



**ISLAMIC REPUBLIC OF PAKISTAN**

**THE SECOND KARACHI WATER AND SEWERAGE  
SERVICES IMPROVEMENT PROJECT (KWSSIP-2).**

**Procurement Activity No: PK-PIU KWSSIP 2-493210-CS-QCBS**

**Terms of reference for Consultancy services for Program  
Management Consultancy (PMC)**

**MARCH 2026**



## LIST OF ACRONYMS

AIIB	Asian Infrastructure Investment Program
AWPB	Annual Work Plan and Budget
DSC	Design & Supervision Consultant
ECNEC	Executive Committee of The National Economic Council
EOI	Expressions of Interests
ESMP	Environmental & Social Management Plans
FM	Financial Management
GoS	Government of Sindh
HR	Human Resources
JV	Joint Venture
KPI	Key Performance Indicator
KW&SC	Karachi Water and Sewerage Corporation
KWSSIP	Karachi Water and Sewerage Services Improvement Project
M&E	Monitoring & Evaluation
NOC	No Objection Certificates
PAD	Project Appraisal Document
PBS	Pakistan Bureau of Statistics
PDO	Project Development Objective
PIU	Project Implementation Unit
PMC	Project Management Consultancy
PMIS	Project Management Information System
QPR	Quarterly Progress Reports
RAP	Resettlement Action Plans
SOPs	Standard Operating Procedures
ToR	Terms of References
WAPDA	Water and Power Development Authority
WB	World Bank

# **DRAFT TERMS OF REFERENCE (ToRs) FOR PROGRAM MANAGEMENT CONSULTANCY (PMC)**

## **1. Introduction and Project Context**

### ***1.1 Background***

Karachi, the largest city in Pakistan, serves as the country's economic and industrial hub. According to the Pakistan Bureau of Statistics (PBS), the population of Karachi exceeds 20 million, making it not only the most populous city in Pakistan but also one of the largest metropolitan areas in the world. The city is known for its cultural diversity, bustling ports, and dynamic urban landscape. As a key center for finance, trade, and media, Karachi plays a vital role in shaping the nation's socio-economic development.

Karachi, has grown so rapidly that it now struggles to deliver basic infrastructure and services, including potable water and wastewater collection and treatment. The Karachi Water and Sewerage Corporation (KW&SC), which is responsible for the provision of water and sewerage services in Karachi, is not able to effectively deal with the challenging reality on the ground. There is a huge unmet demand for drinking water supply services (550 MGD current pumping capacity versus an estimated demand of 1200 MGD) coupled with a high non-revenue water (NRW) level estimated at around 50-60 percent of water pumped. There is currently limited sewage treatment, as the greater part of the city's sewage treatment facilities are dilapidated and not working, resulting in a significant quantum of sewage/day being discharged into the Arabian Sea. There has been no significant capital and major repairs and rehabilitation investment for water and sewerage infrastructure for more than a decade. As such, most of the water and sewerage infrastructure is now worn out and operating far below its rated capacity.

There are two different water sources for Karachi City which are the Indus River and the Hub Dam. The total approved water abstraction quota from Indus River is 1200 cusecs (648 MGD) while 185 cusecs (100 MGD) is drawn from Hub Dam. The current combined water supply from both the sources has proven to be insufficient to meet current demand and the needs for the city's expansion in horizontal and vertical dimensions. The unprecedented population growth coupled with continuous influx of people from other parts of the country has put KW&SC under tremendous pressure to meet the ever-growing demand for water and sanitation services. Thus, the scarcity and shortage of water and environmental degradation are directly contributing to public health risks and undermining sustainable development with the passage of time.

### ***1.2 Karachi Water and Sewerage Services Improvement Project***

To transform KW&SC into a financially sustainable and technically sound water utility and to improve the water and sewerage services delivery levels, the Government of Sindh (GoS) and KW&SC, with the assistance of World Bank (WB) and Asian Infrastructure Investment Bank (AIIB), have conceived Karachi Water and Sewerage Services Improvement Program (KWSSIP) to provide clean, safe drinking water and efficient sewerage services to the residents. The Karachi Water and Sewerage Services Improvement Program (KWSSIP) is being implemented by the GoS through KW&SC and a Project implementation Unit (PIU) to manage the series of projects.

