



PMU-SIHPP

Environmental & Social Management Plan (ESMP)
Rehabilitation of 39 GDs
In 19 Districts of Sindh

**Sindh Integrated Health and Population Project-SIHPP
Health Department, Government of Sindh**



Environmental and Social Management Plan (ESMP)

**Rehabilitation of 39 Government Dispensaries (GDs) in 19 Districts of
Sindh**

November, 2025

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Acronyms

AIDS	Acquired Immunodeficiency Syndrome	IFC	International Finance Corporation
BHUs	Basic Health Units	IPF	Investment Project Financing
BOQs	Bill of Quantities	ILO	International labor organization
CBOs	Community Based Organizations	LAA	Land Acquisition Act
CSOs	Community Social organizations	LHWs	Lady Health Workers
CMW	Community Midwives	LMP	Labor Management Plan
COVID	Coronavirus disease	MO	Medical Officer
DHO	District Health Officers	NGOs	Non-governmental Organizations
DHQ	District Headquarter	NOC	No Objection Certificate
DOH	Department of Health	OHS	Occupational Health and Safety
EDSQA	Engineering, Design, Supervision & Quality Assurance	PCEA	Prohibition of Child Employment Act
EHS	Environment, Health, and Safety	P&D	Planning & Development
EIA	Environmental Impact Assessment	PDMA	Provincial Disaster Management Authority
EMR	Electronic Medical Record	PDO	Project Development Objective
EPI	Extended program immunization	PKR	Pakistani Rupee
ESCP	Environment and Social Commitment Plan	PMU	Project Management Unit
ESMF	Environmental and Social Management Framework	PPE	Personal Protective Equipment
ESMP	Environmental and Social Management Plan	PPHI	People Primary Health Initiatives
E&S	Environmental and Social Safeguard	PSC	Project Steering Committee
ESSs	Environment & Social Standards	RHC	Rural Healthcare Center
FGDs	Focused Group Discussions	RMNCAH+N	Reproductive, maternal, newborn, child, adolescent health and nutrition
FMO	Female Medical Officer	SEA/SH	Sexual Exploitation Abuse/ Sexual Harassment
GBV	Gender Based Violence	SEP	Stakeholder Engagement Plan
GDs	Government Dispensaries	SEQS	Sindh Environmental Quality Standards
GoP	Government of Pakistan	SEPA	Sindh Environmental Protection Agency
GoS	Government of Sindh	SIHPP	Sindh Integrated Health and Population Project
GRC	Grievance Redressal Committees	SOP	Standard Operating Procedure
GRM	Grievance Redress Mechanism	SSSD	Sindh Strategy for Sustainable Development
HCF	Health care facilities	THQ	Taluka Headquarter Hospital
HFL	High flood level	TPV	Third Party Validation
IEE	Initial environment examination	WB	World Bank



Executive Summary

The Government of Sindh (GoS) has launched the Sindh Integrated Human Capital: 1000 Days Program - Integrated Health and Population Project (SIHPP) with support from the World Bank (WB), implemented by Project Management unit (PMU), Health department, Government of Sindh (GoS) from 19th December 2022 to 30th June 2027. In line with the prevailing relevant national and provincial laws and regulations, and World Bank's Environmental and Social Standards (ESSs) of the Environmental and Social Framework policy, an environmental and social assessment of the subprojects have been carried out and the present Environmental and Social Management Plan (ESMP) has been prepared. This ESMP has been prepared based on the screening criteria provided in the ESMF and considering the environmental and social impacts from the implementation of subprojects.

This ESMP outlines rehabilitation activities for 39 GDs in 19 districts i.e. Mirpurkhas, Umerkot, Dadu, Jamshoro, Matiari, Hyderabad, Larkana, Jacobabad, Kamber Shahdadkot, Kashmore (Kandhkot-Kashmore), Badin, Shaheed Benazirabad, Naushero Feroze, Sukkur, Khairpur, Sujawal, Thatta, Karachi Malir, and Karachi West in all six divisions of Sindh province. No private land acquisition is anticipated and compensation may be provided if existing land use affects livelihoods. E&S screening is completed for the 39 GDs, which serve a population of 5000 to 10,000 around each GD. The GDs will be rehabilitated within existing facilities with upgrades rooms for doctors, X-ray, ultrasound, laboratory, labor, and more. Additional improvements will feature a hybrid solar system and water filtration plant.

The project sites across Sindh are located within valley plains, at elevations between 0 and 328 feet above sea level. The area features fertile alluvial soils of clay and sand, supporting extensive agriculture. It has a hot, dry, subtropical climate with annual rainfall of 5 – 10 inches and temperatures reaching up to 51.6°C. The natural vegetation was originally tropical thorn forest, dominated by Acacia species such as Phulai, Bubul, and Tali, along with Ber, Safaida, Poplar, Neem, and Kirir. No trees will be affected by the rehabilitation of the 39 GDs. Local fauna includes birds, snakes, and lizards, none of which will be impacted. There is a potential risk of water contamination from construction runoff, which will be mitigated through immediate cleanup of spills using best practices. Traffic around subproject sites is light, primarily reaching the health facility use motor bikes, rickshaws or on-foot. Construction noise is expected to stay within permissible limits, with minimal disruption from heavy vehicles on rural access roads.

A socio-economic survey and social impact assessment was conducted in January-February 2024 using questionnaires (baseline socio-economic survey forms) and stakeholder consultations. The Socio-Economic Survey covers 371 households and 2,037 individuals including 1,061 males and 976 females. Focus group discussions gathered public input to inform the project community and foster ownership. Environmental and social challenges were identified, including waterlogging, poor sanitation, seasonal flooding, and waste management and transport issues. Most residents live in self-owned "Paka" or "Semi-Paka" housing, with agriculture as the dominant livelihood. The average household size is five and half, and the native languages of the population are Urdu, Sindhi, Balochi, Saraiki and Punjabi. It has been identified that out of 371 households the family income of 195 households is less than Rs. 37,000. It has been suggested that local unskilled labor should be hired during the construction and during operation phase of the project. The project is expected to generate direct and indirect employment. Common health issues include water borne diseases such as typhoid, malaria, and malnutrition, and limited access to urban healthcare facilities contributing to maternal mortality. Residents primarily rely on BHUs, RHCs, and government dispensaries for healthcare services.

Environment & Social field survey revealed that good mobile phone access and social media use (WhatsApp, Facebook) for the community. The screened 39 GDs are all functional, but severely damaged



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due to the 2022 floods. All 39 GDs have electricity, but frequent load shedding disrupts the power supply. The source of drinking water at health facilities is bores/groundwater, but the water quality has changed after the floods. Sanitation was poorly maintained at all GDs, moreover waste management was also poor at all GDs. During the consultations, the community highlighted the concerns such as lack of local job opportunities, privacy issues for women, health and safety risks during construction, road blockages from construction materials, and the absence of a complaint system. Health officials raised concerns about insufficient doctors, medicines, and medical equipment. Despite these concerns, officials acknowledged the project's potential benefits for local communities. Further consultations will continue throughout project implementation. Sub-project area screenings assessed the indirect impacts within a 200-meter radius of each GD. No archaeological sites, cultural resources, graveyards, protected forests, or endangered species were identified near the sites.

The E&S screening determined a low to moderate environmental and social risk rating for the sub-projects. This rating reflects the projects' small scale, low risk activities, and site locations not near environmentally or socially sensitive areas. The identified risks are predictable and can be easily mitigated with appropriate measures.

The Environmental and Social Management Plan (ESMP) is based on primary and secondary data, analyzing environmental and social risks of sub-projects. It identifies mitigation measures for construction-related impacts, including health and safety risks, noise, air pollution, access issues, waste management, labor conditions, and the risk of Sexual Exploitation and Abuse/Sexual Harassment (SEA/SH). The ESMP outlines measures to address these risks, such as site supervision, awareness training, sanitation, emergency procedures, PPE provision, clean water, and waste management. The contractor must also develop site specific Contractor's Environmental and Social Management Plan (C-ESMP) for each GD to ensure the site-specific mitigation measures. The C-ESMP plan must be approved by the Engineering Design Supervision Quality and Assurance (EDSQA) firm and PMU-SIHPP before the start of construction work. Monitoring will be carried out at three levels i.e. PMU's E&S specialists, the EDSQA team, and the contractor's E&S team. Contractor's team will submit monthly reports to PMU through EDSQA firm.

An approximate budget of PKR 3,375,000 per GD has been allocated for the ESMP implementation, included in the Bill of Quantities (BOQ). The Construction Contractor, EDSQA, and PMU are responsible for implementation of the ESMP. The contractor must implement the mitigation measures in the ESMP in line with the costs included in the contract documents. Non-compliance will result in penalties. To ensure effective E&S compliance, trainings will be imparted to the contractor's team by EDSQA and the PIU.

Community engagement activities involve residents around target GDs. Additionally, the information related to construction will also be disseminated among community people. Different sessions will be carried out to strengthen community engagement and grievance redress mechanisms (GRM) including advocacy and information campaigns. Health workers and residents will be sensitized to project activities and the GRM.



1. Introduction

The Government of Sindh (GoS), through Department of Health, is implementing “the Sindh Integrated Health and Population Project (SIHPP)¹ with the support from the World Bank (WB). The project will be implemented in all 30 districts of Sindh. In line with the prevailing legislation in the Country (national/provincial) and World Bank Environmental and Social Framework (ESF), an environmental and social assessment for one component (**Component 1: Improving RMNCAH+N services utilization and quality and support during public health emergencies**) of the Project has been carried out and the present Environmental and Social Management Plan (ESMP) has been prepared². This ESMP has been prepared based on the screening criteria provided in the ESMF and considering the environmental and social impacts from the implementation of subproject. The department of Health Government of Sindh will be the implementing agency of the Project activities.

This project aims to rehabilitate and upgrade 39 Government Dispensaries (GDs) across six divisions of Sindh. The Environmental and Social Management Plan (ESMP) specifically focuses on this subproject, which involves the rehabilitation of 39 flood-affected GDs. The distribution of GDs is as follows:

- **Karachi Division:** 02 GDs (1 in Karachi Malir & 1 in Karachi West Districts)
- **Hyderabad Division:** 12 GDs (3 in Dadu, 1 in Badin, 4 in Jamshoro, 1 in Matiari, 1 in Hyderabad, 1 in Thatta and 1 in Sujawal Districts)
- **Mirpur Khas Division:** 04 GDs (1 in Mirpur Khas and 3 in Umerkot districts)
- **Larkana Division:** 08 GDs (3 in Larkana, 1 in Jacobabad, 2 in Kamber Shahdadkot and 2 in Kashmore districts)
- **Shaheed Benazirabad Division:** 07 GDs (3 in Nausheroferoz and 4 in Shaheed Benazir Abad districts)
- **Sukkur Division:** 06 GDs (3 each in Sukkur and Khairpur districts).

1.1 Background

Pakistan experienced heavy monsoon rains between June and September, 2022. In Sindh, 23 of 30 districts are labelled as calamity-affected by the heavy monsoon and flooding since June 2022. In Sindh, 23 of 30 districts are labelled as calamity-affected by the heavy monsoon and flooding since June 2022. Preliminary assessments confirm more than 800 health facilities are partially damaged, and over 100 health facilities fully damaged.

Sindh shows higher levels of pregnancy-related deaths and maternal mortality rate compared to Punjab and Khyber Pakhtunkhwa. Although Sindh has made progress in improving maternal and child health outcomes, some gaps are evident. Furthermore, health facilities are either not easily accessible or not equipped to provide quality services. Quality of and patient satisfaction with public health services is low at 27 percent. The service utilization is worse with urban poor and people living in remote areas. The health facilities in these catchment areas lack adequate and trained human resources, medicines and medical equipment and have insufficient infrastructure for healthcare providers to practice minimum service delivery standards (MSDS) for quality care.

The proposed Project will contribute to “improved access to maternal and child health services” by focusing on reproductive, maternal, neonatal, child and adolescent health and nutrition services. It will also contribute to “reduced vulnerability for groups at risk” by ensuring that vulnerable groups in the

¹ Named as Project in this document and subproject refers to rehabilitation 39 GDs.

² This ESMP covers rehabilitation of 39 GDs, which is a part of Component-1 of the project.



remote and flood affected areas have increased access to health care services. The proposed project is also aligned with the Strategic Country Diagnostic's (SCD) priorities for supporting women's socio-economic empowerment, improving the efficiency and equity of spending on poverty reduction and strengthening public governance.³

1.2 Scope of the Environmental and Social Management Plan (ESMP)

- The present ESMP is based on both primary & secondary data, information sessions, and discussions held with stakeholders
- The ESMP addresses the expected environmental social impacts of project activities
- Proposed suitable mitigation measures for each adverse impact
- Include monitoring plan, the operational procedures, institutional responsibilities; and cost estimates.

