Karachi Water and Sewerage Services Improvement Project (KWSSIP)

QUARTERLY PROGRESS REPORT

January – March 2025

Submission: 11 May 2025

E&S Cell – PIU KWSSIP
SOP1

Table of Contents

LIST OF ABBREVIATIONS / ACRONYMS

AIIB	Asian Infrastructure Investment Bank
ARAP	Abbreviated Resettlement Action Plan
BOQs	Bills of Quantities
CC	Construction Contractor
CHS	Community Health & Safety
CLICK	Competitive and Livable City of Karachi
DC	Design Consultants
DCP	Dichloride Phosphate
E&S	Environmental and Social
E&SS	Environmental & Social Safeguards
ECOPs	Environmental Code of Practices
EHS	Environmental Health & Safety
EMF	Environmental Management Framework
ESC	Environmental and Social Cell
ESMMP	Environmental and Social Management and Monitoring Plan
ESMP	Environmental and Social Management Plans
GAP	Gender Action Plan
GBV	Gender Based Violence
GoS	Government of Sindh
GRC	Grievance Redress Committee
GRM	Grievance Redress Mechanism
HIV	Human Immunodeficiency Virus
HSE	Health Safety and Environment
KMC	Karachi Metropolitan Corporation
KWSC	Karachi Water and Sewerage Corporation
KWSSIP	Karachi Water and Sewerage Services Improvement Project
M&E	Monitoring and Evaluation
MS	Mild Steel
NOC	No-Objection Certificate
O&M	Operation and Maintenance
OCHS	Occupational and Community Health and Safety
OPs	Operational Policies
PCR	Physical Cultural Resource
PE	Polyethylene
PIU	Project Implementation Unit
PM	Project Manager
PPE	Personal Protective Equipment
PRCC	Pre-Stressed Reinforced Cement Concrete
RCC	Reinforced Cement Concrete
RPF	Resettlement Policy Framework
SC	Supervision Consultant

SDS	Social Development Specialist
SEPA	Sindh Environmental Protection Agency
SMF	Social Management Framework
STI	Sexually Transmitted Infections
WB	World Bank
XEN	Executive Engineer

1- Introduction and Physical Progress

1.1 Project Background

The Karachi Water & Sewerage Services Improvement Project (KWSSIP) comprises of a series of projects (SOPs) designed to introduce reforms, carry out maintenance and rehabilitation, amplify investments, enhance water supply, secure funding for additional wastewater treatment, and elevate services in informal settlements.

Series of Projects 1 was approved by the World Bank (WB) in June 2019 and the loan effectiveness date was 20th February, 2020. SOP-I for KWSSIP is scheduled for completion by 30th June 2025.

The SOP1 of KWSSIP has been designed in following three components:

- Component 1- Reform in Karachi Water and Sewerage Corporation
- Component 2 - Securing Sustainable Water Supply & Sewerage (Infrastructure investments)
- Component 3 - Project Management and Studies

Component – 1: Operational & Enabling Environment Reform

To build capacity and raise operational performance, as well as to prepare and implement planned enabling environment reforms, this component will support an array of measures including on:

1. Revenue and Customer Care: Focuses on revenue, customer service, and communication. Includes metering improvement, tariff updates, and a communication strategy. Future plans involve universal metering, better service centers, and grievance mechanisms.
2. NRW Reduction: Aims to minimize Non-Revenue Water through leak detection, network rehab, and district meter areas. Reduces losses, improves supply, and increases resilience to climate events.
3. Institutional Reforms: Revolves around HR improvements, system upgrades, and KWSC Act amendments. Enhances diversity, cost recovery, and service reliability.
4. Social Sector and Katchi Abadi: Supports KWSC in upgrading infrastructure in Katchi Abadis. Focuses on water quality, waste reduction, and climate resilience for residents.
5. Capacity Building: Strengthens asset and financial management, industrial discharge monitoring. Includes an asset program addressing climate risks and sewer surveys.

These initiatives collectively bolster KWSC's operations, sustainability, and service quality.

Component – 2: Infrastructure Investments

The selected infrastructure interventions under this component will reinforce the impact of capacity building and institutional reforms, and lay the foundation for scaling-up capital

investments in subsequent projects. Within the constraints of the KWSSIP Risk Reduction Procedure (RRP), priority areas for investments are:

i. Water Network Rehabilitation
ii. Sewer Network Rehabilitations
iii. Rehabilitation of Safe Water Supplies in informal settlements (Katchi Abadis)
iv. Improving Energy Efficiency
v. Other investments will be considered as Component 1 reforms evolve.

Component 3: Project Management and Studies

This component supports the costs of managing the project and preparing subsequent phases. This will include direct project management costs; contract management consultancies to support infrastructure investments; and the preparation of safeguards, feasibility and tender documents. Other critical studies include an energy audit, a review of PPP options for some operations of KWSC, and a groundwater protection assessment. Large scale infrastructure works would be carried out in subsequent phases of the KWSSI Program including: a new system to collect, transmit and treat sewage in Malir river basin of Karachi; and water transmission infrastructure to connect a newly built water production system with the existing water network of Karachi. Component 3 will also support feasibility studies, tender and safeguard documents for these capital investments to be undertaken in subsequent phases of the program.

1.2 Scope and Objectives of the QPR

This report provides a comprehensive overview of the progress made on Environmental and Social Safeguards for sub-projects implemented under Component 2 of the Karachi Water and Sewerage Services Improvement Project (KWSSIP) SOP-1. Component 2 focuses on infrastructure investments, including water and sewer network rehabilitation, and improving safe water supplies in informal settlements (Katchi Abadis), aligning with other ongoing projects.

Following project commencement, compliance with the KWSSIP SOP-I Environmental Management Framework (EMF) and Social Management Framework (SMF) was ensured through the preparation of safeguards documentation. This report assesses performance and status during the reporting period of January to March 2025, detailing the monitoring of environmental and social safeguards and supervision activities. Specifically, it evaluates the implementation of mitigation measures recommended in approved Environmental and Social Screening Reports (ESSRs) and Environmental & Social Management Plans (ESMPs), identifies any non-compliance, and outlines corrective actions.

Progress across all KWSSIP SOP-I components (institutional reforms, infrastructure rehabilitation, and project management) up to March 2025 is summarized below:

1.3 Overall SOP-I Physical and Financial Progress Updates

S. No.	Activities / Sub activities	Cost (USD in Million)	Physical Progress (%)	Financial Progress (%)
COMPONENT-1 Reform in KW&SC				
1	Institutional Reform Studies of KW&SB	$ 3.467	95	75
2	Head Hunting Firm for the hiring of new KW&SB CEO and Reform Managers.	$ 0.043	100	100
3	Strengthening of KAC and Engagement of Community Based Organizations	$ 0.384	45	10
4	Design of NRW Program & Metering System including Preparation of PB NRW Contracts	$ 1.15	30	0
5	Construction Projects Package			
	LOT-1: Center of Reform, Research and Innovation [CERRI] Building	$ 4.89	77.5	66.42
	LOT: 2: Parking shed for S & J Trucks at central workshop and other locations	$ 3.29	53.5	44.95
	LOT-3: Three (03) Customer Service Centers	$ 1.46	56.5	34.54
6	Investment Grade Energy Audit for Pumping Stations at The Dhabeji Pumping Complex	$ 0.29	50	20
COMPONENT-2 Securing Sustainable Water Supply and Sewerage				
7	Procurement of 14 Pairs of Sewage Suction and Jetting Trucks	$ 4.13	100	100
8	Procurement of Sewage Suction and Jetting Trucks (2nd Stage)	$ 5.04	100	94.23
9	Package-I: Repair/Replacement of Damaged Sections of Water Lines and Sewers on Peoples Bus Service	-		
	LOT-1 (District East)	$ 0.442	100	93.81
	LOT-2 (District Korangi & Malir)	$1.67	100	99.49
	LOT-3 (District Central & Kemari)	$ 2.40	100	100
10	Package-II: Repair/Replacement of Damaged Sections of Water Lines and Sewers in different Districts.	-		
	LOT-1 (District Central)	$ 1.46	100	99.96
	LOT-2 (District East)	$ 0.46	100	6.1
	LOT-3 (District Korangi & Malir)	$ 1.03	100	4.8
11	Package-III: Repair/Replacement of Damaged Sections of Water Lines and Sewers.	-		
	LOT-1 (District West)	$ 1.57	100	93.04
	LOT-2 (District South)	$ 0.442	100	90.28
	LOT-3 (District Keamari)	$ 0.102	100	88.38
12	Fleet Management System for Suction & Jetting Machines of KW&SC under SOP-I, KWSSIP	$ 0.098	100	98.42
13	Protection/ Rehabilitation work for G.K Conduit, K-II, K-III, 84“Ø at Malir River Bed	$ 6.83	99.5	88.67
14	Supply & Installation of Intermittent Chlorination Stations	$ 0.91	96.2	83.36
15	Rehabilitating Water Supply and Sewerage in KA-1 Soba Nagar	$ 1.26	82.5	30.12
16	Rehabilitating Water Supply & Sewerage in KA-2 Essa Nagri	$ 2.27	29	9.55
17	Replacement of Rising Main No: 05 at Dhabeji Pumping Complex	$ 8.63	88.5	73.71
	CONTRACT PACKAGE: Supply of Flow Meters Under SOP-1, KWSSIP			
	Lot-1: Supply of Ultrasonic Customer Meters (4,333 Nos.) and SCADA Equipment	$ 3.05	0	0

18	Lot-2: Supply of Clamp-On Ultrasonic Meters (141 Nos.) for Pre-stressed Reinforced Cement Concrete (PRCC) Pipes and Level Ultrasonic Transmitters (55 Nos.)	$ 2.29	0	0
	Lot-3: Supply of Clamp-On Ultrasonic Meters (80 Nos.) for Metallic and Plastic Pipes, Level Ultrasonic Transmitters (26 Nos.) and SCADA equipment	$ 1.60	0	0
19	Package 2 (A)--(Consumer Flow Meters) Civil Works and Installation in different lots			
	Lot 01 Landhi & Bin Qasim	$ 1.58	0.1	0
	Lot 02 Cattle Colony	$ 0.58	0.5	0
	Lot 03 North Karachi Industrial Area	$ 0.63	0	0
	Lot 04 F.B Industrial Area	$ 1.42	0	10
20	PACKAGE-2: Civil Works and Installation of Flow Meters and SCADA System (Bulk Flow Meters)	$ 4.11	3.2	14.95
21	Replacement of damaged section of 72" dia, 66" dia and 54" dia old Pipri water main and rehabilitation /strengthening of 48" dia PRCC pipe joints	$ 8.38	68.5	66.96
22	Priority Sewer Network Rehabilitation of Teen Hatti	$ 1.34	99.5	86.18
23	Procurement of 10 Pairs of Mobile Sewage Suction Trucks & Jetting Trucks & Allied Vehicles	$ 2.30	65	62
COMPONENT-3 Project Management and Studies				
24	Design, Tender Documents and Supervision for SOP-1	$5.15	85	78.25
25	Procurement and Implementation of Grievance Redressal Mechanism (GRM) Software and Digitization of Hydrant Information with One Year Operation and Maintenance	$ 0.048	100	0
26	Updating of KWSB's Master plan	$ 3.192	25	6
27	Monitoring of Environmental & Social Management Aspects by an Environmental and Social Consultancy Firm	$ 0.20	52.08	25
28	Procurement of Office Equipment & upgrade Multimedia & Communication facilities KWSSIP PIU	$ 0.024	100	100
29	Procurement of Transport for PIU Staff will be procured under separate contracts in two different lots	$ 0.18	100	100
30	Procurement of Furniture and Fixtures for Project Implementation Unit PIU Office	$ 0.025	100	100
31	Procurement of IT Equipment for KWSSIP Project Implementation Unit (PIU Office)	$ 0.024	100	100
32	Rehabilitation & Refurbishment of Project Implementation Unit PIU Office	$ 0.088	100	100
33	Internal Audit Firm for KWSSIP	$ 0.042	10	2.16

1.4 Works Status at SOP-1 Component-2 Sub-Projects Sites

Overall, the projects under KWSSIP SOP-1 Component- 2 are advancing at varied paces across 15 contract packages, being implemented by 11 different contractors. Major infrastructure rehabilitation efforts, such as the Malir Protection Works and Priority Sewer Network at Teen Hatti, have shown near-completion with over 99% physical progress. Interventions in chlorination, water supply, and sewerage networks are significantly underway, particularly at Soba Nagar, Essa Nagri, and Dhabeji, with physical progress ranging from 29% to 88.5%.

Other sub-projects like the CERRI building, customer service centres, and parking sheds show moderate progress, ranging between 53% and 77%. Meanwhile, new technological installations, including SCADA and flow metering systems, are in early or pre-execution phases, This phased advancement indicates a well-structured rollout strategy, with

groundwork nearing completion in civil projects and preparatory steps for technical installations now being undertaken.

The table below presents a consolidated overview of each contract package, detailing the project name, contract name, contractor, and physical progress status across all ongoing civil and infrastructure works under KWSSIP.

S. No.	Project Name	Location	Contractor Name	Contract Amount (Rs. Millions)	% Physical Progress
1	Malir Protection Works	Malir	M/s. Sultan Mahmood & Co. - Sherjan Mosakhail	2050.76	99.5%
2	Intermittent Chlorination Stations (15 Nos)	Karachi	M/s. Hawan Construction Co.	290.644	96.2%
3	Water Supply & Sewerage Rehab - Soba Nagar	Soba Nagar	M/s. Haji Syed Ameer & Brothers	353.901	82.5%
4	Water Supply & Sewerage Rehab - Essa Nagri	Essa Nagri	M/s. Haji Syed Ameer & Brothers	639.839	29.0%
5	Replacement of Rising Main No.5 (72” X-42 Steel)	Dhabeji	M/s. Noor Ul Haq & Brothers	2385.14	88.5%
6	Priority Sewer Rehab - Teen Hatti	Karachi	M/s. Sherjan Mosakhail & Sons	375.121	99.5%
7	Replacement of Damaged Section - 72” Old Pipri Water Main	Karachi	M/s. Noor Ul Haq & Brothers	2330.12	68.5%
8	Lot-1: CERRI Building	Karachi	M/s. Yawar Builder	1361.187	77.5%
9	Lot-2: Parking Shed for S&J Trucks	Karachi	M/s. Sherjan Mosakhail & Sons	916.188	53.5%
10	Lot-3: Customer Service Center	Karachi	M/s. Yawar Builder	407.88	56.5%
11	Package-02: Flow Meters & SCADA	Karachi	M/s. SMS-JV-Hawan Co.	1142.58	3.2%
12	Lot-1: Consumer Flow Meters - Landhi & Bin Qasim	Karachi	M/s. SMS-JV- Allied Business	438.74	0.1%
13	Lot-2: Consumer Flow Meters - Cattle Colony	Karachi	M/s. Al Shan Construction Co.	160.28	0.5%
14	Lot-3: Consumer Flow Meters - North Karachi	Karachi	M/s. SMS-JV-Hawan Co.	174.15	-
15	Lot-4: Consumer Flow Meters - FB Industrial Area & Misc.	Karachi	M/s. Shahbaz World Builder (SMC-Pvt) Ltd.	395.71	-

Sub-project wise details are as follows:

1.4.1. Malir Protection Works Sub-Project

The G.K. Conduit is a critical water conveyance infrastructure channeling 280 MGD of water from Keenjhar Lake to Karachi, traversing the Malir River bed. Over time, its original protection structures—comprising gabion walls and RCC cut-off walls—have significantly deteriorated

due to factors such as illegal sand lifting in the Malir basin, lack of regular maintenance, and the increasing impacts of climate change, including erratic and intense rainfall. This degradation has left the conduit exposed and at serious risk of damage, endangering Karachi's primary water supply system.

To mitigate these risks, a comprehensive rehabilitation effort is underway. The project includes the construction of RCC cut-off walls at both upstream and downstream sections of the conduit. Additionally, a stone apron has been designed to support gabion protection. Gabion stone protection structures, gabion steps aligning with the natural riverbed, and gabion retaining walls for bank stabilization are being implemented. Coffer dams and temporary diversion works have also been constructed in accordance with flood risk forecasts to safeguard ongoing activities.

The project is being executed by M/s. Sultan Mahmood & Company in collaboration with Sherjan Mosakhail & Sons, under a total contract value of Rs. 2,050.76 million. As of the latest progress update, 99.5% of the physical works have been completed, and the project is now in the finalization stage.

1.4.2. Supply and Installation of Intermittent Chlorination Stations

To tackle water quality challenges and ensure safer drinking water, Karachi Water and Sewerage Corporation (KW&SC) has initiated the installation of intermittent chlorination stations as part of the first phase of KWSSIP. The primary goal is to ensure residual chlorine reaches the end users, thereby minimizing the risk of waterborne diseases and enhancing overall water safety across the city.

This sub-project is being implemented by M/s. Hawan Construction Co., with a total contract value of Rs. 290.644 million. The scope of work involves the installation of 29 chlorination stations across 15 pump house sites throughout Karachi. As of the latest update, 96.2% of the physical work has been completed, with the remaining activities currently in progress.