The KWSSIP-Phase 1 is nearing completion by June 30, 2026 whereas Phase-2 (KWSSIP-2) has been approved by Executive Committee of the National Economic Council (ECNEC) in 2024 amounting to USD 600 Million. The total investments for Phase2 sub-projects will be around USD 600 million out of which USD 240 million would be funded by IBRD & AIIB each and USD 120 million will be funded by GoS.

Further, for KWSSIP-2 PPP projects, (TP-IV, WTP, ESCOs) GoS contribution would be USD 250 million, private equity will be USD 81 million & Commercial debt will be USD 188 million. KWSSIP-2 will deepen the reforms undertaken during the KWSSIP-1 project and significantly scale-up the infrastructure investments to improve water supply and sewerage services in Karachi City. The investments

in the rehabilitation of existing infrastructure and the construction of new infrastructure will enhance the development impacts by reaching more beneficiaries. At the same time, the investments will build support for continued mainstreaming of the operational reforms.

The KWSSIP-2 consists of four components as outlined below:

- **Component 1: Capacity Building and Reform of KWSC.** This component will continue to build capacity and improve operational performance and sustainability of KWSC by supporting institutional reforms; revenue management, customer care and communication; non-revenue water reduction; preparation and implementation of water safety plans; water wastage reduction program; and water audits.
- **Component 2: Safely Managed Water Supply and Sanitation Services.** This component will invest in key water and sewerage infrastructure to address three interlinked structural problems in Karachi's water and sanitation system – the overall supply shortfall; the low water quality; and the lack of sewage treatment capacity.
- **Component 3: Project Management and Studies.** This component will support project management costs and finance technical assistance for advance studies of subsequent potential water and wastewater infrastructure projects in Karachi.
- **Component 4: Contingent Emergency Response Component.** The Government of Pakistan may request the Bank to reallocate project funds for the provision of immediate response to an eligible crisis or emergency, as needed. This component, currently with no allocation of funds, would draw funds from the uncommitted loan resources under the Project from other project components to cover emergency response.

### ***1.3 Rationale for the assignment***

Given the complexity, scale, and multi-stakeholder nature of the project, KWSC intends to engage a qualified Program Management Consultancy (PMC) firm to support the Project Implementation Unit (PIU) in strengthening implementation, planning, coordination, monitoring and evaluation, reporting, resource utilization, financial management and contract management capacity, ensuring timely delivery of outputs, and maintaining compliance with the requirements of the co-financiers including on procurement, financial management and safeguards.

## **2. Assignment Objectives**

The main objective of the PMC is to provide strategic, high-level technical assistance, advisory support to the PIU, thereby strengthening its capacity in planning, designing, planning, coordination, implementation, monitoring and evaluation, reporting, resource utilization & management and management of the project. This support is intended to ensure the efficient project execution and management, as well as achievement of all KWSSIP-2 objectives and outputs, within the established budget, timeline, and schedule constraints.

## **3. Scope of Services**

The PMC shall operate strictly as a management advisory and coordination unit supporting the PD/PIU. It shall explicitly exclude specific tasks mandated to other consultants and staff to avoid duplication of efforts and confusion of authority.

Roles of other entities/consultants, recruited or to be deployed, are explained as follows, which will not be duplicated by PMC services:

- A. ***Design and Supervision Consultants (DSC):*** Engineering design and design review, technical approvals, on-site supervision, quantity survey, physical testing, or certification of works/deliverables. These will remain the responsibility of the designated Design & Supervision Consultant (DSC).
- B. ***Reform Study Consultants:*** Generating initial reform strategies, financial models, or draft legal instruments. This includes developing human resources (HR) policies, defining tariff frameworks, or establishing core institutional structures, which are assigned to specialized firms and PIU managers.
- C. ***PIU Individual Specialists:*** Legal, fiduciary, or statutory responsibilities have been assigned to competitively recruited PIU staff. These include roles like procurement of services, supplies, and works; procurement evaluation and decisions; contract signing; implementation oversight; environmental and social safeguards implementation and monitoring; overall financial management (FM) and book keeping; disclosures and communications.