This ESMP covers reconstruction of 06 THQs and will be made part of the bidding and contract documents. Any work executed by the Contractor, or on behalf of the Contractor (including sub-contractors/vendors), shall be in accordance with the ESMP.

1.3 Objectives of ESMP

The specific objectives of the ESMP are;

- 1) To establish the existing environmental and socioeconomic conditions and assess the potential environmental and social risks.
- 2) To suggest suitable measures for mitigation of identified impacts at planning, design, construction and operational phases of project, to avoid, eliminate or reduce adverse impacts if any, as per Environmental and Social Standards (ESSs) of the World Bank and national requirements.
- 3) To specify appropriate roles and responsibilities, and outline the necessary reporting procedures, for managing and monitoring environmental and social issues related to the activities
- 4) To identify the staffing requirements, as well as the training and capacity building measures, address mechanisms for public consultation and disclosure of project documents as well as redress of possible grievances
- 5) To establish the necessary budget for implementation of the ESMP, provide clear guidelines for environmental and social management practices and equip decision makers to take informed decisions.

1.4 Approach and Methodology

1.4.1 Approach

The study is based on both primary and secondary data and information. The primary data includes data collected from field using Environmental and Social Screening Checklist and proformas (attached as **Annexure-A**). The secondary data includes a review of relevant information from literature and published reports. Discussions were held with stakeholders including government officials and community representatives. The main purpose of this approach was to gather the people's perceptions about the proposed Project and its environmental and social impacts.

1.4.2 Methodology

The ESMP has been prepared employing the generally accepted standard methodology and

³ SIHPP, PAD November 23, 2022



accomplishing different but well integrated tasks. The key tasks include:

1. **Review of Project details**, to understand subproject activities, likely to cause environmental and social risks and impacts;
2. **Review of relevant legislations, policies, standards and guidelines** to determine the policy, legal and institutional environment for the subproject based on World bank ESF, national and provisional level;
3. **Primary data collection** for this purpose, environmental and social checklist and formats (attached as **Annexure-B**) for socioeconomic conditions were developed for the collection of baseline information. Three teams, consisting of a Civil Engineer, Architect, and Environmental and Social (for E&S survey), were deployed in the field from January to February 2025, covering the nineteen districts in Karachi, Hyderabad, Mirpur Khas, Sukkur, Larkana, and Shaheed Benazirabad Divisions.
4. **Review of secondary literature** to understand subproject area, sample E &S documents to guide this assessment; and different published development reports for taking stock of environmental and socioeconomic baseline conditions.
5. **Conducting consultation with key stakeholders** and potential beneficiary communities. During the field survey the team conducted community and institutional consultations across three divisions. Key Informant Interviews (KII) and Focus Group Discussions (FGDs) were held with locals (1061 males and 976 females).
6. **Estimation of budget** to ensure the effective implementation of all the mitigation measures/ actions proposed in the ESMP.

1.5 Description of the Project

The proposed project development objective (PDO) is to improve utilization and quality of basic RMNCAH+N, for poor and vulnerable populations, especially women and children, in targeted areas.

1.5.1 Project components

The proposed Project has four (04) components⁴; the brief description of each component is given below:

Component 1: Improving RMNCAH+N services utilization and quality and support during public health emergencies this component has following three (03) subcomponents:

Subcomponent 1.1: Public Health Emergency Response to Combat Health Impact due to the Floods. This sub-component will support integrated outreach healthcare and reproductive health services through existing mobile health teams and the provision of additional fixed and/or mobile health units, delivery vans and ambulance services for referral and surveillance system, including labs. It will finance procurement of lifesaving medicines and essential medical equipment and supplies, including reproductive health kits, midwifery kits, newborn baby kits, safe delivery kits, dignity kits, family planning commodities to prevent unintended pregnancies, insecticide treated bed nets for vector control and nutrition services (i.e. SBCC counselling, growth monitoring and promotion, micronutrient supplementation and referral of acutely malnourished child to therapeutic centers). Referral facilities will be equipped with trained human resources and supporting equipment and supplies. It will also strengthen surveillance systems for disease outbreak detection and response, especially in the worst affected

⁴ Project Appraisal Document, 23 November 2022



districts.

Subcomponent 1.2: Strengthening/Rehabilitating of the Health Facilities for Providing Preventive Care. It will support provision of minimum service delivery standard (MSDS), including GBV responses, for RMNCAH+N through (a) revitalization of an identified set of government dispensaries (GDs) in the catchment areas of the underserved and unserved populations of Sindh and other health facilities, including basic health units (BHUs), rural health centers (RHCs), tehsil headquarter hospitals (THQs) and district headquarter hospitals (DHQs), affected by the floods by including refurbishment of the health facilities, purchase of equipment including medicines and supplies, and ambulance services for referral; (b) recruitment and/or deployment of female health workers, specifically woman medical officers (WMO), community midwives (CMW), and community health workers (CHW); (c) effective structural and functional integration of health facility-based FP services and community-based services; (d) training of the healthcare providers on MSDS, GBV prevention and management, climate-induced disaster and epidemic response including disease surveillance and tele-health services for RMNCAH+N at places with access to the internet; and (e) establishment of a dynamic, integrated electronic medical records system linked to the Sindh District Health Information System (DHIS) and other key health databases, to track patient related data. This component will also include prevention programs, including health education, screening for hypertension and blood sugar, and vaccinations.

Sub-component 1.3: Strengthening of Referral Hospitals for Effective Delivery and Neonatal Care. It will support an identified set of THQ and DHQ hospitals to provide comprehensive obstetric and neonatal care through (a) purchase of equipment, medicines and supplies; (b) provision of blood storage units; and (c) training of the healthcare providers on MSDS and management of mothers and children referred by GDs.

Component 2: Strengthening Demand for RMNCAH+N Services, Including Women's Empowerment for Availing Health Services. This component will cover SBCC and related activities to encourage uptake of RMNCAH+N services using social marketing strategy and rebranding of GDs and their services package to create awareness. It will also include women's empowerment for exercising sexual and reproductive health rights. Social and behavior change activities will include extensive community outreach, involvement of community leaders to reach these GD catchment areas and the internally displaced population (IDP) due to flood. These activities will involve partnering with non-governmental organizations (NGOs), community-based organizations, and other private sector organizations.

Component 3: Project Management, Monitoring and Evaluation and Research. This component will support the strengthening of the DoH and its coordinating structures and agencies for the coordination and management of project activities, including financial management, procurement, Public Private Partnership (PPP) node and stakeholder engagement. This component would also support monitoring and evaluation (M&E) including third-party monitoring, rapid household surveys and surveys to measure quality of service delivery at health facilities.

Component 4: Contingency Emergency Response Component (CERC). In the event of an Eligible Crisis or Emergency, the project will contribute by providing immediate and effective response to said crisis or emergency.

This ESMP covers reconstruction of GDs, which is a part of Component-1 of the project.



1.5.2 Project Area

The proposed project of rehabilitation and up gradation of 39 GDs will be carried out in all six divisions of Sindh (Karachi, Hyderabad, Mirpur Khas, Larkana, Sukkur & Shaheed Benazir Abad), described below;

1.5.3 Construction Activities

All the civil works will be carried out on existing GD's land. For the contract award, one main contractor will be engaged to handle all 39 GDs across six divisions. The list of 39 GDs is presented in **Annexure-C**. The duration of proposed subproject is 12 months. The subproject execution and procurement will follow World Bank approved procurement plan. The subproject activities consist of:

The rehabilitation of the Government dispensaries includes a wide range of civil, electrical, and mechanical works aimed at modernizing and expanding healthcare services. Key activities include the construction and renovation of male and female toilets, handicap-accessible washrooms, and dedicated toilets for nursing and medical staff to improve sanitation and accessibility. The project will also involve upgrading the main entrance, waiting halls, and wide corridors to enhance patient flow and comfort. Triage counters, reception and registration areas, and duty doctor rooms with attached toilets will be established to streamline emergency and outpatient services. Specialized rooms such as mobile and digital X-ray units, ultrasound, autoclave and scrub areas, and clean/soiled utility rooms will be developed to support diagnostics and minor procedures. The plan includes construction of emergency wards, male wards with bed capacity, and nursing stations to improve inpatient care. Dedicated spaces for medical officers, pathologists, radiologists, and nutritionists will be established, alongside labs, blood bank, pharmacy, dental, and physiotherapy rooms. Additional facilities such as a health education training room, RO plant and storage areas will be included to support hospital operations. Overall, these activities aim to ensure functional efficiency, hygiene, patient privacy, and an inclusive environment, contributing to the hospital's capacity to deliver safe and quality healthcare services.

Contractors will undertake the construction according to the approved project design details. The contractor will be procured through a competitive bidding process. Once the contract has been signed and the contractor has been given possession of the site, the contractor will be legally responsible for the performance of the works in the manner required by the contract. Temporary facilities to be utilized by the contractor will also be established, including a site office, warehouse/stores, materials stockpiles, toilets, etc. The site layout, including technical details and locations of temporary facilities will be included in the Contractor's ESMP. The contractor will also carry out confirmatory Geo Tech investigations and requisite tests for determination of water quality.

1.5.4 Structural design details of GDs

The table 1-1 shows the structural designs details of existing Government Dispensaries (GDs). Following design parameters will be followed in the construction:-

- All materials and workmanship shall conform to the specifications of the contract documents. In absence of any specifications, all materials, tests and workmanship shall conform to relevant ASTM, ACI/CODES and shall be subject to approval of the engineer-in-charge.
- Structural design is based on the ACI-318 & UBC-97. CODES
- All structural concrete shall conform to American Concrete Institute (ACI) requirements
- Sulphate Resisting Cement (S.R.C) should be used for all R.C.C Works up to Plinth Level & OPC Ordinary Port Land Cement should be used above the Plinth Levels.



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- All Reinforcing Steel shall be Deformed Bars confirming to ASTM-A615 Grade 60 having a minimum Yield Strength of 60,000 psi Finishing Schedule, Architectural Views, Structural Design along with Electrical and MEP Design are covered in the Detail Design Report (DDR).

Table 1-1: Design Details

Ground Floor Plan

SR	Type of Room/Building Part	Proposed Measurement/Dimensions (ft x ft)	AREA (Ft ²)
1.	MCH Services	11x9	99
2.	FHW	10x10	100
3.	Multi-Purpose Hall	7x10	70
4.	Preventive Program	12x15.3	183.6
5.	Corridor	10x12	120
6.	Dispensary	7x10	70
7.	M/D	10x10	100
8.	LAV	5x5	25
9.	Waiting Room	11x9	99
10.	Labor Room	15.2x12	182.4
11.	Autoclave	5x4.9	24.5
12.	Bath	5x7	35
13.	Scrub	5x6	30
14.	Entrance Foyer	10x12.75	127.5
15.	Bath	5.1x6	30.6
16.	Observation bed	18.8x12	225.6
Total Carpet/Internal Area			1423
Total covered area			1592

First Floor Plan

SR	Type of Room/Building Part	Proposed Measurement/Dimensions (ft x ft)	AREA (Ft ²)
1.	Community Hall	20x12	240
2.	Kitchen	5.11x7	35.77
3.	Stair Hall	10x16.9	169
4.	Bath	5.1x6	30.6
5.	Dr room	16x12	216
Total Carpet/Internal Area			691.37
Total covered area			734

Second Floor Plan

SR	Type of Room/Building Part	Proposed Measurement/Dimensions (ft x ft)	AREA (Ft ²)
1.	Open Terrace	20x12	240
2.	Kitchen	5.11x7	35.77
3.	Stair Hall	10x16.9	169
4.	Bath	5.1x6	30.6
5.	Dr room	16x12	216
Total Carpet/Internal Area			691.37



SR	Type of Room/Building Part	Proposed Measurement/Dimensions (ft x ft)	AREA (Ft ²)
Total covered area			734

1.5.5 E & S Aspects during Rehabilitation

The following key Environment and Social (E & S) aspects will be considered in rehabilitation work, to minimize the E & S risks;

- The building rehabilitation plan incorporates energy-efficient LED lighting and solar panels to minimize the carbon footprint, complemented by maximizing natural light through skylights or large windows to reduce daytime electricity consumption.
- Interior spaces designed to be easily repurposed as healthcare needs evolve (e.g., wards convertible to consultation rooms or small surgery areas).
- Adequate water storage and filtration, systems to ensure a continuous supply of clean water, aligning with WB EHSG for HCFs.
- Sufficient and accessible sanitation facilities, including toilets for male/female patients, doctors (as given in table 1-1), and hand-washing stations, along with clear signage, are incorporated to prevent contamination.
- Designated "yellow room" or dedicated area for the segregation and storage of infectious waste with secure, clearly marked containers for different waste types (sharps, infectious, chemical) to be used, in compliance with both local and international health and safety standards, including the World Bank EHS guidelines.
- Dust, noise, and air emissions control through water sprinkling, noise barriers, and use of well-maintained equipment.
- Safe handling and disposal of construction and biomedical waste in line with environmental regulations.
- Provision of Personal Protective Equipment (PPE) and enforcement of safety protocols for all workers.
- Minimizing community disturbances by scheduling high-impact activities during appropriate hours and maintaining cleanliness around the site.
- Non-discrimination in labor hiring, ensuring equal opportunity and fair treatment.
- Implementation of a Grievance Redress Mechanism (GRM) for workers and affected community members to report concerns.
- Gender-sensitive design features, including separate waiting areas and restrooms for male and female users.
- Resource efficiency measures, such as controlled use of water and electricity during construction activities.
- Occupational Health and Safety (OHS) training and daily toolbox talks for construction workers.
- Coordination with hospital management to avoid disruption of ongoing medical services during rehabilitation works.
- Protection of vulnerable groups, including persons with disabilities, by ensuring accessible pathways and facilities.



