all safeguard documents (EIAs, IEEs, LARPs and SDDR) and monitoring reports on its website upon receipt. PMU and CIUs shall likewise disclose the documents locally in a timely manner,³³ an accessible place, and a form and language understandable to stakeholders and affected persons.

73. **Grievance Redressal Mechanism.** A project-specific grievance redress mechanism (GRM) covers both environment and social issues. The GRM will be established to receive, evaluate, and facilitate the resolution of affected persons' concerns, complaints, and grievances about the social and environmental performance at project- and subproject-level. The GRM will aim to provide a time-bound and transparent mechanism to voice and resolve social and environmental concerns related to the project. The GRM will provide an accessible and trusted platform for receiving and facilitating resolution of affected persons' grievances related to the project.

VIII. GENDER AND SOCIAL DIMENSIONS

74. The findings of the gender assessment conducted during the project preparatory stage (2020) revealed that women's participation in urban planning and governance is negligible in KPK province. Amongst the 05 Water Supply and Sanitation Companies (WSSCs) (selected under KPCIP), only 1–2 women were employed in each of the WSSCs performing junior administrative roles. Majority of the women in WSSCs work as sanitary workers, with longer working hours, low wages, limited or no access to social protection and lack of awareness on health and safety issues. Gender assessment confirmed that women and girls are less prepared to access higher-skilled and decent employment opportunities offered by the urban sector, given that most of the skills required are technical in nature. There are only three Polytechnic Colleges for girls in the entire KP province compared to one for boys in each city of KP. Of the various reasons, most common reasons for women's limited access to these opportunities are; (i) gender segregation of education and skills; (ii) limited or no access to information about such opportunities; (iii) scholarship departments are largely served by men with no availability of female staff; and (iv) unsupportive and undiversified scholarship criteria. Moreover, unreliable and inadequate urban services such as water supply and sanitation increase women's time poverty and drudgery at the

³³ The EIAs, IEEs, and EMPs will be disclosed locally at least two weeks prior to the consultations to allow public time to read, look for information or consult experts, and form opinions.

household level, hence further restrain their ability to access economic opportunities and social benefits offered by urbanization.

75. With significant gender benefits offered by project's output 1 & 2 and a dedicated gender output 3: "women's participation in urban governance increased" (financed through ADF gender grant) the project is classified "Gender Equity Theme (GEN)". Based on the issues observed above, A detailed Gender Action Plan is prepared and attached as Linked Document 12. Project's communication strategy will promote partnership with local organizations to create and uphold awareness and hygiene behavior through life skills education, social media, and awareness campaign. The community participation approach will focus on women and children, youth groups, as well as the poor and vulnerable, to take advantage of the improved urban services.

76. Implementation of the gender component of KPCIP will be supported by a team led by Director Gender and Inclusion (based at Project Management Unit) with a following composition; (i) Project Officer (Gender) and consultants including; (i) Skills and Enterprise Development Specialist; (ii) Community Engagement and Behavior Change Specialist; (iii) Research Specialist; (iii) Scholarship Program Specialist; and (iv) Capacity Building Specialist GESI, WASH and SWM. At the Cities Implementation Unit (CIU) level, the gender team will include; (i) 05 Gender Coordinator/Officer (01 at each city); (ii) 20 Social Mobilizers (02 male and 02 female at each city); (iii) 05 Customer Care Officers (01 female at each city). The project's gender team will seek overall technical guidance for implementation of KPCIP's gender component from ADB's Gender Specialist based in Pakistan Resident Mission and Social Development Specialist (CWOD-PSG) based in Manila. Detailed TOR of the gender consultants are detailed in Appendix 1.

IX. CLIMATE CHANGE ADAPTATION AND MITIGATION

77. Based on the climate change assessment, the project's climate risk classification is *high*. Climate mitigation is estimated at cost \$122.92 million and climate adaptation is estimated to cost \$38.94 million. ADB and ADB-administered fund will finance all of mitigation and adaptation costs. Pakistan is among the top ten countries most affected by the impacts of climate change. Climate change impacts on the project areas were assessed using different models, the impact of projected changes in temperature and precipitation on all subcomponents of the project were evaluated, and adaptation measures were incorporated in the design of the respective subprojects. The measures cater for the expected increase in water demand, decrease in ground and surface water availability, impact on waste digestion processes, performance of materials used in construction, and increase in flooding.

78. The project investments are estimated to reducing 249,891 CO² eq tons of greenhouse gas (GHG) emission annually in the project areas. The current practices of the solid waste management system in the five project cities are a major source of GHG emissions, that include waste burning, uncontrolled dumping, and informal recycling. The other sources for GHG emission include use of fossil fuels in vehicles and machinery, inefficient equipment and pumps, excessive energy wastage due to losses and leakages and use of ground water sources. Project investment in recycling and treating solid waste; conversion to surface sources of water, and LED lights; energy produced from refused derived fuel (RDF) combustion will contribute to the reduction GHG emission.

X. PERFORMANCE MONITORING, EVALUATION, REPORTING, AND COMMUNICATION

A. Project Design and Monitoring Framework

79. The design and monitoring framework (DMF) of the Project is presented below:

Impact the Project is Aligned with Livability and community health in urban centers of Khyber Pakhtunkhwa Province improved ^a			
Results Chain	Performance Indicators	Data Sources and Reporting Mechanisms	Risks and Critical Assumptions
Outcome Access to reliable and resilient urban services in Abbottabad, Kohat, Mardan, Mingora, and Peshawar improved	By 2028: a. At least 800,000 people, of which 400,000 are female, have access to piped water supply system (2021 baseline: 247,000 people, of which 124,000 are female) (OP 2.1.4; OP 4.1; OP 4.1.1) b. At least 180,000 people, including 90,000 women, are served by sewerage network connected to new wastewater treatment system (2021 baseline: 19,880 people) (OP 2.1.4; OP 4.1.1) c. At least 250,000 households received door-to-door solid waste collection services (2021 baseline: 0) (OP 4.1.1) d. At least 35% reduction in time spent by women and girls in the collection, storing, and treatment of water (2021 baseline: 76 minutes per day) (OP 2.4) e. At least 90,000 people visit renovated green urban spaces annually, of which 50% are female (2021 baseline: 0) f. Greenhouse gas emissions reduced to 177,109 equivalent tCO ₂ e/year in the project area (2021 baseline: 427,000 tCO ₂ e/year) (OP 3.1) g. At least 50% of the 270 women beneficiaries of project scholarships, research scholarships, and internships gained employment in urban water supply and sanitation (2021 baseline: 0) (OP 2.1.1) h. Number of residents' reporting problems with their household water supply services declines to 25% in four project cities (2020 baseline: 58%) (OP 4.1)	a.–h. Project progress reports, WSSC and city government records, project monitoring reports (all reports are prepared annually in Q1 of each year)	R: Poor water resource management and uncontrolled abstraction by other users outside project domains lead to decreased water supply at source. R: Government approval delays. A: Asian Infrastructure Investment Bank financing of \$200 million remains available for delivery of outputs 1 and 2. A: Communities' acceptance and ownership for integrated solid waste management.
Outputs 1. Climate-resilient and gender-friendly	By 2027: 1a. Clean water supply capacity of WSSCs increased to 400,000 m ³ daily (2019 baseline: 238,443 m ³ /day) (OP 4.1.2)	1a.–g. Project progress reports, WSSC and city	R: Water sources and reservoirs are unable to keep up with demand.

Results Chain	Performance Indicators	Data Sources and Reporting Mechanisms	Risks and Critical Assumptions
urban infrastructure and services improved	<p>1b. About 1,200 km of new water distribution network installed, and 550 km of existing network rehabilitated (2019 baseline: 550 km) (OP 4.1.2)</p> <p>1c. 150,000 smart meters installed (2019 baseline: 0) (OP 4.1.2)</p> <p>1d. Cumulative sewage treatment capacity of 30,000 cubic meters daily achieved with construction of 2 new sewage treatment plants (2021 baseline: 0) (OP 4.1.2)</p> <p>1e. 156 km of new sewerage pipes installed (2021 baseline: 0 km) (OP 4.1.2)</p> <p>1f. Solid waste treatment capacity of at least 2,000 tons daily achieved with modern solid waste management facilities constructions (2021 baseline: 0 facilities) (OP 4.1.1; OP 4.1.2; OP 4.3.1)</p> <p>1g. 1.6 km² of gender-friendly and climate-resilient urban spaces and parks established^b (2021 baseline: 0) (OP 2.1.4; OP 4.1.2; OP 2.4.1)</p>	government records, and project records (annual reporting)	<p>R: Procurement risks remain substantive.</p> <p>A: No delays in providing land for landfill sites and water filtration and sewage treatment plants</p>
2. Institutional capacity and gender inclusiveness of urban service providers, provincial government, and city governments strengthened	<p>By 2027:</p> <p>2a. Nonrevenue water reduced to 30% of total water produced (2021 baseline: estimated at 45%)^c (OP 4.2)</p> <p>2b. New tariff scheme formulated and adopted by WSSCs (2021 baseline: Not applicable) (OP 4.2.1)</p> <p>2c. An estimated 150 district metered areas with SCADA system for water supply commissioned (2021 baseline: 0)</p> <p>2d. Gender-inclusive human resources policies and procedures developed and adopted for 5 WSSCs (2021 baseline: 0) (OP 4.2.1; OP 4.2.2; OP 2.3.2)</p> <p>2e. At least 20% of board members in each WSSC are women (2021 baseline: 3%) (OP 2.3)</p> <p>2f. Performance and service benchmarks for key urban services, with sex-disaggregated targets approved for 5 WSSCs (2021 baseline: 0) (OP 6.3)</p> <p>2g. At least 50% of the target population reached through consultations and awareness-raising campaigns are women (2021 baseline: 0) (OP 4.2.1; OP 4.2.2)</p>	2a.–g. WSSC, GOKP, project progress reports (annual reporting)	<p>R: Political commitment for institutional reforms wanes over time.</p> <p>R: The proposed regulator for water services lacks adequate and qualified professionals.</p> <p>A: The existing service and asset management agreements with the WSSCs are revised to make them more focused with well-defined and measurable targets.</p> <p>A: WSSCs can exercise the administrative and financial powers given to them as per applicable legislation, rules, and regulations.</p>
3. Women's participation in urban	<p>By 2027:</p> <p>3a. 1 WBDC in Kohat constructed and 1 technical training institute for girls in</p>	3a.–d. WSSC, GOKP, project	R: The government's COVID-19 containment

Results Chain	Performance Indicators	Data Sources and Reporting Mechanisms	Risks and Critical Assumptions
governance and access to economic opportunities increased	Peshawar upgraded (2020 baseline: 0) (OP 2.4.1) 3b. At least 100 WBDC business development trainees provided with materials and technical training have set up	progress reports (annual reporting)	measures (such as bans on social gatherings) may delay training and social mobilization activities.
	their own businesses (2020 baseline: 0) (OP 2.2.1) 3c. At least 100 women entrepreneurs have established green enterprises ^d with the material and business under the Community Incentive Fund established by the project ^e (2020 baseline: 0) (OP 2.4.1) 3d. At least 55 female beneficiaries of the project's scholarship program earned university degrees in fields related to urban water supply and sanitation (2020 baseline: 0) (OP 2.2.1)		R: Sociocultural norms and values may impede participation of women and girls in project activities.

Key Activities with Milestones

1. Climate-resilient and gender-friendly urban infrastructure and services improved

Water supply and sanitation subproject

- 1.1 Start procurement of water treatment plants (Q3–Q4 2021).
- 1.2 Sign contract (Q2 2022).
- 1.3 Start procurement of water resource development subprojects (Q3 2021).
- 1.4 Construct water and sewerage network (Q4 2024).
- 1.5 Implement nonrevenue water management (Q3 2027).
- 1.6 Construct wastewater treatment plants (Q1 2027).

Solid waste management subproject

- 1.7 Start procurement of landfill sites and equipment (Q2 2022).
- 1.8 Sign contract (Q1 2023).
- 1.9 Construct primary and secondary collection and sanitary disposal facilities (Q4 2026).
- 1.10 Start program for waste reduction and recycling and waste-to-energy conversion (Q4 2026).
- 1.11 Construct sanitary (engineered) landfill sites (Q1 2027).

Green urban infrastructure subproject

- 1.12 Start procurement of green urban spaces and equipment (Q4 2021).
- 1.13 Sign contract (Q2 2022).
- 1.14 Rehabilitate existing green urban spaces, riverside trails, parks (Q1 2025).

2. Institutional capacity and gender inclusiveness of urban service providers, provincial government, and city governments strengthened

- 2.1 Start consultant recruitment (Q1–Q2 2022).
- 2.2 Strengthen capacity of WSSCs and local government (Q4 2022).
- 2.3 Implement citizen satisfaction surveys and technical baseline surveys by WSSCs (Q2 2022).
- 2.4 Map geographic information system for asset management and install SCADA (Q3 2022).
- 2.5 Develop and implement time-bound financial sustainability action plans for WSSCs (Q4 2022).
- 2.6 Promote and support environmentally sound technologies (Q2 2023).
- 2.7 Complete governance and regulatory reforms to increase efficiency of urban service operations (Q3 2027).

3. Women's participation in urban governance and access to economic opportunities increased

- 3.1 Complete recruitment of gender specialist of project management unit (Q1 2022).
- 3.2 Award civil works contract for WBDC, Kohat (Q1 2023).

- 3.3 Complete orientation of WSSC staff, gender staff, and consultants on gender-inclusive water, sanitation, and hygiene; solid waste management; and social mobilization (Q2 2027).
- 3.4 Engage community, and design and commence incentive fund (Q4 2023).
- 3.5 Design and roll out scholarship and internship program (Q2 2023).
- 3.6 Establish small green enterprises owned by women (Q3 2027).
- 3.7 Complete rehabilitation of Polytechnic Institute for Women in Peshawar (Q4 2025).
- 3.8 Complete the scholarships and research program (Q4 2027).

Inputs

Asian Development Bank: €329.575 million (\$380.000 million equivalent) (loan)

Asian Development Fund 13 Thematic Pool resources: \$5.000 million (grant)

Asian Infrastructure Investment Bank: \$200.000 million equivalent

Government of Khyber Pakhtunkhwa: €56.375 million (\$65.000 million equivalent)

A = assumption, COVID-19 = coronavirus disease, GOKP = Government of Khyber Pakhtunkhwa, km = kilometer, km² = square kilometer, m³ = cubic meter, OP = operational priority, Q = quarter, R = risk, SCADA = supervisory control and data acquisition, tCO₂e = ton of carbon dioxide equivalent, WBDC = women's business development center, WSSC = water and sanitation services company.

^a Government of Khyber Pakhtunkhwa. 2019. *KPK Local Government Act, Amended, 2019*. Pakistan.

^b Gender-friendly urban spaces and parks will include dedicated spaces for women's sports and physical fitness, family areas, well-lit rest areas and toilets, and other improved facilities. These will also include street beautification with streetlights and closed-circuit television cameras.

^c The GOKP will identify district metering areas for each project city to assess water loss.

^d Refers to environment-friendly enterprises such as the provision of safe water, sanitation, solid waste management services, and greening the environment.

^e The Community Incentive Fund will support women in establishing and expanding green enterprises.

Contribution to Strategy 2030 Operational Priorities

Expected values and methodological details for all OP indicators to which this operation will contribute results are detailed in Contribution to Strategy 2030 Operational Priorities (accessible from the list of linked documents in [Appendix 2](#)). In addition to the OP indicators tagged in the design and monitoring framework, this operation will contribute results for

OP 1.3: Poor and vulnerable people with improved standards of living (number)

OP 3.3: People benefitting from strengthened environmental sustainability (number)

Source: Asian Development Bank.

B. Monitoring

80. **Project performance monitoring.** Within six months of the loan effectiveness, the EA shall have established a Project Performance Monitoring System (PPMS) to monitor progress of the project in achieving the planned outcome and outputs. The PPMS will be in accordance with ADB's Project Performance Monitoring System Handbook and will be updated on a semi-annual basis. The PPMS will have an inbuilt flexibility to adopt remedial actions regarding project design, schedules, activities, and development impacts. The PPMS will include the following indicators, among others: (i) project outcome, outputs and inputs, (ii) safeguards compliance, (iii) gender and social dimensions, (iv) compliance with loan covenants, (v) status of audit observations, and (vi) update on compliance of timebound agreed actions with various review missions. Beneficiaries' feedback on project implementation will be obtained through consultation with the concerned communities, including the focused group discussion.

81. At the beginning of project implementation, the PMU and CIUs, with the assistance of consultants, will develop comprehensive PPMS procedures to systematically generate data in the above areas in consultation with implementing agencies (WSSCs). The PMU and CIUs will refine the PPMS framework, confirm achievable targets and monitoring and recording arrangements, and establish relevant systems and procedures. The PMU staff, with the support of the consultants, will collect baseline and progress data for the PPMS, and regularly monitor and report on PPMS activities. The PPMS procedures, performance indicators and their targets will be

reviewed and approved by ADB. The PMU's quarterly reports generated through the PPMS and submitted to ADB will provide information necessary to update ADB's project performance reporting system.³⁴

82. Compliance monitoring. The loan/grant covenants on policy, sector, legal, financial, economic, environmental, labor standards, and others will be monitored regularly by discussions during project review missions and through various periodic progress reports (quarterly, and annual reports). Any partial or full non-compliance will be highlighted at the appropriate and concerned levels within the Government of Pakistan, the Government Khyber Pakhtunkhwa, and the executing and implementing agencies. A time bound action plan will be prepared and agreed with the concerned entities for full compliance.

83. Safeguards monitoring. ADB's monitoring and supervision activities will be carried out on an ongoing basis until the project completion report is issued. The PMU and CIUs will have dedicated in-house expertise for compliance monitoring of environmental and social safeguards. The quarterly progress report of the PMU will have dedicated sections to report on the compliance status of the environmental and social safeguards. Environmental reporting to ADB will be done on a semi-annual basis commencing six months after loan effectiveness until ADB issues the project completion report. The external environmental monitoring expert will provide independent report on EMP implementation and safeguards compliance to ADB. For subprojects with LAR impacts, the PMU will prepare a LARP/CAP implementation completion report upon completion of disbursement of compensation and assistance to displaced persons, an external monitoring agency will verify independently and prepare a LARP/CAP implementation compliance report which will be required for issuing no-objection to the commencement of civil works. The semi-annual environmental monitoring report and the semi-annual social safeguard monitoring report will be submitted every July (for the period January-June) and January (for the period July-December) of each year and shall be disclosed at PMU and PIUs' and ADB's websites once they are reviewed and cleared by ADB.