#### 4. Detailed Description of Tasks

##### ***Task A. Support and assistance in Planning & master scheduling, Coordination, and Risk Oversight***

- ***Planning & master scheduling:*** Support the PIU to maintain, regularly update, and harmonize a comprehensive Project Implementation Plan (Master Schedule) that consolidates timelines, milestones, and interdependencies and linkages among all consultancy and construction contracts. This unified schedule will serve as the central management tool for tracking progress, identifying bottlenecks, and recommending solutions for PD/PIU to address the issues.

The task will include continuous monitoring of contractor and consultant staffing levels, particularly the deployment of key experts under the DSC contract—to ensure compliance with agreed qualification requirements, work plans, and mobilization schedules. Any gaps in staffing, delays in mobilization, or deviations from contractual obligations will be promptly identified, documented, and reported to the PD with clear recommendations for corrective actions.

The PMC will support the PIU in formulating the Annual Work Plan and Budget(AWPB) by aligning planned activities with resource requirements, procurement schedules, and strategic priorities. The PMC will provide analytical inputs to ensure the AWPB is realistic, implementation-focused, and synchronized with donor financing envelopes, timelines and disbursement projections.

In addition, the PMC and PIU will jointly review the Master Schedule to adjust timelines, refine sequencing, and integrate emerging field realities to support continuous improvement in implementation efficiency and timely results achievement. This dynamic scheduling and monitoring approach will help enhance transparency, reduce interdependency risks, and enable structured decision-making for accelerated project delivery.

- ***Coordination:*** The PMC will organize and facilitate regular coordination meetings with the Project Director (PD) and Project Implementation Unit (PIU) and also meetings between the Project (PD, PIU and PMC) with Project financiers, relevant KWSC departments and personnel, KWSC executives, Sindh Government, Project Steering Committee, Water and Power Development Authority (WPDA), KIV Coordination Task Team, Keenjhar Lake Conservation Center , Design & Supervision Consultants (DSCs), consultants and service

providers working on other strategic and high value assignments, works contractors, and other project stakeholders including utilities. These meetings will serve as a structured platform for systematically identifying and compiling all actual or potential implementation issues across technical, administrative, procurement, financial, and underground utilities clearances/ No Objection Certificates (NOCs) domains. The coordination mechanism will include early detection of interdependency risks—such as delays in design approvals, material procurement and supply bottlenecks, access constraints, utility relocation requirements, or internal decision-making gaps—and ensure that these are promptly escalated and assigned to the responsible departments. Coordination will also cover linkages with associated and upstream works including the KIV upstream works being implemented by WAPDA and bulk power supply for works under KWSSIP-2.

A set of clear, actionable recommendations will be prepared after each meeting session to facilitate sound interdepartmental and interagency cooperation, promote timely resolution of cross-cutting issues, and maintain seamless information flow among all stakeholders. This proactive and disciplined coordination framework will help ensure fast-tracked implementation, minimize avoidable delays, and keep the project aligned with approved timelines and milestones.

- **Risk Oversight:** The consultant will monitor review and update risks and mitigation measures. In this respect, the PMC will operate and maintain a project risk register, focusing on the status of high-level strategic, political, macroeconomic, and interdependency risks as explained in WB’s PAD/AIIB Project Document (e.g., K-IV Augmentation dependencies on WAPDA/STDC/SID works). Advise the PD on mitigation strategies/measures and escalation protocols. Provide early warnings to the PD regarding potential delays, cost and budget overruns, safeguards compliance, contractual compliance issues, or deviations from approved timelines. The PMC will monitor review and update risks and mitigation measures.

#### ***Task B. Assistance in Monitoring, Evaluation, and Reporting***

- **Results Monitoring Framework Data Management:** Provide expertise and support in developing and implementing a structured plan for the consistent and accurate collection of all Key Performance Indicator (KPI) data stipulated in the Results Monitoring Framework (RMF) of the Project. This will include routine field visits to verify ground-level progress, cross-check reported outputs, and validating all RMF-related KPIs submitted by the PIU and other consulting firms to ensure uniformity, reliability, and methodological consistency.