1.5.6 Construction Material

The following construction materials (Table 1-2), have been identified for use in the rehabilitation of the 39 GDs.

Table 1-2: Estimated quantities of construction materials

Sr. No:	Construction Material	Estimated Quantity for a Typical site/GD	Estimated Quantity for 39 GDs
1	Steel	81 Tons	3159 Tons
2	Cement (OPC/SR)	1170 Bags	45639 Bags
3	Gravel	5000 Cubic feet	195000 Cubic feet
4	Earth/Soil	10000 Cubic feet	390,000 Cubic feet
5	Masonry/Bricks	500 Cubic feet	19,500 Cubic feet
6	Coarse aggregate (Crush)	5507 Cubic feet	214,797 Cubic feet
7	Fine aggregate (Sand)	9733.37 Cubic feet	379,601 Cubic feet

1.5.7 Construction Material Source

The Contractor will identify the source in case of steel and cement; the Consultant will approve the brand. Similarly, for the Borrow Earth query site will be tested and the Consultant will communicate approval. All other items, such as bricks, gravel, and aggregate, will be first identified by the Contractor and subsequently the same will be tested and approved by the Consultant. Multiple locations and sources of material for each sub-project will be required, which will vary according to the availability and convenience of the Contractor, subject to confirmation of quality.

1.5.8 Material Stockpiling

A material stockpiling area will be built near the construction site within the GD's premises at all sub-project sites. Stockpiling purposed by contractor and ensured by EDSQA firm for each site during the execution period. Materials will be stored in a secure location in the staging area to keep them safe from damage or theft and to provide easy access for workers. Construction equipment, such as bulldozers, mixers, and trucks, will be parked in a designated area, reducing congestion on the main construction site and ensuring that the equipment is secure and well-maintained. Temporary facilities for workers, such as changing rooms, toilets, and a break area, are also available in the staging area. The laydown area can be used for pre-fabrication activities, such as assembling prefabricated building components or preparing materials for installation, freeing up space on the main site for critical construction tasks.

A designated area within the staging zone can be used to store construction waste before it is hauled off for disposal to maintain cleanliness and a safe work environment on the main site. The size and layout of the staging area will depend on the subproject's size and the availability of space near the site.

1.5.9 Contractor's Camps

A contractor's camp will be established on government land within each GD's existing area, housing 20-25 workers. If land is unavailable, alternative accommodations, including rented houses, will be arranged. Preferably, the contractor will hire skilled and un-skilled labor, locally as well as outside. To ensure local engagement and community benefit, a minimum threshold of 80% of the workforce should be sourced from nearby areas, with the remaining 20% allowed to be brought in from outside if specific skills are not available locally⁵. The neighboring GD is far away thus, there is no possibility to accommodate the labors

⁵ "Locally" refers to workers from the project's immediate and nearby communities (within the same district). This ensures local



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of two or more GDs/sites in a single camp. The contractor will be bound to provide facilities like dormitories, kitchen/washing/ bathing/latrine with septic tanks and medical checkups (including communicable disease related) to laborers. The health screening of laborers and workers will be conducted at the start of the subproject. The contractor will prepare workers' code of conduct and camp layout plans and get them approved by the EDSQA consultant and PMU for implementation at the site.

1.5.10 Machinery and Equipment

The construction work includes earthwork and concrete work. The contractors will directly manage all machinery and equipment/s. However, the actual number of equipment required on the typical site as per BOQs are as mentioned in below Table 1-3.

Table 1-3: Requirement of Machineries and Equipment for a typical site.

S. No	Equipment Type and Characteristics	Minimum Number required for one GDS
1.	Excavator	01
2.	Dumpers	02
3.	Plate Compactor	02
4.	Concrete Mixer Power Driven	01
5.	Water Tankers	01
6.	Surveying Equipment set	01(Total Station+ level)
7.	Utility Installation Equipment	01
8.	Tractor Trolley	01
9.	Concrete lifting Machine	01-2
10.	Laboratory equipment set as per approval of client	01
11.	Generator 10KVA	01
12.	Concrete Batching	01
13.	Mobile Pump	01

1.5.11 Security Aspect

During the social survey, local community members said they had no issues with the contractor and project staff living in the area, storing materials, or carrying out their work. The contractor will also have security guards at each site to ensure safety. If the security situation changes and extra measures are needed, the Security Management Plan will be fully enforced, including working with law enforcement and other relevant authorities to maintain order and protect people and property.

1.5.12 Water Requirements for construction activities

The contractor will bring water for construction work from groundwater boreholes (where needed, with the approval from relevant authority), municipal water supply through a water tanker, which should be less than 2000 TDS for construction purpose and for drinking purpose of labor the water should be less than 500 TDS. It will be ensured and approved by the Consultant after necessary testing of water. Overall water requirement for the construction activities and use of workforce is provided in below Table 1-4. The water estimation was done for entire construction period of 12 months using a standard procedure, given in a footnote below.

employment, while the remaining 20% may be hired from outside for specialized skills.

Table 1-4: Approximate Water Requirements⁶

S.No:	Activity	Estimated Quantity for a Typical site/GDs (Gallons)	Estimated Quantity for 39 GDs (Gallons)
1.	Concreting	7,724	301,219
2.	Curing	38,618	1,506,096
3.	Workforce	123,577	4,819,506

1.5.13 Source of Energy and requirements

The contractor will handle the energy supply by using the available electrical connection and, if needed, backup generators based on the site's requirements. All machinery and equipment will run on fuel. The estimated daily electricity demand for rehabilitation of the Government dispensary (GD) is around 10-15 kW. The contractor will manage resources efficiently to keep operations running smoothly while following safety and environmental guidelines.

1.5.14 Labor Requirement

The workforce required by the contractor during the execution of the sub-project will be around 20-25 skilled and unskilled laborers for each (one) GD, for unskilled laborers, local people will be preferred, the ratio of laborers depends on the availability of workforce, approximately 80/20%. The Contractor will establish the camps for accommodating the outside labors, security guards and rest area during lunch break for all workforce.

1.5.15 Implementation Schedule

The contractor will complete the construction of 39 GDs on milestone basis as described in figure 1-1, that simultaneously construction progress will achieve as per given time schedule.

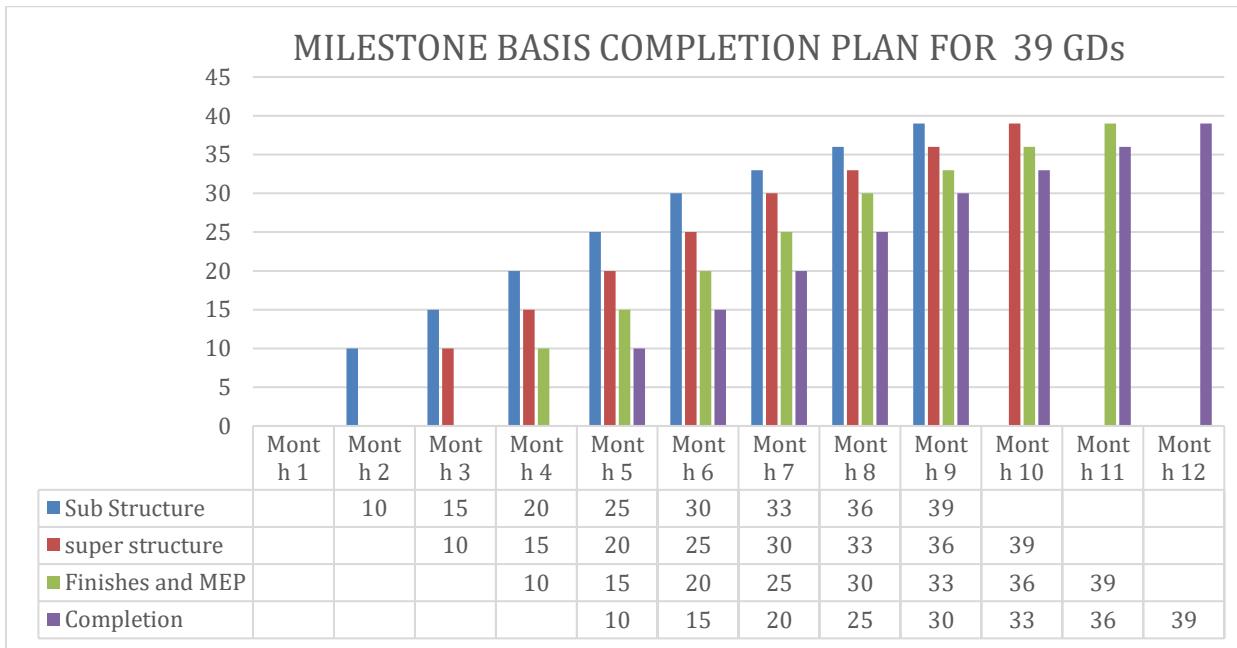


Figure 1-1: Implementation Schedule for reconstruction of 39 GDs

⁶ Domestic Water Quantity, Service Level and Health (Second Edition), WHO, ACI (American concrete Institute) Water cement ratio standard for concrete and ACI 308R-Guide to curing concrete.



2. Policy, Legal and Administrative Framework

This section deals with the current legal and administrative framework required to prepare the ESMP of the proposed Project. Applicable WB Environmental and Social Standards (ESSs) and guidelines and Environmental and Social (E&S) Policies, laws, regulations laid out by the GoP, GoS have been duly discussed and the Project proponent will be required to adhere to these regulations throughout the course of the proposed Project.

2.1 Applicability of World Bank Environmental and Social Standards

The World Bank has defined specific ESSs, provided in the ESF, which are designed to avoid, minimize, reduce, or mitigate the adverse environmental and social risks and impacts of projects. These standards apply to projects supported through Investment Project Financing (IPF). A summary of the applicable ESSs and WB policies and their relevance to the proposed subproject is provided in Table 2-1.

Table 2-1: Applicable WB E & S Standards and their relevance

Environmental and Social Standard	Description	Relevance to the Project
ESS1 – Assessment and Management of Environmental and Social Risks and Impacts	This standard sets out the Client's responsibilities for assessing, managing, and monitoring environmental and social risks and impacts associated with each stage of a project supported by the Bank through IPF, in order to achieve environmental and social outcomes consistent with the ESF.	Relevant. Minor adverse environmental and social risk and impacts ⁷ are anticipated due to proposed construction/rehabilitation activities. Relevant mitigation measures have been provided in this ESMP in line with ESS1 requirements.
ESS2 – Labor and Working Conditions	ESS2 recognizes the importance of employment creation and income generation in the pursuit of poverty reduction and inclusive economic growth. Borrowers can promote sound worker-management relationships and enhance the development benefits of a project by treating workers fairly and providing	Relevant. The proposed Project is expected to involve direct workers, contracted workers, primary supply workers. All the potential risks associated with labor and relevant mitigations measures have been provided in this ESMP. Additionally, a standalone Labor Management Procedures (LMP) has been prepared and approved on 22 nd March 2024, Worker's code of

⁷ Including but not limited to: air emissions, noise, dust generation caused by repair and construction activities and excavations and running of project vehicles on unpaved roads/tracks, especially in the desert areas, generation of waste (including solid, packaging material, construction waste, medical waste and related waste during ambulance maintenance services), occupational health and safety risks, and use of chemicals/solvents such as paints and varnishes. Other risks associated with the Project are related to the selection criteria of families, exclusion of disadvantaged and vulnerable groups, security and safety concerns for women, exposure to COVID-19, risk of counterfeit or expired medicines, data privacy, elite capture, GBV, forced labor, use of child labor etc.