To improve operational efficiency and sustainability, a SCADA (Supervisory Control and Data Acquisition) system is being deployed to monitor and control the chlorination process. This cloud-connected system enables live monitoring via mobile phones and a centralized 75" Smart LED TV dashboard, supporting at least four users with a one-year license. It includes a backup server with six months of data storage capacity and automatic synchronization with a local computer.

The SCADA-enabled water quality monitoring system is designed to:

- Ensure disinfection of treated water at distribution points far from filtration plants.
- Improve microbial safety by reducing bacteria, viruses, and pathogens.
- Reduce the incidence of waterborne diseases such as diarrhea.

- Maintain a low-cost disinfection solution with minimal capital (CAPEX) and operational (OPEX) expenses.
- Enable automatic detection and adjustment of chlorine levels.
- Provide centralized, real-time monitoring of chlorine content at designated KW&SC sites.

1.4.3. Rehabilitating of Water Supply & Sewerage - (Soba Nagr & Essa Nagri)

To address severe deficiencies in water supply and sanitation in low income areas, two significant projects under KWSSIP include the rehabilitation of water supply and sewerage systems in Soba Nagar and Essa Nagri:

1. **Soba Nagar**: Under KWSSIP, the rehabilitation of the water supply and sewerage system in Soba Nagar is being executed by M/s. Haji Syed Ameer & Brothers, with a total contract value of Rs. 353.901 million. As of the latest progress update, 82.5% of the physical work has been completed, with construction activities currently ongoing, including the water tank (WT) construction and sewer pipe laying.

   The rehabilitated infrastructure is designed to serve an estimated population of 9,387 residents across an area of 19.37 acres (78,388 m²). The sewerage network comprises pipelines ranging from 9 to 12 inches in diameter, covering a total length of 14,215 feet (4,333 meters). Similarly, the water supply network includes pipelines from 3 to 6 inches in diameter, extending over 16,427 feet (5,007 meters).

   For storage infrastructure, a dedicated area of 4,900 square feet (455 square meters) has been allocated. The facility includes a ground storage tank with a capacity of 50,000 gallons and an overhead storage tank with a capacity of 20,000 gallons, ensuring adequate supply and pressure management for the serviced area.

2. **Essa Nagri**: The rehabilitation of the water supply and sewerage system in Essa Nagri is also being undertaken by M/s. Haji Syed Ameer & Brothers, under a contract valued at Rs. 639.839 million. As of the latest progress report, 29% of the physical work has been completed, with sewer pipe laying currently in progress.

   The upgraded infrastructure will serve a projected population of 29,220. The water supply system included a ground storage tank, an overhead storage tank and a distribution network consisting pipelines ranging from 3 to 8 inches in diameter, covering a total length of 29,035 feet. Due to ongoing conflicts in the community, the water supply component of the project has been dropped.

   The sewerage system is designed to accommodate a peak flow of 1.75 cusecs, which accounts for 80% of the average water demand and includes a 33% allowance for stormwater. The network comprises pipelines ranging from 9 to 12 inches in diameter, extending over 28,460 feet. The collected sewage will ultimately discharge into the

main KW&SC trunk line along Sir Shah Muhammad Suleman Road, which connects to the Lyari Interceptor and flows onward to the TP-3 treatment plant.

These projects aim to improve water supply and sanitation services in these densely populated low income neighborhoods, addressing the basic needs of their residents and contributing to the overall improvement of Karachi's urban infrastructure.

1.4.4. Replacement of Rising Main No. 5 with X-42 Grade Steel 72''

Karachi currently receives approximately 600 MGD of water from the Indus River via Keenjhar Lake, out of which around 520 MGD is pumped from the Dhabeji Pumping Complex (DPC) through ten rising mains to a high point known as the Forebay, from where it flows by gravity into the city. However, three of these rising mains are in vulnerable condition, suffering frequent bursts due to the age and deterioration of the pipes.

To enhance the system's reliability and minimize water losses, KW&SC, under KWSSIP, has initiated the replacement of the most critical line — Rising Main No. 5 — with a new mild steel (MS) pipeline of 1800 mm internal diameter.

The contract for this vital work has been awarded to M/s. Noor ul Haq & Brothers, with a total contract value of Rs. 2,385.14 million. As of the latest update, 88.5% of the physical work has been completed. Current construction activities include pipe jacking at three major crossings:

- N-5 National Highway
- ML-1 Railway Line
- K-II & K-III transmission mains (near High Point)

This intervention is a key step towards securing Karachi's water supply infrastructure and reducing the risks of major service interruptions due to pipeline failures.

1.4.5. Priority Sewer Network Rehabilitation - Teen Hatti

As part of KWSSIP, a new sewer line is being laid along Shahrah-e-Pakistan and SM Taufiq Road, with a total length of 2,852 feet (0.87 kilometers). This line will handle sewage from the surrounding areas and connect to the Lyari Interceptor, which leads to Sewage Treatment Plant - TP3. Currently, a 42-inch trunk sewer line on the opposite side of Shahrah-e-Pakistan handles sewage flows from nearby areas. The proposed sewer line will reduce the load on this existing line situated at the other side of Shahrah-e-Pakistan by diverting flows from various blocks. The project includes connecting existing 24-inch sewers from Blocks 6 and 10 at MH-17 on Shahrah-e-Pakistan and from Qasimabad and Liaquatabad Blocks 5, 7, 8, and 9 at MH-15 near Liaquatabad Police Station. From MH-7 onward, a new 42-inch trunk sewer will be laid parallel to the existing nullah to accommodate sewage from Blocks E and B1.

The collected sewage will ultimately be discharged into the Lyari Interceptor near Teen Hatti Bridge and conveyed to TP3 for treatment before being released into the sea.

The contractor for this project, M/s. Sherjan Mosakhail & Sons, and the works are complete by 99.5%.

1.4.6. Replacement of Damaged Section of 72'', 66'' & 54'' Old Pipri Water Main with X-42 Grade

The Old Pipri Water Main (OPM) plays a critical role in supplying water to the eastern part of Karachi, lifting 120-140 MGD of water from the GK and K-II conduits at the Pipri Filtration Plant, which is located approximately 27 km downstream from the Dhabeji Pumping Complex (DPC). The filtered water is stored in twin reservoirs with a total capacity of 10 MGD and is supplied through two main pipelines, the 72-inch Old Pipri Main (OPM) and the 54-inch New Pipri Main (NPM).

A section of the OPM, approximately 4.5 km from the Pipri reservoir to the National Highway, is in extremely poor condition. This is primarily attributed to a combination of high operating pressures and the inherent limitations of the PRCC pipe material. To address this issue, the 4.5 km-long severely damaged section is being replaced with Mild Steel (MS) pipes of the same diameters (DN 1800, DN 1650, and DN 1350). As the downstream section of the pipes is still in good condition, it is only being repaired

The Old Pipri Water Main replacement project is being executed by M/s. Noor Ul Haq & Brothers. The total contract amount for the project is Rs. 2,330.12 million. As of now, the physical progress of the project stands at 68.5 %. Main works include excavation, pipe laying and pipe protection works. This project is critical for stopping significant water losses and improving the reliability of the water supply system in the eastern part of Karachi.

1.4.7. Civil Works and Installation of Flow Meters (Bulk Flow Meters & Consumer Flow Meters) and SCADA System

Efficient water management is essential for sustainable urban living and reducing water wastage in Karachi. To this end, KW&SC, under KWSSIP, is implementing a city-wide flow metering system, including bulk flow meters, consumer flow meters, and a SCADA-based monitoring system. The project is designed to enhance real-time visibility into the water distribution network and provide data-driven insights for operational optimization.

The installation of bulk and consumer flow meters will allow the detection of abnormal flow patterns—such as pressure drops or unexplained usage spikes—which typically signal leaks or unauthorized connections. This early detection capability enables rapid maintenance response, significantly minimizing water losses and ensuring supply continuity.

A major component of this initiative is the integration of a SCADA (Supervisory Control and Data Acquisition) system. This system will monitor water flow in real time across key locations, collect and store data for analytical review, and enable central command and control to make timely and informed decisions.

The system is expected to improve water conservation by detecting leaks early and allowing for quick resolution. It will support efficient resource allocation for operations and maintenance, facilitate data-supported planning for future infrastructure investments, and reduce non-revenue water (NRW) while improving customer service levels. Ultimately, this project aims to establish a smart water management framework that promotes sustainability, transparency, and resilience in Karachi's water supply system.

Under Package-02, which involves civil works and the installation of bulk flow meters and SCADA system, M/s. SMS–JV–Hawan Construction Co. is carrying out the work. The total contract value is Rs. 1,142.58 million, and as of now, 3.2% of the physical work has been completed. Work is currently in progress.

For Package 2(A) – Lot 1, which covers consumer flow meters in Landhi and Bin Qasim industrial areas, the contract has been awarded to M/s. SMS–JV–Allied Business. The contract value is Rs. 438.74 million, and 0.1% physical progress has been recorded so far. Mobilization is complete, but physical work has yet to commence.

Package 2(A) – Lot 2, focused on the installation of consumer flow meters in Cattle Colony, is being executed by M/s. Al Shan Construction Company. The contract value is Rs. 160.28 million, and 0.5% of the physical work has been completed. Initial construction activities have begun.

For Package 2(A) – Lot 3, covering North Karachi Industrial Area, the contractor is M/s. SMS–JV–Hawan Construction Co. The contract value is Rs. 174.15 million. Survey work is currently in progress, and site assessments are ongoing.

Package 2(A) – Lot 4 involves the installation of consumer flow meters in the F.B. Industrial Area and miscellaneous locations. This work is being managed by M/s. Shahbaz World Builder (SMC-Pvt) Ltd., with a contract value of Rs. 395.71 million. Survey work and site assessments are presently ongoing.

2- Institutional Arrangements, Field-Level Monitoring, Site Engagements, and Capacity Building Initiatives by PIU and E&S Partners

The E&S section of KWSSIP holds the responsibility for ensuring the implementation of World Bank's Environmental and Social Framework (ESF) standards across all project activities. This mandate is executed with the continuous support of higher management. A coordinated approach is being followed in collaboration with the Supervision Consultants - NESPAK, Independent Monitoring Consultants - MMP (IMC), and the Contractors.

The E&S team at PIU comprises three full-time specialists – Environmental, Social, and Gender – who oversee and supervise the application of the Environmental and Social Management Plans (ESMPs) across project areas. These specialists work closely with the Supervision Consultants, Independent Monitoring Consultants (MMP), and the Contractors' E&S personnel, who have been mobilized in accordance with the contractual requirements laid out in site-specific ESMPs.

2.1. Project Implementation Unit (PIU) and Supervision Consultants

The E&S roles and responsibilities at the PIU and Supervision Consultants level is reflected in Table 1.

Table 1: Institutional Arrangement of Environmental and Social Safeguards

Institution	Roles	Designated Staff
PIU KWSSIP (IA)	Environmental Specialist Gender Specialist Social Development Specialist	Masood ur Rahman Hameeda Kaleem Arif Khan
NESPAK (SC)	HSE Engineer-1 HSE Engineer-2 HSE Engineer-3 Environmental Expert Social Expert	Moazzam Ali Khan Shahzad Ahmad Vacant Faheem Akber Tanzeela

2.2. E&S Staff of Construction Contractors

The ESS staff nominated by the construction contractors in different packages of the project is given in Table 2.

Table 2: Institutional Arrangement January to March 2025

Sr. No.	Project	Nominated Personnel	Designation	Deputed on Full time/ part time
1	Malir Protection Works	Imran Yaseen Shahriyar Hamid Ali Shabbir Khan	Environmental Engineer Social Expert Social Mobilizer HSE Engineer	Full Time Full Time Full Time Full Time
2	Intermittent chlorination stations.	Suhban Ali	QHSE Manager	Full Time
3	Katchi Abadi Essa Nagri	Barkat Irfan	HSE Engineer Social Development Officer	Full Time Full time
4	Katchi Abadi Soba Nagar	Faiz Ali	HSE Engineer	Full Time
5	Teen Hatti	Hamid Ali	HSE Engineer	Full time
6	Old Pipri Main	Safdar Channa Sada Hussain Akhter Ali Bilawal Bilal Narejo	Environmental Engineer HSE Engineer Community Liaison Officer Paramedic Ecologist	Full Time
7	Dhabeji Rising Mains	Abdul Latif Muhammad Faisal Abbasi Abdul Basit Shazhad Asadullah	Environmental Engineer HSE Engineer Community Liaison Officer Paramedic Ecologist	Full Time
8	CERRI Building	Feroz	HSE Officer	Full Time
9	Package-02 Civil Works and Installation of Bulk Flow	Sajjad	HSE Engineer	Full time

Sr. No.	Project	Nominated Personnel	Designation	Deputed on Full time/ part time
	Meters & Scada System, Lot-2.			
10	Package-2(A) Consumer Flow Meters Civil Works and Installation in Lot: 2: Cattle Colony	Noman Shaikh Mulyca Khan	HSE Engineer SDO	Full time Full Time

2.3. Independent Monitoring Consultancy Firm for Environmental & Social Aspects

In alignment with the stipulations of the EMF and SMF guidelines, an independent environmental consultancy firm is required to conduct Third-Party Monitoring of E&S aspects of SOP1 sub-projects. In this regard, MM Pakistan (Pvt.) Ltd. was officially engaged as the Independent Monitoring Consultancy (IMC) Firm for Environmental and Social (E&S) aspects under Contract No. PK-KWSB-368069-CS-CQS following the contract signing on July 31, 2024.

The inputs from Independent Monitoring Consultant (IMC) are supporting continuous improvement of Environmental and Social (E&S) performance under KWSSIP. A structured mechanism has been established whereby IMC's monitoring deliverables are regularly shared with the Supervision Consultants for onward communication with the Contractors. This process is followed by joint coordination meetings involving the Project Implementation Unit (PIU), Supervision Consultants, Contractors, and the IMC. These sessions enable collaborative review of findings and the formulation of Corrective Action Plans (CAPs), ensuring timely and practical responses to observed non-compliances or risks.

This iterative reporting and feedback loop has proven effective in enhancing compliance and accountability across all sub-projects. It has also fostered stronger alignment among stakeholders, leading to more proactive management of E&S safeguards.

a- IMC Deliverables Submission Status

i- Monthly Progress Checklists

To track ongoing compliance, the IMC is required to submit Monthly Progress Checklists covering both Environmental and Social aspects across all active sub-projects. A total of 24 Monthly Checklists are expected—12 each for environmental and social compliance. As of March 2025, the IMC has submitted 07 Environmental and 07 Social Monthly Checklists. These tools have proven valuable for early identification of issues and for ensuring ongoing compliance during implementation.

ii- Quarterly Progress Reports

The IMC also prepares detailed Quarterly Progress Reports (QPRs) on E&S compliance. These reports go beyond monitoring, incorporating assessments of the E&S management capacity and effectiveness of both the Supervision Consultants and the Contractors. Based on a pre-defined evaluation framework, the reports offer clear recommendations to strengthen field-level E&S practices. To date, two QPRs have been submitted, covering progress up to December 2024. The third Quarterly Report is currently awaited.

iii-Final Evaluation Report

At the end of the consultancy contract, the IMC will compile a comprehensive Final Evaluation Report covering the entire consultancy period. This report will summarize overall environmental and social compliance levels across individual sub-projects and assess the performance of the consultants and contractors responsible for project execution and supervision. It will also include clear recommendations addressing any identified shortcomings, along with suggested improvement measures to enhance future E&S compliance and effectiveness.

iv-Organization of Environmental Monitoring by IMC

As part of their ToRs, the IMC are responsible for organizing and conducting independent environmental monitoring to assess compliance with the Environmental and Social Management Plans (ESMPs) across KWSSIP project sites. However, during the early stages of implementation, IMC did not initiate this monitoring activity, stating that their understanding was limited to reviewing and analyzing the environmental monitoring results submitted by contractors. This interpretation was also reflected in their technical proposal, which had been accepted in full by the PIU during the contract award process. Upon clarification by the PIU, it was reaffirmed that independent environmental monitoring is an essential obligation under IMC's ToRs and must be undertaken directly by IMC, not just through validation of contractors' data. IMC subsequently requested additional funds to carry out this task, arguing that it was outside their originally anticipated scope. The PIU maintained a firm position that this requirement was clearly included within the original contract scope and budget, and therefore must be executed without any additional cost. After further discussions, IMC agreed to fulfill this responsibility under the existing contract provisions and submitted a detailed environmental monitoring plan to the PIU, which was reviewed and formally approved. The environmental monitoring activities are scheduled to be carried out during May 2025.

3- E&S Compliance Status

3.1. Environmental and Social Safeguards Progress

The PIU, in coordination with the Supervision Consultants (SC), Contractors, and the Independent Monitoring Consultants (IMC), continues to monitor and strengthen compliance with Environmental and Social (E&S) safeguards across all active sub-projects under KWSSIP.

Site-level inspections are conducted regularly by the PIU's Environmental, Health & Safety (EHS), and Social teams to assess adherence to approved Environmental and Social Management Plans (ESMPs), SEPA NOCs, and other safeguard requirements. These inspections focus on key areas such as proper PPE usage, site waste management, pollution prevention, labor camp conditions, and implementation of gender and social safeguard measures.