All data collection and validation processes will strictly adhere to the RMF’s Project Development Objective (PDO) indicators and Intermediate Results Indicators, ensuring that every parameter is measured in accordance with approved definitions, baseline values, and measurement methodologies. The PMC will maintain an up-to-date RMF database, analyze trends, identify data gaps or discrepancies, and recommend corrective measures where necessary. For this, the PMC will develop the requisite and appropriate tools and validation processes.

Updated RMF progress reports will be prepared and submitted to the Project Director (PD) on a quarterly basis, providing clear evidence-based insights into the project performance, implementation progress, and emerging risks that may affect the achievement of targeted results. This will specifically compare actual progress or progress achieved (physical and financial/disbursement) versus planned or target.

- **Digital Management System:** The consultant will operate a digital dashboard and Project Management Information System (PMIS) for real-time tracking of schedules, finances,

Environmental and Social (E&S) safeguards compliance, and project results, ensuring compatibility with PIU systems.

- **Consolidated Reporting and progress review:** The PMC shall assist in preparation of consolidated progress reports. The PMC shall also assist in monitoring and reviewing of progress and compare it with plans and set targets & indicators and project development objectives including those in the project results framework and any performance agreements between KWSC/Project with the GoS or other key stakeholders . The PMC will also provide assistance in the preparation of consolidated Monthly Dashboards Quarterly Progress Reports (QPRs), and Annual Reports for submission to the PD, KWSC, Government of Sindh (GoS), Government of Pakistan (GoP), Project Steering Committee, and financing partners (World Bank and AIIB). Progress reports will cover physical and financial progress (which includes disbursements/cashflow projections, budgets and reconciliations etc),safeguards compliance and results monitoring, challenges &bottlenecks and plan or measures for mitigation and control. The consultant will support the preparation of documentation (schedules, progress reports, presentations, updates on agreed actions etc.) for implementation support missions.
- **Evaluations:** Conduct and prepare Mid-Term and Final Evaluation Reports assessing project progress, outcomes, achievements against schedules/plans and RMF. This also includes assessing compliance to loan agreements (and provisions) , regulations and safeguards compliance and documentation of lessons learned.

#### **Task C. Procurement and Fiduciary Support & Advisory**

- **Procurement Support on high value and/or strategic procurements:** Assist the PIU in reviewing and preparing comments on procurement documents such as but not limited to terms of references (TORs), invitation for bids/specific procurement notices, Expressions of Interests (EOIs), Requests for Proposals (RFPs),and bidding documents for works, goods, and consulting services for **high value and/or strategic procurements**. Ensure that all documents are technically sound, compliant with donor/government procurement guidelines/regulations, and structured to attract qualified bidders. Provide detailed advisory inputs to strengthen evaluation criteria, risk allocation, and contractual safeguards.

Support the PIU in conducting transparent and rigorous evaluations of bids and proposals submitted by contractors, suppliers, and consulting firms for **high value and strategic procurements**. This includes technical evaluation (methodology, staffing, equipment, engineering solutions), financial evaluation, compliance review, and preparation of evaluation reports, assistance and support in contract negotiations or pre-contract technical discussions, and support in preparation of draft contracts. The PMC will ensure that the evaluation process is fair, evidence-based, and defensible, leading to the selection of the most responsive and qualified firms.

- **Fiduciary Support and Compliance Monitoring:** Provide oversight and guidance on fiduciary aspects, ensuring that procurement, contract execution, and financial management processes comply with financing partners' policies as well as the applicable local/national requirements, policies, regulations and laws. This includes advising on documentation, verification of deliverables, payment processing, and compliance with audit requirements.

- **Disbursement and CAD Projection Support:** Assist the PIU in preparing realistic contract-wise and project-wide cash flow and disbursement projections—including Contract Award and Disbursement (CAD) projections—fully aligned with implementation schedules, contract milestones, and financing partner requirements. The PMC will regularly monitor expenditures, reconcile disbursement progress with budgets/funding availability as well as physical achievements, and provide consistent updates to facilitate timely fund utilization.

- **Advisory Support to PD for Continuous Implementation Improvement:** The PMC will provide ongoing, high-level advisory support to the PD on technical, financial, administrative, and coordination matters affecting project implementation. The PMC will regularly review systemic challenges, identify opportunities for process optimization, recommend practical solutions, and help institutionalize best practices for fast, compliant, and high-quality delivery of project results.