Environmental and Social Standard	Description	Relevance to the Project
	safe working conditions. This standard applies to project workers, including full-time, part-time, temporary, seasonal, and migrant workers.	conduct and Workers GRM are also part of LMP, as per the requirements of ESS2 for the project.
ESS3 – Resource Efficiency and Pollution Prevention and Management	ESS3 establishes the requirements for resource efficiency and pollution management and prevention during the entire project lifecycle. The objectives of this standard are to enhance the sustainable use of resources, including energy, water, and raw materials. It also aims to promote favorable conditions for human health and the environment by minimizing pollution from project activities and minimize project related emissions and avoid or minimize generation of hazardous and non-hazardous waste.	Relevant. The adverse environmental and social risk and impacts are anticipated due to proposed construction and rehabilitation activities. It is expected that there would be an increased number of beneficiaries visiting and availing the services offered by the project. This may result in the increased use of resources such as water, electricity, and fuel for generators (alternate energy source). The risks and impacts associated with soil and water contamination are likely to occur due to inappropriate disposal wastes (including solid, packaging material, construction waste, medical waste and related waste during ambulance maintenance services). Resource efficiency and pollution prevention measures have been included in the ESMP to comply with requirements of ESS3.
ESS4 – Community Health and Safety	This standard recognizes that project activities, equipment, and infrastructure can increase community exposure to adverse risks and impacts. The objectives of ESS4 are to avoid or mitigate these adverse impacts on project-affected communities.	Relevant. Planned civil works may cause temporary disturbances to local communities due to traffic disruption, waste, exposure to hazardous material, noise, dust, spread of different transmittable and communicable diseases (HIV/AIDS, COVID-19, STD), conflicts with locals, fires risks at health care facilities, use of child labor and forced labor, road safety, GBV/SEA/SH etc. Applicable mitigation measures have been proposed in this ESMP for the community health and safety.
ESS5 – Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	ESS5 recognizes that project-related land acquisition and restrictions on land use can have adverse impacts on project-affected communities and individuals. Project related land acquisition may cause physical displacement (relocation, loss of residential land, or loss of shelter), economic displacement (loss of land, assets, or access to assets leading to loss of	Not Relevant. Land acquisition is not expected for the sub-project, as all civil works in Component 1 involve Rehabilitation of GDs which will take place within the existing boundaries of government healthcare facilities, on government owned land. Additionally, no any Voluntary Land Donation (VLD) is involved in this subproject.



Environmental and Social Standard	Description	Relevance to the Project
	livelihoods), or both. It aims to minimize or altogether avoid involuntary resettlement and provides guidance for responsible and equitable land acquisition.	Based on the site surveys, it is confirmed that there is no informal settlers in the selected GDs.
ESS6 – Biodiversity Conservation and Sustainable Management of Living Natural Resources	This standard recognizes biodiversity conservation and protection, and sustainable management of living natural resources. It gives importance to maintaining the core ecological functions of habitats and wildlife and promotes the sustainable management of primary production and harvesting of living natural resources. The objectives of this standard are to protect and conserve biodiversity and habitats, and avoid adverse impacts on biodiversity and habitats as a result of project activities.	Not Relevant. The implementation of subproject will not affect the any tree. No construction activity is planned to be carried out in or near the vicinity of any natural habitats and critical habitats (including protected areas or other sensitive habitats). Furthermore, 10 Trees will planted in each GDs. This ESMP include measures to reduce negative impacts on biodiversity and habitats.
ESS7 – Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities	This standard applies to distinct social and cultural groups identified in accordance with descriptions provided in ESS10. The objectives of the standard are to ensure that the development process adopts full respect for the rights, dignity, aspirations, identity, culture of traditional local communities, and to avoid adverse impacts on Indigenous Peoples while providing them with sustainable development benefits and opportunities in an accessible, culturally appropriate, and inclusive manner.	Not relevant
ESS8 – Cultural Heritage	ESS8 recognizes the importance of cultural heritage as a valuable source of scientific and historical information, as an economic and social asset for development, and as an integral part of people's cultural identity. This standard sets out measures to protect cultural heritage throughout the lifecycle of the project.	Not Relevant. The project is unlikely to have any impact on the physical cultural resources of the surrounding of each GD, since the proposed activities will be carried out within the existing boundaries of the health care facilities (GDs). However, the procedures for handling chance finds have been prepared and made part of the ESMP.



Environmental and Social Standard	Description	Relevance to the Project
ESS9 – Financial Intermediaries	<p>ESS9 recognizes that strong domestic capital and financial markets, and access to finance are important for economic development, growth, and poverty reduction. The objectives of ESS9 are to set out how to assess and manage the environmental and social risks and impacts associated with the project, and to promote good environmental and social management practices in the project's finances.</p>	Not relevant. This standard is not relevant, as Financial Intermediaries will not be used.
ESS10 – Stakeholder Engagement and Disclosure	<p>This standard recognizes the importance of open and transparent engagement between the Client and project stakeholders as an essential element of good international practice. The objectives of ESS10 are to establish a systematic approach to stakeholder engagement that will build and maintain constructive relationships, assess the level of stakeholder interest and support for the project, and to enable stakeholders' views to be taken into account in project design and E&S performance. It also provides guidance on promoting effective and inclusive stakeholder engagement throughout the life of the project.</p>	Relevant. The project has prepared a separate Stakeholder Engagement Plan SEP in accordance with this ESS on 29 April 2024 and Grievance Redressal Mechanism-GRM on 28 th November 2024. The SEP outlines the process and frequency of stakeholder engagement at all project stages, and also establishes the contours of an effective GRM. Both these systems will enable the affected parties to raise project related concerns and grievances for efficient and timely resolution.



2.2 Key National and Provincial Laws, Regulations and Policies

The summary of major relevant strategies, policies, acts and legislation from environmental and social perspective are provided in table 2-2.

Table 2-2: Main Environmental and Social Strategies / Policies Relevant to the Project

S No.	Policy/Strategy	Brief Coverage	Relevance to Project
1.	Sindh Labor Policy, 2018.	The Sindh Labor Policy is a framework developed by the Government of Sindh to protect workers' rights, ensure fair wages, promote safe working conditions, and improve social security for workers in the province. It aims to align with national labor laws and international standards, addressing issues like child labor, discrimination, and the informal sector.	The labor (skilled and unskilled) will be employed for construction and rehabilitation activities and for health services of the proposed project. The provision of this policy is applicable to all the labor employed. Additionally, LMP has been prepared as a part of this Project.
2.	Sindh Strategy for Sustainable Development, 2007	The Sindh Strategy for Sustainable Development (SSSD) proposed a ten-year sustainable development agenda for Sindh. The main focus of SSSD is to promote the sustainable use of natural resources. It targets to reduce poverty and enhance social development through the participation of the people of Sindh.	This strategy is applicable as the interventions under the proposed project deliver benefits to all, particularly the poor and the disadvantaged or vulnerable groups. The proposed Project is expected to demonstrate great sustainability after its completion. The E&S sustainable development measures such as tree plantation, resource conservation, economic development, provision of clean water etc. are considered in this ESMP.
3.	Sindh Drinking Water Policy, 2017	This policy is to provide safely managed drinking water whose supply is adequate, well maintained and sustainable; and to enhance public awareness about health, nutrition and hygiene related to safe drinking water. The basic objective of this policy is to introduce legislative measures and regulations to create an enabling framework for safely managed drinking water supply, regulation of water usage, extraction, treatment, transportation and distribution.	The proposed project will involve the use of water during the construction and rehabilitation activities and at operational level as well. The water conservation, water pollution control measures are provided in this ESMP and will be followed during implementation of the project.
4.	National Action Plan for COVID-19 Pakistan	Government of Pakistan has launched the National Action Plan for COVID-19 Pakistan to combat the challenge of prevailing viruses. These measures are mostly relating to the containment and awareness and capacity building.	This Action Plan for COVID-19 is applicable to the proposed subprojects. Necessary mitigation measures have been provided in this ESMP to manage this aspect.
5.	Sindh Environmental Protection Act,	It is a fairly comprehensive legislation and provides a legislative framework for protection, conservation, rehabilitation and improvement of the environment. It	The proposed Sub-Project is located in Sindh province, therefore, SEPA is primarily responsible for the enforcement of provisions. The proposed Project may look into the Sindh



S No.	Policy/Strategy	Brief Coverage	Relevance to Project
	2014	<p>contains concrete action plans and programs for the prevention of pollution and promotes sustainable development.</p> <p>Act has 11 parts with 37 Sections followed by sub-sections and clauses. Part VI is related to the environmental examinations and assessments while part X is related to the public participation.</p>	Environmental Protection Act, 2014 requirements.
6.	Sindh Environmental Protection Agency, (Review of EC, IEE and EIA) Regulations, 2021	<p>These regulations set out:</p> <ul style="list-style-type: none"> • Key policy and procedural requirements for filing an EIA; • The purpose of Environmental Assessment (EA); • The goals of sustainable development; • The requirement that EA be integrated with feasibility studies; • The jurisdiction of the Provincial EPA and Planning & Development (P&D) Departments; • The responsibilities of proponents; • Duties of responsible authorities; • Provides schedules of proposals that the project requires either EC, IEE or an EIA; • The environmental screening process of the projects under schedule I, II and III; and The procedure for the environmental approval for filing the case with the Sindh EPA for the granting of the NOC. 	The proposed project is fall into environment Checklist category as per the SEPA regulations The PMU has submitted the Environment Checklist Report, which has been approved, and SEPA has issued a No Objection Certificate for all health facilities under the Sindh Integrated Health and Population Project (SIHPP) at all thirty districts.
7.	Sindh Environmental Quality Standards, 2016	SEPA has formulated the SEQS as per Clause (g) of sub-section (1) of Section 6 of Sindh Environmental Protection Act 2014. The SEQS were promulgated in 2016 which includes standards for liquid effluent, industrial gaseous emissions, ambient air, drinking water quality, noise levels and standards for motor vehicle exhaust, diesel vehicle, and petrol vehicles.	The proposed Subproject is being implemented in Sindh therefore; it will conform to SEQS, 2016 during the proposed subproject. All the phases i.e. construction and operation. However, in case where WHO/IFC guidelines are more stringent than the SEQS, 2016, the Project will ensure compliance with stringent guidelines and standards.
8.	Guidelines for Environmental Assessment	<p>The guidelines that are relevant to the proposed project are listed below:</p> <ul style="list-style-type: none"> • Guidelines for the Preparation and Review of Environmental Reports, 1997; 	These guidelines have been considered during the preparation of this report.



S No.	Policy/Strategy	Brief Coverage	Relevance to Project
		<ul style="list-style-type: none"> Guidelines for Sensitive and Sensitive Areas, 1997; Guidelines for Public Consultation, 1997; and Sectorial Guidelines for Environmental Reports, 1997. 	
9.	Sindh Hospital Waste Management Rules, 2014	HWM Rules 2014 envisage every hospital be responsible for both risk and non-risk waste's management, including the generation, handling, storage and disposal of all forms of waste, in accordance to Sindh environmental protection Act 2014	These Rules are applicable to the proposed subproject, and the risk and non-risk wastes generated during the implementation of the project need to be handled and disposed of in accordance with these Rules. This ESMP will respect the provision of these rules.
10.	Cutting of Trees (Prohibition) Act, 1992	The Act was enforced in 1992 to place restrictions on cutting of trees in order to restrain the unchecked trend of tree felling without replacement plantations.	This act may be applicable as the sub-project activities may involve tree cutting, replantation will be carried out where the tree cutting will be involved. This will be ensuring through Tree Plantation Plan, prepared as a part of this ESMP five trees will be replanted in case of cutting of one tree.
11.	Sindh Cultural Heritage (Preservation) Act, 1994	This provincial act empowers the Government of Sindh to preserve and protect any premises or objects of archaeological, architectural, historical, cultural, or national interest in Sindh by declaring them protected.	The Subproject is unlikely to have any impact on the physical cultural resources of the Sindh Province, since the proposed activities will be carried out within the existing boundaries of the health care facilities (GDs) where no known cultural heritage sites are present. However, the procedures for handling chance finds have been prepared and made part of the ESMP, to handle any such situation during project implementation.
12.	Sindh Public Property Act, 2010	The act has been passed to avoid illegal encroachments and provide measures for removal of encroachment from public property and to retrieve possession.	The selected Health Facilities (GDs) reconstruction is carried out within the existing building area of GD. There is no encroachment. This law is not applicable for the proposed project.
13.	Sindh Factories (Amendment) Act, 2021	The Act deals with regulations related to project area workers and workplace Environment Health and Safety (EHS) requirements. The Factories Act also provides regulations with provision for general Health and Safety (H&S) of the workforce in their work area. Conditions are specified for clean workplace, toilets, waste handling, provision of drinking water quality, worker health and hygiene etc. The amendment 2021 is specifically related to the provision of safe transportation facilities to women workers, working hours and working periods of seasonal and whole year	The proposed Sub-Project is expected to involve direct workers, contracted workers and primary supply workers. The proposed Project will respect the provision of this act during the implementation stage.