Supervision Consultants and Contractors have deployed dedicated EHS and Social staff as per contract requirements, although varying levels of performance have been observed. To improve consistency and quality of compliance, the PIU is reinforcing expectations through formal communications, on-site guidance, and documentation checks. Gaps identified during site visits are followed up through joint meetings and corrective action plans developed in collaboration with SCs, Contractors, and IMC.

To support continuous improvement, capacity-building sessions have been organized by the PIU E&S Team, focusing on ESMP implementation, health and safety practices, grievance redress mechanisms, and gender inclusion. These sessions have targeted Contractor and Consultant field teams, helping to build awareness, clarify compliance obligations, and foster better coordination among all stakeholders.

The PIU also works closely with the IMC to analyze compliance trends and performance data captured through monthly and quarterly reporting tools. This collaboration supports timely interventions and ensures that the E&S safeguards are effectively integrated into day-to-day project implementation.

3.2. Detailed E&S Compliance Status at Active Sites

3.2.1. Malir Protection Works – Tree Plantation Issue

As of the reporting period, with 99.5% of construction completed, only minor residual activities were ongoing at the Malir Protection Works site. An issue arose concerning the misrepresentation of the compensatory plantation site during the visit of the World Bank's Practice Manager Environment – Christian Albert Peter, on March 10, 2025. The mission was shown a plantation site that did not match the one described in the approved Tree Plantation Plan, which had specified a "garden land near the project site. Instead, the site visited was approximately 12 km away and located on privately owned land. This raised two primary concerns:

Ecological Relevance: The distance of the plantation from the project site undermines the intended ecological offsetting effect.

Use of Project Resources: The plantation on private land risks providing direct financial benefits to the landowner, contrary to World Bank policy which emphasizes benefits for the broader community.

It was revealed that the site change was made by the Supervision Consultant without notifying the PIU or updating the plantation plan. Reportedly, due to water scarcity at the initially proposed site, the landowner suggested an alternative location. This unauthorized change led to questions about transparency and compliance.

Practice Manager's Visit to the Private Plantation Site and Site Conditions Showing Coconut Trees Planted in a Papaya Farm

In response, the Supervision Consultants conducted a Tree Plantation Audit (detailed Audit Report is attached as **Annexure - 1**), and it has been decided that the Contractor will replant all trees at their own cost at an appropriate site. Consultations with relevant stakeholders such as the Sindh Forest Department, Clifton Urban Forest, Horticulture Society of Pakistan and KMC Horticulture Department are underway for the identification of an appropriate site and

maintenance model. Upon finalization, approval will be sought from the World Bank's Environment Team and the replantation will be carried out at the approved location.

3.2.2. Intermittent Chlorination Stations

During the reporting period, the chlorination station sites have largely transitioned from civil works to equipment installation, as major construction activities were completed in the previous quarter. This shift in activity significantly reduced the environmental and occupational health and safety risks typically associated with construction works.

The overall EHS compliance at these sites remained satisfactory. Equipment installation activities were carried out in a controlled manner, under the supervision of site HSE personnel. The use of personal protective equipment (PPE) was regularly enforced, and safety briefings and toolbox talks continued to be held to reinforce safety protocols during lifting and electrical works associated with the installation phase.

Future Colony Chlorination Site

Bilal Colony Chlorination Site

Model Colony Chlorination Site

No major incidents or non-compliance cases were reported during this period. Routine EHS monitoring, housekeeping, and access control measures remained in place, and temporary signage and barricading were maintained around active work areas to ensure site safety.

3.2.3. Soba Nagar Katchi Abadi

During the reporting period, the Soba Nagar / Gohrabad sub-project experienced several Environmental, Health, and Safety (EHS) compliance issues that required immediate corrective attention. The issues were identified through routine monitoring and inspections conducted by the PIU and supervision consultants, and were promptly addressed by the contractor following directives from the project team.

At the project's campsite, overall housekeeping was found to be inadequate. The accumulation of spoil material, unsorted construction debris, and poor site organization raised concerns, particularly because the location also serves as a public facility. Recognizing the sensitivity of using a public facility, the contractor was instructed to remove obstructions, restore access, and ensure the premises were kept clean and orderly.

Observations	Corrective Action
	
	
	

All identified issues were successfully resolved within the reporting period through a combination of contractor responsiveness and close coordination with the PIU and supervision consultants. The experience highlights the importance of continual EHS vigilance and rapid corrective action to uphold community safety and maintain compliance at sensitive sites.

3.2.4. Essa Nagri Katchi Abadi

During the reporting period, civil works at Essa Nagri Katchi Abadi remained limited to sewage network installations. Water supply activities were put on hold due to unresolved community conflicts, which affected overall project progress. Despite these constraints, EHS performance remained at a partial compliance level, with no major violations reported.

Air quality was impacted by minor excavation works. Dust generation, largely due to dry conditions. Traffic management faced challenges due to the narrow layout of the neighborhood. Although the construction itself did not significantly block vehicular access, pedestrian detours in confined lanes caused some inconvenience to residents. Given the community sensitivities, improved engagement and communication were made to manage expectations and ensuring safety. Excavation activities were minor and mostly involved trenching for sewer lines. Excavated material was reused on-site. Safe access was ensured. Trainings and toolbox talks (TBTs) were conducted regularly, and site restoration planning has begun but is not yet fully implemented, pending completion of remaining works.

3.2.5. Priority Sewer Scheme - Teen Hatti

At the Teen Hatti sub-project site, civil works are nearly complete, with only minor finishing activities pending during the reporting period. Overall, environmental, health, and safety (EHS) performance remained satisfactory.

One concern noted was the presence of dust in the area. However, this was largely attributed to external factors such as high vehicular traffic, dry weather conditions, and nearby road maintenance activities—rather than the construction works themselves.

3.2.6. Dhabeji Rising Main No. 05

During the reporting period, the Dhabeji Rising Main Project maintained overall satisfactory EHS performance, with the contractor showing responsiveness in addressing observed non-compliances. While a few environmental and safety aspects initially required improvement, effective measures were subsequently implemented, demonstrating a commitment to compliance and continuous improvement.

Air quality remained generally acceptable, with no major sources of emissions reported. Environmental monitoring through a SEPA certified laboratory has been performed at site on monthly basis and results were overall found meeting the SEQS limits for air quality, water quality and noise.

Minor dust generation occurred, particularly along unpaved access routes and during material transport. This was primarily due to trucks operating without tarpaulin covers and the absence of initial water suppression. However, these concerns were promptly addressed through the provision of PPEs to workers, regular air quality monitoring, and the enforcement of vehicle covering practices.

Wastewater management was effectively handled, with no wastewater generated from construction activities. Domestic effluents from labor camps and site offices were managed through soak pits, and routine monitoring was carried out. Minor improvements were suggested regarding record maintenance, which the contractor has since initiated.

Traffic management remained a strong area of compliance. Construction activities were carried out with minimal disruption to local traffic, owing to effective planning and the use of trenchless technology (jacking technique) at critical points. Pedestrian routes were maintained, and all machinery operators were verified for proper licensing and training.

Excavation works were safely executed with spoil material reused on-site and proper guardrails and spoil banks in place.

Waste management showed partial compliance initially due to inconsistent segregation practices and limited designated storage areas. These gaps were resolved with the introduction of labelled bins and improved disposal practices.

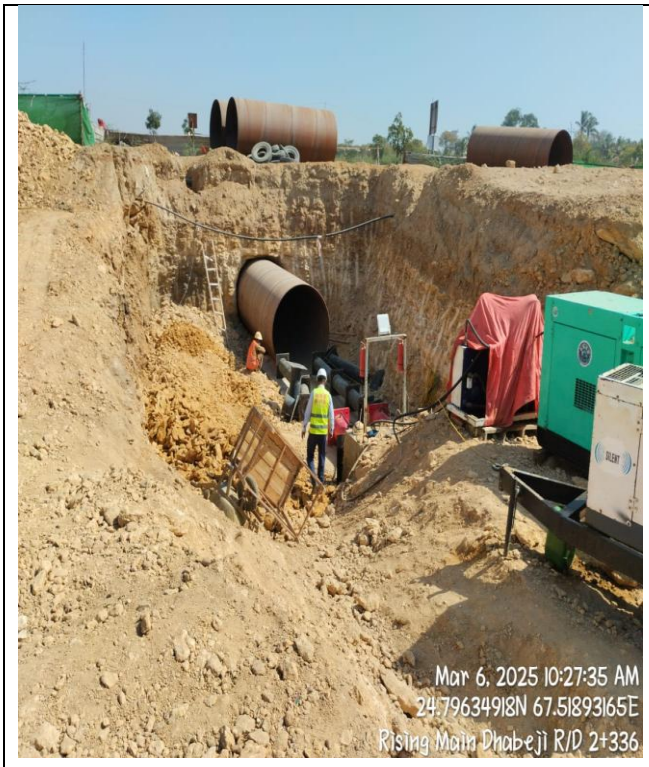
In terms of worker health and safety, the contractor demonstrated clear intent towards compliance. First aid facilities, PPE provision, and HSE staffing were in place, although some shortfalls in PPE adherence and documentation were noted early on. These were rectified through regular toolbox talks, site walkovers, and improved enforcement by the HSE team.

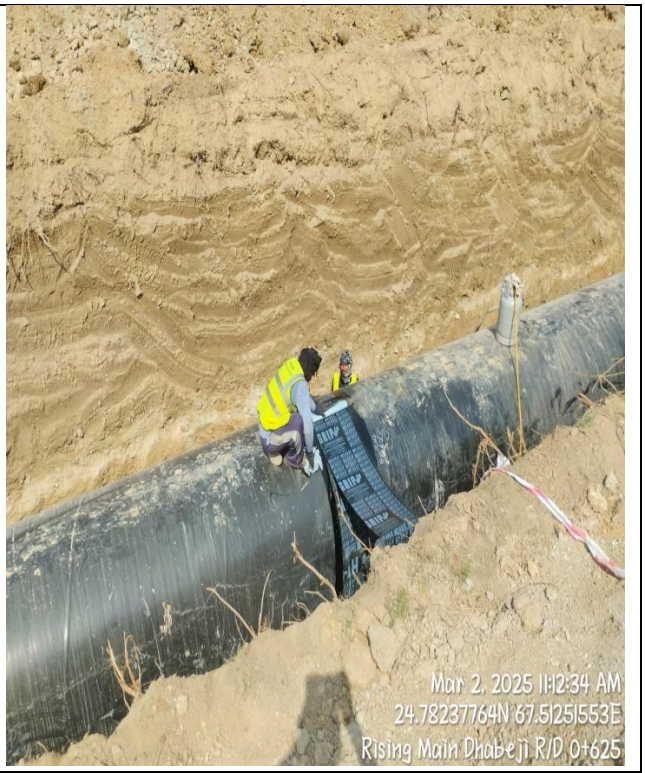
Welding and cutting activities were carried out safely, with certified operators and use of protective gear, though further refinement of safety protocols was recommended and is now being implemented.

Minor concerns related to kitchen hygiene and drinking water documentation were addressed through targeted housekeeping efforts.

In terms of flora, ten trees have been cut during the clearance of vegetation for excavating the trench. The Contractor will plant 100 trees at the ratio of 10:1 to compensate the tree cutting and will prepare and submit a tree plantation plan during April 2025 for PIU’s approval prior to initiating the compensatory plantations.

	
The workers were seen with required PPE's	Validating the crane operator's license
	
Partial compliance in terms of signage's was observed	The construction machines were seen in good working condition
	





3.2.7. Old Pipri Main Rehabilitation

The Old Pipri Main Rehabilitation Project maintained generally positive EHS performance during the reporting period. Although certain areas initially reflected partial compliance, the contractor took corrective actions to address these gaps, demonstrating ongoing commitment to environmental and health standards.

Air quality remained generally acceptable, with no major sources of emissions reported. Environmental monitoring through a SEPA certified laboratory has been performed at site on monthly basis and results were overall found meeting the SEQS limits for air quality, water quality and noise.

Excavation works were safely executed with spoil material reused on-site and proper guardrails and spoil banks in place.

The excavated trench was seen with tap barricading measures

The workers were seen with required PPE's

IMC team during the visit of construction site and workers camp

The fresh drinking water was provided to the labor

The first aid box was maintained at the site

3.2.8. CERRI Building

Following sustained oversight, technical support, and capacity building efforts by the PIU and the Independent Monitoring Consultant (IMC), overall Environmental, Health, and Safety (EHS) compliance at CERRI site has shown improvement. Key areas such as air quality

management, wastewater disposal, worker safety, and training practices have benefited from enhanced awareness and implementation of recommended measures. PPE provision and usage has also seen notable progress. However, despite these advancements, some issues persist, particularly those related to housekeeping, proper material storage, and site organization. These residual concerns indicate the need for continued on-site supervision and reinforcement of EHS protocols. Nevertheless, the positive shift in compliance trends demonstrates the contractor's and consultant's responsiveness to capacity-building initiatives, and their growing commitment to maintaining safe and environmentally responsible construction practices.

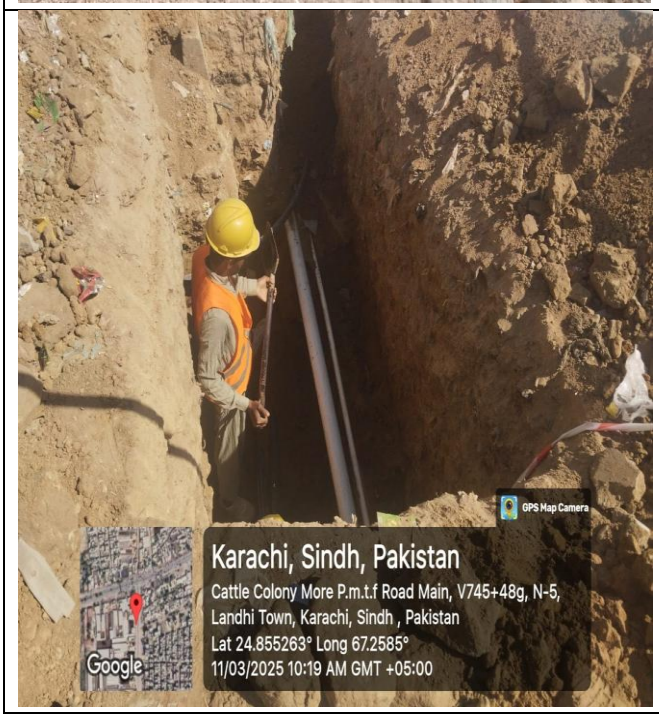
3.2.9. Customer Service Centres and Parking Sheds

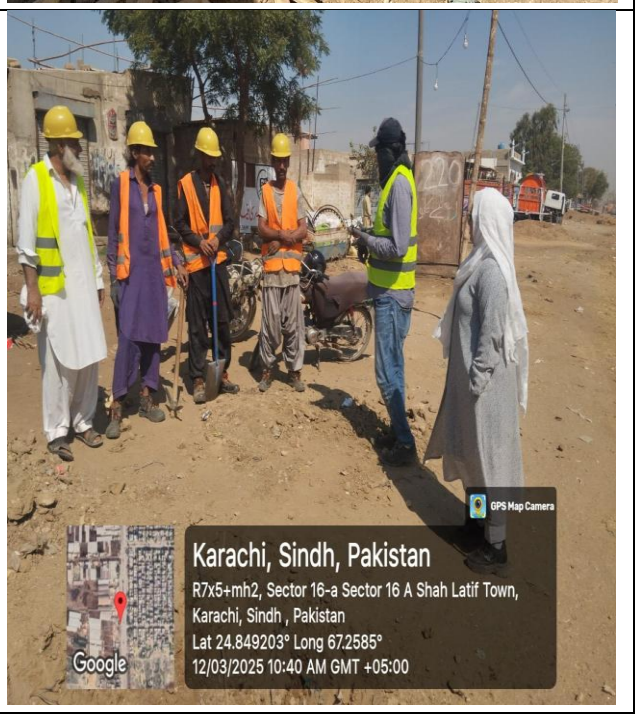
At the Customer Service Centres (CSCs) and Parking Shed sites, major building structures have been completed, and finishing works are currently in progress. However, construction activities at the Gulshan-e-Iqbal CSC have not yet commenced due to an ongoing land ownership dispute between KWSC and KMC. Despite this, overall Health, Safety, and Environmental (HSE) compliance across the active sites remains satisfactory. Improvements driven by continued oversight from the Supervision Consultants and IMC have resulted in better implementation of safety protocols, proper use of PPE, and improved worksite

organization. Nonetheless, minor issues such as inconsistent housekeeping and inadequate material storage arrangements continue to be observed and require further attention.

3.2.10. Consumer Flow Meters Installation

At the Consumer Flow Meters installation sites, inadequate barricading was initially observed; however, conditions are steadily improving. The contractor has begun installing proper barricading at active work areas. The use of PPEs by workers is generally reasonable, with most laborers observed wearing basic protective gear such as safety vests, helmets, and gloves. With ongoing supervision and corrective measures, HSE performance is expected to further improve across these sites.





3.3. Social Consultations

During the period from January to March 2025, a series of community consultations and engagement activities were conducted across various project areas to ensure stakeholder participation, address community concerns, and promote awareness of the Grievance Redress Mechanism (GRM). These sessions were organized by the PIU in coordination with the IMC and relevant local representatives.