**Task D. Contract Administration and Management :**

Provide continuous advisory services and support to the PIU and PD on contract administration and management on high value and/or strategic activities/packages and monitor implementation risks. The PMC will flag emerging risks early and recommend mitigation measures protecting project interests. The PMC will assist the PD in managing and providing oversight on high value and strategic consultancy and works contracts. This may include among other things contract amendments, determinations, disputes and other key contract issues. The PMC will also devise systems , recommend and prepare appropriate guidelines, tools and procedures for effective project management and monitoring of implementation progress.

**Task E. Capacity Building, Training, Institutional Strengthening, and Knowledge Transfer**

- **Capacity Building and Training Needs Assessment:** The PMC will assist in carrying out an institutional or organizational structure review, skills audit and prepare an inventory of training and capacity building needs and training plan for the PIU and KWSC to effectively and efficiently implement the project and for KWSC to roll out or implement systems and reforms as well as manage the infrastructure financed under the project. This may include preparation of ToRs and related procurement documents to hire specialist technical assistance (TA) to provide support in carrying out a skills audit and prepare inventory of training and capacity building needs and training and capacity building plan. Design and assist in developing a structured capacity-building program aimed at strengthening the competencies of PIU and KWSC teams in all core areas of project implementation and to roll out or implement systems and reforms as well as manage the infrastructure financed under the project. This includes hands-on coaching and formal training sessions on some of the capacity building and training activities such as project management, results-based management, donor reporting requirements, governance processes, fiduciary compliance, monitoring & evaluation (M&E) systems, and the use of digital project planning & management and reporting tools. A minimum of two comprehensive capacity-building workshops will be conducted each year, complemented by ongoing on-the-job coaching to reinforce practical application of skills learned. The PMC may facilitate trainings by other external agencies.

- **Institutional Advisory and Knowledge Transfer:** The PMC will systematically document lessons learned throughout the project cycle—covering planning/scheduling, technical, project/contract management, procurement, financial management, safeguards implementation and compliance, monitoring and evaluation, and coordination aspects—and translate these into actionable recommendations for strengthening PIU and KWSC institutional processes. Emphasis will be placed on ensuring that knowledge is transferred and embedded within PIU/KWSC systems rather than remaining consultant dependent.

- **Programmatic E&S and Social Risk Management Advisory:** Provide training and advisory support to PIU and KWSC teams on integrating programmatic environmental and social (E&S) risk management into project planning and implementation. This includes building staff capacity to understand and apply environmental and social risk assessment methodologies, mitigation strategies, monitoring tools, and grievance redress mechanisms. The PMC will conduct high-level reviews of key E&S instruments—such as Resettlement Action Plans (RAPs) and Environmental & Social Management Plans (ESMPs)—and guide staff on addressing large-scale or legacy issues, including

those linked to K-IV Associated Facilities. Training modules will focus on strengthening institutional understanding of E&S standards, compliance obligations, and long-term risk mitigation practices.

**Task F. Development of SoPs and Systems and Tools:**

The PMC will support the development of internal guidelines, standard operating procedures (SOPs), systems and tools along with templates, and toolkits to build long-term organizational capacity and enhance institutional compliance with government and financing partner requirements. The SoPs, systems and tools should ensure efficiency and adoption of best practices.

**Task G. Assistance in Quality Control and Quality Assurance:**

The PMC shall support the PIU in undertaking a comprehensive review of the Quality Assurance and Quality Control systems, procedures, and implementation mechanisms established by the Design & Supervision Consultants (DSCs), Contractors, and other consultants and service providers hired under KWSSIP-2. This includes but not limited to quality control and assurance of materials, equipment and other inputs, construction/implementation processes and procedures, quality, durability, finishes and functionality of construction and installation works as well as quality of key deliverables and outputs. The PMC shall ensure that quality management processes are robust, compliant, and effectively implemented across all contracts. This shall include assessing the adequacy and consistency of standardized quality assurance procedures, inspection and testing protocols, checklists, documentation templates, and reporting systems. The PMC shall also verify that defined quality benchmarks, performance standards, and acceptance criteria are clearly established and aligned with contract specifications and recognized best international practices. Where deficiencies or gaps are identified, the PMC shall recommend appropriate corrective measures and system improvements. The PMC shall further provide advisory opinions to the Project Director (PD) regarding the adequacy of quality compliance and overall effectiveness of QA/QC implementation, as required.