84. Gender and social dimensions monitoring. The targets/indicators highlighted in the gender action plan (GAP) and other social/pro-poor provisions will be part of project's regular PPMS developed by PMU. The quarterly and annual progress reports of the PMU will have a dedicated section to report on the achievements of GAP implementation. The updated matrix of GAP will be one of the core appendices of the quarterly and annual progress reports. The gender team (*as described under gender and social dimensions*) based at PMU and CIUs to monitor and assist in the implementation of GAP, and monitoring and reporting against gender targets, throughout the project implementation and at project completion. The GAP is presented in Table 19.

Table 20. Gender Action Plan

Activities	Performance Targets/Indicators	Responsibility	Timeframe
Outcome: Access to reliable and resilient urban services improved			
a. Improve women's access to reliable and safe water supply and sanitation services,	By 2028: a.1 At least 800,000 people, of which approximately 400,000 are women, have access to piped water supply system (2021 baseline: 247,000 people, 124,000 women)	PMU, WSSC, LGER&DD	2028

³⁴ ADB's project performance reporting system is available at <http://www.adb.org/Documents/Slideshows/PPMS/default.asp?p=evaltool>

Activities	Performance Targets/Indicators	Responsibility	Timeframe
as well as to safe public spaces b. Provide women and girls opportunities to take on technical jobs in WSSCs	a.2 At least 180,000 people, including 90,000 women, are served by sewerage network connected to new wastewater treatment system (2021 baseline: 19,880) a.3 At least 35% reduction in time spent by women and girls in the collection, storing, and treatment of water, as well as in disposing solid waste (2021 baseline: 0) ^a b.1 At least 50% of the 270 women beneficiaries of project scholarships, research scholarships, and internships gained employment in the urban WSS sector (2021 baseline: 0%)		
Output 1: Climate resilient and gender friendly urban infrastructure and services improved			
1.1 Develop and implement gender-sensitive BCC strategy 1.2 Support gender-inclusive urban spaces	1.1.1. By 2027, 50% of the target population reached through multimedia campaigns, consultations, and awareness raising are women and girls (2021 base line: 0%) 1.1.2. By 2023, 80% WSSCs staff (of whom 40% are women) report increased information on gender-sensitive BCC through training programs (2 in each city) ^b (2021 baseline: 0%) 1.2.1 1.6 km2 of gender-friendly urban spaces & parks established ^c (2021 baseline: 0) 1.2.2. Post-survey results indicate 80% of women and girls feel safe and use the improved urban spaces in KPCIP locations (2021 baseline: 0) ^d	PMU, WSSC, CIUs TMAs, LGER&DD, PMU	Q2 2022–Q3 2024 2027
Output 2: Institutional capacities of gender inclusive urban service providers and government strengthened			
2.1 Develop and implement gender-inclusive HR policies and procedures for WSSCs 2.2 Undertake affirmative actions to increase women staff at technical and senior level positions 2.3 Develop and implement WASH program promoting women as leaders	2.1.1. Gender-inclusive HR policies and procedures developed and adopted for the five WSSCs ^e (2021 baseline: 0) 2.1.2. Performance/service benchmarks for key urban services, with sex-disaggregated targets developed and approved for 5 WSSCs 2.2.1. Women staff in WSSCs increased to 20% by 2026(2021baseline: 2%) 2.2.2. At least 2 women are appointed at senior management level at the PMU 2.2.3. At least 20% of board members in each WSSC are women (2021 baseline: 3%) 2.3.1 At least 100 community WASH groups support improvement in urban WSS (30% low-income and 40% women-led groups) (2021 baseline: 0)	PMU, WSSCs, LGER&DD	Q2 of 2022–2026
	2.3.2 By 2024, at least 200 women and girls report enhanced leadership skills in promoting WASH and safe SWM in 5 cities		
Output 3: Women's role in urban development increased			
3.1 Create a pool of women technical workers	3.1.1 At least 200 female graduates of university and technical institutes provided with internship in a higher skill technical position at WSSCs ^f (2021 baseline: 0)		2022–2027

Activities	Performance Targets/Indicators	Responsibility	Timeframe
3.2 Increase women's access to jobs and enterprises	3.1.2. At least 55 female beneficiaries of the project's scholarship program earned university degrees in the fields related to urban WSS (2021 baseline: 0) 3.2.1. WBDC in Kohat constructed, ^g and one Technical Training Institute for girls in Peshawar upgraded (2021 baseline: 0) 3.2.2. At least 1000 women and girls with certifications from training programs of the WBDC and WTTI (2021 baseline: 0) 3.2.3. At least 30 women teachers of the WBDC and WTTI report improved teaching skills from the training programs supported by the project (2021 baseline: 0) 3.2.4. At least 240 women who have completed training from the WBDC and WTTI are employed (2021 baseline: 0) 3.2.5. At least 100 WBDC trainees provided with materials and technical training have set up their own businesses (2021 baseline: 0) 3.2.6. At least 300 women entrepreneurs have established their green enterprises with the material and technical training support provided under the Community Incentive Fund established by the project ^{h, i} (2021 baseline: 0)	PMU, WSSCs	2027

BCC = behavioral change and communication, CIU = City Implementation Unit, HR = human resource, km = kilometer, KPCIP = Khyber Pakhtunkhwa Cities Improvement Project, LGER&DD = Local Government, Elections, and Rural Development Department, PMU = Project Management Unit, Q = quarter, SWM = solid waste management, TMA = tehsil municipal administration, WTTI = Women's Technical Training Institute, WASH = water, sanitation, and hygiene, WBDC = Women's Business Development Center, WSS = water supply and sanitation WSSC = water supply and sanitation company.

- ^a Baseline data on current time spent by women in water collection and solid waste disposal to be determined through a survey.
- ^b BCC refers to promoting women's increased participation and gender-transformation in urban planning and executing urban services.
- ^c Gender friendly urban spaces with dedicated spaces to promote women sports and physical health, family areas, well-lit rest areas & toilets.
- ^d Baseline data on current perceptions of women and girls about urban spaces to be determined through a survey at the start of the project.
- ^e Gender-Inclusive HR policies and procedures that encourage women's recruitment and retention in WSSCs.
- ^f A year-long internship includes living and transport support, office space, and IT equipment.
- ^g WBDC Kohat will include facilities such as: training rooms, multipurpose community hall, market space, and a childcare for working mothers.
- ^h Green enterprises refer to environment-friendly and sustainable enterprises such as the provision of WSS and SWM.
- ⁱ The Community Incentive Fund will be administered by WSSCs to support women in establishing and expanding green enterprises.

C. Evaluation

85. **Inception mission.** ADB is expected to field an inception mission one month after loan effectiveness to (i) confirm that the borrower understands ADB's procedures as agreed during project processing; (ii) ensure that the borrower understands the project financing plan; (iii) reconfirm the project implementation schedule, and contract award and disbursement baseline projections, including finalizing the detailed disbursement arrangements; (iv) familiarize the executing and implementing agencies with ADB's requirements in consultant recruitment; and procurement of goods, works, and related services.

86. **Review missions.** ADB will field semi-annual review missions to (i) assess overall project implementation progress, including the progress against the project outcome and outputs, (ii) examine financial progress, covenant compliance, safeguards, gender, and social dimensions; (iii) and assess utilization of both ADB and government counterpart funds. The PAM, including related documents, and project implementation schedule may also be updated as needed.

87. **Midterm review (MTR) mission.** An MTR mission will also be undertaken ideally after 24 months of loan effectiveness to review whether a project is likely to achieve its outcome and outputs on time and within budget. The mission will review all aspects of project administration and identify appropriate mitigation measures to address implementation problems, if any. In particular, it is during the MTR that ADB and EA/IA (i) carry out comprehensive assessment of project performance, (ii) assess the need for any change in project scope, financing plan, or category allocation of loan proceeds, and (iii) identify any problems and constraints affecting project implementation. The PMU and CIUs will monitor project implementation in accordance with the schedule and time-bound milestones, and keep ADB informed of any significant deviations that may result in the milestones not being met. The PMU is expected to submit the mid-term review report to ADB three (3) weeks in advance of the planned mid-term review mission. The MTR report will be used as the basis for assessing overall project performance and preparing a time-bound action plan.

88. **Special project administration mission.** When necessary, this mission will be fielded when there are specific project implementation matters that were not covered by a project inception or review mission. The mission will discuss and consult with the borrower specific implementation issues and agree on actions to be taken.

89. **Project completion review (PCR) mission.** Within 3 months of physical completion of the Project the EA is expected to submit a project completion report to ADB on the prescribed format. Thereafter, ADB will field a PCR mission to evaluate whether the project outcome was achieved, and assess the performance of all parties. ADB will also prepare and disclose its own project completion report

D. Reporting

90. The LGE&RDD will provide ADB with quarterly progress reports (QPR) in a format consistent with ADB's project performance reporting system. The QPR, which is due within 15 days of the end of each quarter, is expected to include (a) progress achieved by output as measured through the indicator's performance targets, (b) key implementation issues and solutions, (c) updated procurement plan, and (d) updated implementation plan for the next 12 months. Moreover, a project completion report shall be submitted within three (3) months of physical completion of the project. To ensure that projects will continue to be both viable and sustainable, project accounts and the executing agency audited financial statements together with the associated auditor's report, should be adequately reviewed.

E. Stakeholder Communication Strategy

91. During the project implementation, stakeholders will be kept informed about the project, its implementation progress, safeguards monitoring and other related information. The following table provides the framework for information disclosure indicating: (i) what project information will be communicated, (ii) how and when the project information will be disseminated, (iii) who will be responsible for information dissemination, and (iv) the target audience.

Table 21: Project Documents for Disclosure

Project Documents	Means of Communication	Responsible Party	Frequency	Audience
PDS	ADB website	ADB	Initial PDS no later than 30 calendar days after approval of the Loan/Grant; quarterly afterwards	General public
DMF	ADB website	ADB	Draft DMF within 14 days after Fact-finding mission	Project-affected people
Environmental Planning Documents	ADB website	ADB	Draft environmental assessment review framework within 10 days after Fact-finding mission	General public, project-affected people in particular
Report and Recommendation of the President	ADB's website	ADB	Within 2 weeks of Board approval of the project	General public
Project Administration Manual	ADB website	ADB	Within 2 weeks of Board approval of the project	General public
Summary Poverty Reduction and Social Strategy	ADB website	ADB	Within 2 weeks of Board approval of the project	General public
Legal Agreements	ADB website	ADB	No later than 14 days of approval of the project	General Public
Audited project financial statements and audit report	ADB website	ADB	No later than 14 days of ADB's confirmation of their acceptability.	General public
Social and Environmental Monitoring Reports	ADB website	ADB	Upon receipt from borrower/sponsor	General public, project-affected people in particular
Major Change in Scope	ADB website	ADB	Within 2 weeks of approval of the change	General public
Progress Reports	ADB's website	ADB	Within 2 weeks of circulation to Board or management approval if applicable	General public
Completion Report	ADB website	ADB	Within 2 weeks of circulation to the Board for information	General public
Evaluation Reports	ADB website	ADB	Routinely disclosed, no specific requirements.	General public
Project Implementation				
General advisory on the project and all aspects of implementation and safeguards as it applies to beneficiaries	Information note in local language, hard copy, to all potential beneficiaries	PMU/CIUs	One time, within first 2 months of project effectiveness	Beneficiaries
Advisory on how to access official project docs	Information note in local language, hard copy, to all potential beneficiaries	PMU/CIUs	One time, within first 2 months of project effectiveness	Beneficiaries

ADB = Asian Development Bank, DMF = design and monitoring framework, PID = project information document.

XI. ANTICORRUPTION POLICY

92. ADB reserves the right to investigate, directly or through its agents, any violations of the Anticorruption Policy relating to the project.³⁵ All contracts financed by ADB shall include provisions specifying the right of ADB to audit and examine the records and accounts of the executing agency and all project contractors, suppliers, consultants, and other service providers. Individuals and/or entities on ADB's anticorruption debarment list are ineligible to participate in ADB-financed, -administered, or -supported activities and may not be awarded any contracts under the project.³⁶

93. To support these efforts, relevant provisions are included in the loan and project agreements and the bidding documents for the project. The Government will comply with and will ensure that the executing and implementing agencies comply with, ADB's Anticorruption Policy (1998, as amended to date). Pakistan ranked 124 out of 180 countries in the 2020 Corruption Perceptions Index by Transparency International. The provincial governments of Pakistan are responsible for legislations in their respective provinces and since 2013, there has been several legislative efforts against corruption in KPK province. For instance, the GOKP passed KPK Right to Information Bill, the provincial anti-corruption legislation, which makes effective provisions for the prevention of integrity violations in KPK. During PRF implementation, ADB performed integrity due diligence of the EA and IAs and found no significant risks. The Government, consistent with its commitment to good governance, accountability and transparency, agrees (a) that ADB has the right to investigate, directly or through its agents, any alleged corrupt, fraudulent, collusive or coercive practices relating to the project; and (b) to cooperate fully with any such investigation and to extend all necessary assistance, including providing access to all relevant books and records, as may be necessary for the satisfactory completion of any such investigation. In addition, the Government will (a) conduct periodic inspections on the contractors' activities related to fund withdrawals and settlements; (b) ensure that all contracts financed by ADB in connection with the project include provisions specifying the right of ADB to audit and examine the records and accounts of all contractors, suppliers, consultants, and other service providers as they relate to the project; and (c) the construction supervision consultant shall verify the contractors' invoices in accordance with working drawings and contract specifications.

XII. ACCOUNTABILITY MECHANISM

94. People who are, or may in the future be, adversely affected by the project may submit complaints to ADB's Accountability Mechanism. The Accountability Mechanism provides an independent forum and process whereby people adversely affected by ADB-assisted projects can voice, and seek a resolution of their problems, as well as report alleged violations of ADB's operational policies and procedures. Before submitting a complaint to the Accountability Mechanism, affected people should make an effort in good faith to solve their problems by working with the concerned ADB operations department. Only after doing that, and if they are still dissatisfied, should they approach the Accountability Mechanism.³⁷

³⁵ Anticorruption Policy: <https://www.adb.org/documents/anticorruption-policy>

³⁶ ADB's Office of Anticorruption and Integrity website: <https://www.adb.org/site/integrity/main>

³⁷ Accountability Mechanism. <http://www.adb.org/Accountability-Mechanism/default.asp>.

XIII. RECORD OF CHANGES TO THE PROJECT ADMINISTRATION MANUAL

95. All revisions and/or updates during the course of implementation should be retained in this section to provide a chronological history of changes to implemented arrangements recorded in the PAM, including revision to contract awards and disbursement s-curves.

TERMS OF REFERENCE

I. INDIVIDUAL CONSULTANTS

A. Loan-Financed Individual Consultants for PMU and CIUs

1. The PMU and CIUs will hire services of individual consultants for a total of 1,040 person-person months as shown in the table below.

Table A.1: Individual Consultants – PMU and CIU

	Position Title	Number of Positions	Person-months (PM)	Total PM
PMU				
1	Monitoring and Evaluation Specialist	1	12	12
2	Procurement and Contract Management Specialist	1	12	12
3	Social Safeguards Specialist	1	20	20
4	Environment Specialist	1	24	24
5	Legal Expert	1	24	24
6	Training and Capacity Development Specialist	1	12	12
7	Municipal Finance Specialist	1	18	18
8	Communication Specialist	1	12	12
9	Smart Cities Development Specialist	1	6	6
10	Tourism Specialist	1	6	6
11	ICT Specialist	1	8	8
12	Institutional Development Specialist	1	8	8
13	GIS Specialist	1	12	12
14	Urban Planner	1	6	6
15	External Environmental Monitoring Expert	1	20	20
	Subtotal			180
CIUs				
1	M&E Specialist	5	24	120
2	Social Safeguards Specialist	5	24	120
3	Environment Safeguards Specialist	5	36	180
4	Municipal Finance Specialist	5	18	90
6	Training/Capacity Building Specialist	5	24	120
7	Urban Planner	5	10	50
	Subtotal			860
	Total			1,040

2. These consultants will provide technical support to the PMU and CIUs in project implementation. Their outline terms of reference are provided in the following paras.

1. Project Management Unit

a. Monitoring and Evaluation Specialist (national; 12 person-months):

3. Post-graduate having degree in any of the fields such as Engineering, Project Management, Business Administration, Monitoring and Evaluation etc.; Should have 10 years of general experience with seven years of particular experience of undertaking monitoring and evaluation (M&E) activities, and having demonstrated experience in establishing and supervising M&E systems. Excellent written and spoken communication skills in English; and working experience in the Khyber Pakhtunkhwa region is an advantage.

4. S/he will: (i) develop a project performance monitoring system (PPMS) using the outcome and output indicators of DMF of the project (ii) develop monitoring procedures, data collection formats, and protocols for collecting information to be fed into PPMS, (iii) assess the M&E system at WSSCs level, and suggest improvements where required, (iv) suggest a conceptual design and key performance indicators for monitoring operational performance of the WSSCs, and (v) assist the PMU in preparing periodic progress reports.

b. Procurement and Contract Management Specialist. (national 12, person-months)

5. Qualified civil engineer with at least eight years' experience of procurement and contract administration especially on FIDIC contract agreements, GoP and ADB procurement guidelines for works, goods, and services. Excellent written and spoken communication skills in English; and working experience in the Khyber Pakhtunkhwa region will be considered favorably.