3.3.1. Soba Nagar – Residents and Business Owners (10 Participants)

A grievance was submitted via the GRM Portal regarding the installation of manholes near Salah Masjid in Goharabad. The community requested three manholes, referencing the historic adequacy of the existing 15-inch sewer line and expressed concern over the proposed 9-inch line.

Community consultations were held to clarify that manhole installation was technically feasible only with the adoption of the 9-inch line. The issue remains pending final community agreement.

Community members expressed appreciation for the water and sewerage infrastructure project, while highlighting persistent sewage blockages affecting the area for over three decades, particularly during festivals.

Initial resistance to the proposed 3-inch diameter line and 3-foot trench depth was addressed through technical clarification. Consensus was achieved, and the sewer line was successfully installed as per the original design.

	
Recieved complaint Regarding Manholes 9 inch Dia at Soba Nagar.	Consultation with labors regarding the welfare facilities and GRM Protocols

3.3.2. Essa Nagri – Residents and Business Owners (15 Participants)

A site consultation was jointly conducted by PIU staff and the MPA Minorities Rights office to discuss the proposed construction of a new water tank. While overall support was observed, concerns were raised regarding the proximity of the tank to a community center.

Inclusive feedback was gathered, and discussions remain ongoing to finalize the optimal location with community consent.

Residents acknowledged previous construction-related inconveniences but expressed satisfaction with the progress and resolution of issues. Most work has been completed to their satisfaction.

The community's patience and collaboration were appreciated, with a reaffirmed commitment to completing the remaining work efficiently and responsibly.

3.3.3. GRM Awareness in All Consultations

Throughout all sessions, awareness of the GRM was actively promoted. Residents and workers were briefed on various complaint submission options (verbal, written, GRM boxes, or contact numbers). Confidentiality, protection from retaliation, and timely resolution were emphasized. Guidance was provided on proper documentation and compliance with organizational protocols.

3.3.4. Malir Protection Works – Nearby Village Residents (2 Participants)

During a consultation with local residents and business owners, participants were encouraged to utilize official GRM channels such as the complaint box or dedicated contact numbers for submitting grievances and feedback.

3.3.5. CERRI Labor Consultations (3 Sessions)

Dedicated training sessions were held for workers and community members involved in the CERRI project to improve understanding of the GRM system. Participants were guided on verbal and written grievance submission processes, importance of timely reporting, and maintaining updated GRM logs. A GRM focal person was appointed for on-site support and follow-up.

3.3.6. Key GRM Training Highlights:

- Step-by-step grievance submission procedures
- Assurance of confidentiality and protection from retaliation
- Regular review of grievance submissions
- Appointment of dedicated GRM contact personnel

3.3.7. Intermittent Chlorination Stations – Labor Consultations

Laborers at intermittent chlorination station sites were briefed on the GRM system and their responsibilities for ensuring its effectiveness. Emphasis was placed on accurate documentation, timely reporting, and maintenance of up-to-date GRM files in line with internal policies and procedures.

3.3.8. Essa Nagri Water Tank – Community Coordination Meeting

The NESPAK E&S team conducted multiple coordination meetings with CBO members, WASH committee members, and local stakeholders to identify a suitable location for the proposed water tank. Considerations included accessibility, safety, proximity to population, and potential environmental and social impacts.

Community input was recorded and used to shortlist viable locations. Ongoing engagement was agreed upon to ensure transparency and shared ownership of the final site selection.

3.3.9. Site Visit – CERRI

An Environmental and Social Safeguards inspection was conducted at the civil works site managed by Yawer Builders. Non-compliance was noted due to the absence of a GRM complaint box and required informational signage ("Pena flex").

The Project Manager was informed of these gaps and committed to immediate rectification. Installation of the GRM box and placement of signage was agreed upon. A follow-up visit will be conducted to verify compliance, and monitoring will continue to ensure adherence to ESS standards.

3.4. PIU Capacity Building Efforts

Regular site visits are conducted by the PIU's Environmental and Social team, not only to monitor field compliance but also to guide and reinforce good practices through on-site awareness sessions and direct interactions with contractors and consultants. These visits ensure that mitigation measures related to waste management, dust control, noise, spill response, PPE compliance, worker safety, and labor facilities are being adhered to. During these engagements, gaps are identified and real-time recommendations are shared to improve implementation standards, including guidance on grievance redress procedures, GBV/SEA mitigation, and gender-responsive measures.

To further enhance field-level compliance, PIU has organized Environmental and Social Capacity Building Workshops for contractors, consultants, and project managers.

These workshops focused on:

- **Environmental Management**: covering pollution control, waste disposal, site restoration, and spill prevention;
- **Health and Safety (EHS)**: promoting the use of PPEs, emergency response preparedness, and proper housekeeping;
- **Social Safeguards**: emphasizing labor management, stakeholder engagement, and community health and safety;
- **Gender and GBV/SEA Prevention**: addressing workplace inclusivity, facilities for female workers, prevention mechanisms, and redress systems.


These workshops and site-level sessions have significantly contributed to raising awareness, building technical capacity, and improving coordination among stakeholders, which is critical for maintaining compliance with World Bank safeguard requirements.

3.5. Environmental Monitoring

Environmental monitoring activities have been consistently conducted in accordance with the Contractor's Environmental and Social Management Plan (CESMP) at key project sites, including Dhabeji, Pipri, and CERRI.

At the Dhabeji and Pipri project sites, monthly environmental monitoring has been implemented as stipulated in the CESMP. This includes monitoring of key environmental parameters such as ambient air quality, noise levels, and water quality. The monitoring has been performed by SEPA approved third-party laboratories. The monitoring results recorded over the reporting period have generally remained within the permissible SEQS limits.

At the CERRI site, bi-annual environmental monitoring has been planned and initiated as per the CESMP requirements. The first round of monitoring was successfully carried out in February 2025, with results indicating general compliance with SEQS across key environmental parameters. The second round of bi-annual monitoring is scheduled for August 2025. Monitoring activities at CERRI focus particularly on emissions, ambient noise, and water quality.

Environmental Monitoring at Dhabeji Site

Environmental Monitoring at OPM Site

Environmental Monitoring at CERRI Building Site

3.5.1. Analysis of Monitoring Results

a- Ambient Air

The monitoring covered eight air quality parameters: Oxide of Nitrogen (NO and NO_2), Sulphur Dioxide (SO_2), Carbon Monoxide (CO), Particulate Matter (PM 2.5 and PM 10), Suspended Particulate Matter (SPM), and Ozone (O_3). The test results (as follows) for each parameter were within the Sindh Environmental Quality Standards (SEQS) limits.

Parameter	**SEQS Limit** (24-hr Avg)	**Old Pipri – Jan**	**Old Pipri - Feb**	**Old Pipri - Mar**	**Dhabeji - Jan**	**Dhabeji – Feb**	**Dhabeji – Mar**	**CERRI – Feb**	**Compliance**
PM_{10}	150 µg/m³	86	76.3	75.9	85	84.3	84.1	90.10	✓ Compliant
$PM_{2.5}$	35 µg/m³	28	26	26.4	24	26.6	26.3	28.54	✓ Compliant
SO_2	120 µg/m³	5.98	6.86	6.74	7.1	6.51	6.05	18.51	✓ Compliant
NO_2	80 µg/m³	31.4	32.41	32.29	38	31.85	32.81	25.10	✓ Compliant
CO (mg/m³)	5 mg/m³	0.062	0.055	0.057	0.054	0.050	0.053	1.16	✓ Compliant
O_3	130 µg/m³	05	06	05	05	07	06	2.02	✓ Compliant

b- Noise

Noise levels at all the three sites were found within the permissible SEQS limits for both day and night. To provide an idea, latest noise monitoring results are as follows:

Dhabeji Rising Mains Site (March 2025)

Noise Test Report

S. No	Measuring Parameter	Testing Instrument	SEQS Limits	TIME	Results
01	Noise Level	Noise Meter	75 dB(A) (Day time)	09:00AM	52.3
02				10:00AM	55.2
03				11:00AM	56.1
04				12:00PM	58.6
05				01:00PM	56.3
06				02:00PM	65.2
07				03:00PM	64.6
08				04:00PM	68.3
09				05:00PM	63.6
10				06:00PM	65.3
11				07:00PM	61.9
12				08:00PM	58.4
13				09:00PM	56.2
14				10:00PM	54.3
15			65 dB(A) (Night time)	11:00PM	49.2
16				12:00AM	47.6
17				01:00AM	46.5
18				02:00AM	44.3
19				03:00AM	48.6
20				04:00AM	45.6
21				05:00AM	44.3
22				06:00AM	58.5
23			75 dB(A) (Day time)	07:00AM	54.9
24				08:00AM	67.2

Old Pipri Main Site (March 2025)

Noise Test Report

S. No	Measuring Parameter	Testing Instrument	SEQS Limits	TIME	Results
01	Noise Level	Noise Meter	75 dB(A) (Day time)	09:00AM	65.3
02				10:00AM	66.2
03				11:00AM	67.2
04				12:00PM	65.3
05				01:00PM	65.2
06				02:00PM	69.3
07				03:00PM	68.2
08				04:00PM	65.3
09				05:00PM	66.2
10				06:00PM	65.6
11				07:00PM	66.8
12				08:00PM	58.6
13				09:00PM	56.9
14				10:00PM	54.8
15			65 dB(A) (Night time)	11:00PM	58.6
16				12:00AM	55.5
17				01:00AM	51.2
18				02:00AM	48.4
19				03:00AM	49.5
20				04:00AM	44.3
21				05:00AM	48.2
22				06:00AM	44.3
23			75 dB(A) (Day time)	07:00AM	45.7
24				08:00AM	53.5

CERRI Site (February 2025)

Sr. No.	Parameters	Method	UoM	Hourly Conc.		SEQS Limits Day 6:00 am to 10:00 pm	SEQS Limits Night 10:00 pm to 6:00 am	Result
				Time h: min	Result.			
01	Noise	Sound Meter at 7.5 meter from the source	dB_A	10:00 AM	51.3	≤55	≤45	Pass
				11:00 AM	53.8			
				12:00 PM	50.1			
				01:00 PM	51.7			
				02:00 PM	48.9			
				03:00 PM	50.9			
				04:00 PM	52.5			
				05:00 PM	51.8			
				06:00 PM	49.7			
				07:00 PM	48.3			
				08:00 PM	50.3			
				09:00 PM	46.2			
				10:00 PM	44.1			
				11:00 PM	41.9			
				12:00 AM	40.3			
				01:00 AM	41.3			
				02:00 AM	38.5			
				03:00 AM	37.7			
				04:00 AM	38.7			
				05:00 AM	40.5			
				06:00 AM	41.9			
				07:00 AM	42.5			
				08:00 AM	41.5			
				09:00 AM	42.1			

c- Water Quality

Based on the test results, the water sample generally meets the Sindh Environmental Quality Standards (SEQS) limits. Latest water quality monitoring results are as follows:

Dhabeji Rising Mains Site (March 2025)

Drinking Water Test Report

S #	Parameters	Units	Testing Method	SEQS Limits	Result	Remarks
01	Total Bacteria Count	TBC (count/ml)	Total Viable Count	----------	ND	-
02	Total Coliform	TC (count/ml)	APHA 922 B	0/100 ml	ND	WL
03	E-Coli	EC(count/ml)	Total Viable Count	0/100 ml	ND	WL
04	Facial Coli	FC (count/ml)	APHA 922 B	0/100 ml	ND	WL
05	Turbidity	NTU	HACH Turbidity meter	<15	<0.03	WL
06	Taste	Taste	Sensory Evolution	Obj/Non Obj	Non-obj	WL
07	Odour	Odor	Sensory Evolution	Obj/Non Obj	Non-obj	WL
08	Colour	TCU	Pt-Co method	≤ 15 TCU	< 1	WL
09	Phenolic Compounds	As Phenol (mg/L)	ASTM D-1783	-	ND	WL
10	Residual chlorine	Cl_2 (mg/L)	HACH Method 8167	0.2-0.5	0.2	WL
11	pH @ 25 °C	PH	ASTM D-1293	6.5 to 8.5	6.85	WL
12	Total Dissolved Solid	TDS (mg/L)	APHA 2540-C	< 1000	162	WL
13	Total Hardness	As COCO3(mg/L)	APHA 2340-C	< 500	255	WL
14	Fluoride	F^{-1} (mg/L)	APHA 4500-F^{-1}	≤ 1.5	0.25	WL
15	Chloride	Cl^{-1} (mg/L)	APHA 4500-Cl^{-1}	< 250	75	WL
16	Cyanide	CN^{-1}(mg/L)	HACH Method 8027	≤ 0.05	ND	WL
17	Nitrate	NO_3^{-1} (mg/L)	HACH Method 8192	≤ 50	0.13	WL
18	Nitrite	NO_2^{-1} (mg/L)	APHA 4500-NO_2^{-1}-B	≤ 3.0(P)	0.07	WL
19	Antimony	Sb (mg/L)	ASTM D-3697	≤ 0.005	ND	WL
20	Aluminum	Al(mg/L)	ASTM D-857	≤ 0.2	0.05	WL
21	Arsenic	As (mg/L)	ASTM D-2972	≤ 0.05	ND	WL
22	Boron	B (mg/L)	ASTM D-3082	0.3	ND	WL
23	Barium	Ba(mg/L)	ASTM D-4382	0.7	0.005	WL
24	Chromium Total	Cr(mg/L)	ASTM D-1687	≤ 0.05	ND	WL
25	Copper	Cu (mg/L)	ASTM D-1688	2	<0.06	WL
26	Cadmium	Cd(mg/L)	ASTM D-3557	0.01	ND	WL
27	Lead	Pb(mg/L)	ASTM D-3559	≤ 0.05	ND	WL
28	Manganese	Mn(mg/L)	ASTM D-858	≤ 0.5	ND	WL
29	Mercury	Hg (mg/L)	ASTM D-3223	≤ 0.001	ND	WL
30	Nickel	Ni(mg/L)	ASTM D-3866	≤ 0.05	ND	WL
31	Selenium	Se(mg/L)	ASTM D-3858	0.01	ND	WL
32	Zinc	Zn (mg/L)	ASTM D-1691	5	0.07	WL

Old Pipri Main Site (March 2025)

Drinking Water Test Report

S #	Parameters	Units	Testing Method	SEQS Limits	Result	Remarks
01	Total Bacteria Count	TBC (count/ml)	Total Viable Count	----------	ND	-
02	Total Coliform	TC (count/ml)	APHA 922 B	0/100 ml	ND	WL
03	E-Coli	EC(count/ml)	Total Viable Count	0/100 ml	ND	WL
04	Facial Coli	FC (count/ml)	APHA 922 B	0/100 ml	ND	WL
05	Turbidity	NTU	HACH Turbidity meter	<15	< 0.01	WL
06	Taste	Taste	Sensory Evolution	Obj/Non Obj	Non-obj	WL
07	Odour	Odor	Sensory Evolution	Obj/Non Obj	Non-obj	WL
08	Colour	TCU	Pt-Co method	≤ 15 TCU	< 1	WL
09	Phenolic Compounds	As Phenol (mg/L)	ASTM D-1783	-	ND	WL
10	Residual chlorine	Cl_2 (mg/L)	HACH Method 8167	0.2-0.5	0.28	WL
11	pH @ 25 °C	PH	ASTM D-1293	6.5 to 8.5	6.63	WL
12	Total Dissolved Solid	TDS (mg/L)	APHA 2540-C	< 1000	574	WL
13	Total Hardness	As COCO3(mg/L)	APHA 2340-C	< 500	363	WL
14	Fluoride	F^{-1} (mg/L)	APHA 4500-F^{-1}	≤ 1.5	0.25	WL
15	Chloride	Cl^{-1} (mg/L)	APHA 4500-Cl^{-1}	< 250	169	WL
16	Cyanide	CN^{-1}(mg/L)	HACH Method 8027	≤ 0.05	ND	WL
17	Nitrate	NO_3^{-1} (mg/L)	HACH Method 8192	≤ 50	0.74	WL
18	Nitrite	NO_2^{-1} (mg/L)	APHA 4500-NO_2^{-1}-B	≤ 3.0(P)	0.62	WL
19	Antimony	Sb (mg/L)	ASTM D-3697	≤ 0.005	ND	WL
20	Aluminum	Al(mg/L)	ASTM D-857	≤ 0.2	0.06	WL
21	Arsenic	As (mg/L)	ASTM D-2972	≤ 0.05	ND	WL
22	Boron	B (mg/L)	ASTM D-3082	0.3	ND	WL
23	Barium	Ba(mg/L)	ASTM D-4382	0.7	0.008	WL
24	Chromium Total	Cr(mg/L)	ASTM D-1687	≤ 0.05	ND	WL
25	Copper	Cu (mg/L)	ASTM D-1688	2	<0.09	WL
26	Cadmium	Cd(mg/L)	ASTM D-3557	0.01	ND	WL
27	Lead	Pb(mg/L)	ASTM D-3559	≤ 0.05	ND	WL
28	Manganese	Mn(mg/L)	ASTM D-858	≤ 0.5	ND	WL
29	Mercury	Hg (mg/L)	ASTM D-3223	≤ 0.001	ND	WL
30	Nickel	Ni(mg/L)	ASTM D-3856	≤ 0.05	ND	WL
31	Selenium	Se(mg/L)	ASTM D-3858	0.01	ND	WL
32	Zinc	Zn (mg/L)	ASTM D-1691	5	0.08	WL

3.6. Implementation of ESMP Measures

Through the joint efforts of the Project Implementation Unit (PIU) and the Construction Supervision Consultants, several steps have been taken to support and strengthen the implementation of environmental and social (E&S) measures on project sites. These coordinated actions have led to visible improvements in on-site practices and compliance with E&S requirements. The positive outcomes of these efforts are illustrated as follows:

	
Date: 03-01-2024	Date: 26-02-2025
Working area is barricaded	Use of PPEs at site
Intermittent chlorination stations.	