**6. Key Deliverables and outputs**

The PMC produce following key deliverables and outputs for the above tasks:

S.No.	Deliverables	Due date
1.	<b>Inception Report:</b>	Within 30 days of commencement, detailing the work plan, staffing, and methodology.
2.	<b>QA/QC Guidelines/ Manual</b>	Within 60 days of commencement
3.	<b>M&amp;E Analysis &amp; Reports</b>	Within 60 days of commencement, including methodology and approach for data collection and data sources.
4.	<b>Monthly Dashboards:</b> Updating KPIs, schedules, financial progress, and major risks.	Monthly
5.	<b>Quarterly Consolidated Reports (QPRs):</b> Comprehensive reports on physical, financial, and E&S progress, highlighting variances.	Quarterly
6.	<b>QA/QC Review Report</b>	Bi-Annually
7.	<b>Annual Reports:</b> Consolidated annual progress reports.	Annually
8.	<b>Mid-Term and Final Evaluation Reports:</b> Assessing program outcomes and lessons learned.	One month after Mid- term review
9.	<b>Training &amp; Capacity Needs Assessment Report</b>	03 Months
10.	<b>Training &amp; Capacity Development Plan</b>	06 Months

<b>11.</b>	<b>Capacity Building Materials</b>	For a minimum of four workshops per year for PIU/KWSC staff.
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The format, structure, content and length of the reports to be agreed with the client. All deliverables must be submitted in hard and soft copies of which generally 03 hard copies will be required.

**7. Duration of Assignment:**

- The Duration of the assignment is approximately 48 months. The consultant’s performance will be reviewed annually based on the following criteria, among other things; the quality of deliverables & performance, responsiveness, time management, etc. Staff scheduling and deployment or utilization of the staff shall be agreed with the client and reviewed periodically.

**8. Consultant Qualification and Experience**

**8.1 Qualification and experience of key personnel**

The PMC shall assemble a task team of core long-term experts and specialized short-term key experts, ensuring all personnel are fluent in English.

**Table 1: Key Experts, Minimum Qualification, and Minimum Experience**

#	Role	Key Tasks	Minimum Qualification	Minimum Experience
1	Team Leader (48 months)	Overall PMC leadership, strategic oversight, coordination with PD/PIU/KWSC, risk management, and reporting	Bachelor’s Degree in Civil Eng. plus Master’s Degree in civil/Sanitary/ Water& Wastewater Eng. / Hydraulic Engineering/ Environmental/Water Resources Engineering, Project or Construction Management, or equivalent	20++ years in large water/infrastructure projects, with 5+ years in senior PMC/PD advisory roles
2	Senior Water & Civil Engineer (Technical Lead) (48 months)	Technical review of designs, construction oversight, quality control, field monitoring, bid evaluation, corrective advice	Bachelor’s in Degree Civil Engineering plus Master’s in Civil /Sanitary/ Water& Wastewater Eng. / Hydraulic Engineering/ Environmental/or Water Resources Engineering. Candidates with only bachelor’s degree but with extensive experience can be considered.	15+ years in water/wastewater infrastructure projects
3	Procurement & Contract Management Specialist (24 months)	RFP/TOR preparation, bid evaluation, contract administration, claims/variation management, procurement compliance advisory	Bachelor’s in Eng (Civil or Mechanical) plus Post graduate qualification in Procurement or Supply Chain Management or Project management. Candidates with Business Administration, Civil/Engineering, or Contract Law may be considered.	15+ years in procurement and contract management for donor-funded projects. Deep and hands-on knowledge on FIDIC conditions of contract. Certification by recognized international bodies such as PMI and FIDIC is a requirement
4	Monitoring & Evaluation (M&E) / RMF Specialist (18 months)	KPI collection, field validation, RMF database management, QPR reporting, mid-term/final	Bachelor’s in, Economics, Social Sciences, or related field. A post graduate qualification (Diploma or certificates in M&E is the requirement.	15+ years in M&E for water/infrastructure projects, donor reporting experience (WB/AIIB preferred)