S No.	Policy/Strategy	Brief Coverage	Relevance to Project
		factories.	
14.	The Sindh Occupational Safety and Health Act, 2017	The act makes provisions for occupational safety and health conditions at all workplaces in the province for the protection of workers during work. Under the Act, an Occupational Safety and Health Council will be established in Sindh with the secretary of Sindh government's Labor and Human Resources Department as its chairperson.	The proposed subproject is expected to involve direct workers, contracted workers and primary supply workers. The project may create some labor related risks and impacts, which include lack of compliance with relevant laws and regulations, unsafe working conditions, OHS risks, and GBV/SEA/SH risks. Necessary mitigation measures have been provided in this ESMP to manage these risks. Moreover, a separate LMP has been prepared as a part of this Project.
15.	The Sindh Transparency and Right to Information Act, 2016	The purpose of this Act is to provide transparency and freedom of information to ensure that all citizens have better access to public information, to make the government more accountable to citizens, to enforce the fundamental right to information in all matters of public importance, to ensure transparency in all Government matters.	The proposed subproject will provide information to the public and not compromise transparency under this Act.
16.	The Protection against Harassment of Women at the Workplace Act, 2010	The Protection Against Harassment of Women at the Workplace Act (2010) refers to Sexual Harassment (SH) at the workplace.	This Act is applicable, as the proposed subproject may involve the hiring of female staff during the implementation.
17.	The Protection against Harassment of Women at the Workplace (Amendment) Act, 2022	The 2022 amendment broadened the definitions of workplace, employee, and harassment to include gender-based harassment and informal workers. It also made the law more inclusive by allowing any person to file a complaint.	The amendment applies by protecting all workers in health facility construction and operations from gender-based harassment and requiring a Code of Conduct, awareness, and a safe complaint system to ensure a respectful, harassment-free work environment.
18.	The Sindh Commission on the Status of Women Act, 2015	This Act exercise the powers to examine the policy, programs and other measures taken or to be taken by the Government for gender equality, women's empowerment, political participation, representation, assess, implementation and make suitable recommendations to the concerned authorities.	This Act applies to the proposed subproject, as it may involve hiring female staff during implementation and conducting consultations with relevant stakeholders identified in the SEP.
19.	Sindh Prohibition	The Prohibition of Child Employment Act (PCEA) 2017	The relevance of this act to the project is to prohibit child



S No.	Policy/Strategy	Brief Coverage	Relevance to Project
	of Child Employment Act, 2017	disallows child labor in Sindh. The PCEA defines a child as a person who has not completed his/her fourteenth years of age, and an adolescent means a person who has completed fourteenth year of age but has not completed eighteenth years of his age. No child shall be employed or permitted to work in any establishment including construction, but an adolescent can be employed or permitted to work under strict guidelines provided in the PCEA and rules. An adolescent shall not be employed in any hazardous work included in the schedule to the PCEA.	employment as per conditions mentioned in this Act. No person under the age of 14 will be employed in any project related work.
20.	Sindh Bonded Labor (Abolition) Act, 2015	The Act is gender sensitive; an anti-discrimination clause is added to each new proposed Law in accordance with International Labor Organization (ILO) requirement viz: "No discrimination shall be made on the basis of sex, religion, political affiliation, sect, color, caste, creed and ethnic background in considering and disposing of issues relating to the enforcement of this Act".	This Act is applicable as the proposed subproject may involve the numbers of staff/workers having different religion, political affiliation, sect, color, caste, creed and ethnic background.
21.	Land Acquisition Act (LAA), 1894 and Land Acquisition (Sindh Amendment) Act, 2009	The primary law for acquisition of land for public purposes in Pakistan is the "LAA, 1894" (hereinafter referred as the Act). The land acquired under the Act vests in the province and it is only thereafter that the province may transfer it to someone else. The Sindh Amendment 2009 of LAA 1894 specifically related to Section 16, Section 23, Section 24 and Section 28-A.	Land acquisition is not expected for the project, as all civil works in Component 1 involve Reconstruction of GDs, which will take place within the existing boundaries of government healthcare facilities, on government owned land. Additionally, no voluntary land donation will be involved for these 39 GDs.
22.	National Disaster Management Act, 2010	National Disaster Management Act, 2010 was passed by Parliament of Pakistan in 2010. It requires the Project to integrate disaster risk reduction, ensure healthcare continuity during emergencies, build capacity for disaster response, and coordinate with the PDMA to align with disaster management plans.	This Act is applicable to the proposed subproject due to its location. The subproject as it involves reconstruction and rehabilitation of those health facilities which were affected in Sindh by the 2022 floods. The proposed subproject requires special consideration of flood disasters.
23.	Building Code of Pakistan, 2007	The provision of Building Code of Pakistan shall apply for engineering design of building-like structure and related components. The construction in violation of the building code shall be deemed as violation of professional engineering work.	These Codes are being used in structural design of associated structures constructed under this proposed project.



S No.	Policy/Strategy	Brief Coverage	Relevance to Project
24.	The Sindh Minimum Wages Act, 2015	To provide the regulation of minimum rates of wages and various allowances for different categories of workers employed in certain industrial and commercial undertakings and establishments.	This Act is applicable to the project to ensure that the minimum wages (PKR 40,000 per month) and allowances are given to the project labor (skill and unskilled employed for the construction and rehabilitation activities and other staff involved during implementation of the proposed subproject.
25.	The Sindh Climate Change Policy 2022	This policy aims to create a resilient and environmentally friendly province by aligning with the National Climate Change Policy 2021 and the updated Nationally Determined Contributions (NDCs) of Pakistan.	The Sindh Climate Change Policy 2022 is relevant to the SIHPP as it promotes climate-resilient health systems, sustainable healthcare infrastructure, and disaster preparedness, aligning with Sindh's efforts to adapt to climate change and ensure long-term health resilience.
26.	Sindh Empowerment of Persons with Disabilities Act 2018	Sindh Empowerment of Persons with Disabilities act 2018 provides legal protection to disable persons in terms of Equality and non-discrimination of 'Persons with Disabilities', right to privacy, Ease of access and mobility, Protection from torture or cruel, inhuman or degrading treatment, Freedom from Exploitation, violence and Abuse, Equity in health and rehabilitation services, Skills Development and Equity in Employment and in any other disability discrimination.	The relevance of this act to the project is to protect the rights of disabled persons by providing special services for them during the implementation of project.



2.3 International Conventions/Agreements

As a member of several international organizations, Pakistan is a signatory to various environmental and social obligations. Therefore, the subproject will follow the covenants of such international obligations related to the environment and social, listed below:

- Stockholm Convention on Persistent Organic Pollutants, 2004.
- The Rio Declaration, 1992
- United Nations Framework Convention on Climate Change (UNFCCC), 1992;
- Kyoto Protocol, 1992;
- Convention on the Rights of the Child, 1989
- Convention on the Elimination of all Forms of Discrimination against Women, 1979.
- International Covenant on Civil and Political Rights, 1966
- International Covenant on Economic, Social and Cultural Rights, 1956.

Similarly, Pakistan has ratified 08 fundamental and 26 technical ILO conventions of which the following may relevant to the subproject.

- C138 - Minimum Age Convention, 1973 (No. 138);
- C111 - Discrimination (Employment and Occupation) Convention, 1958 (No. 111);
- C029 - Forced Labor Convention, 1930 (No. 29); and
- C001 - Hours of Work (Industry) Convention, 1919 (No. 1).



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3. Environmental and Social Baseline Conditions

3.1 Background

This section of the report presents a broad picture of the existing environmental and social conditions of project in the Sindh province as the project interventions will be carried out in all districts of Sindh province. Available secondary data from published literature, district census reports, and other documents was used to develop the baseline profile. The project districts are shown in the Figure 3-1.

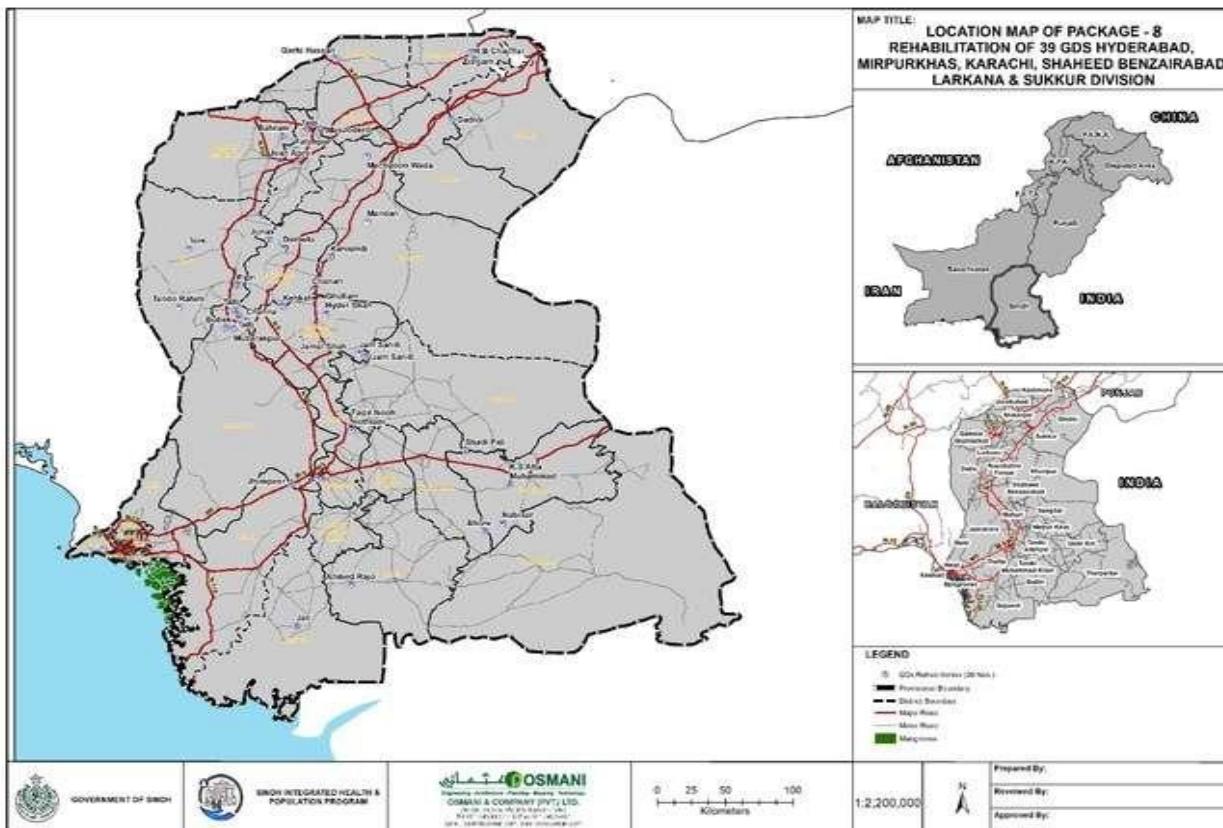


Figure 3-1: Map of Project Area (39 GDs)

3.2 Physical Environment

The physical environment of sub project area in Sindh⁸, covering the divisions of Hyderabad, Mirpur Khas, Larkana, Sukkur, Shaheed Benazirabad, and Karachi, is largely arid to semi-arid, shaped by the Indus River, which serves as the main water source for agriculture and daily needs. The region experiences extreme summer temperatures, often exceeding 48°C, with generally low humidity. Sukkur hosts the Sukkur Barrage, a critical irrigation hub serving over 5 million acres. Larkana has fertile plains supporting crops such as rice and sugarcane, though 25–30% of land suffers from waterlogging and salinity. Shaheed Benazirabad and Hyderabad rely on extensive canal systems to sustain crops like cotton, wheat, and vegetables but face challenges from salinity and seasonal water shortages. Mirpur Khas is known for mangoes and sugarcane, supported by irrigation but increasingly affected by declining groundwater and rainfall variability. Karachi, in

⁸ Pakistan Meteorological Department, 2023; Sindh Agriculture Department, 2022



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contrast, has a coastal environment with an arid climate, high temperatures, and limited rainfall. The city depends heavily on water supply from the Indus River and Hub Dam, while also facing issues of seawater intrusion, urban flooding during monsoon rains, and high pressure on natural resources due to rapid urbanization.

Environmental screenings highlight the region's strong dependence on the Indus River, growing climate-related pressures, and increasing risks of land degradation. Local communities rely heavily on this water source for irrigation and other livelihood activities. The impacts of the 2022 floods were also evident, causing widespread damage to infrastructure, agricultural lands, and local livelihoods. Additionally, the screening identified potential environmental and social concerns related to water availability, declining quality, and competing demands between agricultural and non-agricultural uses. See below physiography maps of GDs in all six divisions Figure No. 3-2 to 3-7.