	
Date: 03-02-2025	Date: 20-02-2025
Use of PPEs at site	Working area is barricaded
KA-2 Rehabilitating Water Supply and Sewerage Essa Nagri	
	
Date: 02-02-2025	Date: 11-02-2025
use of PPEs during work at site	Open manhole is barricaded
KA-1 Rehabilitating Water Supply and Sewerage Soba Nagar	
	
Date: 07-02-2025	Date: 27-02-2025
Site barricading and placement of signages	
Replacement of Rising main no.5 with x-42 grade steel 72'' dia	

	
Date: 10-02-2025	Date: 18-02-2025
TBT and use of PPEs at site	Site barricading
Replacement of damaged section of 72'' dia, 66'' dia & 54'' dia old pipri water main with x-42 grade.	
	
Date: 13-02-2025	Date: 10-02-2025
Site barricading	
Construction projects package lot-1: centre of reforms, research & innovation (CERRI) building	
	
Date: 25-02-2025	Date: 27-02-2025

TBT and use of PPEs at site	Site visit and use of PPEs at site
Construction Projects Package Lot-2: Parking Shed for S & J Trucks at Central Workshop and other Locations	
	
Date: 26-02-2025	Date: 26-02-2025
Trench Restoration work in Progress	
Priority Sewer Network Rehabilitation of Teen Hatti	
	
Date: 09-02-2025	Date: 30-01-2025
Site visit and Use of PPEs at site	USe of PPEs at site
Construction Projects Package Lot-3: Customer Service Centres	

	
Date: 21-02-2025	Date: 25-02-2025
Use of PPEs during work	Barricading around excavated pit
Package-2(A) Consumer Flow Meters Civil Works And Installation In Lot: 2: Cattle Colony	

	
Date: 05-03-2025	Date: 04-03-2025
Working area is barricaded and GRM penafelxes in placed	Use of PPEs at site
Intermittent chlorination stations.	
	
Date: 02-03-2025	Date: 20-02-2025

Use of PPEs at site	Working area is barricaded
KA-2 Rehabilitating Water Supply and Sewerage Essa Nagri	
	
Date: 07-03-2025	Date: 12-03-2025
use of PPEs during work at site	Open manhole is barricaded
KA-1 Rehabilitating Water Supply and Sewerage Soba Nagar	
	
Date: 01-03-2025	Date: 05-03-2025
Site barricading and placement of signage	
Replacement of Rising Main No.5 with x-42 Grade steel 72'' dia	
	
Date: 02-03-2025	Date: 15-03-2025

TBT and use of PPEs at site	Site barricading
Replacement of damaged section of 72'' dia, 66'' dia & 54'' dia Old Pipri Main with x-42 Grade.	
	
Date: 24-03-2025	Date: 10-02-2025
TBT and use of PPEs at site	Site barricading and placement of Signages
Construction projects package lot-1: centre of reforms, research & innovation (CERRI) building	
	
Date: 13-03-2025	Date: 19-03-2025
TBT and use of PPEs at site	Site visit and use of PPEs at site
Construction Projects Package Lot-2: Parking Shed for S & J Trucks at Central Workshop and other Locations	

	
Date: 11-03-2025	Date: 20-03-2025
Site barricading and placement of Signages	TBT and use of PPEs at site
Construction Projects Package Lot-3: Customer Service Centres	
	
Date: 11-03-2025	Date: 24-03-2025
Use of PPEs during work	Barricading around excavated pit
Package-2(A) Consumer Flow Meters Civil Works And Installation In Lot: 2: Cattle Colony	

4- Grievance Redress Mechanism (GRM) Status

A Grievance Redress Mechanism (GRM) has been established at all the sub-project sites. In order to ensure effective operationalization of the GRM system on-site, GRM focal points were identified from the Contractors site-teams and training was provided to the GRM focal points on all aspects of GRM management by the PIU E&S Team. During the monitoring visits by the PIU E&S team, the GRM focal points were complying with established procedures for grievance recording on-site including maintenance of GRM registers and periodically shared the requisite filled-in GRM forms with the GRM Evaluation Officer at the PIU for ensuring centralized record and monitoring of all grievances. Details of complaints received during the reporting period are as follows.

4.1. Summary of Complaints

Category	Details
Total Complaints Received	79
Complaints Resolved	All (100% resolution rate)
Average Resolution Time	2-3 days (most complaints resolved within 1-2 days)
Primary Sources of Complaints	- GRM Focal Points (WhatsApp group) - Site Visits - Online Portal
Key Complaint Types	- Environmental (e.g., dust, noise, air pollution) - Social (e.g., blocked access)

4.2. Key Observations

1. **Environmental Complaints**:
    - The majority of complaints were related to environmental issues, particularly dust, noise, and air pollution caused by construction activities.
    - Sewerage and water line damage were also significant concerns, often resulting from excavation work.

- Mitigation measures included:
  - Forwarding complaints to contractors/consultants for immediate action.
  - Ensuring proper disposal of excavation material and repair of damaged utilities.

2. **Social Complaints**:
   - Blocked access to streets, footpaths, and houses caused disruption to daily life.
   - Mitigation measures included:
     - Clearing pathways and ensuring timely backfilling of excavated areas.

5- Strengthening of Katchi Abadi Cell and Engagement of CBOs

During the first quarter (January–March 2025), the National Rural Support Programme (NRSP) made substantial progress in implementing various planned activities under the Karachi Water and Sewerage Services Improvement Project (KWSSIP). The project's emphasis on community social mobilization—particularly the formation of Community-Based Organizations (CBOs), capacity building, gender inclusion, and Behavior Change Communication (BCC)—resulted in several key milestones. These outcomes reflect both the project's impact and its adaptability in the face of challenges. Such efforts are essential for ensuring the sustainability and effectiveness of the initiative, which aims to enhance water, sanitation, and hygiene (WASH) services in the targeted areas especially at Katchi Abadies of the Sooba Nagar and Essa Nagri of Karachi city.

5.1. Community Consultations and Water Tank Location Finalization - Essa Nagri

A series of intensive consultations began in January 2025 to reach a consensus on the location of the proposed water tank. On January 4, 2025, a final consensus meeting was held, with the participation of over 225 stakeholders including WASH Committees, CBO members, the Tank Nigran Committee, community notables, and the Pastors Alliance. A collective decision was made to construct the water tank at the Community Center near Awami Church, Street #01, Essa Nagri. An agreement on stamp paper was signed, and supporting documentation including a No Objection Certificate (NOC) from MPA Roma Sabahat Matto was submitted to KWSSIP-PIU.

However, during follow-up meetings in February, particularly at Faith Church, a small segment of the community (5%) raised concerns opposing the tank's placement at Awami Church. This led to considering alternative sites, such as the Community Center in Street #07. The situation escalated when a local political figure, Mr. Mushtaque Mitho, arrived with armed individuals, which was firmly addressed by NRSP Team Lead Ms. Caroline Faria, reaffirming NRSP's commitment to transparent, community-led processes without political interference.

Simultaneously, technical consultations were held with NESPAK and PIU. After rejecting initial proposed sites, the World Bank suggested a joint site visit. As a result, a site assessment was conducted at Street #07 Community Center, where technical feasibility was explored and initial discussions with the caretaker were held.

5.1.1. Social Feasibility Update - Water Tank Installation (Street #7, Essa Nagri)

After the rejection of three previously proposed sites, the community identified a new potential location a vacant community hall on Street #7, Essa Nagri which was assessed for water tank.

Overview:

A joint review by NRSP, NESPAK, and community stakeholders included a transect walk, technical measurements, and consultations. The site is on Katchi Abadi Authority land, structurally sound, and accessible via an 11-ft wide lane (min 8 ft, max 14 ft). Community

members have committed to removing minor encroachments and facilitating K-Electric coordination for pole removal.

Community Consensus:

Strong community support was observed, with 90% in favor of the project. A signed consent form (105 individuals) confirms willingness to allocate the space. Concerns about construction-related disruptions were acknowledged, with mitigation measures proposed.

5.1.2. WASH Committee Engagement and Meetings

Throughout the reporting period, regular WASH Committee meetings were conducted across all areas to ensure inclusive decision-making and community ownership. In Essa Nagri, meetings in Streets 1, 2, and 7 included discussions on tank design, complaint mechanisms, and community concerns, including those opposed to the Awami Church site. Committees such as FAITH, AWAMI, POWER OF YOUTH, and BLESSING SISTERS actively participated in these dialogues. In Welfare Colony, SHINE STAR and KERNAAL committees engaged in conversations around the role of women and operational planning.
Additionally, NRSP initiated household data collection in Essa Nagri to inform water service planning and infrastructure development.

5.2. CBO Formation and Strengthening

5.2.1. Gohrabad

A significant step was made with the establishment of a female WASH Committee in the Goharabad/Soba Nagar area. This committee, comprising nine members, is responsible for managing local WASH infrastructure and ensuring the upkeep of community water tanks.

On February 27, 2025, the CBO for Goharabad was officially formed through a transparent election process. Thirty out of thirty-three general body members participated in voting, and an oath-taking ceremony followed. Women actively participated, ensuring gender-inclusive representation. The Executive Committee (20 members) and General Body (33 members) had been finalized earlier in consultation with WASH Committees.

5.2.2. Welfare Colony

During a visit by the NRSP Team Lead, discussions were held with CBO and WASH Committee members regarding the formation of a new CBO, site selection for the water tank, and revenue generation through water bill collection. Community members expressed strong support, and women were encouraged to participate in upcoming elections. NRSP committed to a transparent process and clarified that project implementation would continue despite circulating rumors. A visit to the proposed tank site in the Welfare Colony graveyard was conducted with support from Mr. Sajjad and Mr. Yaqoob Qureshi.

5.2.3. Soba Nagar

On February 19, 2025, a meeting was held to sign a resolution for the rental of a CBO office. CBO members also committed to initiating WASH Committee training sessions and provided participant lists within two days, reflecting strong community ownership and efficient coordination.

5.3. Stakeholder Coordination

On February 26, 2025, NRSP met with the World Bank and PIU teams at the PIU office to present potential sites for the Essa Nagri water tank. Although initial options were rejected, a new site was proposed at Street #07 Community Center. A joint site visit was conducted by NRSP and NESPAK for technical feasibility assessment. The caretaker expressed a willingness to allocate the space for tank construction, and further evaluation is ongoing.

5.4. Summary of Wash Committees meetings

During January March 2025, Wash Committees conducted 138 community meetings across all project locations:

Essa Nagri: 57 meetings
Welfare Colony: 36 meetings
Soba Nagar: 36 meetings
Goharabad: 9 meetings

These engagements significantly strengthened trust with community stakeholders, enhanced transparency, and ensured inclusive participation across gender and social groups.
Communication and Advocacy

5.5. Capacity Building on Behavior Change Communication (BCC)

Throughout the reporting period, BCC sessions were organized to strengthen the capacity of key community actors.
At a workshop held at Hotel Xefan, NRSP BCC team facilitated a session for Community Facilitators, equipping them with practical tools to promote healthy WASH behaviors within their neighborhoods.

BCC sessions were conducted at Jesus & Mary Institute in Essa Nagri and in Soba Nagar, focusing on skill-building for WASH Committee members. These interactive trainings addressed local hygiene challenges and emphasized sustainable, community-driven behavior change strategies.

These sessions played a pivotal role in improving the facilitators' capacity to influence behavioral outcomes at the household and community levels.

5.6. Community-Led Awareness through Wall Painting Campaigns

To reinforce WASH messages at the grassroots level, a wall painting initiative was launched in Essa Nagri and Welfare Colony.

Vibrant murals featuring key hygiene messages such as the importance of handwashing and wearing slippers were painted on visible community walls. These visuals serve as constant, friendly reminders for children and families, enhancing the recall of positive hygiene behaviors in daily life.

5.7. Health Sector Engagement and Advocacy

Recognizing an increase in public health concerns, including fever, stomach infections, and the resurgence of COVID-19:

A formal meeting was held with Dr. Zahid Solangi, District Health Officer (East), to request the deployment of mobile medical camps in Essa Nagri and Welfare Colony.

A separate advocacy meeting with Deputy Commissioner East, Mr. Abrar Ahmed Jaffar, focused on addressing poor sanitation in Essa Nagri. NRSP BCC team raised urgent concerns regarding waste accumulation, insufficient street sweeping, and unhygienic surroundings, calling for municipal action.

5.8. Municipal Coordination for Hygiene Interventions

To address environmental determinants of health, NRSP team facilitated interdepartmental coordination, leading to a community cleaning campaign in Essa Nagri, conducted in collaboration with the Sindh Solid Waste Management Board (SSWMB), aimed at controlling the spread of infectious diseases.

5.9. Enhancing Project Visibility and Public Awareness

To highlight ongoing health and hygiene interventions, NRSP team coordinated with local media houses. Coverage of the cleaning and fumigation drives, as well as the wall painting campaign, was secured in local news outlets. This visibility helped build public trust and reinforced the project's commitment to improving community health outcomes. News clippings and links have been annexed.

5.10. Communication and Outreach Support

Communication materials were developed and disseminated to support awareness-raising across project areas. This included designing and reviewing brochures, flyers, and IEC materials in line with behavior change goals. These efforts were instrumental in delivering clear, engaging messages to communities and stakeholders.

5.11. Capacity Building Orientation Meeting for Community Facilitators

Date: December 31, 2024 - January 1, 2025
Location: Xefan Hotels
Participants: 10 Community Facilitators
Objective: To equip community facilitators with effective training methodologies to enhance engagement and participation during training sessions.

Key Highlights:

Facilitators were trained on participatory training techniques, including interactive elements such as role plays and group activities.
Aimed to create a knowledgeable and skilled team to drive WASH initiatives effectively within the community.

5.12. Capacity Building Training for WASH Committee Members

5.12.1. Batch 01

Date: January 8-10, 2025.
Participants: 23 Men, Women & Transgender

Focused on enhancing competencies to address WASH issues, including community mobilization and stakeholder communication.

Feedback indicated a strong demand for additional capacity-building initiatives.

Capacity Building Training for WASH Committees was conducted over a three-day period as an integral component of the Karachi Water & Sewerage Services Improvement Project (KWSSIP). The primary objective was to enhance participants' competencies in effectively addressing water, sanitation, and hygiene (WASH) issues within their communities. The training focused on empowering attendees to mobilize community members and establish functional WASH Committees through a series of interactive sessions that encompassed community mobilization techniques, organizational development, gender mainstreaming, and behavior change communication strategies.

The training curriculum was meticulously designed to include hands-on activities that reinforced theoretical knowledge and fostered a collaborative learning environment. Participants engaged in discussions on the roles and responsibilities of WASH Committees, the significance of health and hygiene at the household level, and effective stakeholder communication strategies. Feedback from participants indicated that the training was highly beneficial, with many expressing a desire for additional capacity-building initiatives. By the conclusion of the program, participants were equipped with essential tools and insights to tackle WASH challenges, thereby contributing to enhanced service delivery and improved quality of life for residents in Katchi Abadi and surrounding areas.

5.12.2. Batch 02

Date: January 15-17, 2025.
Participants: 25 Women

Emphasized participatory approaches and leadership capabilities, with feedback highlighting first-time exposure to such training.

Capacity Building Training for WASH Committees was conducted over three days with women group. The training aimed to enhance participants' skills and knowledge to effectively address water, sanitation, and hygiene (WASH) issues in their communities. Specific objectives included developing community mobilization skills, understanding participatory approaches for marginalized groups, enhancing leadership capabilities, and learning about gender mainstreaming in WASH initiatives. The training incorporated interactive sessions, discussions on the roles of WASH Committees, and hands-on activities to reinforce learning.

By the end of the training, participants were equipped with essential tools to tackle WASH challenges, ultimately contributing to improved service delivery and quality of life for residents in Katchi Abadi and surrounding areas. During the training, we received a valuable feedback from the participants that they have never attended such a training before and they have learnt a lot through this learning platform.

5.12.3. Batch 03

Date: January 22-24, 2025
Participants: 20 Mixed group of men, women, and transgender

Provided tools for establishing effective WASH Committees and addressed community mobilization strategies.

Capacity Building Training for WASH Committees was conducted over three days with a mixed group including Men, Women and Transgender focusing on enhancing participants' skills to address water, sanitation, and hygiene (WASH) challenges in their communities.
The training aimed to empower attendees to mobilize community members and establish effective WASH Committees through interactive sessions that covered topics such as community mobilization, organizational development, gender mainstreaming, and behavior change campaigns. Each day was structured to include discussions, practical activities, and teamwork exercises that reinforced learning and fostered a sense of community among participants.