#	Role	Key Tasks	Minimum Qualification	Minimum Experience
		evaluations, trend analysis		
5	Digital PMIS & Data Systems Specialist (30 months)	PMIS/dashboard management, integration of schedule-finance-E&S data, staff training on digital systems	Bachelor's and Master's in IT, Computer Science, or related field. Candidates with only Bachelor's degree but with extensive experience can be considered.	10 years in PMIS management, preferably in infrastructure projects
6	Quality Assurance Manager (48 months)	Review of QA/QC systems, procedures, implementation, mechanism, quality control and assurance of materials, equipment and other inputs, and functionality of construction and installation works as well as deliverables and outputs from consultancies, Technical Assistance and studies	Bachelor's in Civil or Mechanical Engineering plus an MSc in Civil Engineering, Water Engineering or Mechanical Engineering.	He/she should have at least 15 years' broad experience on planning, design & construction supervision of water and sewerage infrastructure. The candidate should also have extensive hands-on experience in construction works, quality management systems, analytical work/studies and management of consultants and contractors in water sector and water utilities preferably in South Asia including Pakistan
7	Social Development Specialist (24 months)	Social risk assessment, RAP/GRM guidance, stakeholder engagement, gender/social safeguards training, advisory	Bachelor's and Master's in Social Sciences, Sociology, Development Studies, or related field	15+ years in social development/ESF compliance in donor-funded infrastructure projects. Experience in utility management is required
8	Environmental Specialist (24 months)	Environmental risk assessment, ESMP review, compliance monitoring, training PIU/KWSC on environmental safeguards	Bachelor's in Civil or Environmental Eng. Or Environmental Science plus Master's in Environmental Engineering/Science, or related field	15+ years in environmental management for infrastructure projects, WB/AIIB E&S frameworks preferred

## 8.2 Qualification and experience of Non-Key Experts

The PMC shall assemble a task team of following Non-Key experts and specialized

**Table 2: Non-Key Experts, Minimum Qualification, and Minimum Experience**

#	Role	Non-Key Tasks	Minimum Qualification	Minimum Experience
1	Deputy Team Leader / Senior Project Management Specialist (48 months)	Master Schedule harmonization, daily coordination, progress monitoring, risk tracking, early warning reporting	Bachelor's Degree in Civil/Mechanical Eng. plus a Master's Degree in Civil/Water/Sanitary/Hydraulic/ Environmental Engineering, or Mechanical	15+ years in project management, schedule control, and large-scale water sector projects

#	Role	Non-Key Tasks	Minimum Qualification	Minimum Experience
			Engineering or Project Management, or equivalent	
2	Mechanical Engineer (48 months)	Technical review of designs, construction oversight, quality control, field monitoring, bid evaluation, corrective advice	Bachelor's Degree in Mechanical or Mechatronics or equivalent plus an MSc in Mechanical Engineering	15+ years in water/wastewater infrastructure projects
3	Financial Management & Disbursement Specialist (18 months)	CAD projections, cash-flow analysis, expenditure verification, fiduciary compliance, AWPB support	Bachelor's and Master's in Finance, Accounting, or Economics. Candidates with only Bachelor's degree but with extensive experience can be considered.	15++ years in financial management of donor-funded infrastructure projects
4	Institutional Development & Capacity Building Specialist (24 months)	Design/deliver training programs or plan, SOP/toolkit development, coaching PIU/KWSC staff, knowledge transfer	Bachelor's Degree in Organizational Development, Public Administration, Engineering, or related field and Master's in Organizational Development or related field.	15++ years in capacity building or institutional strengthening for infrastructure projects. Experience in utility management is required.
5	Reporting, Documentation & Communications Specialist (48 months)	Consolidated reporting, dashboards, QPRs, Annual Reports, mission support documents, stakeholder communications	Bachelor's and Master's in Communications, Public Relations, Business Administration, or related field	15+ years in reporting/documentation for donor-funded water/infrastructure projects