6. S/he will be responsible for assisting in planning/scheduling of procurement actions, preparation of TORs, expression of interest (EOI), prequalification notices, and invitation for bids, overall management of bid process which includes preparation/review of prequalification/bidding documents including request for proposals (RFP), designing of qualification/evaluation criteria based on input from the concerned departments and ensure technical as well as financial evaluation of bids/proposals in accordance with given evaluation criteria, prepare standard agreement and contract documents; review agreements and contracts prepared by others; and facilitate award of contracts. He/she will be responsible for dissemination of information on results of procurements and will be assisting in determining the supply side capacity of construction industry in Pakistan. He/she will also be responsible for procurement oversight and responsible for assistance in contract administration of all the works/supply contracts, taking timely contractual actions related to cost, time, and quality controls and finishing of the contracts, referral to the adjudication and arbitration in case of dispute.

c. Social Safeguards Specialist. (national, 20 person-months)

7. Post graduate degree in social sciences or an equivalent field, and seven years' experience in resettlement planning and implementation preferably in projects finance by multilateral finance institutions. Excellent written and spoken communication skills in English; and working experience in the Khyber Pakhtunkhwa region will be considered favorably.

8. S/he will assist PMU on social safeguard compliance on the subprojects including: (i) updating of LARP when required, (ii) implementation of LARPs, (iii) preparation of monitoring reports including disclosure of LARPs and monitoring reports on EA's website, and (iv) coordinate for preparation of LARP completion report and submission to ADB.

d. Environment Specialist (national, 24 person-months)

9. A graduate degree in environmental engineering or post-graduate degree in environmental science or a related discipline is required; and will have at least seven years of experience in environmental management and monitoring of projects, environmental assessment and/or design and implementation of environmental mitigation measures. Excellent written and spoken communication skills in English; and working experience in the Khyber Pakhtunkhwa region will be considered favorably.

10. S/he will support the PMU in overseeing / monitoring environmental safeguards compliance supported by environmental experts from CIU. The expert would be responsible for quality control of third-party environmental compliance reports submitted by CIU and overall project level reporting on environmental compliance that is submitted to ADB on quarterly or yearly basis and disclosure at EA's website. The consultant will also assist/guide Consultants, PMU and PIU experts in any revisions in the EMPs/EIA/IEE that may be required during project implementation.

e. Legal Expert (national, 24 person-months)

11. Have a Law degree from a recognized university with 15 years of general experience and at least ten years' specific experience with emphasis on contracting, corporate finance, and project finance, public sector and institutional reforms. Should possess work experience either full-time or as a legal advisor on retainerhip, with a Section 42 Company. Knowledge of best practices, local laws and policies related with local government and urban development is essential. Excellent written and spoken communication skills in English; and working experience in the Khyber Pakhtunkhwa region will be considered favorably.

12. The assignment comprises 24 person-months input of an individual consultant spread over a period of five years who will assist the PMU and CIU in all legal affairs related to the Project S/he will: (i) provide legal advice on contract management, (ii) structuring risk sharing arrangement for outsourcing contracts for operations and maintenance of different services by the WSSCs, (iii) negotiate the legal obligation of contracts with different service providers (being part of procurement teams); (iv) represent WSSCs in legal disputes related to the contracts, (v) develop legal structures for short term individual contracts, and (vi) : provide other ancillary advice and support needed in connection with the above-mentioned tasks.

13. S/he will also: (i) review The Khyber Pakhtunkhwa Local Government (Amendment) Act 2019 and other related legal frameworks/legislation for the provision of water, sewer, and solid waste management services etc. and propose amendments where required for revamping the WSSCs as autonomous, efficient, and corporate entities responsible for providing municipal services and making the cities more livable by improving the quality of life of the citizens, (ii) advise PMU on the legal implications of Project interventions and provide technical input and support in case of any disputes, legal notice, writ petition related to project matters including but not limited to land acquisition, legal matters pertaining to town planning, service matters, contract management, and labour laws, pleading and defending civil suits/cases, filing of appeals, vetting of contracts/agreements etc, (iii) assist in the preparation of responses to legal cases against the Project interventions, if any, and help in the resolution either through arbitration, court case or any other means within the legal and statutory framework, (iv) propose legal amendments and/or new legislation for tariff revision practice, and methodology to make it dynamic and responsive to external factors like inflation, energy and fuel costs etc, (v) identify contract related gaps and legal

challenges faced by the existing system in place for the procurement and contracting of consultants, contractors, consulting firms etc., and propose solutions for improvements, (vi) support in the institutionalization of legal components of business and operational plans to achieve the targets during the Project implementation period in both the target cities, and (vi) review the legal framework for moving towards smart cities and identify any amendments in the current legislation or draft new legislation to facilitate implementation of the smart cities initiatives.

f. Training and Capacity Building Specialist (National, 12 person-months)

14. A degree holder from an accredited academic institution in social sciences, training and development, urban development/urban planning, institutional development, engineering, law, business management or a related field; (ii) minimum 10 years of experience in project management, training, and capacity building; (iii) at least five years of experience as training and capacity building; (iv) excellent written and spoken communication skills in English; and (v) experience in the Khyber Pakhtunkhwa region is an advantage.

15. The assignment comprises input of 12 person-months of a national individual consultant spread over a period of three calendar years. The expert will be responsible to review and document existing organizational capacities of the selected cities with special reference to the utility services and city infrastructure management at provincial level, city level and also at newly established WSSC's level, including their technical, management and IT related capacities. Based on the analysis prepare institutional capacity building plan along with implementation workplan, requisite expertise requirements, and curriculum revisions required. Expert will also briefly elaborate in the plan about available material, resources, and centers for intuitional capacity development with specials refence to the urban infrastructure management and utilities services provision also will help to bridge with institutes for requisite training programs. Consultant will develop a reform paper in current local govt academy training program/courses and devise a checklist along with timeframe to achieve successful role out of institutional capacity building component under the KPCIP project. The consultant will also: (i) review the profiles of existing staff with respect to their current responsibilities, and prepare a benchmark report on the capacity of the existing staff, (ii) identify needs for any trainings required to ensure optimum utilization of the staff potential, (iii) Identify the training needs and submit a training and capacity building plan for existing manpower (iv) develop specific training modules on introduction of best practices in municipal services operations (v) coordinate with the other Consultant hired under the Project, for an integrated approach to training and HR development, (vi) identify the External Training Programs, suitable for the different cadres of the WSSC staff for their capacity building, (vii) support HR team of the WSSC in developing and institutionalizing the capacity building/training programs of each WSSC based on the IRCB recommendation; (viii) establish performance/output based parameters for staff performance based on their functional roles; and (ix) link performance and training with career progression of staff within WSSC etc. The support will also includes supporting CIUs to develop their short, medium and long term programs to enhance capacities also will support CIUs and PMU in collaboration with academia and other specialized institutions for training programs executions.

g. Municipal Finance Specialist (National, 18 person-months)

16. A post graduate in public finance, business administration, economics or any other related discipline, with at least 10 years of general experience and at least five years of experience in municipal finance, project finance, resource mobilization, and preparation of financial viability for

urban infrastructure investments. Excellent written and spoken communication skills in English; and working experience in the Khyber Pakhtunkhwa region is an advantage.

17. The assignment entails 18 person-months of a national individual consultant on intermittent basis spread over a period of four years. S/he will: (i) provide technical support and coordinate the work of project cities on city investment plans and financial operating plans, (ii) in consultation with all stakeholders, suggest a dynamic formula for assessing user charges for all municipal services to the extent that at least the O&M cost of service delivery is fully covered by such charges; (iii) review current revenue base of project cities (Abbottabad, Kohat, Mingora, Mingora, and Peshawar), identify the actual potential of each revenue source, work out the difference between actual and potential revenues, and suggest measures to fill the gap between potential and actual revenue of the WSSCs, (iv) identify reasons for gaps in application and collection of taxes/fees/other revenues and propose changes/improvement, (v) support training and capacity building specialist to design and implement training and capacity building program on resource mobilization to LGERD and WSSCs staff and elected representatives of the city governments; (vi) provide technical guidance for LGE&RDD to prepare policy guidance and notes on generation and management of municipal finance; (vii) support WSSCs to identify finance options available for financing urban infrastructure through public-private partnership; (viii) conduct an affordability analysis and gather information to prepare a sample financial model for the project for WSSCs, (ix) support capacity building specialist to prepare specialized training materials/modules, process manuals, procedures, toolkits, guidelines and other related activities for undertaking capacity building programs on financial management, and (x) develop realistic financial performance parameters and targets for the relevant urban service delivery.

h. Communication Specialist (National, 12 person-months)

18. A Master's degree in media relations, journalism, publishing, public affairs or related fields. Minimum of 10 years' general experience. Ten years demonstrated relevant professional experience at the national or international level in public relations, communications, social media, knowledge support, external relations, public affairs, and at least five years' experience in developing gender inclusive communications and knowledge support strategies and products. Excellent written and spoken communication skills in English; and working experience in the Khyber Pakhtunkhwa region is an advantage.

19. The assignment comprises 12 person-months input an individual consultant spread over a period of three calendar years. S/he will: (i) prepare a clear communication strategy that includes different strategies for different stakeholders, and associated work plan to implement the actions outlined in the strategy, (ii) establish the WSSCs' profile, credibility and brand, and also prepare the information disclosure protocols with the target audience and through specific means, (iii) . (iv) advise on design and maintenance of communication vehicles that enable easy and continuous access to information internally and externally by stakeholders and general public., (v) define and support to implement a content strategy and approach for digital platforms, (vi) develop content style guide and approaches for the new multiplatform web, social media and multimedia on WSSCs on programs, pipe line projects, and strategic directions/priorities, (vii) conceptualize, research and advise on the latest trends, best practices, including new emerging digital platforms, to maximize strategic digital engagement in the content strategy, (viii) identify opportunities for capturing and sharing knowledge, and disseminating information, (ix) based on audience package information and use appropriate communication vehicles, (x) support communication activities through knowledge management, information exchange, and design and implement effective learning activities and manage guide the process of knowledge sharing., (xi) develop and execute media relations campaigns and outreach efforts, (xii) develop and

cultivate good working relationships with reporters and media outlets, (xiii) identify media trends/interests, prepare compelling media pitches to secure editorial placements with various media targets, (ix) ensure rapid and accurate information dissemination to the media, stakeholders and other appropriate audiences, (x) develop messaging and talking points and provide communications counsel to the WSSCs' spokespersons in preparation for media interviews, (xi) develop and maintain contact list of individuals, groups, organizations and fora whose support is essential to/can assist in achieving the communication objectives, (xii) establish key performance indicators against which the achievement of objectives of the communication, social media and knowledge support strategies are regularly evaluated; analysis is undertaken to continuously improve the effectiveness of strategies and activities; results and reports are prepared and shared, (xiii) advise WSSCs management and staff on communication, social media and knowledge support strategies and implications for action and policies proposed, and (xiv) develop and maintain regular content review and training processes, working across the organization to ensure a consistent and coherent approach to digital content and engagement.

i. Smart Cities Development Specialist (national, 6 person-months)

20. A master's Degree in information technology, urban/city planning, economics, government, business administration, systems engineering, sustainable development, governance or related fields with a minimum of 10 years of general experience and at least five year of recent experience (preferably public sector) of (i) providing guidance to cities to lead to their transformation into a Smart City, (ii) conceptualization and execution of economic development projects with Smart City concepts, (iii) implementing urban design projects with the use of technological tools, (iv) and developing strategies for Smart Cities with multidisciplinary groups.

21. The assignment comprises consultancy input of 6 person-months on intermittent basis, spread over a period of 36 calendar months. The expert will support the PMU in developing, planning coordinating, networking, implementing and monitoring the overall Smart City initiative under the KPCIIP. This includes but not limited to: (i) analyze the status and potential of municipal services that could be improved using Smart City technologies/concepts, identifying the critical challenges and opportunities for moving forward with the implementation of a Smart City Action Plan, (ii) develop a Smart City Action Plan for transforming the municipality into a Smart City to improve the efficiency of municipal management and promote local economic development in a systematic and sustainable way, (iii) identify short, medium and long-term actions (and investment plans) for the municipality to facilitate its transformation, along with clear implementation methodologies, indicators and timelines, (iv) work closely with the relevant CIUs and conduct resource assessment as well as current digital landscape analysis of the selected LG/MCs and related entities like WSSCs to identify potential scope of the smart city interventions; conducting needs assessment both from the supply (Government) and the demand (citizens) sides to identify high priority areas/demands that can be addressed through the smart solutions; (v) identify a portfolio of potential investment projects and potential resources for financing, (vi) review of available international/national best practices and key characteristics of enabling environments surrounding successful models of Smart City initiatives; developing detailed TORs for the recruitment of Smart City Planning and Implementation consulting firm (if required), (vii) develop high level concept notes for the selected Smart City solutions/projects; provide input in the evaluation of EOIs for Smart City Planning and Implementation consulting firm (wherever required/possible).

22. The Smart City Specialist will also support PMU in the implementation of the smart city solutions by periodic review of the planning and implementation progress of the Smart City Implementation consultants and provide inputs wherever required. The Smart City Specialist may also be required to develop a high-level long term province-wide Smart City Strategic Plan for the Local Government of KP.

j. Tourism Specialist (national, 6 person-months)

23. A Master's degree in Economics/ Archeology/ Tourism/ Heritage conservation/ Public policy/ Public administration/ social sciences culture promotion, culture and arts business, or hospitality management or related fields from a renowned national or foreign university.

24. At least 10 years of relevant experience of working in the public/private sector in the sector, and at least seven years of demonstrated relevant professional experience at the national level in culture development and promotion, also hands on experience of implementing plans for tourism promotion at city level. Knowledge of cultural and heritage sites of the project cities is highly desirable. Past experience of interacting with government officials, development partners and private sector representatives and their associations will be preferred.

25. The assignment comprises consultancy input of 6 person-months on intermittent basis, spread over a period of 24 calendar months. The expert will support project management unit and city govt to: (i) document city wise cultural and heritage tourism potential and identify cities wide cultural and heritage potential (especially low hanging fruit that could be materialized during the project implementation period e.g. wall city renovation or any other idea along with suggestion on a business model for sustainable operation, (ii) carry out repaid assessment of the potential for the urban / cultural/ heritage / religious tourism sector in selected five cities specific which should include; (a) an analysis of current tourism demand and by distinct categories of cultural, heritage, religious, and city-wide recreational tourism, (b) preparation of an inventory of cultural , religious, and heritage tourism destinations, attractions, facilities, and amenities and identify the supply gaps, and (c) reviewing and documenting existing legal framework, governance structure and reforms required to facilitate the growth in cultural, religious, and heritage tourism, (iii) based on the analysis select one or two cities and propose pilot trails development using the concepts which already been implemented in other cities of Pakistan e.g. Lahore as models.

26. The expert shall develop a paper on the role of the different public/key private sector entities currently involved in city level tourism development and promotion. Identify and map all the key attractions and requisite complementary and ancillary facilities and infrastructure available in the selected cities also identify and map the key facilities missing/required in the selected cities based on projected demands considering the sustainable carrying capacity and potential of these cities. Will contribute to identify the incentives required for inclusion and engagement of private sector and mobilizing/catalyzing commercial financing and public-private partnerships.

k. ICT Specialist (national, 8 person-months)

27. A Master's degree in information communication technology, computer sciences, or any other related fields with a minimum of 10 years of general experience and at least seven years of demonstrated relevant professional experience at the national or international level in managing IT projects, development and implementation of smart cities applications, ERP implementations and other technological deployment. Prior experience in managing ICTs implementation in government sector is desirable.

28. The assignment comprises consultancy input of 8 person-months on intermittent basis, spread over a period of 36 calendar months. The ICT specialist will support the PMU and Smart City Specialist in developing, planning, implementing and monitoring the overall Smart City initiative under the KPCIIP. This includes; (i) support to Smart City Specialist in conducting basic preliminary level resource assessment with particular responsibility of conducting ICTs resources assessment of the selected LG/MCs and the related entities like WSSCs; (ii) assessment of gaps as well as high priorities assessment of required ICTs resources to implement smart solutions, (iii) review of available international/national best practices of ICTs model for Smart City interventions, (iv) providing general assistance to the Smart City Specialist in developing detailed TORs for the recruitment of Smart City Planning and Implementation consulting firm with specific responsibility of identifying developing ICTs/technology related components; (v) assisting Smart City Specialist in developing high level concept notes for the selected Smart City solutions/projects with particular focus on the technical components/ICTs resource requirements and models; and (vi) provide ICTs related technical input in the evaluation of EOIs for Smart City and ICT related procurements.

29. The ICT Specialist will also be responsible for the overall management, implementation, quality assurance & monitoring of the smart city and ICT solutions by continued technical review of the progress and provide required technical inputs. S/he will be responsible for the quality assurance and technical support to PMU in the key technical phases of the smart city solutions and ICT development and implementation (e.g. smart solutions design feasibility, procurement, development, installation/deployment, monitoring and commissioning of necessary ICT hardware, software and other equipment, setting up smart solution test conditions and parameters, pre-live quality assurance and application Audit, User Acceptance Test (UAT) and Go-Live etc.)

I. Institutional Development Specialist (national, 8 person-months)

30. A Master's degree in social sciences, business and/or public administration, urban development and Urban planning, engineering, institutional development or related fields with a minimum of 12 years of general experience and at least eight years of demonstrated relevant professional experience at the national or international level in institutional capacity development and reforms.

31. The assignment comprises consultancy input of 6 person-months on intermittent basis, spread over a period of 36 calendar months. The expert will be responsible to review and document existing legal framework, governance structure, organizational hierarchy and recommend reforms through a reform paper; S/he will also assess existing the organizational management, financial and institutional arrangements in place for the city's infrastructure management and utility services at provincial level, city level; also in depth analysis of and provide a section in the reform paper which covers review of WSSCs technical capacity, strategic planning ability and financial sustainability with specials reference to KPCIP interventions. The expert will proactively support WSSC's and initiate and stimulate dialogue around technical issues with staff in partner organizations. Based on the analysis select one for advancing and successfully achieving their mission. Prepare institutional capacity building plan for each selected city along with implementation workplan; plan should cover reforms required in planning processes, quality assurance systems, M&E and business models to run the initiatives in more sustainable manner. S/he will be responsible for providing technical inputs in monitoring, reporting and evaluation of all institutional reform and development activities during the course of project.

m. GIS Specialist (national, 12 person-months)

32. A Master's degree in GIS and Remote Sensing or other related fields with a minimum of 15 years of general experience with a minimum of 10 years' of demonstrated relevant professional experience at the national or international level in spatial data development, and development and deployment of and GIS applications.