By the end of the training, participants expressed positive feedback about the informative sessions and their newfound understanding of leadership and the roles of WASH Committees. The training successfully equipped them with essential tools and knowledge needed to tackle WASH issues effectively in their respective areas. Overall, the initiative contributed to improved service delivery and enhanced quality of life for residents in Katchi Abadi and surrounding communities, laying a strong foundation for future water and sanitation initiatives.

5.12.4. Batch 04

Date: January 29-31, 2025
Participants: 25 (Men and Women)

Strengthened participants' abilities to engage with the community and address WASH challenges through interactive curriculum design.

Capacity Building Training for WASH Committees was held over three days as a key element of the Karachi Water & Sewerage Services Improvement Project (KWSSIP). Its main goal was to strengthen participants' abilities to effectively address water, sanitation, and hygiene (WASH) challenges in their communities. The training aimed to empower attendees to engage community members and form active WASH Committees through interactive sessions covering community mobilization, organizational development, gender mainstreaming, and behavior change communication strategies.

The curriculum was carefully crafted to combine hands-on activities with theoretical learning, creating a collaborative environment. Participants discussed the roles and responsibilities of WASH Committees, the importance of household health and hygiene, and effective communication with stakeholders. Feedback from attendees highlighted the training's value, with many calling for further capacity-building opportunities. By the end of the program, participants gained essential skills and knowledge to address WASH issues, ultimately improving service delivery and enhancing the quality of life for residents in Katchi Abadi and neighboring areas.

5.12.5. Batch 05

Date: February 5-7, 2025
Participants: 25 Men from Welfare Colony

Focused on engaging men in WASH initiatives and enhancing their skills through community mobilization techniques.

As part of the Karachi Water & Sewerage Services Improvement Project (KWSSIP), a three-day WASH Training was conducted as a key initiative. The training targeted WASH Committees from Welfare Colony, with a focus on engaging men. A total of 25 participants attended, representing 04 WASH Committees.

The primary objective was to enhance participants' skills in effectively addressing water, sanitation, and hygiene (WASH) issues within their communities. The training aimed to empower attendees to mobilize community members and establish functional WASH Committees through interactive sessions. These sessions covered community mobilization techniques, organizational development, gender mainstreaming, and behavior change communication strategies.

5.12.6. Batch 06

Date: February 12-14, 2025
Participants: 23 Women

Aimed to strengthen operational competencies of women in addressing WASH challenges, emphasizing gender-responsive planning.

Building on the WASH Training initiative, a targeted capacity-building intervention was conducted, focusing on 23 female members from WASH Committees in Welfare Colony. The training encompassed 04 women-led WASH Committees, aiming to strengthen their technical and operational competencies in addressing water, sanitation, and hygiene (WASH) challenges at the community level. The program emphasized empowering participants to drive community mobilization, establish sustainable WASH Committees, and implement inclusive strategies through interactive modules. These modules covered community engagement frameworks, institutional strengthening, gender-responsive planning, and behavior change communication (BCC) methodologies.

Participant feedback highlighted the training's efficacy, with strong endorsements for scaling up similar capacity-building interventions. By the program's conclusion, attendees were equipped with actionable tools and strategic insights to address WASH-related issues, fostering improved service delivery and enhancing the socio-economic well-being of residents in Katchi Abadi and adjacent communities.

5.12.7. Batch 07

Date: February 19-21, 2025
Participants: 8 (Men and Women)

Engaged participants from two WASH Committees in discussions and hands-on learning about WASH governance.

As part of the ongoing WASH capacity-building initiative, 08 members from 02 WASH Committees were engaged in a targeted training intervention. The primary objective was to enhance participants' technical and operational competencies in addressing water, sanitation, and hygiene (WASH) challenges within their communities. The training emphasized equipping attendees with the skills to drive community mobilization, establish sustainable WASH Committees, and implement inclusive strategies through interactive sessions. These sessions integrated community engagement frameworks, institutional capacity strengthening, gender mainstreaming, and behavior change communication (BCC) methodologies.

The training curriculum was strategically designed to blend hands-on, experiential learning with theoretical foundations, fostering a participatory and collaborative environment. Participants actively discussed the roles and responsibilities of WASH Committees, the critical importance of household-level health and hygiene practices, and effective stakeholder engagement strategies. This approach ensured a holistic understanding of WASH governance

and service delivery mechanisms, enabling participants to apply these insights in their respective communities.

5.12.8. Batch 08

Date: February 26-28, 2025
Participants: 20 (Men and Women)

Further fostered community mobilization and collaborative learning, with positive feedback for scaling up capacity-building interventions.

As part of the ongoing capacity-building initiative for WASH Committees, a mixed-gender cohort of WASH members from Soba Nagar was engaged in a comprehensive training session. A total of 20 participants, including 11 women, attended the program. The training aimed to empower attendees with the skills to drive community mobilization, establish sustainable WASH Committees, and implement inclusive strategies through interactive modules. These modules integrated community engagement frameworks, institutional capacity strengthening, gender mainstreaming, and behavior change communication (BCC) methodologies.

The curriculum was strategically designed to combine hands-on, experiential learning with theoretical foundations, fostering a participatory and collaborative environment. Participants actively discussed the roles and responsibilities of WASH Committees, the critical importance of household-level health and hygiene practices, and effective stakeholder engagement strategies. Post-training feedback highlighted the program's efficacy, with participants expressing strong interest in scaling up similar capacity-building interventions to further strengthen WASH governance and service delivery mechanisms.

5.12.9. Batch 09

Date: March 5-7, 2025
Participants: 25 (Men and Women)

Strengthened participants ability to address WASH challenges effectively, highlighting the importance of household health and hygiene.

Capacity Building Training for WASH Committees was held over three days as a key element of the Karachi Water & Sewerage Services Improvement Project (KWSSIP). Its main goal was to strengthen participants' abilities to effectively address water, sanitation, and hygiene (WASH) challenges in their communities. The training aimed to empower attendees to engage community members and form active WASH Committees through interactive sessions covering community mobilization, organizational development, gender mainstreaming, and behavior change communication strategies.

The curriculum was carefully crafted to combine hands-on activities with theoretical learning, creating a collaborative environment. Participants discussed the roles and responsibilities of

WASH Committees, the importance of household health and hygiene, and effective communication with stakeholders. Feedback from attendees highlighted the training's value, with many calling for further capacity-building opportunities. By the end of the program, participants gained essential skills and knowledge to address WASH issues, ultimately improving service delivery and enhancing the quality of life for residents in Katchi Abadi and neighboring areas.

5.12.10. Batch 10

Date: March 11-13, 2025
Participants: 24 (Men and Women)

Aimed to build skills among WASH Committees in Welfare Colony, ensuring participant engagement in the training.

As part of the Karachi Water & Sewerage Services Improvement Project (KWSSIP), a three-day WASH Training was conducted as a key initiative. The training targeted WASH Committees from Welfare Colony, with a focus on engaging men. A total of 24 participants attended, representing 04 WASH Committees.

The primary objective was to enhance participants' skills in effectively addressing water, sanitation, and hygiene (WASH) issues within their communities. The training aimed to empower attendees to mobilize community members and establish functional WASH Committees through interactive sessions. These sessions covered community mobilization techniques, organizational development, gender mainstreaming, and behavior change communication strategies.

5.12.11. Batch 11

Date: March 18-20, 2025
Participants: 18 (Men and Women)

Supported technical competencies in operationalizing WASH issues, with positive endorsements for future initiatives.

Capacity Building on the WASH Training initiative, a targeted capacity-building intervention was conducted, focusing on 18 male and female members from WASH Committees in Soba Nagar. The training encompassed 03 WASH Committees, aiming to strengthen their technical and operational competencies in addressing water, sanitation, and hygiene (WASH) challenges at the community level. The program emphasized empowering participants to drive community mobilization, establish sustainable WASH Committees, and implement inclusive strategies through interactive modules. These modules covered community engagement frameworks, institutional strengthening, gender-responsive planning, and behavior change communication (BCC) methodologies.

Participant feedback highlighted the training's efficacy, with strong endorsements for scaling up similar capacity-building interventions. By the program's conclusion, attendees were equipped with actionable tools and strategic insights to address WASH-related issues, fostering improved service delivery and enhancing the socio-economic well-being of residents in Katchi Abadi and adjacent communities.

5.12.12. Batch 12

Date: March 24-26, 2025
Participants: 20 (Men and Women)

Focused on sustainable strategies for community-based WASH initiatives, with an interactive and participatory training design.

As part of the ongoing WASH capacity-building initiative, 20 members from 03 WASH Committees were engaged in a targeted training intervention. The primary objective was to enhance participants' technical and operational competencies in addressing water, sanitation, and hygiene (WASH) challenges within their communities. The training emphasized equipping attendees with the skills to drive community mobilization, establish sustainable WASH Committees, and implement inclusive strategies through interactive sessions. These sessions integrated community engagement frameworks, institutional capacity strengthening, gender mainstreaming, and behavior change communication (BCC) methodologies.

The training curriculum was strategically designed to blend hands-on, experiential learning with theoretical foundations, fostering a participatory and collaborative environment. Participants actively discussed the roles and responsibilities of WASH Committees, the critical importance of household-level health and hygiene practices, and effective stakeholder engagement strategies. This approach ensured a holistic understanding of WASH governance and service delivery mechanisms, enabling participants to apply these insights in their respective communities.

5.13. Community Engagement Initiatives - Essa Nagri

Conducted several meetings regarding the construction of a tank at the Community Centre, involving local pastors and female community members to gather consent and address accessibility concerns.

5.13.1. Gender and Inclusivity Initiatives:

Developed a brochure on gender equality, human rights, and pro-women laws, ready for distribution in Katchi Abadis to raise awareness.
Integrated gender content into capacity-building manuals for WASH Committees and CBO representatives to enhance their advocacy skills for gender equality.
COMPONENT: Gender

5.13.2. Community Engagement for Tank Location in Essa Nagri

On January 2, 2025, a meeting with pastors was convened to finalize the site for the new water tank. The group unanimously agreed to build a water tank at the Community Centre, underscoring the importance of securing community-wide consent. Pastors distributed consent forms in their congregations to formally collect approvals, ensuring process remained transparent and participatory. The meeting ended with a clear strategy to advance the construction.

On January 3, 2025, female community members were engaged to discuss the proposed location. Participants were briefed on the plan and invited to share their perspectives, particularly regarding accessibility and community benefit. Consent forms were provided to document their support. This meeting prioritized inclusivity and reinforced commitment to transparency, with women expressing strong endorsement for the initiative.
On January 4, 2025, a broader community meeting brought together pastors, women representatives, and other stakeholders to confirm the decision. The consensus to situate the tank at the Community Centre was reaffirmed. Attendees were encouraged to voice their opinions, and a 30-member committee was established to oversee construction, ensuring the project is implemented effectively and with community oversight.

5.13.3. Gender Equality and Human Rights Awareness

A brochure on gender equality, human rights, and pro-women legislation was developed and finalized for printing. Material is designed to raise awareness about women's rights, legal protections, and the importance of gender-inclusive laws. Communication specialist ensured the brochure was clear, accurate, and aligned with project objectives. Once printed, it will be distributed widely in both Katchi Abadis to inform and empower communities, fostering a more inclusive environment.

5.13.4. Capacity Building and Gender Mainstreaming

Gender-focused content was integrated into training manual for WASH Committees, Women Change Agents, and CBO representatives. The manual addresses distinctions between gender and sex, introduces the "Gender Tree" framework, and explains pro-women laws and leadership roles of women in community structures. Interactive exercises and real-life examples are included to facilitate effective learning and engagement. The aim is to strengthen the capacity of community leaders to advocate for gender equality and address related challenges.

Three training batches were conducted, covering gender concepts, the Gender Tree, pro-women laws, and the roles of women in WASH Committees. These sessions equipped participants with knowledge and skills needed to promote women's rights and drive positive change within their communities.

5.13.5. Women Change Agents Initiative

The Women Change Agents initiative was launched, with 57 women identified across Soba Nagar, Gohrabad, Essa Nagri, and Welfare Colony. These agents developed action plans to raise awareness about women's roles in WASH, advocate for safe and accessible services, mobilize other women, and address menstrual hygiene and sanitation issues. This initiative is a significant step toward enhancing women's leadership in WASH governance.

Follow-up meetings were held to review progress on action points. In Welfare Colony, the top priority was submitting a request to KMC for dustbin installation, while in Gohrabad, efforts focused on street cleanliness and promoting women's financial independence through stitching classes. Plans were made to use CBO office space for these sessions, ensuring accessibility and support for women's economic empowerment.

5.13.6. Capacity Building of WASH Committees

Ongoing three-day capacity-building sessions for WASH Committees include a dedicated day on gender topics, such as gender versus sex, the Gender Tree, women's leadership roles, pro-women laws, and the grievance redress mechanism (GRM). These sessions are designed to enhance committee members' effectiveness in advocacy, decision-making, and implementation of WASH initiatives.

5.13.7. Celebration of Women's Days

National Women's Day (February 12, 2025) and International Women's Day (March 7, 2025) were celebrated to honor women's contributions to WASH governance. Events featured discussions on gender equality, women's rights, and leadership, and included recognition ceremonies for active women committee members. These celebrations reinforced the importance of women's participation in community development and WASH services.

5.13.8. Grievance Redress Mechanism (GRM) Implementation

GRM pamphlets were printed and distributed, outlining complaint submission methods such as a community complaint box and digital channels (phone, WhatsApp, SMS). The GRM number was activated, and complaints are now systematically registered and tracked for resolution. This process ensures transparency, accountability, and timely response to community concerns. To date, ten complaints have been received and forwarded to KWSSIP's GRM for action, with regular updates requested on their resolution status.

5.14. Monitoring & Evaluation

During January 2025, the M&E Unit conducted several field visits across various project sites to engage with diverse stakeholders and assess the progress of ongoing WASH interventions. These visits provided opportunities to interact with community groups, including WASH Committees and CBO members, key influential figures, training participants, and complainants

of the Grievance Redressal Mechanism (GRM). The objective was to monitor the effectiveness of community mobilization efforts, evaluate training sessions, address infrastructure-related grievances, and ensure transparency in project implementation. Through direct engagement, the M&E team identified key challenges, gathered feedback, and proposed actionable recommendations to improve coordination, community participation, and service delivery.

5.14.1. Monitoring of WASH Committees

Several monitoring visits were conducted across Essa Nagri, Soba Nagar, and Goharabad to assess the performance of WASH Committees, community engagement, and project progress. Key observations highlighted poor coordination within WASH Committees, lack of clarity on responsibilities, and limited participation in structured meetings. It was noted that the same individuals attend WASH Committee meetings, restricting diverse voices from being heard. A lack of awareness on grievance redressal mechanisms (GRM) was reported, with many members unaware of how to address complaints regarding infrastructure-related issues. WASH Committees in Goharabad and Essa Nagri emphasized the need for more capacity-building sessions, particularly in leadership, governance, and financial management. Community members expressed concerns about delayed responses from KWSSIP/NESPAK on infrastructure grievances, including damaged water lines and sewerage system failures.

Action Points:

✓ Establish structured communication channels such as WhatsApp groups for each WASH Committee.
✓ Conducted an orientation session on the roles and responsibilities of WASH Committees and their presidents.
✓ Organized regular meetings between NRSP, NESPAK, and KWSSIP to ensure better alignment of project goals and infrastructure interventions.

5.14.2. Tank Construction Issues in Essa Nagri

Some resistance was observed from certain community members opposing the water tank construction at the Awami Community Center. Concerns were mainly linked to religious apprehensions and poor past infrastructure work, rather than direct opposition to the water tank itself. The absence of Watch Committee members during the initial digging process further escalated tensions, as there was no structured mediation to address community concerns. Sending the machinery to Awami Community Center for soil testing was initiated by NRSP but Nigraan committee formed to monitor the purpose was informed quite late (just 3 hours before the activity) therefore no one was there to control the mob.

Action Points:

✓ Ensure active participation of Nigraan Committee members at the construction site before resuming demolition.

✓ Conduct a structured awareness campaign to counter misinformation and highlight the project's benefits.

5.14.3. Larger WASH Committee Meetings (Essa Nagri & Soba Nagar)

Two larger WASH Committee meetings were scheduled to enhance community participation. However, low attendance and last-minute meeting notifications resulted in poor engagement and lack of structured discussions. The meeting agenda was not communicated in advance, leading to confusion among attendees. Many community members remained unaware of the purpose of collected signatures (1100+), which were meant to validate support for the water tank construction. Concerns were raised about political influence in decision-making, particularly regarding the tank's location.

Action Points:

✓ Empower WASH Committees to conduct independent meetings, with NRSP monitoring only as facilitators.
✓ Ensure proper meeting scheduling at least 24-48 hours in advance to improve participation.
✓ Conduct orientation sessions for WASH Committees on their responsibilities and project objectives.

5.14.4. Training Evaluation for WASH Committees

Training sessions were conducted in Essa Nagri, with low participation rates observed during sessions. The training venue (a church) was considered culturally inappropriate by 71% of participants, who requested a relocation to a more neutral setting. Participants appreciated the interactive activities, group work, and participatory approach but requested simplified training materials for better comprehension. Only one participant was aware of the Complaints and Response Mechanism (CRM), highlighting a need for better awareness. Several participants recommended reducing training duration from three days to a maximum of two days.

