



Project Information Document (PID)

Concept Stage | Date Prepared/Updated: 11-Aug-2020 | Report No: PIDC28406

**BASIC INFORMATION****A. Basic Project Data**

Country Pakistan	Project ID P171422	Parent Project ID (if any)	Project Name Second Karachi Water and Sewerage Services Improvement Project (KWSSIP-2) (P171422)
Region SOUTH ASIA	Estimated Appraisal Date Jan 13, 2021	Estimated Board Date Jul 22, 2021	Practice Area (Lead) Water
Financing Instrument Investment Project Financing	Borrower(s) Islamic Republic of Pakistan	Implementing Agency Province of Sindh through the Karachi Water and Sewerage Board (KWSB)	

Proposed Development Objective(s)

The Project Development Objective is to improve access to safe water and sewerage services in Karachi and to increase KWSB's financial and operational performance.

PROJECT FINANCING DATA (US\$, Millions)**SUMMARY**

Total Project Cost	600.00
Total Financing	600.00
of which IBRD/IDA	240.00
Financing Gap	0.00

DETAILS**World Bank Group Financing**

International Bank for Reconstruction and Development (IBRD)	240.00
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Non-World Bank Group Financing

Counterpart Funding	120.00
Borrower/Recipient	120.00
Other Sources	240.00



Asian Infrastructure Investment Bank

240.00

Environmental and Social Risk Classification

High

Concept Review Decision

Track II-The review did authorize the preparation to continue

Other Decision (as needed)

B. Introduction and Context

Country Context

1. **Pakistan is at a crossroads as it deals with COVID-19 pandemic.** Periodic macroeconomic crises and a low human capital basis have constrained the country’s growth prospects. Over the last two decades, economic growth in Pakistan has averaged at 4.4% a year, below the South Asian annual average of 6.3%. Low investment in human capital, slow progress of structural reforms, low private investment and slow export growth due to an overvalued currency coupled with a non-competitive import tariff structure have hindered growth prospects. The country was making good progress in stabilizing its economy and implementing much needed structural reforms. However, the COVID-19 pandemic will have significant negative impacts on the economy. The closure of businesses and disruption to supply chains are significantly affecting the services and manufacturing sectors, which account for nearly 80% of total gross domestic product (GDP). As a result, the economy is expected to contract between 2.6 and 3.3% in FY20, and between 0.2 and 4.0% in FY21, compared to pre-COVID19 projections for growth of 2.4% for FY20 and 3.0% for FY21.

2. **Karachi is Pakistan’s largest city and is its economic and financial hub and main port.**¹ It contributes 15 percent of national Gross Domestic Product (GDP) and the largest share of national tax revenues, industrial employment, manufacturing and high-end services². The city dominates the economic landscape of Sindh, containing nearly all its industrial and service economy and the majority of its labor force. It has continued to be the engine of economic growth for the country, given its size, location, and industrial and human capital.

3. **The Karachi City Diagnostic and Transformation Strategy has identified significant gaps in public infrastructure.** Institutional strengthening and investments aiming to enhance livability, competitiveness and sustainability have emerged as priorities, including additional investments in water supply and sewerage.

Sectoral and Institutional Context

4. **Karachi’s water supply services are falling far short of the expanding city’s needs.** Many residents lack access to piped water³ and even those formally connected often experience inadequate, irregular and inequitable service. Typical service quality is limited to a few hours per day at most at low pressure, with

¹ Pakistan Bureau of Statistics, 2017 census, provisional summary

² World Bank, Transforming Karachi into a Livable and Competitive Megacity – A City Diagnostic and Transformation Strategy, Washington DC, 2018; p.2;

³ Data from PSLM 2014-15 combined with 2017 census data.



rationing widespread especially in *katchi abadis* which face severe shortages of water.⁴ Brackish groundwater limits the use of household wells, and inefficient and expensive water tankers are a major source of domestic water supply. Similarly, many residents lack access to public sanitation services and discharge sewage through the stormwater system, natural drains or informal sewers directly into rivers and the sea. Improving water and sanitation services in Karachi is a high priority for both the federal and the Sindh governments.

5. **The Karachi Water & Sewerage Board is responsible for the provision of water and sewer services.** The current service gaps arise from KWSB's operational challenges, chronic under-investment, and a weak enabling environment. Prior to the first project in this series of projects (SOP), which was approved by the Board in June 2019, KWSB had not had significant capital investment for over a decade despite estimated investment needs of over US\$2.5 billion to achieve universal access to safe and affordable drinking water.