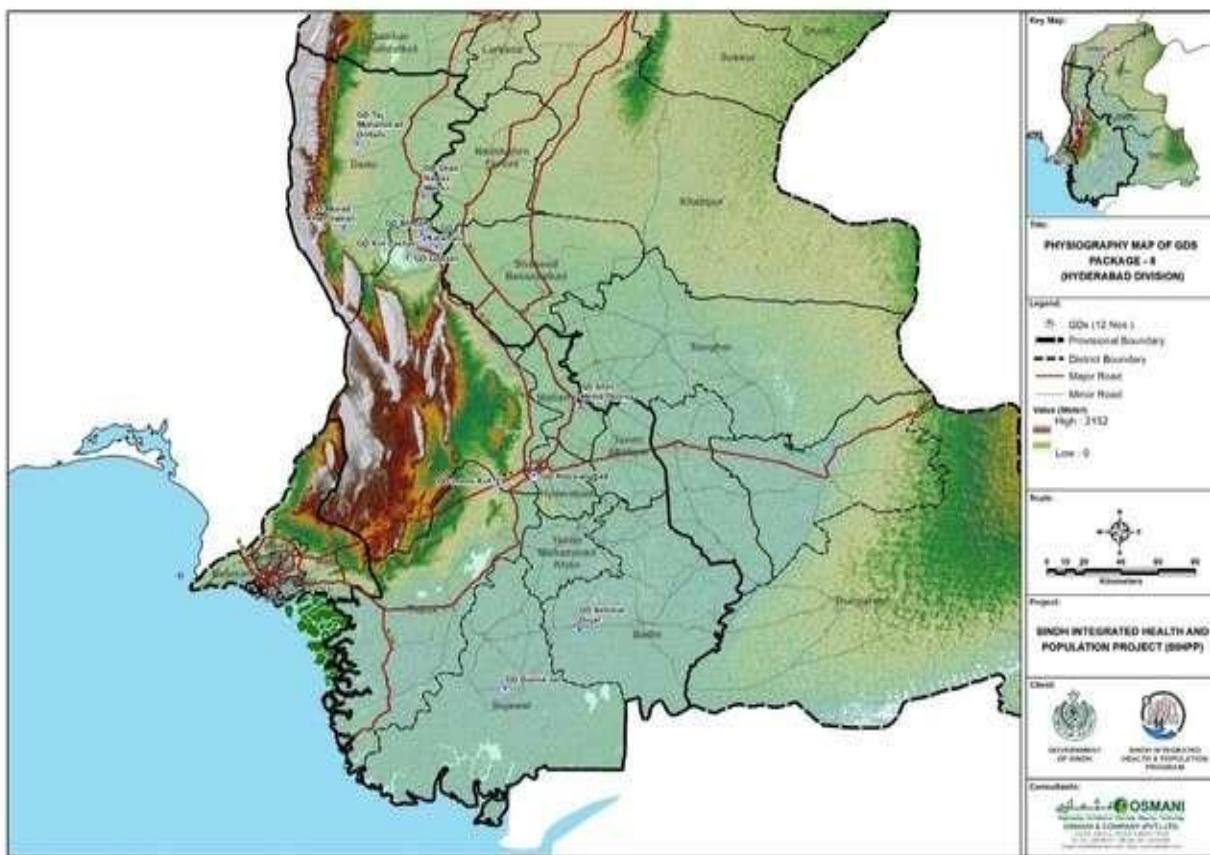


Figure 3-2: Physiography Map of GDs in Hyderabad Division



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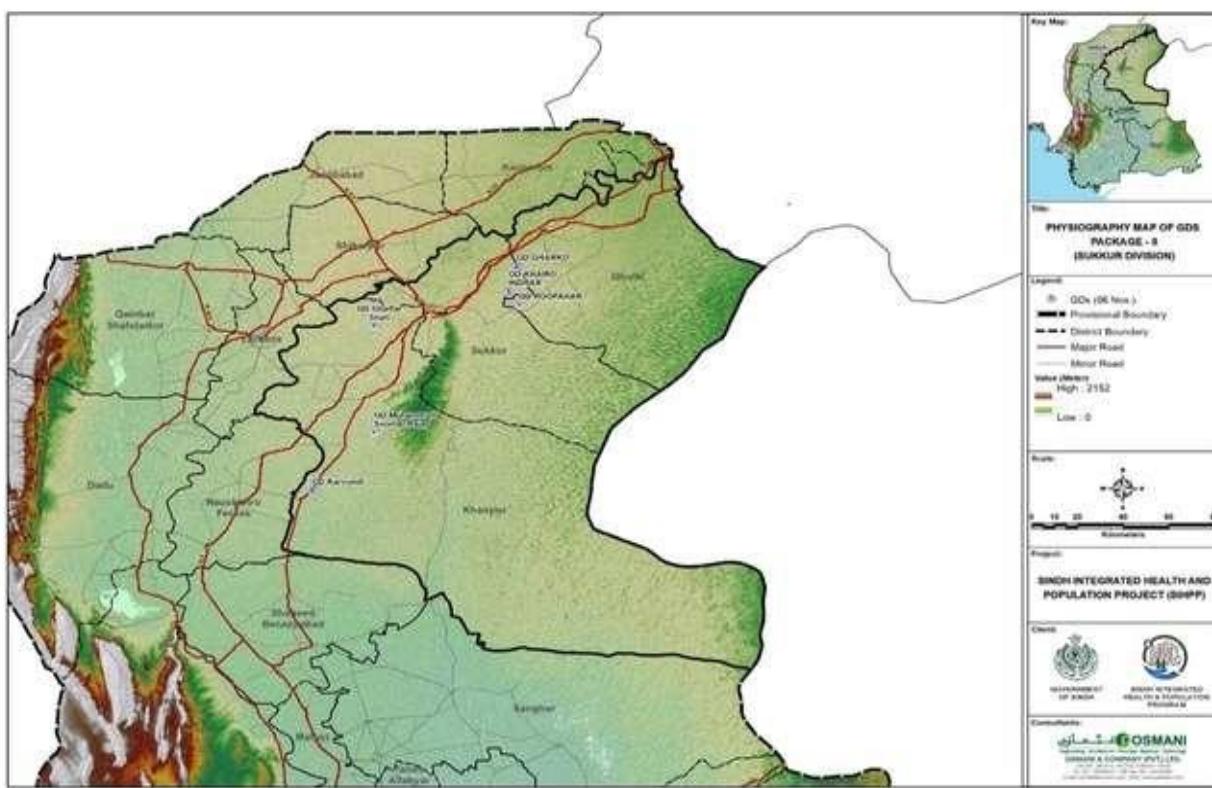


Figure 3-3: Physiography Map of GDs in Sukkur Division

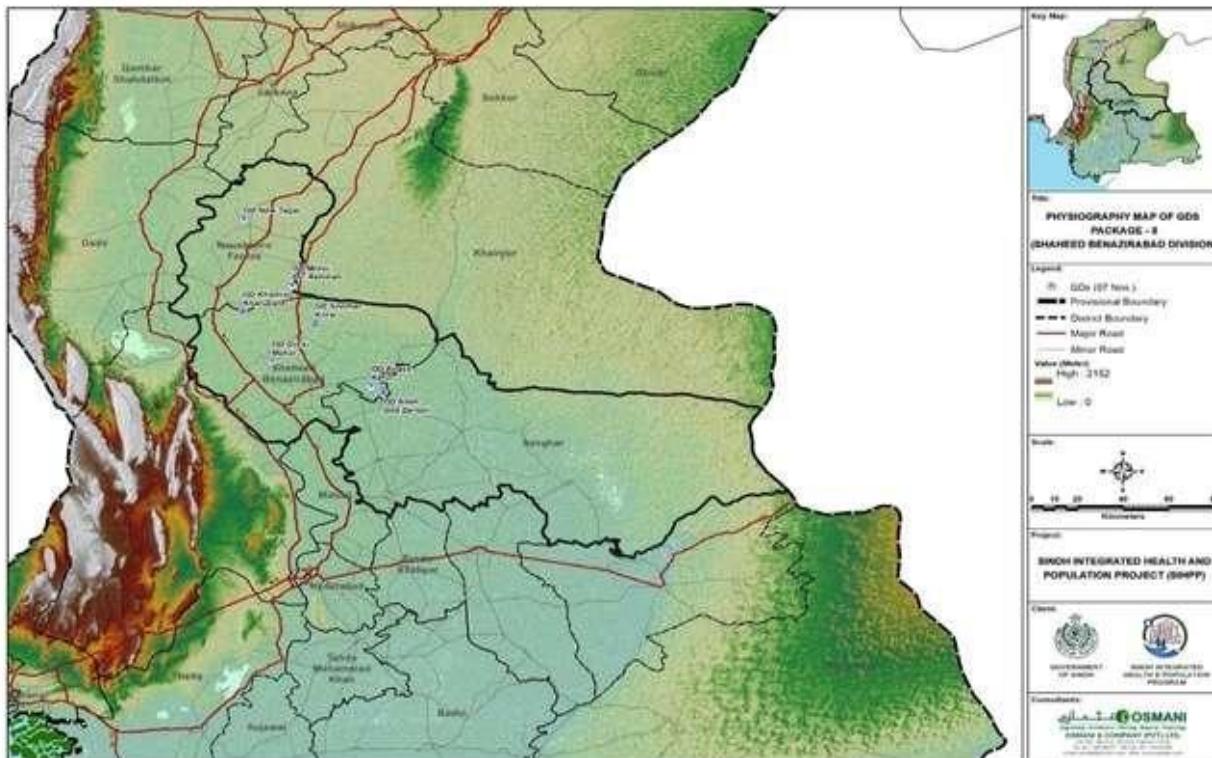


Figure 3-4: Physiography Map of GDs in Shaheed Benazir Abad Division



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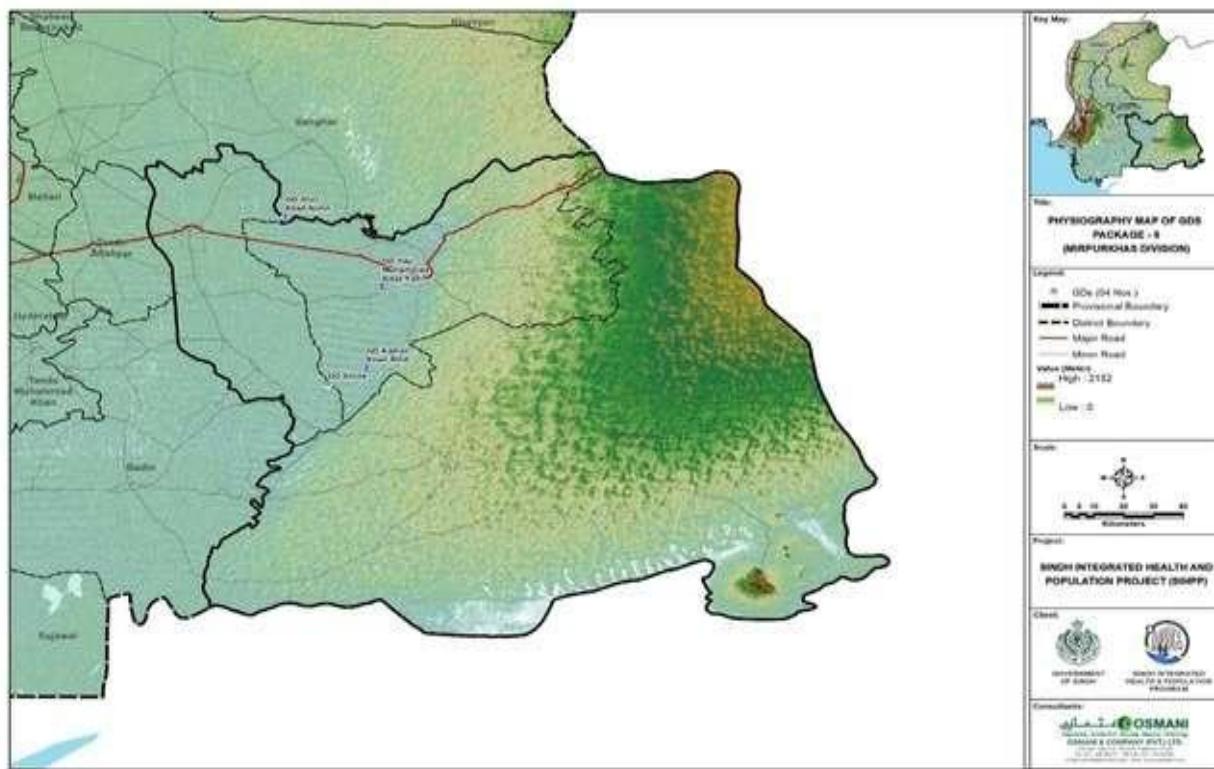