33. The assignment comprises consultancy input of 10 person-months on intermittent basis, spread over a period of 36 calendar months. The expert will support project management unit and city govt "CIUs" to: (i) document city wise primary and secondary data required for Spatial sectoral plans implementation and KPCIP interventions execution, (ii) review urban assessment reports and maps and other multi source data including satellite imagery and digital elevation models (imagery of past events where possible and fresh imagery for baseline mapping, satellite record of Urban sprawl, urban spread and their paths formed in vicinity, past urban delineation catalogue etc.), simulation and model suitability of project sites based on available data of exposure, population and census data, land use & land cover, infrastructure data etc, (iii) review coping capacities of communities at risk and relevant government functionaries, urban risk assessment and indexing presenting risk grading (low, medium, high) with respect to natural hazards and geographical locations of interventions sites, (iv) ensure the visual reporting of effects of Multi hazard and vulnerability risk assessment (MHVRA) faced by the project interventions sites/area for different hazards such as flood, seismic drought and climate and other climate induced hazards, (v) ensure the precision and product standards for purchasing of products like satellite image and Digital Elevation Model (DEM), (vi) lead Spatial Data Coordination, Quality Controlling of spatial databases & maps, Spatial data visualization & Enhancement, Capacity Building, Spatial Data Infrastructure, Disaster Management & Policy Formulation, GIS Working Group Meetings, and (vii) consult project stakeholders for standardization of visualization techniques representing KPCIP interventions and its association with existing and future infrastructure.

n. Urban Planner – PMU (national, 6 person-months)

34. The consultant should have a Master's degree in urban and regional planning, Town planning/engineering or master degree in infrastructure with urban specific experience, or any other related degree with a minimum experience of 5 years in urban development and planning. The assignment comprises consultancy input of 6 person-months on intermittent basis, spread over a period of 36 calendar months.

35. The responsibilities of the consultant at PMU level will include but not limited to: (i) provide overarching support to the Government for the selected five cities sectoral plans and associated documents formulation including PC-II approvals and implementation, (ii) guide and oversee all CIU's staff in preparation of site approval documents for the KPCIP inventions, (iii) coordinate with local government and other line agencies at provincial level, (iv) supervise CIUs in designing reporting matrix to carry out effective implementation and monitoring of interventions in integrated and sustainable manner, (v) double check maps and diagrams developed by CIUs for effective and quality reporting and monitoring, (vi) analyze and review the proposed projects and devise the effective strategies for implementation of the proposed design interventions inline to the sectoral master plans, (vii) provide practical guidelines and factional suggestions during implementation on urban development issues including enhancing livability of a city and urban landscape design, urban economic competitiveness and policy measures to avoid urban sprawl and ensure compact urban environment, (viii) suggest recommendation on urban design policies to improve socio-culture ambiance and provide measures for uplifting the quality of local life, (ix)

draw an effective urban development strategy for community's engagement and assess avenues to retrieve pending proposed design in more community driven design and implementation approach, (x) document and present a lesson learnt paper based on the implementation of the KPCIP interventions and its alignment to the overall comprehensive planning and development paraphernalia, (xi) organize consultation events and help govt to develop and showcase integrated urban development case study from KPCIP implementation.

2. City Implementation Units

a. Monitoring and Evaluation Specialist. (national; five positions for 24 person-months each)

36. Post-graduate having degree in any of the fields such as Engineering, Project Management, Business Administration, Monitoring and Evaluation etc.; Should have 7 years of general experience with five years of particular experience of undertaking monitoring and evaluation (M&E) activities. Excellent written and spoken communication skills in English; and working experience in the Khyber Pakhtunkhwa region is an advantage.

37. S/he will: (i) provide feedback to the PMU M&E Specialist on the design of project performance monitoring system (PPMS) and monitoring procedures, data collection formats, and protocols for collecting information to be fed into PPMS, (ii) In collaboration with the PMU M&E system, assess the effectiveness and usefulness of the existing M&E system (where exists), and design an M&E system (where it does not exists) at WSSCs level, (iii) suggest improvements in the existing M&E System where needed, (iv) identify key performance indicators for monitoring operational performance of all units of the WSSC, and (v) prepare the project progress report for onward submission to PMU.

b. Social Safeguards Specialist. (national, five positions for 20 person-months each)

38. Post graduate degree in social sciences or an equivalent field, and seven years' experience in resettlement planning and implementation preferably in projects finance by multilateral finance institutions. Excellent written and spoken communication skills in English; and working experience in the Khyber Pakhtunkhwa region is an advantage.

39. S/he will: (i) undertake third party oversight and develop periodic monitoring reports on environmental safeguards compliance and implementation of the environmental management plans of the awarded civil works in line with ADB requirements, (ii) guide the consultants staff on compliance of the EMP based on the third party review and provide necessary orientation to the relevant staff of the contractors/contractors where required, and (iii) provide input to PMU for preparation of the overall (quarterly/yearly) progress and environmental monitoring reports of the project for submission to ADB for each city.

c. Environment Specialist (national, five positions for 36 person-months each)

40. A graduate degree in environmental engineering or post-graduate degree in environmental science or a related discipline; will have at least five years of experience in environmental management and monitoring of projects, environmental assessment and/or design and implementation of environmental mitigation measures. Excellent written and spoken communication skills in English; and working experience in the Khyber Pakhtunkhwa region is an advantage.

41. S/he will support the PMU in overseeing / monitoring environmental safeguards compliance supported by environmental experts from CIU. The expert would be responsible for quality control of third party environmental compliance reports submitted by CIU and overall project level reporting on environmental compliance that is submitted to ADB on quarterly or yearly basis and disclosure at EA's website. The consultant will also assist/guide Consultants, PMU and PIU experts in any revisions in the EMPs/EIA/IEE that may be required during project implementation.

d. Municipal Finance Specialist – CIUs (National, five positions for 18 person-months each)

42. A post graduate in public finance, business administration, economics or any other related discipline, with at least 10 years of general experience and at least five years of experience in municipal finance, project finance, resource mobilization, and preparation of financial viability for urban infrastructure investments. Excellent written and spoken communication skills in English; and working experience in the Khyber Pakhtunkhwa region is an advantage.

43. The assignment entails 18 person-months of a national individual consultant for each of the five CIUs on intermittent basis spread over a period of four years. S/he will work in close consultation with the PMU's Municipal Finance Specialist to: (i) provide technical support and coordinate the work of project cities on city investment plans and financial operating plans, (ii) in consultation with all stakeholders, suggest a dynamic formula for assessing user charges for all municipal services to the extent that at least the O&M cost of service delivery is fully covered by such charges; (iii) review current revenue base of concerned WSSC, identify the actual potential of each revenue source, work out the difference between actual and potential revenues, and suggest measures to fill the gap between potential and actual revenue of the WSSCs, (iv) identify reasons for gaps in application and collection of taxes/fees/other revenues and propose changes/improvement, (v) support training and capacity building specialist to design and implement training and capacity building program on resource mobilization to LGERD and WSSCs staff and elected representatives of the city governments; (vi) support WSSCs to identify finance options available for financing urban infrastructure through public-private partnership; (vii) conduct an affordability analysis and gather information to prepare a sample financial model for the project for the concerned WSSC, (viii) support capacity building specialist to prepare specialized training materials/modules, process manuals, procedures, toolkits, guidelines and other related activities for undertaking capacity building programs on financial management, and (ix) develop realistic financial performance parameters and targets for the relevant urban service delivery.

e. Training and Capacity Building Specialist (National, five positions for 24 person-months each)

44. A degree holder from an accredited academic institution in engineering, law, business management or a related field; (ii) minimum 10 years of experience in project management, training, and capacity building; (iii) at least five years of experience as training and capacity building; (iv) excellent written and spoken communication skills in English; and (v) experience in the Khyber Pakhtunkhwa region is an advantage.

45. The assignment comprises input of 24 person-months of a national individual consultant spread over a period of five calendar years. The scope of services of the Consultant, will inter-alia include, but not be limited to the following: (i) review the profiles of existing staff with respect

to their current responsibilities, and prepare a benchmark report on the capacity of the existing staff, (ii) identify needs for any trainings required to ensure that the staff is able to perform efficiently what is expected, (iii) Identify the training needs and submit a training and capacity building plan for existing manpower (iv) develop and deliver specific training modules on introduction of best practices in municipal services operations (v) coordinate with the other Consultant hired under the Project, for an integrated approach to training and HR development, (vi) identify the External Training Programs, suitable for the different cadres of the WSSC staff for their capacity building, (vii) support HR team of the WSSC in developing and institutionalizing the capacity building/training programs of each WSSC based on the IRCB recommendation; (viii) establish performance/output based parameters for staff performance based on their functional roles; and (ix) link performance and training with career progression of staff within WSSC etc.

f. Urban Planner - CIU (national, five positions for 10 person-months each)

46. The consultant should have a BSC degree in Town Planning/Architecture or postgraduate degree in infrastructure, urban finance, urban planning or any other equaling degree related field with a minimum experience of 5 years in urban development and planning. The assignment comprises consultancy input of 10 person-months on intermittent basis, spread over a period of 36 calendar months.

47. The responsibilities of the consultant are to: (i) ensure that the proposed sectoral plans of selected cities are approved and implemented, (ii) prepare site approval documents for the KPCIP interventions, coordinate with local government and other line agencies, (iii) meet with public officials and the public regarding development plans and land use, (iv) consult with PMU Urban planner for designing a reporting matrix to carry out effective implementation and monitoring of interventions in integrated and sustainable manner, (v) create and interpret maps and diagrams for effective reporting, (vi) analyze and review the proposed projects and devise the effective strategies for implementation of the proposed design interventions inline to the sectoral master plans, (vi) providing practical and factional suggestions during implementation on urban development issues including multiple use zoning, enhancing livability of a city and urban landscape design, urban economic competitiveness and policy measures to avoid urban sprawl and ensure compact urban environment, (vii) suggest recommendation on urban design policies to improve socio-culture ambiance and provide measures for uplifting the quality of local life, (viii) draw an effective urban development strategy for community's engagement and assess avenues to retrieve pending proposed design in more community driven design and implementation approach, (ix) ensure that all the proposed designs are implemented by considering climate change and risk reduction measures, (x) carry out data collection and analyze to document lesson learnt of the KPCIP interventions and its alignment to the overall comprehensive planning and development.

B. Grant Financed Gender Staff and Consultants

1. Gender Staff

48. The following gender staff will be hired at the PMU and CIU to support the overall implementation and monitoring of GAP and ADF gender grant:

a. Director Gender and Inclusion – Project Management Unit (1 national, 60 person-months)

49. The Director Gender and Inclusion should preferably have more than 15 years in the field of social development, managing similar gender mainstreamed projects and at least 10 years in gender specific expertise. Well versed with gender related issues in relation to Urban Development sector. Experience in developing gender policies and strategies for Urban, WASH and similar sectors. Familiarity with ADB or other international donor-funded projects. Experience on similar projects in the KP province would be an added advantage. A Master's degree in Social Sciences, Public Policy, Project management, Urban Planning and Governance sector, Gender or another relevant field required. Based at the Project Management Unit (PMU) Director Gender and Inclusion will lead the overall gender component of KPCIP (including ADF gender grant). He/She will be mainly responsible to oversee the implementation and reporting of the project's Gender Action Plan (GAP). He/She will provide gender specific strategic support and guidelines to the overall stakeholders including; Water Supply and Sanitation Companies (WSSCs), Local Government, Tehsil Municipal Administration (TMAs), and relevant City Administration departments of the cities selected under the project. The Director Gender and Inclusion is expected to undertake, but not be limited to, the following key tasks;

- (i) Lead the gender team both at PMU and CIU and ensure effective implementation and reporting of the Gender Action Plan;
- (ii) In collaboration with capacity building consulting firm, review existing institutional policies and strategies and identify gaps to address gender disparities and areas of improvement;
- (iii) Work closely with the capacity building firm and Gender and Social Inclusion Expert (GESI) to ensure gender specific training for PMU, WSSCs, TMAs and other relevant stakeholders are designed and implemented;
- (iv) Provide assistance to the gender coordinators/officers at City Implementation Units to collect evidence of the gender initiatives undertaken by the project;
- (v) Develop gender sensitive guidelines for the effective implementation of the project's gender action plan (GAP);
- (vi) Oversee the design and implementation of women-led water, sanitation, and hygiene (WASH) initiative called "SAFA KHAR DA TOLO" (Clean City for All) with a particular focus on addressing the needs of women and girls;
- (vii) Work with the scholarship program and research specialists for the design and roll-out of the scholarship program for qualified female students who wish to pursue research and education in selected fields relevant to urban sector development and planning;
- (viii) Ensure that the design and construction of the green urban spaces include gender transformation features as detailed in Gender Action Plan;
- (ix) Work in close collaboration with the HR and Capacity Building Firm to design internship programs for women and girls who will be given opportunities to join the WSSCs as interns;
- (x) Provide technical backstopping to gender officers at CIU in developing gender specific research guidelines for undertaking studies on gender impacts of the project, skill gap analysis and requirements for developing sex-disaggregated MIS;
- (xi) Develop monitoring and reporting mechanisms at PMU for GAP related indicators and targets;
- (xii) Prepare quarterly and annual progress reports on GAP, impact studies, knowledge products and documentation of good practices.

b. Project Support Officer Gender – Project Management Unit (1 national, 60 person months)

50. The consultant shall preferably have at-least 03-04 years of experience of working in the role of program/project support in the national level organizations working on social development and gender issues, He/She has demonstrated experience in working on gender issues particularly in the context of KP. Proven abilities of coordinating similar projects with diverse and multi-stakeholders. He/She has a good understanding of community mobilization approaches, willingness to travel, has at least 2 years of experience in monitoring of projects, has good communication and reporting skills. Knowledge of local language (Pushto) is required. A Bachelor's degree in Social Sciences, Project management, Urban Planning and Governance sector, Gender or another relevant field is required. The Project Support Officer Gender will provide more specific support to the Director (Gender and Inclusion) in effective implementation of gender components. Overall, the support will mainly involve regular coordination and communication with the CIU and the CSW teams and on-going monitoring and reporting of gender interventions at multiple levels under all outputs. The Project Support Officer Gender is expected to undertake, but not be limited to, the following key tasks;

- (i) Assist the Director and Social Inclusion in regular coordination with all level of project stakeholders for timely delivery of the planned gender interventions;
- (ii) Regular communication and follow-ups with the Community and Social Wings (CSW) and CIU team, WSSCs;
- (iii) Support in organizing meetings, trainings and consultations;
- (iv) Support in ensuring effective participation of community women in project interventions;
- (v) Support in carrying out regular monitoring of interventions at project beneficiaries' level as well as evaluation of the results annually; and
- (vi) Assist in data collection and preparation of quarterly and annual progress reports on GAP, impact studies, knowledge products and documentation of good practices.

c. Social Mobilizer – Community and Social Wings/Community Implementation Units (20 national, 60 person months)

51. Social mobilizer shall have at-least 2-3 years of experience of working in the role of program/project support in the national level organizations working on social development and gender issues particularly in social mobilization. He/She have good understanding of the gender and social inclusion issues particularly in the context of KP. Proven abilities of working with multi-stakeholders and diverse communities and working directly with the project beneficiaries at the grassroots level in KP. Good communication and reporting skills will be preferred. Knowledge of local languages (Pushto and Hindko) is required. Ability and willingness to travel and conduct field visits. The Social Mobilizer will be responsible for the community mobilization support required for all social and gender specific interventions of the project. He/She will support mobilization of community groups (men, women) to initiate active and effective engagement of men and women (including youth) with the WSSCs for improvement of WASH and SWM services at household and the city-level. The position will also be delivering on SBCC campaign at the community-level, training sessions and linking other opportunities with the community groups. Social mobilizer is expected to undertake, but not be limited to, the following key tasks;

- (i) Organize men and women community groups at the city-level in Union Councils selected under the project;
- (ii) Conduct training for the groups to help women's groups grow as WASH leaders and change makers at respective community-levels;
- (iii) Support implementation of SBCC campaign at the community level to generate social support for women's participation in urban services;

- (iv) Identify potential opportunities for women's participation and economic opportunities under the project through incentive fund;
- (v) Conduct rewards and recognition programs for women-led groups demonstrating good practices and leadership skills in promoting WASH, Safe SWM practices (recycle, reuse and reduce), water conservation, cleanliness campaigns in their respective communities;
- (vi) Arrange community trainings on best practices around safe use of water, safe sanitation, solid waste segregation and hygiene practices;
- (vii) Support the implementation of communication and outreach strategy developed for awareness raising, internship and scholarship, and women's skills and entrepreneurship programs; and
- (viii) Support in data collection and reporting against result indicators.

2. Individual Consultants

52. The following consultants with a total input of 108 person-months will be hired under the ADF Grant to support the PMU and CIUs in implementation of the GAP of the Project and the gender related activities to be financed through the Grant, and also institutional capacity of the city administrative units through dedicated training on understanding gender issues in the urban-development sector and gender-transformative approaches towards planning and executing urban services, dealing with physical and sexual harassment at the workplace, and safeguarding and complaint-handling mechanisms.