6. **KWSB and the GoS are committed to reforms and have taken initial steps as part of the approved first project of this SOP ("SOP-1"; the Karachi Water and Sewerage Services Improvement Project, P164704).** On May 30, 2019, the Government of Sindh, KWSB and the World Bank signed a Commitment of Cooperation (CoC) that outlines a reform roadmap. The GoS has put in place a reform working group and High-Level Reform Steering Committee, as well as a new, more representative KWSB Board. KWSB has also begun reforming financial and customer management, non-revenue water management and services to the poor. KWSB has created dedicated units for non-revenue water reduction and for improving services in *katchi abadis*. A further step has been the reform and regulation of the tanker-truck business, including the closure of illegal water hydrants. Under the SOP-1, the World Bank is working closely with the GoS to implement the CoC roadmap, and in particular the long-term stability, reform-focus and proper operation of the new KWSB Board.

7. **The proposed second project in this series ("SOP-2") will deepen reforms commenced under SOP-1 while scaling up infrastructure investments.** The significant expansion in capital investments will widen the impact of the project, reaching more beneficiaries and building support for additional reforms and investments under the planned third and fourth phases. The successive project phases will also increase resilience against climate-change-related risks by continuously improving water and sanitation service quality.

Relationship to CPF

8. **The proposed Second Karachi Water and Sewerage Services Project (KWSSIP-2) is aligned with the Bank's Pakistan Country Partnership Strategy (CPS) FY15-20⁵,** as well as the 2019 report "Pakistan at 100" that highlights the necessary reforms required for Pakistan to become an upper-middle income country by 2047. It supports the CPS results area on "Service Delivery" by improving access to safe and reliable water and sanitation in Karachi and is also aligned with the results areas "Private Sector Development" and "Inclusion". The project is part of the Karachi Platform which supports a coordinated and longer-term engagement through interventions in transportation, water, sewerage, competitiveness, livability and fiscal and environmental sustainability.

C. Proposed Development Objective(s)

The Project Development Objective is to improve access to safe water and sewerage services in Karachi and

⁴ World Bank, Transforming Karachi into a Livable and Competitive Megacity – A City Diagnostic and Transformation Strategy, Washington DC, 2018; p.46;

⁵ World Bank Group (2014) Islamic Republic of Pakistan: Country Partnership Strategy, 2015-2020 (Report No. 84645-PK), discussed by the Executive Directors on May 1, 2014, and extended by the Performance and Learning Review (Report No. 113574) distributed to the Executive Directors on an absence-of-objection basis with a closing date of June 15, 2017.



to increase KWSB's financial and operational performance.

Key Results (From PCN)

- a. Direct project beneficiaries (number), of which female (percentage)
 - b. Persons provided with access to drinking water uncontaminated by fecal coliforms under the project (number)
 - c. Persons provided with access to sewerage systems which are connected to a wastewater treatment plant under the project (number)
 - d. Coverage of Operation & Maintenance Costs (110 percent)
9. **Intermediate Results Indicators (IRI):** To monitor progress towards PDO level indicators, the project will track intermediate results indicators, including targets for infrastructure rehabilitation, non-revenue water reduction, metering, grievance redress, informal settlements, gender equity, energy efficiency and reform.

D. Concept Description

10. **The proposed second project in the series (SOP-2) will invest US\$600 million (to be confirmed), of which 240 million to be financed by IBRD.** These investments will scale-up infrastructure rehabilitation and expansion, complemented by capacity building to raise operational performance and improvements to the enabling environment.

11. **The project activities of SOP-2 will be grouped into three components:** Component 1 will finance reform and capacity building measures, thus contributing to improved utility performance. Component 2 will undertake selected infrastructure investments, thereby ameliorating water and sewer services in Karachi and increasing the city's resilience to water shortages, floods, and saltwater intrusion. Component 3 will fund project management and associated studies. The approach and activities under these components may be summarized as follows:

- a. **Component 1 – Reform of the Karachi Water and Sewerage Board (US\$20 million –of which IBRD US\$ 8 million):** To build capacity, raise operational performance, and to prepare and implement planned enabling environment reforms, this component will support an array of measures to reform KWSB, including:
 - i. *Institutional Reform Mechanism:* The SOP-2 will provide continued support to the reform program laid out in the Commitment of Cooperation (CoC) between the Government of Sindh (GoS), KWSB and the Bank including the implementation of the planned amendments to the KWSB Act.
 - ii. *Improving effective monitoring and reporting:* Effective monitoring and reporting is instrumental to introduce and sustain institutional reform. The proposed SOP-2 will support the design and establishment of a more effective monitoring and reporting system.
 - iii. *Revenue Management, Customer Care and Communication:* The proposed SOP-2 will build on SOP-1, which focuses on bulk connections and preparatory activities, by extending metering, billing and collection improvements to domestic connections. Customer feedback and accountability mechanisms such as the citizen report card and communications strategy developed under SOP-1 will be extended.
 - iv. *Non-revenue Water (NRW) Reduction:* The project will expand and deepen the systematic non-revenue



water reduction program developed under SOP-1, including the design and establishment of district meter areas, improvements in leak detection and repair, and a program for maintenance of meters.