Action Points:

✓ Relocate training to a more neutral venue to improve participant comfort.
✓ Simplify training materials and ensure that content is translated into an easily understandable format.
✓ Reintroduce and emphasize the Complaints and Response Mechanism (CRM) in future training sessions.
✓ Reduce training duration to 2-3 hours per day for two days, as per community recommendations.

5.14.5. Community Grievances & Infrastructure Concerns

Goharabad residents expressed major concerns regarding infrastructure issues, particularly sewerage blockages that required repeated expenditures by community members. Residents lacked clarity on the roles of NESPAK and KWSSIP, which led to confusion about who is responsible for technical fixes. The GRM system of KWSSIP/NESPAK was found to be ineffective, as community complaints (even with photographic/video evidence) were left unaddressed. WASH Committees demanded better coordination between NRSP and NESPAK to resolve infrastructure issues.

Action Points:

✓ Regular coordination meetings between NRSP, NESPAK, and KWSSIP should be arranged.
✓ Establish a responsive GRM system, incorporating WhatsApp, complaint boxes, and direct contact points.
✓ Ensure accountability in infrastructure interventions, tracking all reported issues and their resolution status.

5.14.6. Baseline Study Facilitation

Community members in Goharabad expressed concerns over fraudulent data collection in past projects, leading to mistrust in external survey teams. WASH Committee members requested to be briefed in advance before the baseline survey begins, ensuring better cooperation and accuracy in data collection. Some households were unwilling to provide information due to fears of misuse.

Action Points:

✓ Hold pre-survey meetings with WASH Committees to inform households and gain their trust.
✓ Assign WASH Committees as community liaisons to ensure smooth data collection.
✓ Prioritize the formation of the third CBO, ensuring structured leadership and governance.

5.14.7. Establishment of the Community-Based Organization (CBO) Office in Goharabad

Following the successful election and establishment of the Community-Based Organization (CBO) in Goharabad, the newly formed body took a significant step forward by securing a dedicated office space to serve as its operational hub. During the reporting period, the documentation process for finalizing the rental agreement was successfully completed, marking a major milestone in institutional strengthening at the community level. In parallel, NRSP initiated the procurement of essential office furniture, stationery, and other operational equipment to enable smooth functioning of the CBO.

The office has now become fully functional but as, capacity-building trainings for WASH Committee members have already commenced at this location, reflecting the office's immediate utility. Once the ongoing three batches of training are completed, the office space will be fully equipped with properly arranged furniture, branded IEC materials, and a designated area for maintaining documentation and records. The office is envisioned to serve as a central coordination point for future community mobilization, grievance redressal, planning sessions, and interface with local authorities.

5.14.8. Coordination Meeting with Project Implementation Unit (PIU)

During the reporting period, NRSP's project team held a coordination meeting with key officials from the Project Implementation Unit (PIU), including Mr. Arif (Focal Person - KWSSIP) and Mr. Irfan (Procurement Manager - PIU), to share updates and align on several project matters. The PIU representatives conveyed an important update regarding the water service provision in Essa Nagri. As per the communication from the World Bank, the service delivery has been temporarily postponed until the community arrives at a formal consensus on the final site for water tank construction; a precondition for proceeding with the infrastructure investment. NRSP acknowledged this development and reiterated its ongoing efforts to facilitate stakeholder consensus through inclusive community engagement.

In addition, the PIU requested NRSP to ensure compliance with technical documentation requirements related to the Stakeholder Engagement Plan (SEP). These include providing proof of insurance and submission of Minutes of Validation (MoVs) of community consultations. NRSP confirmed its commitment to meeting all such compliance obligations in a timely and transparent manner.

Furthermore, the PIU shared a formal complaint lodged by the Union Council Chairman of Soba Nagar regarding NRSP's field staff and the selection process of the CBO members in the area. NRSP addressed the concern with clarity, explaining that all CBO formation processes followed documented procedures, with community participation and proper recording of proceedings to ensure transparency and accountability. The PIU acknowledged the clarification and agreed that further coordination would help prevent such misunderstandings.

As an important outcome of the meeting, it was mutually agreed to initiate a regular coordination mechanism involving key stakeholders, including PIU, NESPAK, NRSP, KAC, and community representatives from the CBOs. Initially, these coordination meetings will be held every week to build momentum and ensure swift decision-making. Once a momentum is established, the frequency will shift to fortnightly meetings, with NRSP taking an active role in facilitating this collaboration.

5.14.9. Validation of Nominations for CBO Formation in Goharabad

As part of the Community-Based Organization (CBO) formation process in Goharabad, the Monitoring and Evaluation (M&E) Specialist conducted a thorough validation of nominations for the General Body and Executive Body. This process involved meeting with randomly

selected WASH Committee (WC) members who were not directly nominated in the Executive or General Body to ensure transparency and inclusivity in the selection process. At least three members from each of the ten WASH Committees, including those led by women, were engaged in the validation exercise.

The findings revealed a significant gap in awareness among WC members regarding the nomination process. Many were not involved in selecting the three representatives for the General Body and were unaware of the significance of these nominations in determining the Office Bearers of the CBO. This gap in understanding indicated a need for corrective measures to ensure participatory decision-making and informed consent.
The results were promptly reported to the Team Lead (TL), and corrective actions were initiated. The WASH Committee meetings were rescheduled to conduct a revised nomination process with full participation from all members. This process was formally documented, ensuring transparency and accountability. Moving forward, additional efforts will be made to strengthen community awareness about the roles and responsibilities of CBOs, reinforcing the importance of informed decision-making in the governance structure of local organizations.

5.15. Research Section

The research team closely monitored the baseline data collection process through five field visits to Soba Nagar, Gohrabad, Essa Nigari, and Welfare Colony. These visits focused on overseeing data collection, assessing interview quality, and ensuring adherence to protocols. During the visits, the team observed enumerators' interviewing techniques, evaluated respondent participation, and identified challenges affecting data accuracy. Special attention was given to respondents' willingness to share information, question clarity, and overall engagement. The team also ensured ethical guidelines were followed and respondents were properly briefed on the study’s purpose.

Key areas for improvement included refining interview techniques, enhancing respondent engagement, and improving data documentation. These observations were immediately communicated to the data collection team through on-site debriefings, where practical recommendations were shared to address gaps and improve efficiency.

Additionally, a separate debriefing session with the IRS senior team emphasized the need to improve data collection methodologies and door marking procedures. Accurate household marking was highlighted as essential to prevent duplication and ensure systematic coverage. Through these monitoring efforts, the research team provided valuable insights to strengthen the baseline data collection process, improve data quality, and enhance field operations.

5.15.1. Development of the Online Monthly Work Plan Template

During a weekly meeting, the Research Specialist was assigned the task of creating an online Monthly Work Plan template to enhance planning and task management. In response, the research team designed a structured digital template to facilitate organized tracking of activities and progress. After finalizing the design, the template was digitized and integrated into an online platform for easy access and real-time collaboration. The template link was

shared with all team members, enabling streamlined workflow management and ensuring better coordination.

This initiative has improved efficiency by providing a structured and transparent system for planning, monitoring, and updating monthly work activities.

5.15.2. Meeting with PIU and IRS Teams

During the meeting, the IRS team provided an update on data collection, shared the challenges faced, and presented a sample GIS database for integrating GIS into the baseline data. PIU team recommended that NRSP team conduct baseline survey validation with a random sample of 50–100 households. Additionally, the IRS team was instructed to update the data accordingly.

5.16. Baseline Survey Validation

NRSP's research team designed the baseline data validation survey by reviewing HHs, data collection tools developing a validation tool, and finalizing the data collection methodology. After receiving approval from the Team Lead, the validation process was implemented.

With support from social mobilizers, the team validated 100 households in Essa Nagari, Welfare Colony, and Soba Nagar-Gohrabad. Detailed information was gathered using the validation tool, and door markings by the IRS team were directly observed to confirm the accuracy of the baseline data.

5.16.1. Baseline Survey Validation Data Analysis and Draft Report

The research team analyzed the baseline survey validation data by using Microsoft Access for data analysis and used Microsoft Excel for data visualization and findings were narrated and shown in graphs and charts to better understand for decision-making and drafted a report. The study assessed data accuracy, identified inconsistencies, and evaluated the effectiveness of the data collection process. Key findings and recommendations were outlined to strengthen data reliability and improve baseline findings.

5.16.2. Number of Household Count for Baseline Validation

Project Implementation Unit (PIU) team expressed concerns that baseline household count in Katchi Abadies appeared significantly lower than expected based on secondary data. In response, NRSP team, with support from WASH committees and CBOs, decided to conduct a recount of households in each Katchi Abadi. Through this collaborative effort, NRSP team successfully verified 100% of households across all project areas and final result shared with TLs. This validation process aimed to ensure accuracy and reliability of baseline household data.

5.16.3. Baseline Draft Report Review

The NRSP team received the first draft of the baseline report from the IRS consultant. The NRSP research team carried out technical detailed desk review of the baseline report and findings cross-verified with household data, shared feedback with IRS team to ensure the quality of the situational assessment report.

6- Gender Mainstreaming

The Karachi Water and Sewerage Services Improvement Project (KWSSIP) prioritizes gender equality as a vital component for inclusive, effective, and sustainable development. In alignment with the World Bank's Environmental and Social Framework (ESF), specifically ESS1 (Assessment and Management of Environmental and Social Risks), ESS2 (Labor and Working Conditions), ESS4 (Community Health and Safety), and ESS10 (Stakeholder Engagement), a Gender Action Plan (GAP) was developed. The GAP addresses gender-based discrimination at both project and organizational levels and is currently under implementation.

Woman fetching water in Katchi Abadi

Despite significant progress, some challenges persist. These include limited understanding of gender-based violence (GBV) issues among laborers, and hesitation to participate in awareness sessions. Moreover, both contractors and consultants have demonstrated reluctance and lack of awareness in supporting laborers with their basic rights and needs.

6.1. Activity 1: Awareness Sessions with Laborers

Locations: CERRI, Parking Shed, Haroonabad Customer Service Center, Cattle Colony, Bulk Flow Meters, Dhabaji Raising Main, Teen Hatti

To promote a respectful and inclusive work environment, a series of awareness sessions were conducted with laborers at key project sites. The seven sessions were conducted with 105 laborers and the project staff. These sessions focused on:

- **GBV and SEAH Awareness:** Educating workers about gender-based violence, sexual exploitation, abuse, and harassment, while emphasizing prevention strategies.
- **Labor Rights and Responsibilities:** Informing workers about their rights and the importance of fostering a respectful workplace culture.
- **Grievance Redress Mechanism (GRM):** Training laborers on how to report complaints and use the GRM system effectively.

The sessions were well-received, with laborers expressing increased awareness about workplace rights and procedures for grievance redress.

Session with CERRI Workers

Session with Workers at Dhabaji and CERRI

6.2. Activity 2: Code of Conduct Implementation

All site staff—including contractors, consultants, and laborers—were provided with the Code of Conduct developed under the GAP. Each staff member formally signed the document, acknowledging their understanding and commitment to maintaining a workplace free of harassment and discrimination.

Hard copies of signed codes were filed and are available at each site as documentation of compliance.

6.3. Activity 3: Community Consultations with Women Groups

Locations: Teen Hatti, Essa Nagri, Soba Nagar, Dhabaji, Malir Protection

Awareness sessions were conducted with women's groups in the surrounding communities to raise awareness on:

- The availability and process of the GRM
- Rights of women against GBV and SEAH
- Access to project benefits and complaint mechanisms

These sessions contributed to empowering local women and strengthening community-level accountability for gender protection.

Women consultation at Teen Hatti

6.4. Activity 5: Site Monitoring Visits on GAP and GRM Implementation

Locations: Malir Protection Bund, CERRI, Teen Hatti, Soba Nagar, Essa Nagri, Chlorination Station, Landhi, Pipri, Cattle Colony, Customer Service Centers

Regular monitoring visits were conducted to ensure the effective implementation of gender safeguards and the Grievance Redress Mechanism (GRM) across project sites. During the visits:

- Staff compliance with signed Codes of Conduct was verified.
- Labor conditions and site safety for women workers were assessed.
- Feedback was provided directly to contractors and supervision consultants.
- Action points were shared to address non-compliance issues.

These visits enhanced accountability and ensured early identification of GBV risk areas.

Field visit parking sheds

6.5. Activity 6: Capacity Building of Contractors, Consultants, and Focal Points

Locations: Dhabaji, Pipri, PIU

To enhance institutional capacity for implementing the Gender Action Plan and GRM, five training sessions were conducted:

- **GBV and SEAH Training:** Contractors and consultants were sensitized on GBV, SEAH prevention, and response mechanisms.
- **GRM Digital Portal Training:** Focal persons from contractor and consultant teams were trained on the use of the GRM digital portal at site level.
- **In-house Gender Training at PIU:** Internal E&S staff of PIU received refresher training on gender mainstreaming strategies and monitoring tools.

These trainings helped ensure consistent understanding and application of gender safeguards across all tiers of project implementation.

Training on GBV and GRM with consultant and contractor staff

6.6. Support to NRSP on Gender Action Plan Implementation

Gender Specialist provided technical support to the National Rural Support Programme (NRSP) for the development and implementation of a Gender Action Plan at the community level, with a special focus on empowering women in Katchi Abadis (informal settlements).

6.7. Key Activities during the Reporting Period

- **Exposure Visit to Orangi Pilot Project (OPP):**
  Facilitated an exposure visit for women community members to OPP to learn about community-led development, women's leadership, and local solutions for water and sanitation challenges.
- **Consultation with Women Change Agents:**
  Conducted focused group discussions and interactive sessions with women identified as potential community leaders to explore local gender issues and co-design community interventions.
- **Launch of Women Change Agents in Katchi Abadis:**
  Officially launched the Women Change Agents initiative, empowering local women to act as mobilizers, awareness-raisers, and support providers for other women in their communities. These women are playing a vital role in promoting gender equity, raising awareness on GBV, and facilitating access to GRM mechanisms.

This support reflects KWSSIP's commitment to mainstreaming gender not only within project operations but also through grassroots partnerships and institutional strengthening.

Awareness session with women group on Gender, GRM, GBV

Launching ceremony of women change agents and awareness session on role and responsibilities

Annexure

Annexure – 1 – Malir Protection Works Tree Plantation Audit Report

Compliance Issues in Tree Plantation Plan for Malir Protection Works
Audit Report

1. Introduction and Background

The primary bulk water supply lines i.e., G.K. Conduit, K-II, and K-III of Karachi Water and Sewerage Corporation (KW&SC) traverse through the Malir riverbed where a 500 feet wide corridor is maintained by KW&SC. All these pipeline crossing works were designed as buried structures under the river bed and upstream and downstream protection works were provided to ensure safety against erosion and piping.
Over time, due to illegal sand lifting from the Malir basin and inadequate operation and maintenance, the protection works have deteriorated significantly exposing the G.K. conduit and putting it at high risk. The recent heavy rains have increased the risk factors. Therefore, the protection works are being rehabilitated under the World Bank-funded Karachi Water and Sewerage Services Improvement Project (KWSSIP-1).

A significant number of bushes named '*Prosopis Juliflora*' were removed by the contractor. The detail is given below in **Table 1**:

Table 1: Details of Cluster of Bushes Removed

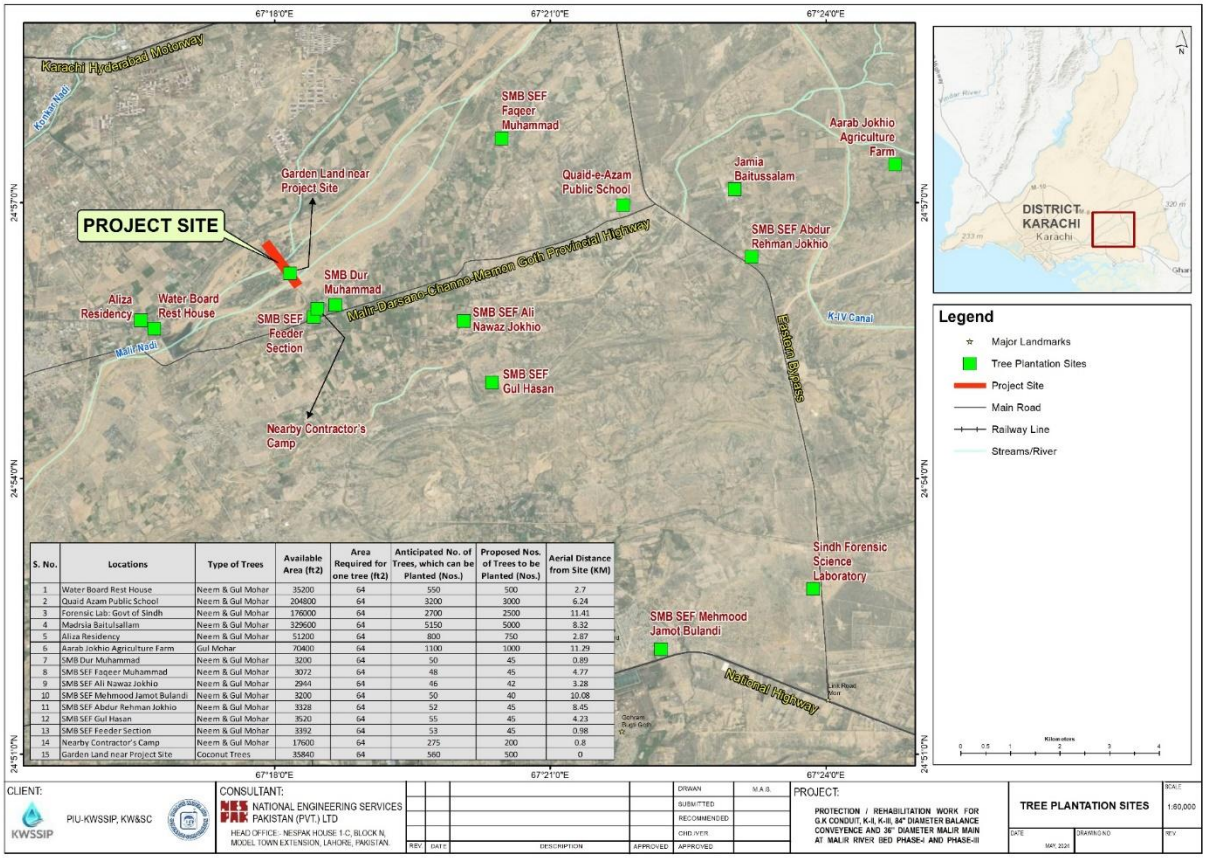
Sr. No.	Location	Number of Clusters
1	Creek 1	65
2	Creek 2	70
3	Creek 3	120
	Total Clusters	**255**

Total Number of Bushes	1275

Each cluster compromises of (05) Five Bushes

According to World Bank Operational Policies, OP 4.01 (Environmental Assessment), the current project lies in environmental category 'B' for which an Environmental and Social Management Plan (ESMP) was prepared. The plan sets the requirement for the plantation of trees at the contractor's end to offset the impact of the removal of existing vegetation and net environmental improvement in and around the project area.