Figure 3-5: Physiography Map of GDs in Mirpur Khas Division

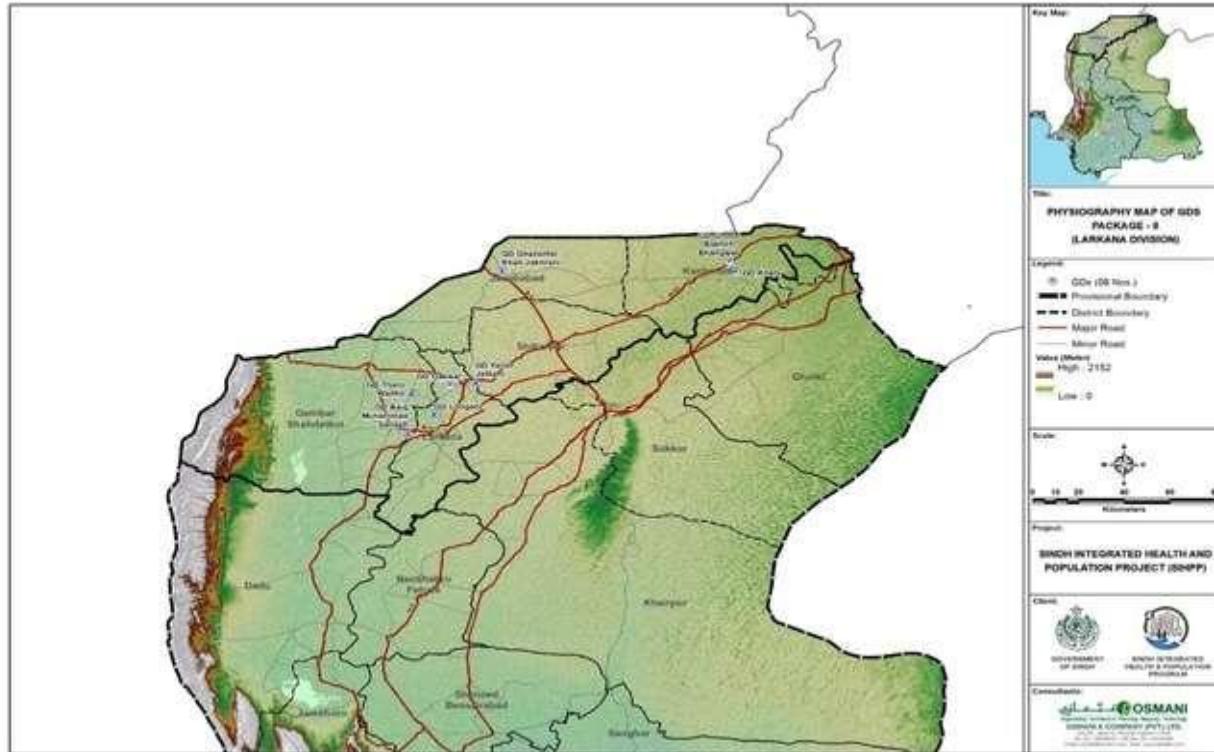


Figure 3-6: Physiography Map of GDs in Larkana Division

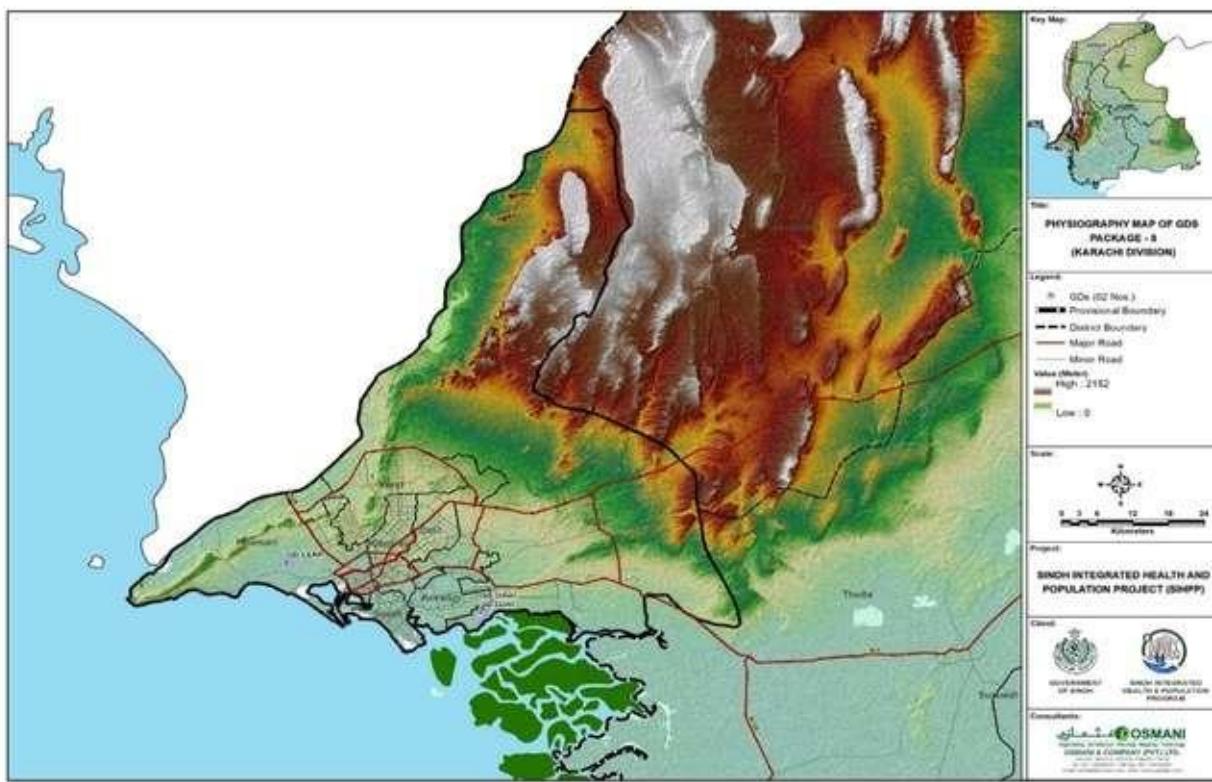


Figure 3-7: Physiography Map of GDs in Sukkur Division

3.2.1 Topography

Sindh Province can be divided into four main parts: the Kirthar Range on the west, a central alluvial plain bisected by the Indus River in the middle, a desert belt in the east, and the Indus Delta with its adjoining coastal zone in the south, including Karachi.

a) Kirthar Range: The Kirthar Range is composed of three parallel tiers of ridges running in a north–south direction, varying in width from 20 to 50 km. The series of ridges ascend from east to west, reaching elevations of about 4,000 to 5,000 meters.

b) Central Alluvial Plain: The fertile central plain constitutes the valley of the Indus River. This plain is about 580 km long and covers nearly 51,800 square kilometers. It gradually slopes downward from north to south and forms the main agricultural heartland of Sindh.

c) Eastern Desert Belt: The eastern desert belt includes low dunes and flats in the north, the Achhrro Thar (white sand desert) in the south, and the Thar Desert in the southeast. In the north, it extends up to Bahawalpur Division, where it is known as the Cholistan.

d) Indus Delta and Coastal Zone: The distributaries of the Indus begin to spread out near Thatta across the deltaic floodplain into the Arabian Sea. The surface is marked by a network of active and abandoned channels, with a coastal strip 10 to 40 km wide that is flooded by high tides and supports mangrove swamps. Karachi Division, situated along this coastal zone, represents the province's urban industrial hub. Its environment is shaped by the Arabian Sea, tidal creeks, and mangrove ecosystems, but it also faces challenges such as seawater intrusion, coastal erosion, urban flooding during monsoons, and high stress on freshwater resources due to rapid urbanization.



3.2.2 Geology

The geology⁹ of the Sindh, the geology of Sindh, located in southeastern Pakistan, features a diverse and geologically significant landscape shaped by millions of years of tectonic activity, sedimentation, and erosion. It lies within the Lower Indus Basin, a major sedimentary basin formed at the edge of the Indian tectonic plate, and includes formations ranging from the Mesozoic to the Quaternary periods.

The western region, including parts of Larkana, Sukkur, and Karachi Divisions, is marked by the rugged Kirthar Range, composed of Jurassic to Eocene marine limestones, shales, and sandstones. This area also falls within moderate seismic zones, particularly around the Kirthar Hills and Karachi.

The central and northern divisions, Sukkur, Larkana, Shaheed Benazirabad, Hyderabad, and Mirpur Khas are dominated by the fertile alluvial plains of the Indus River. These plains, rich in clay, silt, and sand deposits, support extensive agriculture but are vulnerable to flooding, salinity, and waterlogging due to the dynamic hydrology of the river and irrigation networks.

The eastern belt, stretching across parts of Sukkur, Mirpur Khas, and Hyderabad Divisions, includes the Thar Desert and the Achhrro Thar (white sand desert). This area is geologically significant for its vast lignite coal reserves, making it a hub for energy resource development.

The southern coastal zone, which includes Karachi Division and the Indus Delta near Thatta and Badin (Hyderabad Division), is characterized by coastal and deltaic sediments. These consist of fine clays, silts, and sands, forming tidal flats, mangrove ecosystems, and estuarine deposits. The Arabian Sea shapes the coastal geology, but the region also faces seawater intrusion, coastal erosion, and urban environmental pressures in Karachi.

Sindh is geologically rich in natural resources, hosting extensive coal deposits in the Thar Desert as well as oil and gas fields throughout the Indus Basin. Although not highly seismically active, the province's western margin near the Kirthar Hills and Karachi lies in moderate seismic zones.

The geology of the selected 39 GDs across these divisions is primarily characterized by fertile river plains and sedimentary rock formations, making the land suitable for agriculture, though still susceptible to erosion, salinity, and flooding due to the dynamic nature of the Indus River system. See below Geological maps of GDs in all six divisions Figure No: 3-8 to 3-13 and Seismic Zone Maps of GDs in all six divisions Figure No: 3-14 to 3-19.

⁹ Sindh Geology Department, 2023.