No.	Position	Person-months
1.	Community Engagement and Behavior Change Specialist	24
2.	Research Specialist	24
3.	Scholarship Program Specialist	24
4.	Capacity Development Specialist GESI, WASH & SWM	24
5.	Skill and Enterprise Development Specialist	12
	Total	108

a. Community Engagement and Behavior Change Specialist (1 national, 24 person months)

53. The Community Engagement and Behavior Change Specialist should have at least 10 years' experience in the design and implementation of behavior change communication projects, including community engagement campaigns preferably with a focus on Urban Development, Gender, SWM, Water and Sanitation and WASH. Demonstrated experience in engaging and mobilizing relevant stakeholders including local government, communities and WSSCs. Demonstrated experience in the production and dissemination of high-quality BCC multi-media materials and training workshops. Demonstrated experience in building capacity of Water and Sanitation services providers with a focus on community engagement particularly women and youth, vulnerable segments and other relevant groups. Experience working for projects financed by ADB and other multi-lateral donors in an advantage. Strong oral and written English proficiency are required. The Community and Behavior Change Specialist is expected to undertake, but not be limited to, the following key tasks:

- (i) In close collaboration with the Director Gender and Inclusion, lead the design and roll-out of sanitation, and hygiene (WASH) initiative called "SAFA KHAR DA TOLO"

- (Clean City for All) with a particular focus on addressing the needs of women and girls;
- (ii) Work in coordination with the Capacity Building Specialist GESI WASH and SWM, Gender Coordinators/Officers at CIU, Social Mobilizers at Community liaison units of WSSCs, Customer Care staff and other relevant consulting firms to ensure synchronization of “SAFA KHAR DA TOLO” (Clean City for All) with the relevant communication plans and initiatives of WSSCs;
- (iii) Design and roll-out of community incentive fund including; criteria of selection, guidelines for the implementation of the incentive fund (including financial and administrative structures) and monitoring.
- (iv) Develop and implement capacity building program for the Community Liaison/Community Social Wings of WSSCs with a focus on gender-inclusive community engagement and behavior change;
- (v) Design and provide assistance to WSSCs for the implementation of “Community Incentive Fund” for promoting WASH, water conservation, safe solid waste management practices at the household and community level;
- (vi) Develop and implement at least two multi-media campaigns specifically focusing on; (i) changing perceptions and behaviors for increasing women’s participation in non-traditional technical and leadership position in urban development, safe access to urban and public spaces and economic opportunities; and (ii) changing perceptions and behaviors for increasing women’s participation in promoting WASH, SWM and other related practices as “Change Agents and Leaders”;
- (vii) Provide continuous back-stopping for the strengthening of community and social liaison units/Wings, developing the implementation plans, ensure implementation of gender transformative approaches in all communication plans and strategies;
- (viii) Support the project monitoring and evaluation specialist in collecting relevant data on community engagement, documentation of impacts of community engagement campaigns, provide inputs for project’s quarterly and annual reports including the GAP implementation progress.

b. Research Specialist (1 national, 24 person months)

54. Research Specialist should have at least 15 years’ experience in the field of research relevant to gender and urban sector development. At least 10 years specific experience in reviewing and evaluating research proposals/projects, developing research frameworks/plans, with a strong background in gender and urban sector development including; Solid Waste Management, Water and Sanitation. Experience of working with international donors and research institutes and in similar projects will be an added advantage. A master’s or preferably PhD degree in economics, public policy, environment, statistics, social research and other relevant fields is required. Demonstrate strong statistical analysis skills and knowledge relevant to the assignment. Research Specialist will play a hands-on role in reviewing and implementing research projects (which will be part of the research scholarships offered to students (women-led groups) as part of KPCIP’s gender Output 3. Research specialist will closely work under the supervision of Director Gender & Inclusion and will be responsible for the following tasks:

- (i) Lead in developing the research scholarship program including; institutional mechanisms for the review, evaluation and criteria for the selection of research proposals, guidelines, procedures, developing the ToRs of research committee and quality assurance;
- (ii) Lead the selection and shortlisting of research proposals;

- (iii) Lead consultations with the project's stakeholders including; CIUs, WSSCs, TMAs, and Local Government, relevant academic institutes for identification of research needs and topics and develop call for research proposals;
- (iv) Support the media and communication expert in developing communication strategy for the dissemination information related to research scholarship opportunities/call for proposals, dissemination of research results and publication of knowledge products;
- (v) Develop research frameworks and plans and a repository of data/information, research papers, journals, knowledge products and other relevant materials required for GAP and impact assessments;
- (vi) Perform any other assignments/tasks that may assigned.

c. Scholarship Program Specialist (1 national, 24 person months)

The Scholarship Program Specialist should have at least 10 years' experience in the design and implementation of scholarship projects and programs with a focus on women and girls' empowerment and education in non-traditional, technical and areas related to Urban Development, Environment and Climate Change, Solid Waste Management and Water and Sanitation. Demonstrated experience in engaging and mobilizing relevant stakeholders including; academia local government, and communities. Demonstrated experience in the launching and implementation of high-quality scholarship programs. Experience working for projects financed by ADB, work experience related to national/international scholarship programs, and other multi-lateral donors in an advantage. Strong oral and written English proficiency are required. The Scholarship Program Specialist is expected to undertake, but not be limited to, the following key tasks:

Academic Scholarships

- (i) In close collaboration with the Director (Gender and Inclusion), lead the design and roll-out of academic scholarship program with a particular focus on reaching-out to women and girls and addressing their needs and concerns;
- (ii) Conduct consultations through gender coordinator/officers at each city to inform the design and implementation of the scholarship program;
- (iii) Work in coordination with academia, project's EA and IA to develop; (i) institutional mechanisms for the review, evaluation of applications and criteria for the selection of the scholarship applicants; (ii) processes for applicants to access scholarship funds; and (iii) develop the ToRs of scholarship review committee and quality assurance;
- (iv) Liaise with the academia, students and other relevant stakeholders to ensure the information related to scholarship opportunities is adequately disseminated;
- (v) Support the PMU in selection of applicants and ensure the compliance of selection criteria developed for applicants;
- (vi) Develop and implement campaigns including; (i) information dissemination of KPCIP scholarship program through workshops, seminars, expos etc.; (ii) ensure that the website of KPCIP has a web-page exclusively designed for promoting the scholarship program; (iii) use social media, electronic and print media for information dissemination;
- (vii) Support the project monitoring and evaluation specialist in collecting relevant data on scholarship program, documentation of impacts of scholarship program, provide inputs for project's quarterly and annual reports including the GAP implementation progress.
- (viii) Perform any other assignments/tasks that may assigned.

Internship Program

- (ix) In close collaboration with the Director (Gender and Inclusion), lead the design and roll-out of internship program to be launched by the WSSCs;
- (x) Conduct consultations through gender coordinator/officers at each city to inform the design and implementation of the internship program;
- (xi) Work in coordination with project's EA and IAs (including WSSCs) to develop institutional mechanisms for the review, evaluation and criteria for the selection of the internship applicants;
- (xii) Support the PMU in selection of applicants and ensure the compliance of selection criteria developed for applicants;
- (xiii) Develop and implement campaigns including; (i) information dissemination of KPCIP internship program in schools, colleges and universities (ii) ensure that the website of KPCIP has a web-page exclusively designed for management of the internship program; (iii) use social media, electronic and print media for information dissemination;
- (xiv) Support the project monitoring and evaluation specialist in collecting relevant data on internship program, documentation of impacts of internship program, provide inputs for project's quarterly and annual reports including the GAP implementation progress.
- (xv) Perform any other assignments/tasks that may assigned.

d. Skills and Enterprise Development Specialist (1 national, 12 person months)

55. The Skills and Enterprise Development Specialist should have at least 15 years' experience in the design and implementation of skills and enterprise development projects and programs with a focus on women and girls' economic empowerment. A master's degree in economics, business administration, public policy (Public Private Partnership PPP) and other relevant fields is required. Demonstrated experience in developing operational plans and guidelines for technical skill training institutes, business plans and advisory services for business development with a focus on women's economic empowerment. Demonstrated experience in the launching and implementation of high-quality enterprise development programs. Experience working for projects financed by ADB, work experience international skills and enterprise development programs, and other multi-lateral donors in an advantage. Strong oral and written English proficiency are required. The Skills and Enterprise Development Specialist is expected to undertake, but not be limited to, the following key tasks:

Women Business Development Center Kohat

- (i) In close collaboration with Director Gender & Inclusion prepare business plans and guidelines, MoUs for the sustainable operations of Women Business Development Center (WBDC) Kohat;
- (ii) Review the existing skill development curriculums, undertake market analysis to ensure Skill training offered by WBDC Kohat are compatible with the market needs and are employable;
- (iii) Develop operational manual and guidelines, list/type of services to be offered by WBDC for women and girls interested to initiate their businesses;
- (iv) Review the modules developed by other development partners, donors and government entities for enterprise development, identify gaps and improve the enterprise development training curriculum to be run by WBDC;

- (v) In collaboration with the TVET specialists and business development expert develop capacity building programs of WBDC staff and instructors on improved teaching/training methodologies, curriculums and other relevant material;
- (vi) Liaise with development partners, relevant government entities, academia, provincial TVET authorities, women business groups/associations, for strengthening the support network for the seamless operations of WBDC and other business opportunities for women and girls in Water and Sanitation and Solid Waste Management value chains.

Strengthen Women Polytechnic College, Peshawar

- (i) In coordination with the procurement and social safeguard experts from PMU, participate in the in-depth technical and social safeguard assessment of WPCP to identify the overall need of refurbishment of the facility and MoUs with the relevant departments for seamless execution and sustainability of WPCP operations;
- (ii) Coordinate with all concerned and ensure timely implementation of all planned interventions;
- (iii) Conduct training need assessment of WPCP staff, design and deliver trainings of the staff on employable technical skills;
- (iv) Design and implement communication strategy for promotion of improved services in WPCP to increase access of women and girls to employable skills' trainings;
- (v) In coordination with SBCC expert, ensure to include interventions to promote women tech education in urban disciplines to increase social support for women;
- (vi) Coordinate with TEVTA-KP and other relevant government agencies for extending technical trainings curriculum, currently being offered to boys' polytechnic institutes only to WPCP;
- (vii) Develop and execute mechanisms to link potential women entrepreneurs from WPCP to provincial business incubation programs including opportunities under KPCIP and other business development and support initiatives of GoKP.
- (viii) Regular coordination, communication and reporting on results.

e. Capacity Development Specialist – Gender and Social Inclusion GESI, WASH & SWM (1 National, 24 Person-Months)

56. The Capacity Development Specialist – Gender and Social Inclusion GESI, WASH & SWM should have at least 10 years of experience in programs and projects related to WASH and Solid Waste Management services. The specialist must have a Master' degree in Urban Planning and Governance sector, Social Development or another relevant field and be well versed with gender related issues in relation to Urban Development sector. Must have demonstrated at least 5 years of specific experience in designing and conducting GESI and WASH related capacity building interventions with multiple stakeholders in urban development projects and experience in coordination, monitoring and evaluation and analysis of impacts of training and capacity development interventions. Demonstrated experience of developing trainings modules and interactive learning resources. Familiarity with ADB or other international donor-funded projects will be an added advantage. Experience on similar projects in the KP province would be an added advantage. Demonstrated experience in building capacity of Water and Sanitation services providers with a focus on community engagement particularly women and youth, vulnerable segments and other relevant groups. Strong oral and written English proficiency are required. The Capacity Development Specialist GESI, WASH & SWM Development Specialist is expected to undertake, but not be limited to, the following key tasks:

- (i) Conduct capacity need assessment of WSSCs/CSW staff on community engagement particularly women and youth, vulnerable segments and other relevant groups in urban services;
- (ii) Design training modules and deliver ToTs of WSSC/CSW staff (including Social Mobilizers CSW) on community mobilization approaches for effective community participation in urban services;
- (iii) Prepare guidelines for the formation, structure and ToRs of the women-led WASH groups;
- (iv) Design training modules with interactive learning resources covering community and HH level best practices on safe use of water, safe sanitation, hygiene, solid waste segregation and recycling;
- (v) Roll out all training modules with WSSC/CSW staff and provide technical guidance and support for further imparting trainings to community groups by WSSCs staff;
- (vi) Develop a database for skilled community members and women with specific needs, vulnerable groups, and link them with economic and business development opportunities including incentive funds, parks management. Provide technical guidance and support to WSC staff in designing social and gender inclusive community campaigns for improving WASH and SWM services at the city level.
- (vii) Ensure regular engagement of CSW staff in capacity development of community groups;
- (viii) Develop and monitor capacity development indicators to assess improved participation and engagement of communities in urban services.
- (ix) Any other task assigned by the reporting manager.

II. Loan-Financed Project Management and Construction Supervision Consultants (PMSCS)

A. Project Background

57. The Terms of Reference (TOR) provides specific details on the scope of the consultancy and the composition, roles and responsibilities of the consulting team and details of the project which are relevant to the assignment, implementation arrangements, and objectives of the consultancy.

58. The Islamic Republic of Pakistan has applied for financing from the Asian Development Bank in the form of a loan towards the cost of the proposed Khyber Pakhtunkhwa Cities Improvement Project.

59. The project will be implemented from January 2022 to December 2027. It is anticipated that the total project urban development infrastructure cost will cost up to US\$650 million. Government of Khyber Pakhtunkhwa (GoKP) will provide 15% of the total project cost to cover mainly for Price Contingencies and Physical Contingencies. ADB will mobilize the remaining 85%, partly through its own funds and partly through leveraging of (i) co-financing from other development partners namely AFD, (ii) commercial lending, and (iii) private sector funds under PPP scheme(s). Further details of the project implementation and financing arrangements can be accessed through the following RRP link "<https://www.adb.org/projects/documents/pak-47279-002-rrp>".

60. Local Government, Elections and Rural Development Department (LGE&RDD) will be the executing agency (EA) and Water Supply and Sanitation Services Companies (WSSCs) (Peshawar, Kohat, Mardan, Abbottabad and Mingora) will be the implementing agency (IA) and

will be responsible for the overall coordination, supervision, execution of the project including post completion operations and maintenance of the project.

B. Purpose of the Assignment

61. The Government of Pakistan and Government of Khyber Pakhtunkhwa (GoKP) requested ADB to provide a Project Readiness Financing (PRF) to conduct detailed engineering design and assist in the procurement of civil works and equipment ahead of ADB's Project Loan for KPCIP. Accordingly, the firm Min Consult in association with and Creative Engineering were selected as Engineering Design and Construction Management (EDCM) Consultants. Currently the feasibility study and detailed engineering design of the infrastructure component is finalized. It is anticipated that procurement of infrastructure contracts will commence by Q3 2021 and works may commence in Q1 2022.

62. Project Management Unit (PMU) through LGE&RDD requires services of internationally qualified and experienced consultants having requisite skills and experience to assist them in undertaking project management and construction supervision activities for timely delivery of the infrastructure component under KPCIP.

63. Consultants' selection and engagement will be carried out in accordance with "Procurement Regulations for ADB Borrowers: Goods, Works, Non-consulting and Consulting Services" using the Single Source Selection (SSS) method. Details of the required outputs and scope of work, deliverables and reporting requirements, indicative staffing, consultant expert positions, qualifications and key tasks, contract administration and reporting for this contract are provided in the following sections.

C. Duration and Location of Services

64. The consulting services will be required in the city of Peshawar, Kohat, Mardan, Mingora and Abbottabad of KP Province in Pakistan. The duration of the services shall be predominantly for the construction supervision phase of 48 (forty-eight) months whereas skeleton staff will also be retained for the defect notification period of 12-month post completion of works. The contract for the consulting services shall be signed for 60 (sixty) months.

D. Scope of Services

65. The consultants will be responsible to serve as the "Engineer" within the context of the conditions of the construction contracts to provide day-to-day contract administration, construction supervision, quality assurance of works, management of claims and disputes and manage social safeguards and environmental provisions associated with the contracts. The consultant will also be responsible for supervising all the construction work. As "The Engineer", the consultant will administer the construction contracts and ensure that the contractual clauses are observed to manage the time, quality and cost and will ensure the works are constructed in accordance with the provisions of the construction contracts. The Consultant will be responsible for measurement and certification of the works completed and for certifying and recommending payments to the contractors. The Consultant will be required to nominate Team Leader, Resident Engineer(s) and other required staff for the civil work contracts to perform full-time resident supervision at site. The consultant will work in close coordination with PMU KPCIP and the City Implementation Units (CIUs). The consultant will also coordinate closely with the TA Consultant Team mobilized by the ADB for fiduciary risk management and social and environment safeguards compliance.

66. As part of these services, the Consultant will assist PMU KPCIP in the efficient administration and implementation of the subprojects, support and strengthen it in its tasks, monitor progress, carry out quality control and recommend any actions to be taken to remedy any delays and assist in reporting on project activities as per ADB requirements. The Consultant have a specific responsibility to ensure that the works are executed in accordance with detailed design developed by the EDCM and Institutional Review and Capacity Building (IRCB) Consultants teams (unless amended officially by the Consultant as requested by Client / Employer), and are constructed to the prescribed quality in accordance with the specifications, bidding documents, and quality assurance systems.

67. The Consultant will report to the Project Director, PMU KPCIP. The Consultant will work under the overall guidance, coordination and directions of the Project Director and the overall PMU/CIUs KPCIP team.

1. Engineering Services

68. The objective of these services is to ensure that the Works are carried out in accordance with the Contract and the best possible construction quality is achieved within the budget allocated. This will be done through strict and proactive supervision of the Contractor's activities to ensure that all work is carried out in full compliance with the engineering designs, technical specifications and other relevant contract documents as well as effectively assist the Government and PMU KPCIP to carry out their contractual and management responsibilities.

69. The Consultant will be responsible for assisting the Client/Employer with project management and the construction supervision of the Works contract and specifically for the Team Leader.

70. During the construction supervision, the Engineer may delegate some authority to site Resident Engineer(s), who will act as the Engineer's staff. The civil work contracts will be supervised by a team with the appropriate professional skills as mentioned in the job descriptions against each position.

71. PMSC will render services through dedicated staff in the core team comprising national and international key experts, construction supervision and support team, design coordination team and contract and financial management team for providing assistance to Client / Employer in the construction supervision of work and implementation and management of the Project.

- (i) **The Project Management and Construction Supervision Team** shall provide support in overall coordination and management of the project including, progress and performance monitoring and reporting, contract administration and management, financial management, environmental and safeguards compliance and training and necessary assistance to the Client and other government staff to ensure effective project implementation. This team will be located in the respective cities where the Consultant will establish city-based offices.
- (ii) **Design Coordination Team** will be located in the central office established by the Consultant for the project in Peshawar city. This team shall carry out design recognition of the feasibility studies of the subprojects and detailed engineering design, drawings, bill of quantities, construction schedules and tender documents prepared by EDCM team. The Design Coordination shall

also respond to any specific design change request from PMU KPCIP during the execution of the project. Design Coordination Team will finalize the detailed design and bill of quantities (BoQs) and will respond to all the design related submittals, request for information, request for clarification, requested for approval of materials/sources etc. and other design related documentation.

- (iii) **Contract and Financial Management Team** will be responsible for efficacy of the contract administration duly supporting the construction supervision team at all times to ensure that the Contractor fulfils its contractual obligations and whenever necessary recommend the required contractual actions to the Engineer and the Employer. Moreover, the team shall advise and assist the Engineer to avoid or minimize the claims for time extension and financial compensation and will assist in the proceedings of the dispute board and arbitrations, as the case may be.