**Notes on experts/staff:**

- i. The above is the minimum staff expected or required for the PMC to execute the assignment. The consultant is free to add or propose additional staff deemed necessary for the execution of the assignment indicating whether these will be key or non-key staff and the proposed time input and minimum time in-country in Pakistan. The consultant should include in their proposal, all the costs (fees and reimbursable) for such staff.
- ii. All key staff shall be members of or registered by recognized relevant professional institutions. If required they should be eligible for registration or licensing in Pakistan.
- iii. The PMC staff, particularly advisory specialists (e.g., Social, E&S), shall limit their scope to strategic review and program-level advice. They shall specifically refrain from performing the day-to-day fieldwork, implementation, grievance handling, and inspection tasks assigned to the PIU's core E&S Team.
- iv. The time inputs suggested are indicative time inputs and to be used for evaluation purposes and may be adjusted at contract negotiation or during execution of the assignment.
- v. Local staff are required to be physically present in Karachi for at least fifty (50) percent of their allocated time input. International staff are expected to spend a minimum of twenty-five (25) percent of their time in Karachi to support the PIU. Bidders may propose higher proportions of time input in-country in Pakistan (Karachi). The client reserves the right to review the minimum time input and physical presence in Karachi for each staff member as needed, based on factors such as performance and operational requirements. Actual time input, staffing schedules and deployment will be determined and agreed with the client and may be subject to periodic review and update.

**9. Obligations of the Parties**

### ***9.1 Obligations of the client***

- The client shall also facilitate meetings with key stakeholders and other consultants, contractors and service providers working on related activities/packages under the KWSSIP 2 Project. Facilitating VISAs and work permits, registrations etc. However, the responsibility remains that of the consultant.
- The Client shall assist the Consultant with obtaining work permits and such other documents as shall be necessary to enable the Consultant to perform the Services.
- The Client shall assist the Consultant with promptly obtaining, for the Experts and, if appropriate, their eligible dependents, all necessary entry and exit visas, residence permits, exchange permits and any other documents required for their stay in the Client's country while carrying out the Services under the Contract.
- The Client shall facilitate prompt clearance through customs of any property required for the Services and of the personal effects of the Experts and their eligible dependents.
- The Client shall assist the Consultant for the Services with obtaining exemption from any requirement to register or obtain any permit to practice its profession according to the applicable law in the Client's country.
- The Client shall cause the Consultant to have, free of charge, unimpeded access to the project site in respect of which access is required for the performance of the Services.
- However the consultant remains primarily responsible for all the above requirements.
- The Client shall make available to the Consultant and the Experts, for the purposes of the Services, facilities and property described in the Terms of Reference.
- The Client shall make available to the Consultant free of charge such professional and support counterpart personnel, to be nominated by the Client with the Consultant's advice, if specified in the Contract. However failure by the client to avail such staff shall not be a reason for the consultant to fail to perform the task.
- In consideration of the Services performed by the Consultant under this Contract, the Client shall make such payments to the Consultant in such manner as provided in the Contract.
- The client will provide or manage the office space for the Consultant through a provisional sum that will be included in the contract.
- The client shall provide available information on the project including previous studies and designs.

### ***9.2 Obligations of the consultant***

- The consultant will provide their own facilities and the equipment for communication including computing and printing facilities and stationery where such facilities or services are outsourced, the consultant shall meet all the costs.
- The Consultant shall also arrange for transportation, logistics, and all ancillary equipment required for effective execution of the services.
- The consultant shall be responsible for the welfare of his staff including living expenses and health and other insurances.
- The consultant shall be responsible for payment of any applicable taxes and duties.
- The consultant shall also be responsible for application and costs of VISAs, work permits, licenses etc. All costs associated with the establishment, operation, and maintenance of such facilities and resources shall be borne by the Consultant.

## **12. Reporting Requirements/arrangements**

The Consultant will report to the Project Director or any other person assigned by the Project Director.

## **13. Payment terms and conditions**

***Payment Schedule:*** Payments will be time-based. The PMC firm may be paid monthly or other agreed intervals, based on verifiable and satisfactory progress against the agreed work plan, submission and acceptance of any due deliverables, and certified personnel time inputs.

## **14. Contractual Terms**

- ***Contract Type:*** The consultancy contract will be a time-based contract.
- The contract will be governed by the World Bank Procurement Regulations for IPF Borrowers.