In this regard, a comprehensive tree plantation plan was developed and tree plantations were conducted accordingly. Fifteen (15) different sites were selected for tree plantation considering the availability of land/land acquisition, water availability, and long-term maintenance of trees. The trees were planted within government and semi-government institutions. The tree plantation plan is shown in **Figure 1** below.



S. No.	Locations	Type of Trees	Available Area (ft2)	Area Required for one tree (ft2)	Anticipated No. of Trees, which can be Planted (Nos.)	Proposed Nos. of Trees to be Planted (Nos.)	Aerial Distance from Site (KM)
1	Water Board Rest House	Neem & Gul Mohar	35200	64	550	500	2.7
2	Quaid Azam Public School	Neem & Gul Mohar	204800	64	3200	3000	6.24
3	Forensic Lab: Govt of Sindh	Neem & Gul Mohar	176000	64	2700	2500	11.41
4	Madrsla Baitulsallam	Neem & Gul Mohar	329600	64	5150	5000	8.32
5	Aliza Residency	Neem & Gul Mohar	51200	64	800	750	2.87
6	Aarab Jokhio Agriculture Farm	Gul Mohar	70400	64	1100	1000	11.29
7	SMB Dur Muhammad	Neem & Gul Mohar	3200	64	50	45	0.89
8	SMB SEF Faqeer Muhammad	Neem & Gul Mohar	3072	64	48	45	4.77
9	SMB SEF Ali Nawaz Jokhio	Neem & Gul Mohar	2944	64	46	42	3.28
10	SMB SEF Mehmood Jamot Bulandi	Neem & Gul Mohar	3200	64	50	40	10.08
11	SMB SEF Abdur Rehman Jokhio	Neem & Gul Mohar	3328	64	52	45	8.45
12	SMB SEF Gul Hasan	Neem & Gul Mohar	3520	64	55	45	4.23
13	SMB SEF Feeder Section	Neem & Gul Mohar	3392	64	53	45	0.98
14	Nearby Contractor's Camp	Neem & Gul Mohar	17600	64	275	200	0.8
15	Garden Land near Project Site	Coconut Trees	35840	64	560	500	0

CLIENT: PIU-KWSSIP, KW&SC — KWSSIP
CONSULTANT: NATIONAL ENGINEERING SERVICES PAKISTAN (PVT.) LTD — HEAD OFFICE : NESPAK HOUSE 1-C, BLOCK N, MODEL TOWN EXTENSION, LAHORE, PAKISTAN.
PROJECT: PROTECTION / REHABILITATION WORK FOR G.K CONDUIT, K-II, K-III, 84" DIAMETER BALANCE CONVEYENCE AND 36" DIAMETER MALIR MAIN AT MALIR RIVER BED PHASE-I AND PHASE-III
TREE PLANTATION SITES

Figure 1: Tree Plantation Plan

2. Compliance Issues in Tree Plantation Plan for Malir Protection Works

The World Bank's mission, headed by the WB Practice Manager for Environment visited the plantation sites on 10.03.2025 and raised concerns on the following points:

- Location of the plantation sites and high mortality rate

- Use of Project Funds on Private Land

In this regard, the WB demanded an Audit Report on the existing plantation drive & health of trees and corrective measures to compensate the losses. The current audit report has been prepared to comply with the "Compliance Issues and Corrective Actions for Tree Plantation in Malir Protection Works Project" enclosing WB's observations shared by PIU-KWSSIP vide email dated 17.03.2025 and further revised on 22 March 2025 in the light of Bank's comments.

3. Response of Supervision Consultants to WB Queries

3.1. Location of the Plantation Site

The project is located on the outskirts of Karachi, an area with limited infrastructure and primarily agricultural and privately-owned land. The project is situated right inside the Malir Riverbed which is an open water creek and has no room for tree plantation. Although, ideally, the plantation sites should be selected closer to the impacted area. **All the nearby land (within 5-10 km radius) is agricultural and privately owned.**

Also, there is a key issue of shortage of water supply in the vicinity of the project site which limits the options of tree plantation. Consequently, government & semi-private land (by large) was chosen to ensure the long-term sustainability of the initiative keeping in view the security as well as maintenance of the plants. These plantation sites were selected and finalized after consulting all stakeholders and conducting a comprehensive survey of the designated area.

3.2. Use of Project Funds on Private Land

As part of World Bank's guidelines to offset the environmental impact of construction activities through a comprehensive Tree Plantation Plan, the Supervision Consultants in coordination with PIU, selected 15 plantation sites (starting from January 2024) considering:

- Sufficient supply of water
- Confined spaces with boundary wall
- Sufficient space for plantation & future maintenance aspects
- Volunteer agreement of land owners to help maintain the plant growth

Regarding the approved Tree Plantation Plan received vide email dated 18.07.2024 from the PIU KWSSIP, two (02) privately owned sites were already included in the list out of which 01 of them was selected for planting 500 Coconut Trees. This piece of land was located near Creek 1 of Malir Riverbed and it was later found that the land is disputed and was already in

the way of flood water. The owner of this land, requested to offset these plants on another piece of his land approx. 5 km away from the project site where these Coconut Trees were planted.

In view of observations from the World Bank team, we do however, acknowledge that these Trees will not ideally benefit the community by large, and, as a corrective measure, the payment for these coconut trees has been withheld and these trees shall be included in the Re-plantation plan on alternate locations once those locations are finalized.

4. Findings of the Audit of Existing Plantation

Table 2 presents the current status of the plantation carried out during the 2024 plantation season (March to May 2024). The number of trees planted, compared to the proposed figures, varies depending on the available space at the designated sites. A total of 10,850 trees were initially planned for plantation, which included 2,250 trees allocated to four sites that have since been dropped. These 2,250 trees are now considered void, and replantation of this number will be undertaken at alternative sites. This is also to mention that the remaining plants were planned to be planted during this season.

Table 2: Status of Tree Plantation (Proposed Vs Actual)

Sr. No.	Location	Type of Trees	Proposed No. of Trees	No. of Trees Planted		
				Neem	Gulmohar	Total
1	SMB-Quaid-e-Azam Public School (SMB-QAPS)	Neem & Gulmohar	2850	345	755	1100
2	Bait-us-Salam Madrassa	Neem & Gulmohar	4800	1004	148	1152
3	Water Board Rest House (Malir Bangalow)	Neem & Gulmohar	550	360	40	400
4	Sindh Forensic Laboratory	Neem & Gulmohar	2400	370	100	470
5	SMB Dur Muhammad	Neem & Gulmohar	30	40	-	40
6	SMB SEF Faqeer Muhammad	Neem & Gulmohar	30	30	-	30
7	SMB SEF Ali Nawaz Jokhio	Neem & Gulmohar	30	30	-	30
8	SMB SEF Mehmood Jamot Bulandi	Neem & Gulmohar	40	20	-	20
9	SMB SEF Abdur Rehman Jokhio	Neem & Gulmohar	40	30	-	30
10	SMB SEF Gul Hasan	Neem & Gulmohar	40	30	-	30
11	SMB SEF Feeder section	Neem & Gulmohar	40	20	-	20

12	Aliza Residency	Neem & Gulmohar	700	Site to be changed		
13	Aarab jokhio Agriculture form	Neem & Gulmohar	900	Site to be changed		
14	Nearby contractor's camp area	Neem & Gulmohar	150	Site to be changed		
15	Garden land near the project site (Actual Site is a Private Land around 11 km away)	Coconut	500	Site to be changed		
	Total Number of Plants		**10850**	**2279**	**1043**	**3322**

4.1. Health of Planted Trees

A detailed survey of the designated plantation sites — including SMB-QAPS, Bait-us-Salam, the Sindh Forensic Lab, and Malir Bungalow — yielded quantifiable data on plant withering. Table 3 presents the number of visibly withered or decayed plants observed during the site visits, providing a baseline for assessing the extent of plant mortality.

It is important to note that these figures represent only the physically visible remnants of dead plants. A considerable number of withered plants may have decomposed or been displaced and were therefore not accounted for during the survey. The number of dry/decayed plants is detailed in the table below. Total 3322 plants were planted and out of them 1657 survived, while 1665 were decayed.

Table 3: Growth Status of Plants

Sr. No.	Location	No. of Tree Planted		No. of Plants Dry/Decayed		Growth status of Plants (height)	
						< 1~3ft	>3
		Neem	Gulmohar	Neem	Gulmohar	Neem	
1	SMB-Quaid-e-Azam Public School (SMB-QAPS)	345	755	0	755	245	100
2	Bait-us-Salam Madrassa	1004	148	100	130	589	315
3	Water Board Rest House (Malir Bangalow)	360	40	30	15	240	90
4	Sindh Forensic Laboratory	370	100	335	100	5	30
6	SMB Dur Muhammad	40	-	40	-	-	-
7	SMB SEF Faqeer Muhammad	30	-	30	-	-	-
8	SMB SEF Ali Nawaz Jokhio	30	-	30	-	-	-

9	SMB SEF Mehmood Jamot Bulandi	20	-	20	-	-	-
10	SMB SEF Abdur Rehman Jokhio	30	-	30	-	-	-
11	SMB SEF Gul Hasan	30	-	30	-	-	-
12	SMB SEF Feeder section	20	-	20	-	-	-
	Total Plants	**2279**	**1043**	**665**	**1000**	**1079**	**535**
		3322		**1665**		**1614**	

Plantation at SMB-Quaid-e-Azam Public School

Re-plantation at QAPS in place of withered plants

Withered Gul-Mohar plants at QAPS


Plantation at Madarssa Bait-ul-Salam


Plantation at Sindh Forensic Lab


Plantation at Water Board Rest House (Malir Bungalow)

4.2. Conclusions

With reference to the audit of the physical condition of plants at designated sites i.e. SMB-QAPS, Bait us Salam, Sindh Forensic Lab and Malir Bungalow, and data indicated in **Table 1** & **Table 2** following are the findings of the audit:

- **Infrastructure Limitations and Lack of Plant Maintenance:** Although proper consultations were conducted with each landowner prior to commencing the plantation drive, deficient infrastructure within the proposed area unfortunately impeded consistent plant irrigation, resulting in plant deterioration. According to the MoUs signed with the landowners, the Contractor was responsible for planting the trees, while maintenance was the responsibility

of the landowner. It has been observed that the plants at Quaid-e-Azam School, Bait-us-Salam Madrasa, and Malir Bungalow were comparatively better maintained than at other sites.

- **Herbivore Damage:** A significant number of plants at the Bait-us-Salam site got damaged due to grazing by a herd or flock of sheep.

- **Extreme Heat Impact:** The severe heat wave experienced during the summer of 2024 contributed substantially to plant withering.

- **Unsuitable Plant Species:** With reference to the data in **Table 2**, it is indicated that Gulmohar plants have a poor survival rate at this location, and hence 90% of the planted Gulmohar trees withered.

5. Corrective Measures

5.1. Alternative Locations for Plantation

Following the observations from World Bank representatives, we duly surveyed the vicinity of the project on 21.03.2025 to identify potential alternative plantation locations based on two key factors:

- Sufficient availability of Water
- Sufficient space for planting large clusters, ensuring easier future maintenance and monitoring.

Only SMB-Quaid-e-Azam Public School agreed to provide additional land for plantation of 900 nos. trees. TCF Schools (Malir & Memon Goth), Ahmed Dawood Secondary School, SEF-SMB Govt. School, Saleh Mohammad Pumping Station, were also visited but their Management regretted accommodating a significant quantity of trees due to the unavailability of land & poor infrastructure/resources.

	
Consultation with QAPS representative for alternative location	**Consultation with TCF Schools representative for alternative location**

	
Alternative location proposed at QAPS with capacity of 800 plants Approx.	**Alternative location proposed at QAPS near College block but location is not well prepared for plantation.**
	
Saleh Mohammad Pumping Station: No free space for plantation.	**TCF Schools: No free space for plantation.**
	
Ahmed Dawood School: No free space for plantation.	**Ahmed Dawood School: No free space for plantation.**

5.2. Re-Plantation Plan & Recommendations

As per approved Tree Plantation Plan, following is the status of plants approved for re-plantation.

- Total Trees Originally proposed in the Tree Plantation Plan = 13,350 Nos.
- Total Trees proposed after adjustment of 500 Coconut Trees against Neem and Gul Mohar Trees = 10,850 Nos.

- Total Trees Planted till May 2024 = 3,522 Nos.
- Total Trees Survived at the time of Audit = 1,657 Nos.
- **Balance Trees for re-plantation = 13,350 (Original Number of Plant Proposed) – 1,657 (Plants Still Withstanding at the time of audit) = 11,693 Nos.**

During the meeting held at the KWSSIP Office on March 13, 2025, attended by the World Bank Environmental Specialists, four (04) plantation sites were dropped. Consequently, the Bank requested the identification of alternate locations to accommodate the remaining number of trees as per the approved plan.

In response, six (06) alternative sites were visited. Among them, only the SMB-QAPS allowed the plantation of approximately additional 900 trees. The remaining five (05) locations were unable to accommodate the plantation due to limited availability of land and resources.

As previously stated, the area surrounding the project is largely comprised of privately owned agricultural land. Therefore, the PIU is requested to support the Supervision Consultant and the Contractor in accessing alternate state-owned land that has sufficient space, water availability, and boundary protection to accommodate larger clusters of plantations. Alternatively, permission may be granted to identify and utilize suitable locations outside the immediate project vicinity.

Additional recommendations are as follows:

- During the tree audit, the NESPAK team surveyed several locations in the project area for available land and water sources but found no suitable space for further plantation.
- As evidenced in the audit report, there are no other public institutions within a 10–12 km radius that can accommodate the plantation of 11,693 trees. We therefore recommend coordinating with the Sindh Forest Department, KMC Horticulture Department and Karachi Urban Forest to identify suitable land for this significant plantation requirement.
- Regarding tree health, it is recommended to discontinue the plantation of Gulmohar trees and continue with Neem trees only. Based on interviews conducted with local gardeners during the audit, it was found that Gulmohar trees are prone to decay due to their shallow root depth, making them vulnerable to high winds. Additionally, they are susceptible to fungal diseases, bacterial infections, and insect infestations that negatively affect growth and lead to decay.
- The rates quoted in the contract BOQ for tree plantation are considerable, and include charges for transportation and maintenance during the Defect Liability Period (DLP), such as frequent watering, manpower, re-plantation of withered plants, and security. NESPAK will coordinate with the contractor to ensure that maximum-sized and healthy trees are procured within the approved rates.
- Displaying information boards about the plantation activities at designated sites, as recommended by the World Bank, is a positive initiative and shall be implemented accordingly.
- Plantation activities will be monitored frequently in accordance with the approved Project Specifications and Contractor’s Environmental and Social Management Plan

(CESMP). The NESPAK ESS team will conduct fortnightly site visits, and a detailed audit report will be submitted exclusively to the PIU.

- Specific measures will be taken to improve plantation efforts at the Malir Bungalow site as part of the ongoing re-plantation drive.
- The contractor has been formally instructed to re-plant all withered trees via NESPAK letter No. 4568/11/RH/01/1232 dated 14.03.2025. In response, the contractor acknowledged the issue through letter No. SMC-SMS/25/199 dated 21.03.2025, expressing commitment to replace the damaged/withered trees and ensure their maintenance throughout the Defect Liability Period.