- v. *Human Resources and Gender*: The project will provide technical assistance and training to KWSB in human resource management, including gender equality. Human Resource (HR) systems (software and hardware) and workplace facilities will be upgraded and staff training will be provided.
 - vi. *Capacity Building in Asset Management and Financial Management*: The project will provide additional support to the implementation of an asset management program and improvements to the existing GIS of KWSB.
 - vii. *Infrastructure resilience and adaptation to climate change*: The 2012 KWSB Climate Adaptation Study identified eleven distinct-climate-related threats to specific KWSB assets. The project will provide technical assistance and small investments for infrastructure resilience and climate change adaptation.
 - viii. *Preparation and implementation of Water Safety Plans*: The project will provide technical assistance and training to prepare Water Safety Plans to improve drinking water quality in the system.
 - ix. *Water Wastage Reduction Program and Water Audits*: The project will support water audits and education campaigns to help customers reduce wasteful water use.
 - x. *PPP Studies and Transaction Advice*: The project will provide funding for studies to examine whether and how private investments in wastewater reuse and non-revenue water reduction could provide additional resources to augment the impact of public investments under this project.
- b. **Component 2 – Securing Sustainable Water Supply & Sewerage Services (US\$560 million of which IBRD US\$ 224 million – to be confirmed)**: The proposed infrastructure investment plan for KWSSIP-2 addresses 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:
- i. *Options for additional Bulk Water Supply Investments*: Six additional potential bulk water investment options have been pre-identified. The final set of additional bulk water investments will be selected after completion of feasibility studies to be financed by AIB and/or the Government of Sindh.
 - ii. *Malir basin wastewater interceptors and treatment plant (S-3 Phase 2; \$150m)*: This sub-component would complement the ongoing S-3 Phase 1 investments carried out by the Government of Sindh and significantly improve the ability of KWSB to collect and treat wastewater in the Malir basin of Karachi.
 - iii. *Improve Water Supply and Sewerage in additional Low Income Communities (katchi abadis or low income settlements; \$20m)*: Building on pilots in three *katchi abadis* that will be launched under SOP-1, the proposed SOP-2 will quadruple support to informal settlements, expanding infrastructure investments and the accompanying social and communications measures.
 - iv. *Priority Sewer Network Rehabilitation & Extension and Rehabilitation of Wastewater Pumping Stations (\$20m)*: The project will scale up investments in priority sewerage rehabilitation to restore network integrity in critical areas, and to reduce sewage leakage and flooding.
 - v. *Priority Water Network Rehabilitation and Extension including Meters & DMAs to Reduce NRW and Additional Chlorination Facilities to Improve Water Quality (\$60m)*



- vi. *Reducing Energy Consumption (\$25m)*: This subcomponent will implement the recommendations of the Energy Audit carried out under SOP-1 to improve KWSB’s energy efficiency.
- vii. *K4 Augmentation*: This sub-component will connect the government-financed K4 treatment plants to the network, thus leveraging existing counterpart investments to significantly improve water supply.
Rehabilitation of Existing and Construction of New Filtration Plants: This proposed sub-component responds to the challenge of water quality by including an allocation for the rehabilitation and construction of water filtration plants, so that KWSB can treat all raw water.

c. **Component 3 – Project Management and Studies (US\$20 million– of which IBRD US\$ 8 million)**: This component will support the costs of managing the project and preparing the proposed subsequent projects.

Legal Operational Policies	Triggered?
Projects on International Waterways OP 7.50	Yes
Projects in Disputed Areas OP 7.60	No

Summary of Screening of Environmental and Social Risks and Impacts

12. The combined Environmental and Social Risk rating is High: This is due to the High Social risks and Substantial Environmental Risks. The Project includes a series of large-scale investments and construction of either new or rehabilitation of existing bulk water supply scheme would happen in a large geographical area. Other than potential environmental impacts, there are significant occupational and community health and safety risks including road safety, physical and electrical hazard, dust and noise generation associated with the construction activities. The project also needs to consider the vulnerability of project sites to flash floods. Potential ecological impacts on Keenjar Lake and mangrove forests downstream Indus River basin are considered limited. While there are constraints on the existing capacity of the implementing agency to manage environmental risks, such limitations are expected to be addressed under the already effective first Karachi Water and Sewerage Services Improvement Project (P164704). The environmental risk rating at concept stage is thus classified as “Substantial”.

13. At concept stage the social risk is classified as ‘high’. While the project does not anticipate private land acquisition as requisite land/rights of way (RoW) is already owned by IA, there is a risk of resettlement and livelihood impacts on squatters and encroachers who are sitting on or have extended on, respectively, stretches of the public land/RoW. The exact nature and scale of such impacts will be confirmed during preparation. Potential works connected to government-financed systems (e.g. K IV Phase 1) will require an audit to ensure compliance with the Bank’s E&S requirements. A GBV risk assessment tool will be run during preparation to make a final assessment by appraisal.



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APPROVAL

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