72. The scope of the consultant services will include but not limited to activities given below.

- a. **Contract Management.** Assist the Client/Employer for Civil Work Contracts in all activities required of the Engineer and Engineer's staff (as defined in the Contract) and assist the Engineer to administer the execution of the construction contract in accordance with the Conditions of Contract.
 - (i) Contract review: Review all relevant contracts and contractual matters and highlight any issues or concerns.
 - (ii) Certification of payments: Certify payments and prepare certificates of payments as required by the Contract. Maintain full and complete records of all the payments to the Contractor.
 - (iii) Commencement notice: Give Notice to the Contractor(s) to commence the Works.
 - (iv) Notices under the Contract: Assist and support in the preparation of contractual notices along with associated documents and promptly serving the notice whenever required by the contract or required during the execution of the contract.
 - (v) Adequacy of guarantees: Ensure submission and advise Employer on the adequacy of the Contractor's insurance policies, performance security(ies), and advance payment guarantee(s). Ensure that the text of performance security(ies) and advance payment guarantee(s) is strictly as per the templates attached in the contract documents.
 - (vi) Contract interpretation: Make recommendations and advise to the Client on the contractual stance and interpretation of the contractual provisions in accordance with the Contract whenever required during the currency of the contract.
 - (vii) Contractual correspondence: Assist and support "the Engineer" in drafting and sending all necessary contractual correspondence whenever required by the contract or necessitated by the circumstances during the execution of the civil work contracts.
 - (viii) Contract variations: In the event of variations to the works being required, prepare the necessary documents, negotiate these with the Contractor and submit these to the Client for approval.
 - (ix) Claims: Make recommendations to the Employer on the Contractor's claims for additional payment, extension of time and other matters, based on the interpretation of the Contract documents, the relevant site

- conditions and record the Contractor's detailed submissions.
- (x) Audit support: Assist Employer in settling any Audit Para and Objections, prepare replies related to the project and provide the entire relevant documents/papers/letters to support the replies until one year after completion of works.
 - (xi) Certify final accounts/payments: Review the Contractor's final accounts and certify them correct for payment.
 - (xii) Dispute settlement: Assist Client in settling disputes (if any) with the Contractor and make recommendations to Client for resolving the Contractor's claims regarding time extensions and additional cost.
 - (xiii) Defects and deficiencies: Give notice to the Contractor of any defects and deficiencies, and if required, order suspension of the work(s) and ensure removal and substitution of the improper works and recommend any additional appropriate actions against the Contractor to the Client.
 - (xiv) Arbitration or litigation: Advise the Client on appropriate stance and actions with respect to carrying out the works following any appeal to arbitration or litigation related to the works.
 - (xv) Contractual approvals and correct procedure: Shall ensure to seek approval of the Employer for all the contractual actions wherever the Contract requires the Engineer to seek prior approval of the Employer.
 - (xvi) Monitoring of Sub Contracting and any other activities forbidden by the Contract: The Consultant shall assist and vigilantly monitor the execution of the Contract by Contractor and shall report and document if any sub-contracting contrary to the acceptable limit and procedure identified in the contract has been done by the Contractor. Beside that the Consultant shall rigorously monitor and report any other non-compliances by the Contractor to the Contract and prevailing law.

b. Design Review and Design Revision

- (i) Verification of designs as per site conditions: The team will carry out design recognizance of the feasibility studies of the subprojects and detailed engineering design, drawings, bill of quantities, construction schedules and tender and contract documents prepared by EDCM team. Design Coordination Team will finalize the drawings and bill of quantities (BoQs) through a joint survey carried out with Contractor staff and make changes as per site conditions.
- (ii) Instructions to Contractor: Provide information as is necessary for the Contractor to set out the works and check that the setting out is correct.
- (iii) Review and approval of Contractor drawings: Review and approve the Contractor's work proposals, working drawings etc. to the extent required by the Contract, advise modifications where necessary and approve these proposals.
- (iv) Supervision of works for compliance with design: Check, inspect, advise, approve and report on architectural finishing of materials being used by the Contractor and give comments in writing to the Client/Employer on quality of works. The Consultants will order for testing of materials to ensure adherence to Specifications.
- (v) Protect interest of Public Exchequer/Employer: Act at all times so as to protect the interest of Client/Employer and will take all reasonable steps to keep all expenses to a minimum consistent with economic and engineering practices.

- (vi) As-built drawing review: Review for accuracy of 'As-Built' drawings prepared by the Contractor for all the works and translate such documents into a format suitable for the Client's asset management system.
- (vii) Other services: Provide any other specialized services as may be necessary and agreed upon with the Client during the currency of the contract.

c. Project Management, Quality Control and Construction Supervision

- (i) Program of Works: Review and approve the Contractor's work programs, in accordance with the contract(s), and progress schedules ensuring that the Contractors have incorporated/followed the most effective and expeditious methodology of carrying out the works; and advise the Contractors in setting up a computerized project control system for reporting physical and financial progress as well as the forecasts. Subsequently, closely monitor the construction progress on regular basis to determine whether it is proceeding in accordance with the approved work program.
- (ii) Gantt chart management: Maintain a full Gantt chart that details each construction activity along with the project milestones dates. Gantt chart shall be updated and distributed, at least on a monthly basis or as and when required by the Employer.
- (iii) Precedent's chart: Maintain a precedents chart that links each construction component with related components and activities that are dependent for completion.
- (iv) Construction program: Regularly review the proposed timelines to ensure milestones and deliverables are realistic keeping into consideration allowance for possible delays such as some redesign or any other reason. Develop an agreed construction program, using a robust scheduling software, such as Oracle's Primavera, MS Project or equivalent with the major milestones agreed between the Employer and the Contractor. The program should be fully resource loaded and should reflect actual vs planned schedule at all times through-out the currency of the contract(s).
- (v) Quality of work and compliance: Through construction supervision team and other relevant site staff as may be required, supervise the day-to-day activities of the Contractor to ensure quality of workmanship and materials and compliance with the specifications, drawings, provisions of the Contract, compliance of the activities with the schedule, monitoring of requisite resources for works as required in the work program including daily monitoring of environmental and health and safety compliance.
- (vi) Work certification: Ensure and certify that the works executed by the Contractor are as per approved design, drawings, standards, specifications and within the provisions of the Contract Agreement.
- (vii) Defect and deficiency notification: Give notice to the Contractors of any defects and deficiencies during the construction works and issue instructions for the removal and substitution of the improper works, where provided under the contract. If required, the Consultant shall advise suspension of the work(s) and/or recommend to Employer other recourse available under the Contract.
- (viii) Assessment of Contractor's resources: Assess minimum construction equipment, plant and machinery requirements, by type and specification, and monitor, keep and regularly update a list of the Contractors' equipment, plant and machinery in order to keep a check on the

- Contractors' mobilization. Inspect and evaluate the Contractor's establishments including in particular the laboratory facilities to ensure compliance with the terms and conditions of the Contract Agreement.
- (ix) Engineer's supervision staff: Deploy field engineering personnel of qualification and experience as described in the core team for resident supervision to monitor the output of all stages of construction and ensure that the works are executed in full compliance with the approved engineering design, drawings, agreed work schedule, technical specifications and with the terms and conditions of all the contract documents and sound engineering practices.
 - (x) Laboratory and field tests: Oversee and verify laboratory and field tests undertaken by the Contactor during the construction period.
 - (xi) Approval of quarries and source of materials: Inspect quarries and borrow pits, crushing plants, order testing of materials, ensure adherence to specifications and approve the sources of materials.
 - (xii) Certificates of payment: Certify payments and prepare certificates of payments as required by the Contract. Maintain full and complete records of progress payments, agree with the Contractor on systems of measurement for interim payment certificates and verify the quantities for such certificates.
 - (xiii) Payment system: Develop an agreement with the Contractor on systems of measurement for interim payment certificates and verify the quantities actually executed on project site for such certificates.
 - (xiv) Traffic and safety management plan: Without relieving the Contractor(s) of the obligations under the Contract, review and approve the traffic management and safety plan, ensure compliance with the plan such that the works are carried out at all times in a safe and secure manner and damage or injury to persons or property is avoided.
 - (xv) Monitoring and update of traffic management: Diligently review, manage and update the Contractor's traffic management plans and diversions whenever required and ensure minimum hindrance and inconvenience to public and smooth flow of traffic.
 - (xvi) Issuance of Certificates of Completion: Carry out final inspections of the works and recommend the issuance of taking over and performance certificate(s).
 - (xvii) Supervision during Defect Notification period: Inspect the completed works periodically during the defect liability period, prepare list of deficiencies (if any) *or punch list or snags list*, design and plan remedial works and carry out their supervision and issue the defect liability certificate(s) or performance certificate(s) after the rectification of defects by the Contractor. The list of deficiencies or punch list or the snags list shall include all Works that are yet to be completed in all respect by the contractor, the defective Works, or the Works where any defects are cropped up during the defect notification period. The Consultant shall ensure that all Works mentioned in the punch list / snags list are completed in all respect, to the satisfaction of the Engineer, in accordance with the Contract; before the issuance of defect liability certificate(s) or performance certificate(s)
 - (xviii) Certification of final payments: Check the Contractor's final accounts and payments and certify them correct for payment in final payment.
 - (xix) Progress reports: Prepare monthly progress reports for the Contract in a form acceptable to ADB and the Client. These reports will include, as a

minimum, details of the physical and financial status of the Contract, details of delays and the budgetary effect of particular problems with suggested solutions.

- (xx) Client communications: Keep the Client informed of the progress on site, any existing impediments sustained in progress of likely to appear in the foreseeable future which might arise and cause delay in implementation. In view of the foregoing, the Consultants will prepare and issue progress on bi- weekly basis.
- (xxi) Monitoring and evaluation: Undertake project performance monitoring and evaluation in accordance with the Project Framework and ADB's Project Performance Management System (PPMS) Handbook including the baseline data survey and following annual survey and reporting up to project completion.
- (xxii) Liaison and coordination with concerned agencies: Advise Employer on need for effective liaison with local authorities, police, landowners, utility owners, the public and other organizations affected by the Works in order to minimize or avoid unnecessary delays or disputes.
- (xxiii) Communication with external and internal stakeholders: Advise and assist the Employer/Client with media relations regarding the project and develop and produce outreach materials describing the project. Moreover, shall support the Employer/Client in perception management regarding the project.
- (xxiv) Maintain contemporary record: Establish a comprehensive system of maintaining daily site records including site correspondence, inspection records, test data, site diaries, records of meetings, financial records, progress records, record of resources, number and type of manpower and materials actively working on site, materials available on site, weather conditions, health and safety compliance, LARP compliance, compliance with environmental management plan, any extraordinary circumstances etc. The Consultant shall submit a certified copy of such comprehensive contemporary record to the Client/Employer on monthly/fortnightly basis.
- (xxv) Maintain document control: Maintain detailed daily diaries, correspondence, photographs and documents concerning relevant events and activities, call and keep minutes of routine site meetings between the parties to the Contract. A robust archival system will be developed and implemented by the Consultant to effectively store and retrieve all documents related to the project.
- (xxvi) Image records: Produce a photographic record of project progress by taking photographic imagery on a regular, periodic basis from a series of identical vantage points along the corridor and routes. The Consultant shall ensure that the imagery is taken from at least 15 vantage points with an interval of no more than two months between images for each vantage during the duration of the Contract.
- (xxvii) Project Completion Report (PCR): Prepare completion reports in a form acceptable to the Client and ADB.
- (xxviii) Responsibility towards Client: Be responsible for providing all necessary services required for the efficient, effective and timely execution and completion of the civil work contracts.

2. Social and Environmental Safeguards

73. In line with ADB's Guidance Notes on Consulting Services in light of COVID-19,
- (i) The consultant is responsible for their own health and safety in relation to the consulting services assignment and shall comply with the country specific requirements and regulations in relation to COVID-19.
 - (ii) With respect to the prevention of COVID-19, HIV/AIDs and Human Trafficking, monitor that the contractors comply and carry out required actions as provided in the respective contract documents, such as awareness and education of laborers and workers.
 - (iii) Ensure that the Contractor(s) provide a safe workplace for their workforce, supervisory personnel and for members of the public requiring access through the sites in full conformity with Health and Safety regulations including the ones related to coronavirus disease (COVID-19).
 - (iv) The Consultants will assist the PMU/CIU/LGE&RDD with holding stakeholder outreach meetings in the project area to update local communities with project progress. Specific communications materials will be provided to community members in Urdu and English and other languages as appropriate, describing the project, relevant governing ADB policies and procedures, benefit entitlements (for AP), grievance redress mechanism, HIV/AIDs, COVID-19, safe working conditions, etc. A basic tracking system will be maintained to record consultation activities, the provision of project information, to register concerns and/or complaints received, and to track follow-up action.
 - (v) HIV/AIDs, COVID-19 and Human Trafficking Awareness Program. The civil works contractor will be required to design HIV/AIDs, COVID-19 and Human Trafficking Awareness program, for the Consultant's review and approval. The Project Management and Construction Supervision Consultants will facilitate and monitor implementation of the programs.
 - (vi) The Contractor(s) will prepare and submit Health and Safety COVID-19 Management Plan, in accordance with Standard Operating Procedures (SOPs) issued by the Government of Pakistan from time to time on COVID-19 prevention and controls, and with international good practice guidelines [*World Health Organization, Considerations for public health and social measures in the workplace in the context of COVID-19. Geneva. Available here: <https://www.who.int/publications-detail/considerations-for-public-health-and-social-measures-in-the-workplace-in-the-context-of-covid-19>]. The Contractor(s) should demonstrate in the Plan the health and safety measures they will put in place on site in relation to COVID-19 prevention and controls, including but not limited to, PPE requirements, site set up, training, induction and mobilization of new personnel, equipment and plants cleaning and other hazard management measures while undertaking site work activities, site visitors health and safety protocols, as well as the approach to the monitoring and reporting of the Plan. The Plan should be fit for purpose for the particular construction works of this contract and be aligned with Standard Operating Procedures (SOPs) issued by the Government of Pakistan from time to time on COVID-19 prevention and controls, as well as workplace safety requirements, with international good practice guidelines [*World Health Organization, Considerations for public health and social measures in the workplace in the context of COVID-19. Geneva. Available here: <https://www.who.int/publications-detail/considerations-for-public-health-and-social-measures-in-the-workplace-in-the-context-of-covid-19>]. The Project Management and Construction Supervision Consultant will review and monitor that the approved Health and Safety COVID-19 Management Plan should be adopted and complied by the labours and others involved in the construction of the subprojects and also the staffs of the Project Management and Construction**

- Supervision Consultant should adopted the same for their own safety.
- (vii) The consultant will be responsible for their own health and safety in relation to this assignment and shall comply with the country specific requirements and regulations in relation to COVID-19.
- (viii) Review the Site-Specific Health and Safety Management Plan (SSHSM) for the Project that is prepared and submitted by the Contractor. Then, make recommendation to the Employer in relation to the approval of the SSHSM. Communicate the approved SSHSM to all consultants and contractors throughout all project stages. Should any unforeseen events occur, review the updated SSHSM and make recommendation to the Employer in relation to the approval of the SSHSM.
- (ix) In addition to the obligation to maintain safety on site, the SC will be required to undertake formal monthly safety audits throughout all stages of the Project.
- (x) Prepare the Project Execution Plan, which inter alia, includes how management of SSHSM is to be addressed throughout all stages of the Project.
- (xi) Review the Site-Specific Health and Safety Management Plan (SSHSM) for the Project that is prepared and submitted by the Contractor. Then, make recommendation to the Employer in relation to the approval of the SSHSM. Communicate the approved SSHSM to all consultants and contractors throughout all project stages. Should any unforeseen events occur, review the updated SSHSM and make recommendation to the Employer in relation to the approval of the SSHSM.
- (xii) In addition to the obligation to maintain safety on site, the supervision consultant will be required to undertake formal monthly safety audits throughout all stages of the Project. Prepare the Project Execution Plan, which inter alia, includes how management of SSHSM is to be addressed throughout all stages of the Project.
- (xiii) The Consultant shall also conduct at least two (2) unannounced spot checks per month on every site to ensure compliance with SSHSM and submit a report to the Client/Employer promptly.

74. In addition to the engineering services described above in the TORs, the Consultant shall also provide training and monitor compliance with social and environmental safeguards, as described below.

a. Construction Site Management – SEMP, HSMP, TMPs

75. The Consultant shall:

- (i) Supervise and monitor construction of all project components and ensure implementation of site-specific environmental management plan (SEMP), Health & Safety Management Plans (HSMP) and Traffic Management Plan (TMP);
- (ii) Use non-conformance documentation with sufficient details to record and inform the contractors of improvements needed to mitigation measures;
- (iii) Respond to Contractors' proposals and prepare corrective action plans and ensure that contractors take corrective actions where necessary and report corrective actions regularly, at least monthly; and
- (iv) Facilitate the resolution of public complaints through grievance redress mechanism.

b. Social, Environmental, Community Participation, Gender Issues and Information Dissemination

76. The Consultant shall:

- (i) Monitor compliance to Resettlement Plan or any other social development issues identified during feasibility study/detailed design phase in coordination with the Client / Employer, Third Party Monitors, and other stakeholders; Monitor compliance of EMPs, HSMPs and TMPs as well as any other environmental issues in coordination with PIUs and other stakeholders;
- (ii) Provide training to contractors and Client's / Employer's personnel for EMPs, HSMPs and TMPs management and monitoring during construction and operation;
- (iii) Work with Client's staff for community participation, awareness generation, social inclusion, and implementation of gender action plan;
- (iv) Assist Client, Project Design Advance consultants, in disseminating information on the Project to various stakeholders of the Project; and
- (v) Assist Client in addressing community complaints and grievances.

E. Detailed Outputs of the assignment

1. Key Timelines or Milestones

77. The construction period for each civil work contract will be established through the respective conditions of the contract. The Consultant shall assist the Employer to ensure that all the construction work, for each respective contract, completes within the contractual timelines.

2. Team Composition and Qualification Requirements for the Key Experts

78. A total of **1,020 person-months** including **84 person-months** of the International Key Experts and **936 person-months** for the National Key Experts / Support Staffs and **9,217 person-months** for the National Non-Key would be required. The city-wise List of key and non-key staff and inputs requirements are summarized in **Table 1, 2 and 3** below:

Table 1: Summary of Key Staff (International)

Table 1: Summary of Key Staff (International)				
S/No	Position	Input	No.	P.M
KEY EXPERTS INTERNATIONAL				
A	International Key Experts			
KEI-1	Landfill Site/Solid Waste Management Expert	Intermittent Input	1	24
KEI-2	Water Supply and Sanitation Expert		1	18
KEI-3	Water Treatment Expert		1	18
KEI-4	Biogas and Processing Expert		1	12
KEI-5	Contract Expert		1	12
Total International Key Experts				84
Note: The above Key Experts will work from the Consultant's central office in Peshawar and will also visit the project sites, as and when needed.				

Table 2(A): City-Wise Summary of Staff (National)

S/No	Position	Abbottabad	Mingora	Peshawar	Mardan	Kohat	Input	No	PM					
a	The Engineer Team (City Specific)													
i	ConstructionManagement	NO	PM	NO.	PM	NO.	PM	NO.	PM	NO.	PM			
KEN-1	Resident Engineer (The Engineer)	3	108	2	72	3	108	2	72	3	108	Continuous	13	468
NKEN-2	Assistant ResidentEngineer	5	144	5	156	3	84	4	120	6	168	Intermittent	23	672
NKEN-3	Material Engineer	3	72	4	120	3	30	2	60	6	144	Intermittent	18	426
NKEN-4	Construction Planning & Management Engineer	1	24	1	36	1	36	1	36	1	36	Continuous	5	168
NKEN-5	Quantity Surveyor	3	72	5	156	3	72	2	60	6	144	Intermittent	19	504
Sub-Total			420		540		330		348		600			2,238
ii.	Contract & Financial Management													
NKEN-6	Contract and ClaimEngineer	1	20			1	20			1	20	Continuous	3	60
NKEN-7	Financial & Accounting Specialist	1	36	1	36	1	36	1	36	1	36	Continuous	5	180
Sub-Total			56		36		56		36		56			240

Table 2(B): Summary of Staff (National)

S/No	Position	Input	No.	P.M
b	Central Design Coordination and Construction Supervision Support Team			
i	Construction Supervision Support Team			
KEN-8	Project Design and Supervision Coordinator (DTL)	Intermittent Input	1	36
KEN-9	Resettlement Specialist		2	36
KEN-10	Environment Specialist		2	36
KEN-11	Gender Specialist		2	36
KEN-12	HSE Engineer		2	36
KEN-13	Traffic Management Specialists		4	48
KEN-14	M&E Specialist		2	24
Total National Key Experts =				252
Note: The above Key Experts will work from the Consultant’s central office in Peshawar and will also visit the project sites, as and when needed.				

79. The Non-Key Staff with desired number of person-months are detailed in Table 3 below. The Consulting firms will propose the mobilization of consultant and experts in line with their approach and methodology proposed in the technical proposal.

Table 3: Summary of Technical / Support Staff (Non-Key Experts/Staff)

S#	Position	Abbottabad		Mingora		Peshawar		Mardan		Kohat		Input	No.	P.M
		No.	P.M	No.	P.M	No.	P.M	No.	P.M	No.	P.M			
A.	The Engineer Team													
i.	Construction Management													
NKEN-1	Sub Engineer	14	336	10	240	12	288	14	336	15	360	Intermittent	65	1,560
NKEN-2	Community Liaison and Communication Specialist	2	24	4	48	2	24	2	24	3	36	Intermittent	13	156
NKEN-3	Surveyors	14	336	10	240	12	288	14	336	15	360	Intermittent	65	1560
NKEN-4	HSE Inspector	2	24	2	36	2	36	2	24	2	36	Intermittent	10	156
NKEN-5	Traffic Management Inspector	2	24	2	36	2	36	2	24	2	36	Intermittent	10	156
NKEN-6	Environment Associate	2	24	2	36	2	36	2	24	2	36	Intermittent	10	156
NKEN-7	Resettlement Associate	2	24	2	36	2	36	2	24	2	36	Intermittent	10	156
NKEN-8	AutoCAD Operator	2	24	4	63	2	18	2	30	4	76	Intermittent	10	211

NKEN-9	Lab Technician	7	168	5	120	6	144	7	168	7	168	Intermittent	32	768
NKEN-10	Assistant Technician/Survey Lab Helpers	21	504	15	360	18	432	21	504	22	528	Intermittent	97	2,328
														7,207

B. Central Design Coordination and Construction Supervision Support Team

i.	Design Coordination													
KEN-11	Sr. Urban Planner	1	6	0	0	1	4	1	4	1	0	Intermittent	1	12
KEN-12	Sr. Landscape Architect	1	8	1	3	1	6	1	6	1	6	Intermittent	1	12
KEN-13	Sr. WSS Expert	1	6	1	24	1	6	1	12	2	48	Intermittent	1	12
KEN-14	Sr. SWM Expert	1	6	1	12	1	6	1	12	1	12	Intermittent	1	12
														48
II	Construction Supervision Support Team													
KEN-15	Landscape Architect	1	8	1	3	1	6	1	6	1	4	Intermittent	2	16
KEN-16	Drainage Engineer	1	24	3	62	1	24	2	36	2	48	Intermittent	2	16
KEN-17	Water Supply Engineer	2	48	2	48	1	24	1	24	1	24	Intermittent	2	16
KEN-18	Structural Engineer	1	12	1	24	1	12	1	22	1	18	Intermittent	2	16
KEN-19	Water Treatment Engineer	1	24	2	48	1	12	1	24	1	24	Intermittent	2	16
KEN-20	SWM Engineer	1	24	1	24	1	36	1	36	1	24	Intermittent	2	16
KEN-21	Electrical Engineer also (SACDA)	1	18	2	26	1	12	1	24	1	18	Intermittent	2	12
KEN-22	Mechanical Engineer (also SMART Meters)	1	18	2	26	1	12	1	24	1	18	Intermittent	2	12
KEN-23	Waste Recycling Engineer	1	24	1	24	1	36	1	36	1	24	Intermittent	2	16
KEN-24	Geo tech Engineer (Piling Supervision)	1	12	2	24	1	12	1	18	1	18	Intermittent	2	16
KEN-25	Hydro Geologist	1	6	2	18	1	6	1	12	1	12	Intermittent	2	16
			380		593		337		502		528			168

Insurance coverage are covered under Provisional Sums

80. The required qualifications and experience of the experts and the key tasks they are expected to undertake are provided in **Table 4.**

Table 4: Key Positions (International & National) Qualifications, Experience and Key Tasks

S/No	Position	Qualifications and Experience	Key Tasks
A – International Key Experts			
KEI-1	Landfill Site / Solid Waste Management Expert	<p>Bachelor's in Civil Engineering / Environmental Engineering / Waste Management or related subject or equivalent, preferably Master's in Civil Engineering / Environmental Engineering / Waste Management or related subject or equivalent.</p> <p>Preferably 12 to 15 years' experience in landfill site/ 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>He/she will be responsible for:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Design Review of structural elements of all the design components and water and sanitation Design and Specifications on cost effective design basis. <input type="checkbox"/> Assisting in designing, management and implementation of landfill sites & solid waste management components of the subprojects on cost effective basis including detailed structural drawings; <input type="checkbox"/> 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 <input type="checkbox"/> Support in preparing tendering and bidding documents for landfill sites and other similar components for landfill sites, waste storage, transportation and treatment options, including garbage lifting vehicles and priority equipment in all the SWM component

S/No	Position	Qualifications and Experience	Key Tasks
KEI-2	Water Supply and Sanitation Expert	<p>Bachelor's in Civil Engineering / Environmental Engineering / Public Health Engineering / Solid Waste Engineering or equivalent, preferably Master's in Civil / Environmental Engineering / Urban Engineering or equivalent</p> <p>Should have over 15 years of experience in planning and designing WSS activities, and a minimum of 10 years proven work experience and skill in similar position in developing countries.</p>	<p>He/she will be responsible for:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Monitoring of design and implementation of the subproject, for the water supply subprojects; <input type="checkbox"/> Identify problems and opportunities for the provision, operation and management of a sustainable water supply system in selected city corporations; <input type="checkbox"/> 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; <input type="checkbox"/> Assist in preparation of detailed cost estimates and specifications for proposed water supply capital works and equipment; <input type="checkbox"/> Assist in preparation of the operation and maintenance (O&M) procedures and manuals for <input type="checkbox"/> Participation in the proposed Community Consultation Plan and consulting with any Stakeholder Committees that may be established during the subproject implementation; <input type="checkbox"/> Reviewing existing studies, documents and other information available; regarding in sanitation system options in the country generally and the project areas/city corporations; <input type="checkbox"/> Selection of sanitation technology options and preferred options for selected project areas/city corporations for domestic, commercial and industries; <input type="checkbox"/> Awareness Program and consulting with any Stakeholder Committees that may be established during the subproject implementation.

S/No	Position	Qualifications and Experience	Key Tasks
KEI-3	Water Treatment Expert	<p>Bachelor's in civil engineering, water resources engineering, hydraulic 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> <p>He/she will have 15 years of experience as a Water Treatment Design Engineer on major surface water treatment projects.</p>	<p>He/she will be responsible for:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Oversee the design of projects involving provision of potable water, disposal of wastewater and sewage, and stormwater management. <input type="checkbox"/> Review existing feasibility studies prepared by others and address any gaps or deficiencies for water supply systems <input type="checkbox"/> Review proposals, plans, or designs related to proposed water treatment systems; <input type="checkbox"/> Review project land acquisition and resettlement plan <input type="checkbox"/> Review and recommend water quality objectives and standards for water discharges and potable water uses, and treatment recommendations; <input type="checkbox"/> Identify design alternatives for the development of new water resources; <input type="checkbox"/> Conduct cost-benefit analyses for the construction of water supply systems, runoff collection networks, and water treatment plants; <input type="checkbox"/> Analyse and recommend chemical, biological, or other treatment methods to prepare water for potential re-use; <input type="checkbox"/> Review the design of water treatment facilities, pumping stations, storage, reservoirs, and distribution and collection systems that meet regulatory standards and water runoff collection networks, water supply channels or water supply system networks, and confirm designs using modelling techniques; <input type="checkbox"/> 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

S/No	Position	Qualifications and Experience	Key Tasks
KEI-4	Biogas and Processing Expert	<p>Bachelor's degree in related engineering</p> <p>Minimum 10 years of experience working as a Production or Process Engineer in an industrial setting in engineering or operations. Gas Processing experience and familiarity with designing and operating process equipment.</p>	<p>He/she will be responsible for but not limited to the following:</p> <p>The biogas expert may assist investors in selecting the right biogas technology and in preparing due diligence/feasibility studies. During design, the biogas expert may perform a peer review of the design, prepare cost opinions and assist with permit applications. During construction, the biogas expert can assist with construction oversight of the biogas facility and provide commissioning reports. They may also provide operator training, start-up assistance and recipe management to assist biogas plant owners in making the plant run as smoothly and efficiently as possible. In matters involving biogas litigation, the consultant may serve an expert witness and assist the attorneys with understanding the biogas processes and related technical issues and may testify in court about aspects of biogas technology and related matters. Measure and monitor raw biomass feedstock, including wood, waste, or refuse materials. Operate valves, pumps, engines, or generators to control and adjust production of biofuels or biomass-fueled power. Perform routine maintenance or make minor repairs to mechanical, electrical, or electronic equipment in biomass plants. Assess quality of biomass feedstock. Calculate, measure, load, or mix biomass feedstock for power generation</p>

S/No	Position	Qualifications and Experience	Key Tasks
KEI-5	Contract Expert	<p>Master's degree in engineering/ law/ management or other related fields (internationally recognized professional qualification).</p> <p>Preferably 15-year experience in contracts administration and management of projects. The expert should preferably have experience of contract administration on at least one ADB financed project.</p> <p>Proven credentials in Contract Administration and Dispute Resolution and preferably experience/track-record of an arbitrator, mediator adjudicator, and dispute resolution adviser. The specialist should have demonstrated experience with developing and managing contracts on FIDIC contractual scheme in general and admeasurement contracts in particular.</p>	<p>The Expert will:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Assist the Client / Employer in negotiations, if any and finalizing contract agreements for works and goods; <input type="checkbox"/> Develop and organize contract management capacity building and training covering administration of FIDIC based contract and procedures for the effective project implementation for staff of the EA and Employer; <input type="checkbox"/> Advise on all matters relating to the efficient and successful execution of the civil works contracts, and will act at all times to protect the interests of the project and will take all reasonable steps to keep the construction costs to a minimum, consistent with sound economic and engineering practices; and will prepare a "Contract Administration and Construction Supervision Manual" outlining routines and standard operating procedures to be applied in contract administration and construction supervision, based on sound internationally recognized practice; <input type="checkbox"/> Advise the Client / Employer in evaluating/resolving contractor's claims and contractual disputes. <input type="checkbox"/> Proactive C/claim assessment and management for civil work contracts. <input type="checkbox"/> Proactively recommends and advice on how to avoid any additional cost and on measures to minimize the costs of legitimate claims. <input type="checkbox"/> Ensure successful execution of civil work contracts according to agreed commercial obligations, financial and qualitative targets.
B – National Key Experts			

S/No	Position	Qualifications and Experience	Key Tasks
KEN-1	Resident Engineer (The Engineer)	<p>Bachelor's degree in Civil Engineering / City and Regional Planning / Urban Development or relevant field- preferably Masters in Civil Engineering / City and Regional Planning / Urban Development / Construction Management / Project Management or equivalent.</p> <p>15-year relevant professional experience in managing projects in lead positions on major urban development projects and experience in contract management, processing of claims and implementation of urban sector projects.</p>	<p>Responsible for construction supervision and ensuring that the project is implemented in accordance with the required specifications and approved drawings. Lead the project execution.</p> <p>Responsibilities, for each respective city team, include, but are not limited to the following:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Ensuring that the consulting team, in the respective cities, undertakes comprehensive review of designs and specifications and carries out construction supervision and contract administration of the civil works for the Project assuming the role of "the Engineer" and undertake all tasks as defined under FIDIC General Conditions of Contract for Construction; <input type="checkbox"/> Overseeing the consultant's activities ensuring compliance to detail provided in the construction drawings and strict adherence to construction specifications; <input type="checkbox"/> Overseeing quality control methodology put in place, confirming its adequacy and ensuring that its application is satisfactorily carried out; <input type="checkbox"/> Lead the contract administration and procurement issues/assignments/contractual claims; <input type="checkbox"/> Proactively take lead in resolving any contractual issues; <input type="checkbox"/> Determine extension of time for completion and other claims in accordance with the conditions of contract; <input type="checkbox"/> Provide assistance to the Employer in dispute resolution as per provisions in the conditions of contract; <input type="checkbox"/> Keeping the Employer informed of contractual and claims issues by direct contacts and through discussions or correspondence; <input type="checkbox"/> Hold meetings with the Contractor on contract and claims issues; and <input type="checkbox"/> Preparing a comprehensive Project Completion Report (PCR) and any other duty/ assignment the Team Leader may entrust.

S/No	Position	Qualifications and Experience	Key Tasks
KEN-2	Assistant Resident Engineer	<p>Qualified Civil Engineer preferably MSc in Civil Engineering/ Construction Management / Project Management or relevant fields.</p> <p>Preferably 6-year experience in construction supervision of Urban Sector Development projects in Pakistan whereas experience in MDBs such as ADB, World Bank etc. would be preferable.</p>	<p>The Specialist will be responsible to assist Resident Engineer in carrying out tasks at site.</p>
KEN-3	Material Engineer	<p>BSc in Geological Sciences / Material Sciences / Civil Engineering or related degree</p> <p>Preferably 8-year experience as Material Engineer on similar projects.</p>	<p>Responsible for:</p> <ul style="list-style-type: none"> <input type="checkbox"/> collection of geotechnical investigations data; <input type="checkbox"/> subsurface explorations for road and structures; <input type="checkbox"/> stipulate material testing procedures and specifications; <input type="checkbox"/> assist in the preparation of job mix formula for asphalt; <input type="checkbox"/> supervise quality and materials of concrete works, identify sources of materials, quarry sites and borrow areas.

S/No	Position	Qualifications and Experience	Key Tasks
KEN-4	Construction Planning Management Engineer &	<p>Minimum B.Sc. Civil Engineering – preferably MScin Construction / Project / Engineering Management or related degree.</p> <p>Proven ten (10) year experience as Planning Engineer for planning and monitoring of the projects using primavera or similar software on major horizontal project, specifically at least 4 years of experience on projects of Urban Development Sector.</p>	<p>The responsibilities will include but not limited to:</p> <ul style="list-style-type: none"> <input type="checkbox"/> prepare and update project schedule based on the contract; <input type="checkbox"/> set work program and target milestones for each phase based on the project plan; <input type="checkbox"/> monitor critical activities based on the project schedule and advise project management; <input type="checkbox"/> prepares and submit updated work program and cash flow curve showing actual progress and identify areas of weakness and establishes means and methods for recovery, if any, as well as new critical activities; <input type="checkbox"/> monitor day to day work progress and prepare the weekly and monthly program and report; <input type="checkbox"/> maintain and record update of site work progress obtained from site supervision staff; <input type="checkbox"/> prepares monthly report reflecting work progress summary; <input type="checkbox"/> report to the Team Leader about the current work progress and make comparison between plan and actual progress and study impact of alternative approaches to work; <input type="checkbox"/> participate in project meetings and discussions with the Client as required; <input type="checkbox"/> assists in preparing work program, cash flow and manpower histogram for contracts; <input type="checkbox"/> performs other duties and responsibilities as may be assigned from time to time; <input type="checkbox"/> shall train the site supervision staff (Resident Engineer or other appropriate) to monitor construction supervision using primavera or similar software.

S/No	Position	Qualifications and Experience	Key Tasks
KEN-5	Quantity Surveyor	Diploma of Associate Engineering or Higher Degree with a total post qualification experience of 10 years and at least 5 years of rich experience of working on Urban Sector Development Projects.	<p>The expert shall be responsible for:</p> <ul style="list-style-type: none"> <input type="checkbox"/> calculating the costing of works and equipment, in accordance with the Conditions of the Contracts; <input type="checkbox"/> measurement of all type of quantities and preparation of measurement sheet in accordance with approved drawings for the purpose of preparing interim and final payment certificates. <input type="checkbox"/> for maintaining up to date record of executed quantities in comparison with the Bills of Quantities and executes checks in relation with the Engineer's Estimates for each of the individual subprojects. <input type="checkbox"/> for variations review detailed estimates for quantities (considering designs and mass haul diagram) and project cost for the entire project (civil packages wise), including the cost of environmental and social safeguards proposed and market rate for the inputs or the local schedule of rates.
KEN-6	Contract and Claim Engineer	<p>Minimum B.Sc. degree in engineering / law / management and preferably Master's degree in a relevant discipline (nationally recognized professional qualification).</p> <p>Preferably 10-year experience of working in similar assignments/ positions. Knowledge of FIDIC contractual schemes and ADB or other IFIs, and GoP's contractual requirements is desirable.</p>	<p>Will provide assistance to the international contract expert for effective and efficient contract administration of civil work contracts.</p> <p>The Expert will:</p> <p>Render necessary advice in contract administration and procurement issues / assignments;</p> <p>Assist Client in negotiations and finalizing contract agreements for works, goods and services;</p> <p>Develop, and organize contract management capacity building and training covering FIDIC, and ADB procurement guidelines and procedures for the project implementation staff of the Client;</p> <p>Advise on the progress reporting, quality control and inspection systems to be followed during execution of civil work contracts;</p> <p>Advise Client in resolving contractual issues;</p> <p>Assist in reviewing and determining Contractors claims; and</p> <p>Assist in keeping the Employer informed of contractual issues both by direct contacts and through discussions or correspondence.</p>

S/No	Position	Qualifications and Experience	Key Tasks
KEN-7	Financial Accounting Specialist	<p>& Master's degree in Finance/ Accounting or a relevant field.</p> <p>Preferably 7 years of relevant work experience including experience of working with international consultants' preferably in donor-funded projects and government institutions.</p> <p>He / She will have experience in financial management and accounting of preferably on one ADB-financed project.</p>	<p>The specialist will be responsible for:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Preparing monthly financial statements and project accounts; pre-audit and verification of all contractor/supplier bills prior to payment; <input type="checkbox"/> Preparation of monthly project accounts and financial reports; <input type="checkbox"/> Preparation of monthly internal auditing reports for ADB and the borrower; <input type="checkbox"/> Providing requisite financial input for the quarterly progress reports; <input type="checkbox"/> Assisting the Client in preparation of complete and correct withdrawal applications and ensuring prompt submission to ADB; and <input type="checkbox"/> Preparation of annual financial statements and accounts within one month of closing of the Government's fiscal year and coordinating the external audit activity.
KEN-8	Project Design and Supervision Coordinator (DTL)	<p>Bachelor's degree in Civil Engineering / City and Regional Planning / Urban Development or relevant field- preferably Masters in Civil Engineering / City and Regional Planning / Urban Development or equivalent.</p> <p>10-year relevant professional experience in managing projects and design related tasks in urban development projects.</p>	<p>The expert shall be responsible for:</p> <ul style="list-style-type: none"> <input type="checkbox"/> for design coordination during construction as head of team of design coordination and will also facilitate and assist the international experts in review of design and coordination with the concerned stakeholders for any issues related to design. <input type="checkbox"/> The design coordinator through the team of design coordination engineers shall ensure that all the designs required during the execution of the contract are timely available and shall follow up and liaison for any changes required or any emergent requirements during the construction phase. <input type="checkbox"/> Under the supervision of Team Leader, the Expert with due coordination with the team will be responsible for production of the revised corresponding sections of the specifications and technical sections of the contract documents.

S/No	Position	Qualifications and Experience	Key Tasks
KEN-9	Resettlement Specialist	<p>Master's degree in a related discipline.</p> <p>Preferably 7-year experience working in similar assignments/positions.</p> <p>Knowledge of ADB or other IFI, and GoP's requirements and procedures is desirable.</p>	During the construction stage, he/she will supervise and monitor RP implementation, and will prepare monthly monitoring reports
KEN-10	Environment Specialist	<p>Bachelor's degree in Environmental or Civil Engineering.</p> <p>Preferably Masters in Environmental Sciences or equivalent.</p> <p>12-year relevant professional experience as Environment Specialist in supervising and monitoring environmental management plans on donor financed road and infrastructure projects and familiarity with the ADB's safeguard policies.</p> <p>Specific experience in a similar position on urban sector development projects in accordance with GoP and ADB's Environmental Guidelines will be preferred.</p>	<p>Expert shall be responsible for:</p> <ul style="list-style-type: none"> <input type="checkbox"/> preparing Environmental monitoring check list; review and endorsement of Site-Specific Environmental Management Plan (SSEMP); <input type="checkbox"/> review of Bi-Environmental monitoring reports; <input type="checkbox"/> prepare corrective action plan in case of noncompliance. <input type="checkbox"/> set up environmental management and monitoring system; <input type="checkbox"/> train the national staff and ensure that the EMS is in place.
KEN-11	Gender Specialist	<p>BSc in Social Sciences or related degree.</p> <p>Preferably 7-year experience in similar position/projects.</p>	The gender specialist will be responsible for the development & implementation of gender mainstreaming features in the project.

S/No	Position	Qualifications and Experience	Key Tasks
KEN-12	HSE Engineer	<p>Master's degree in engineering or other related fields (internationally recognized professional qualification).</p> <p>Preferably 12-year experience in managing health safety and environmental issues at workplace during the project execution.</p> <p>Proven credentials in managing health and safety issues in the construction projects preferably FIDIC based contracts or contracts having detailed provisions and protocols on managing the health, safety and environment during the project execution.</p>	<p>The Expert shall be responsible for:</p> <ul style="list-style-type: none"> <input type="checkbox"/> supervision and establishing a framework / guideline document to ensure that Contractor shall take all reasonable and practicable steps to maintain a safe and healthy working environment which complies with statutory requirements. This will be complemented by an on-going programme of health and safety initiatives designed to keep Contractor's, Consultant's and Employer's staff informed of their health and safety responsibilities and role in taking appropriate steps for health and safety. <input type="checkbox"/> provide guidance and identify to ensure that Contractor shall at all times take all reasonable precautions to maintain the health and safety of the Contractor's Personnel; <input type="checkbox"/> supervise that the Contractor provides all essential medical staff, first aid facilities, sick bay and ambulance service required at the Site and at any accommodation for Contractor's and Employer's Personnel, and that suitable arrangements are made for all necessary welfare and hygiene requirements and for the prevention of epidemics; <input type="checkbox"/> ensure that appropriate gears and tools required for the safety of the personnel are available during the construction.
KEN-13	Traffic Management Specialists	<p>Qualified Engineer – B.Sc. Civil Engineering or Urban Engineering or related field preferably M.Sc. in Traffic Studies/Management</p> <p>Preferably 7-year experience working on similar assignments/positions.</p>	<p>The responsibilities will include but not limited to:</p> <ul style="list-style-type: none"> <input type="checkbox"/> ensure that the most appropriate traffic management plan is in place and implemented for smooth flow of the traffic during construction work. <input type="checkbox"/> continuously update, implement and monitor alongside the progress of the works. <input type="checkbox"/> ensure that Contractor's traffic management plan cause minimum disruption to public transport and commuters.

S/No	Position	Qualifications and Experience	Key Tasks
KEN-14	M&E Specialist	<p>Master's degree in Engineering (preferably Civil Engineering) or Project Management or Engineering Management or Construction Management or a related discipline.</p> <p>Preferably 10-year experience in designing system, carrying out monitoring and evaluation and preparing reports.</p>	<p>The Expert will:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Developing and implementing project-specific monitoring and evaluation systems including project performance monitoring system, including safeguards; <input type="checkbox"/> Periodic information dissemination on project-related website(s); <input type="checkbox"/> Collating all information and submit to PIU on approved format; <input type="checkbox"/> Generate monthly and quarterly reports; and Update PPMS.

Table 5: Non-Key Positions and Support Staff, Qualifications and Experience Requirements

S/No	Positions (Non-Key Staff)	Qualification Requirements	Experience Requirements
NKE-1	Sub Engineer	DAE Civil or higher qualification	Preferably 5 years of experience in a similar role in Urban Sector Development Project.
NKE-2	Community Liaison and Communication Specialist	Bachelors in Social Sciences or HRM or in a relevant field or higher qualification.	Preferably 5 years of experience in a similar role in Infrastructure Development Project.
NKE-3	Surveyors	DAE Civil or higher qualification	Preferably 8 years of experience in a similar role in Urban Sector Development Project.
NKE-4	HSE Inspector	BSc Civil Engineering or a relevant field.	Preferably 5 years of experience in a similar role in Urban Sector Development Project.
NKE-5	Traffic Management Inspector	BSc Civil Engineering or a relevant field.	Preferably 5 years of experience in a similar role in Urban Sector Development Project.
NKE-6	Environment Associate	BSc Civil or Environmental Engineering or a relevant field.	Preferably 5 years of experience in a similar role in Urban Sector Development Project.
NKE-7	Resettlement Associate	Bachelors in law or relevant field. Proven experience related to land revenue departments in Pakistan.	Preferably 5 years of experience in a similar role in Urban Sector Development Project.
NKE-8	AutoCAD Operator	DAE Civil / CAD or higher qualification	Preferably 8 years of experience in a similar role in Urban Sector Development Project.
NKE-9	Lab Technician	DAE Civil or a university degree in materials/geology or higher qualification	Preferably 8 years of experience in a similar role in Urban Sector Development Project.
NKE-10	Disbursement Officer	Bachelors in Finance or Accounting or higher qualification	Minimum 3 years of experience in a similar role on ADB funded project.
NKE-11	Sr. Urban Planner	Bachelors in Civil Engineering or Urban Development or relevant discipline; preferably Master's Degree.	Preferably 10 years of experience in a similar role in Urban Sector Development Project.
NKE-12	Sr. Landscape Architect	Bachelors in Architecture (Internationally recognized professional qualification).	Preferably 10 years of experience in professional architectural design and execution.
NKE- 15	Landscape Architect	Bachelors in Architecture (Internationally recognized professional qualification).	Preferably 10 years of experience in professional architectural design and execution.

S/No	Positions (Non-Key Staff)	Qualification Requirements	Experience Requirements
NKE- 16	Drainage Engineer	Bachelors in Civil Engineering or Urban Development or relevant discipline; preferably Master's Degree.	Preferably 8 years of experience in a similar role in Urban Sector Development Project.
NKE- 17	Water Supply Engineer	Bachelors in Civil Engineering or Urban Development or relevant discipline; preferably Master's Degree.	Preferably 8 years of experience in a similar role in Urban Sector Development Project.
NKE- 18	Structural Engineer	Bachelors in Civil Engineering or Masters in Structural Engineering	Preferably 8 years of experience in a similar role in Urban Sector Development Project.
NKE- 19	Water Treatment Engineer	Bachelors in Civil Engineering or Urban Development or relevant discipline; preferably Master's Degree.	Preferably 5 years of experience in a similar role in Urban Sector Development Project.
NKE- 20	SWM Engineer	Bachelors in Civil Engineering or Urban Development or relevant discipline; preferably Master's Degree.	Preferably 5 years of experience in a similar role in Urban Sector Development Project.
NKE- 21	Electrical Engineer also (SACDA)	Bachelors in Electrical or Software Engineering or relevant discipline.	Preferably 5 years of experience in a similar role in Urban Sector Development Project.
NKE- 22	Mechanical Engineer(also SMART Meters)	Bachelors in Mechanical Engineering or relevant discipline.	Preferably 5 years of experience in a similar role in Urban Sector Development Project.
NKE- 23	Waste Recycling Engineer	Bachelors in Civil Engineering or Urban Development or relevant discipline; preferably Master's Degree.	Preferably 5 years of experience in a similar role in Urban Sector Development Project.
NKE- 24	Geotech Engineer (Piling Supervision)	Bachelors in Civil Engineering or Masters in Geotechnical Engineering	Preferably 5 years of experience in a similar role in Urban Sector Development Project.
NKE- 25	Hydro Geologist	Bachelors in Civil Engineering or Urban Development or relevant discipline; preferably Master's Degree.	Preferably 6 years of experience in a similar role in Urban Sector Development Project.

Notes:

- ☐ The staffing requirements actually deployed by the consultants will be adjusted according to the shifts organized by the contract for timely completion of the KPCIP Project.
- ☐ The consultants would ensure comprehensive design coordination during the Project execution.

3. Reporting Requirement

81. The consultants will submit the following reports to the Client/Employer and ADB.
- (i) Inception Report: The Inception report shall cover at least initial findings and the work program including staffing plan and schedule for approval by Client/Employer and ADB within Two (02) weeks after commencement of services.
 - (ii) Monthly progress report: The Consultant will prepare a progress report no later than the 10th day of each month duly summarizing:
 - (a) Construction progress during the month and cumulative to date for each individual contract highlighting and drawing specific attention of the Client/Employer to any major causes of delay (administrative, technical or financial) with details of remedial action taken or recommended to the Employer.
 - (b) A comparison of actual and forecast expenditure both during the month and cumulative to date for each individual contract and a record of the status of payment of the Contractor's monthly invoices. The report shall include information on all claims for cost or time extensions and of actions required of Client / Employer to ensure swift implementation of works. The Consultant will also advise on the final estimated cost for each individual contract and draw attention to any major changes in the project budget including details of remedial action taken or recommended to the Employer.
 - (c) Brief on all correspondence exchanged with the contractors particularly relating to contractual clauses with financial and time implications.
 - (d) Technical appreciation of any design or quality control problems for each individual contract including details of remedial action taken or recommended to the Employer.
 - (e) Status of compliance with the Environmental and Resettlement Plans.
 - (iii) Quarterly progress report: The report shall include 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, remedial actions taken or suggested for any issues to the progress, the overall progress. The report shall be submitted within 14 days after each quarter subsequently.
 - (iv) Annual Management Information Report: The Consultant will prepare a comprehensive report summarizing all activities under the services at the end of each Financial Year, and also at other times when considered warranted by either the Consultant or Client because of delay of the construction works or because of the occurrence of technical or contractual difficulties. The reports shall summarize not only activities of the Consultant but also the progress of the Contracts including all contract variations and change orders, the status of the Contractor claims, and brief descriptions of the technical and contractual problems being encountered and other relevant information for each of the ongoing contracts.
 - (v) Resettlement and Social Safeguard Monitoring Reports: The consultant shall submit a quarterly report highlighting the progress on implementation of resettlement, documenting all activities including formal & informal consultation, gender issues, socio economic aspects, child labor, drug trafficking, hygiene, and safety and other social aspects.
 - (vi) Technical Reports: The Consultant will produce the technical/ due diligence reports and position papers dealing with project matters during implementation, as and when required by the Client.
 - (vii) Interim Contract Completion Reports: The Consultant will prepare completion

report for each contract within 30 days of issuance of Taking-over Certificate/Certification of Completion. This report shall summarize the implementation and financial history of the project. The defects list provided to the Contractor and all outstanding claims pending resolution.

- (viii) Project Documentary Report: The Consultant has to make documentary of all major activities during constructions as well as that of completed project sections to be submitted towards the end of the project. These should also pertain;
 - (a) Laying and compaction of various pavement layers,
 - (b) Operation of Asphalt and concrete Plants,
 - (c) Quarry sites and laboratory activities,
 - (d) Road after completion showing road furniture,
 - (e) Various important stages in construction of structures,
 - (f) All the construction steps during construction of stations and buildings,
 - (g) Pictorial chronology of relocation of utilities, if any during the construction, and
 - (h) Any other major activity involved requiring specific mention.
- (ix) Project Completion Report: The Project Completion Report shall cover 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 Client / Employer and ADB within one (01) month after the contract of consulting services completed.
- (x) Revised PC-1: The Consultant shall prepare the revised PC-1 of the project, before completion of the project, if required by incorporating all changes in the scope of work and prepare completion report (PC-IV) at the completion of the project.
- (xi) Comprehensive Monthly Report on Contemporary Record: The Consultant shall submit a certified copy of comprehensive contemporary record to the Client/Employer on monthly/fortnightly basis.
- (xii) All reports shall be submitted in hard and soft copies (editable MS Office and PDF format) as well.

S/No	Reports	Submission Type	Timelines	Remarks
1	Inception Report	First Draft (3 Copies +CD/DVD/USD)	2 weeks	Client will approve or comment within 7 days of receipt of report
		Final Report (3 Copies +CD/DVD/USB)	With 7 days after receiving comments from the Client	Approval or comments within 3 days
2	Monthly Progress Reports	(3 Copies + CD/DVD/USB)	Each Month within 10 days	
3	Quarterly Progress Report	(3 Copies + CD/DVD/USB)	Each Quarter within 14 days	Client will approve or comment within 7 days of receipt of report
4	Annual Management Information Report	(3 Copies + CD/DVD/USB)	Following each Year within 28 days	

S/No	Reports	Submission Type	Timelines	Remarks
5	Project Completion Report	(3 copies each + CD/DVD/USB for each Package)	Within One Month of Completion of Services	
6	Comprehensive Contemporary Record	1x Certified Copy and signed scanned copy in CD/DVD/USB for every project in each city	Each Month within 10 days	

82. Reports shall be submitted to the Project Director or person nominated as Client's representative.

83. Documents & Manuals Required: The consultants will prepare following documents to be approved by the Employer for efficient contract administration and construction supervision.

- (i) Contract Administration Manual
- (ii) Quality Control & Assurance Manual
- (iii) Laboratory Manual & Testing Log
- (iv) Environmental Monitoring Checklist
- (v) Safeguard Monitoring Check list

F. Client's Input and Counterpart Personnel

84. Services, facilities and property to be made available to the Consultant by the Client:

- (i) Fully operational Project Implementation Unit with dedicated staff shall be available for all inputs, coordination and liaison related to the Project;
- (ii) All available project reports and data from the PRF consultants and PPTA consultants; and
- (iii) Liaison and coordination at site with field formation for facilitation in supervision of works.

G. Client will provide the following inputs, project data and reports to facilitate preparation of the Proposals:

- (i) Information on design of the infrastructure for KPCIP Project