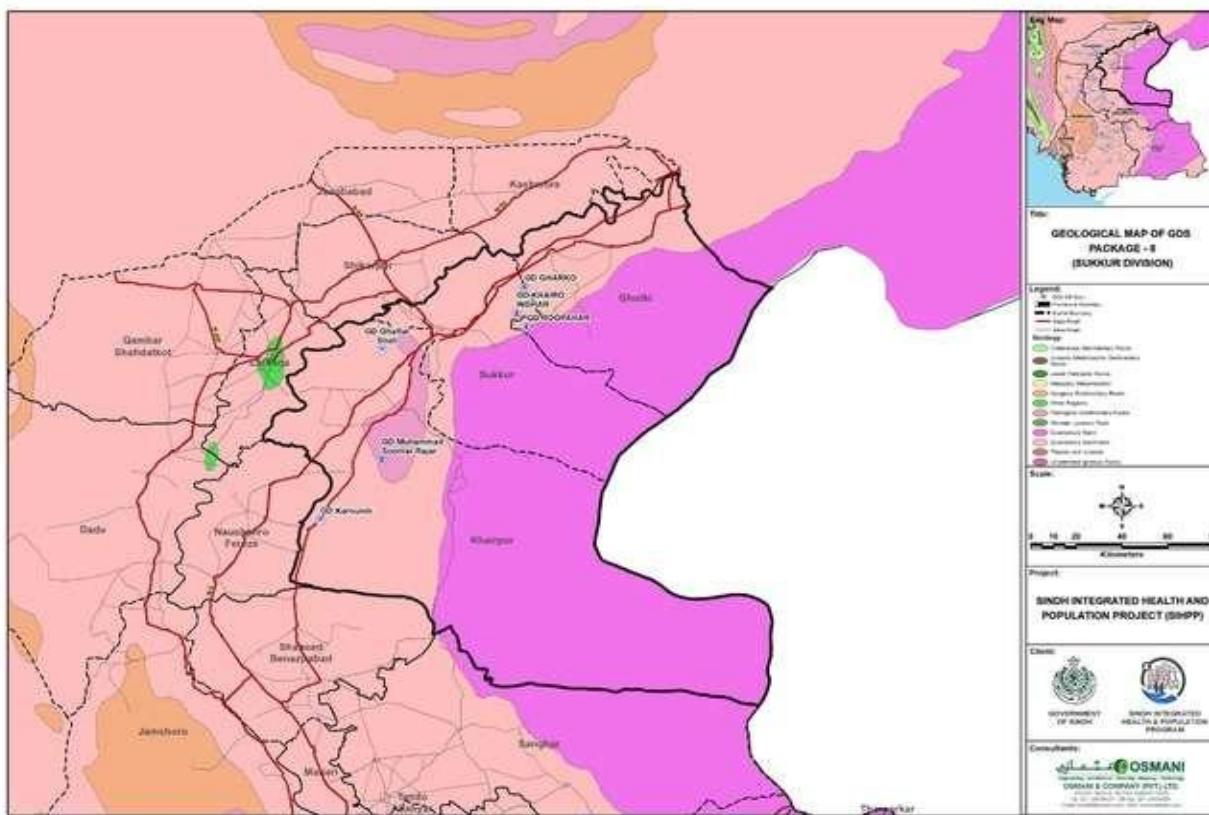


Figure 3-8: Geological Map of GDs in Sukkur Division

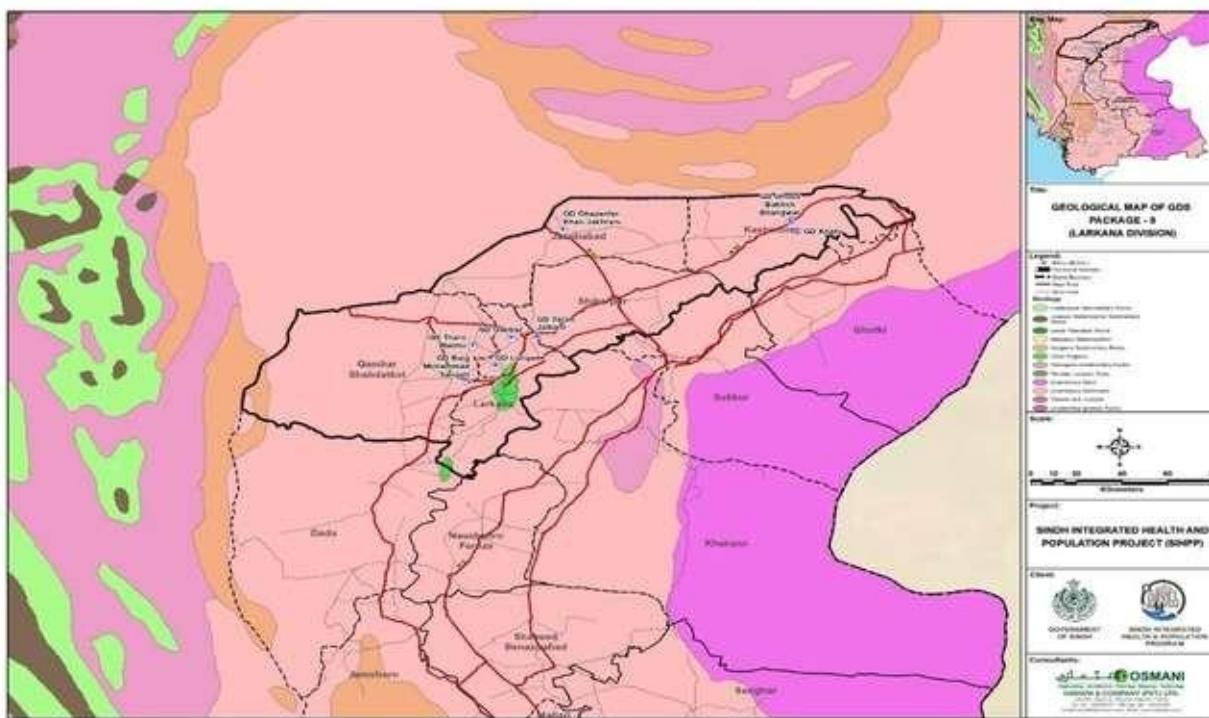


Figure 3-9: Geological Map of GDs in Larkana Division

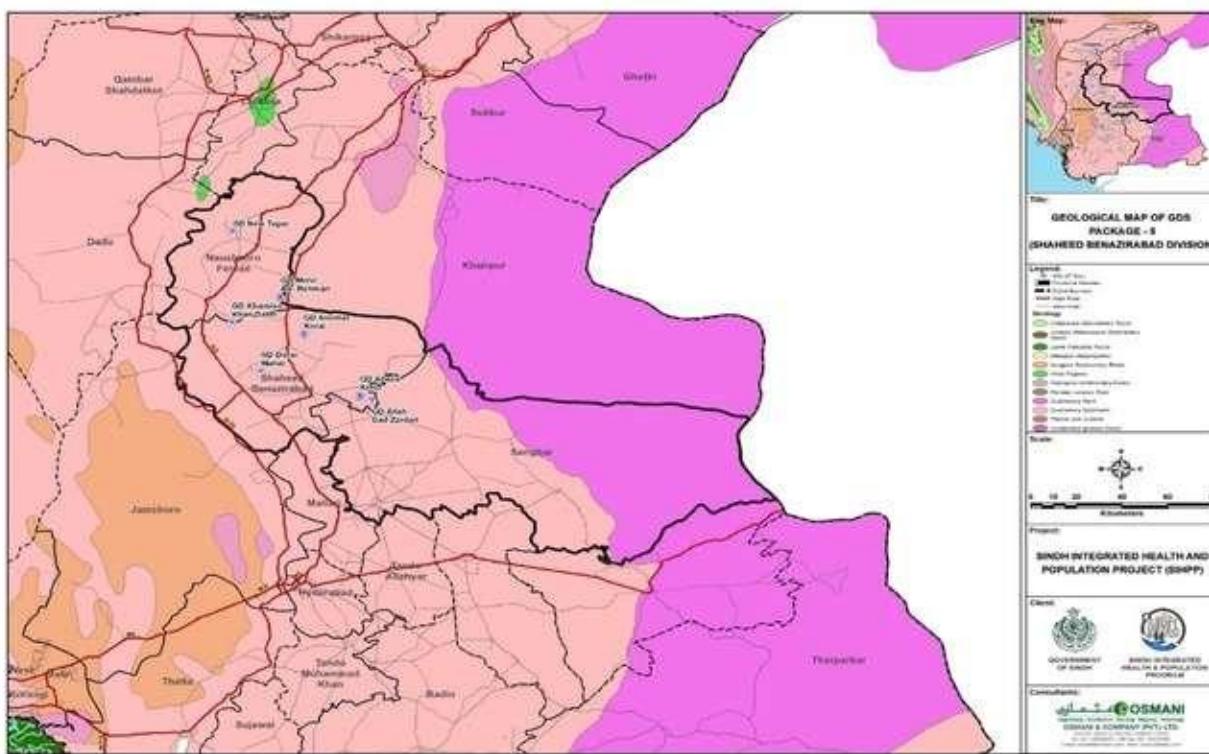


Figure 3-10: Geological Map of GDs in Shaheed Benazir Abad Division

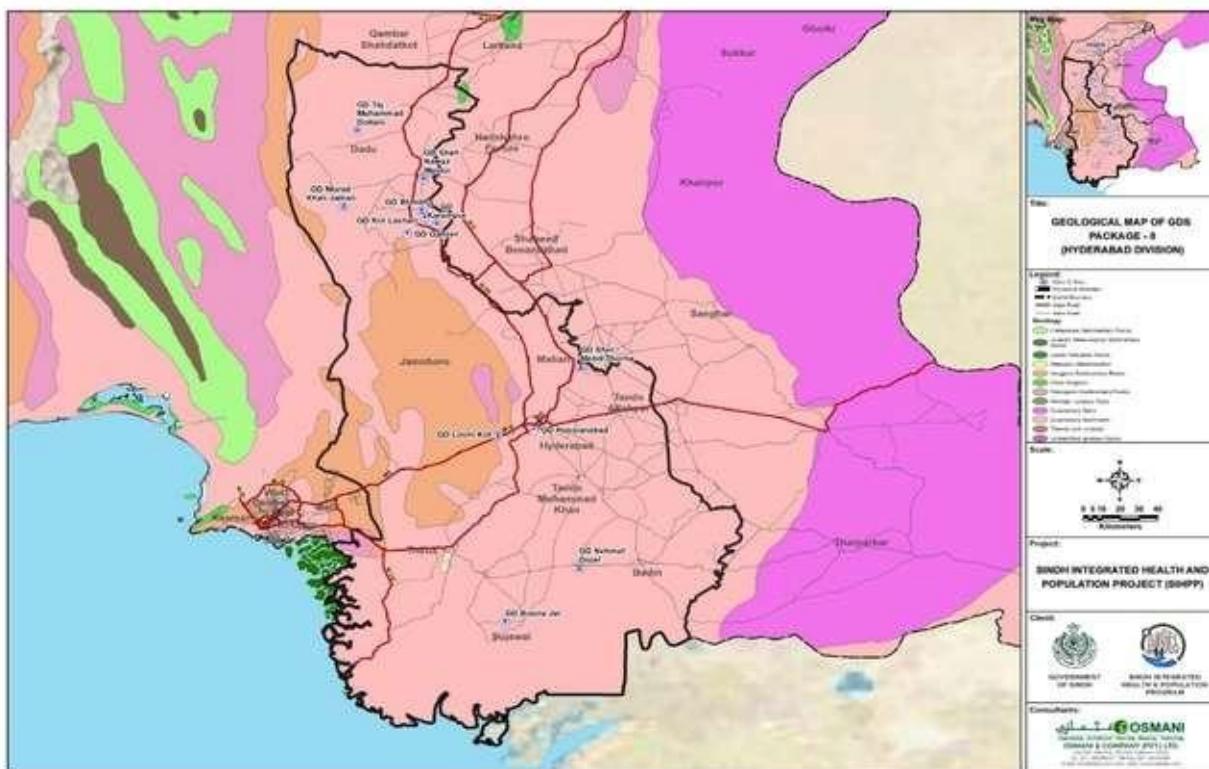


Figure 3-11: Geological Map of GDs in Hyderabad Division

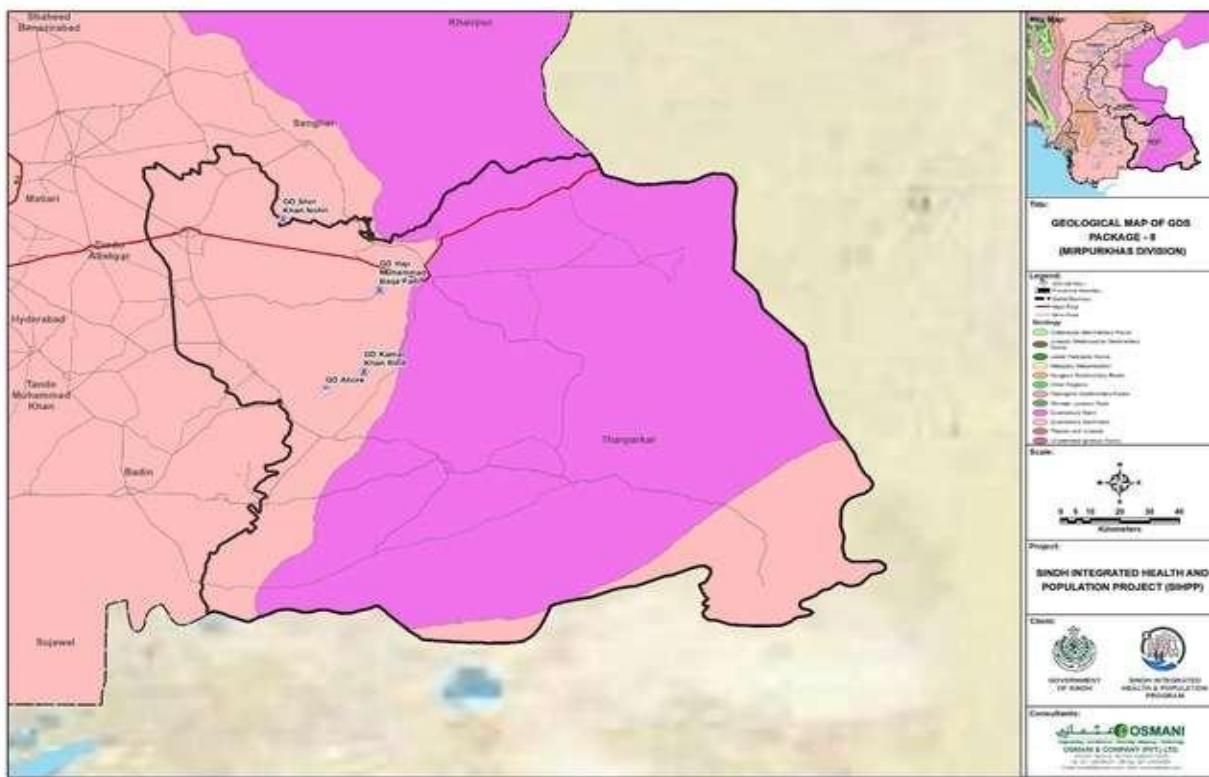


Figure 3-12: Geological Map of GDs in Mirpur Khas Division

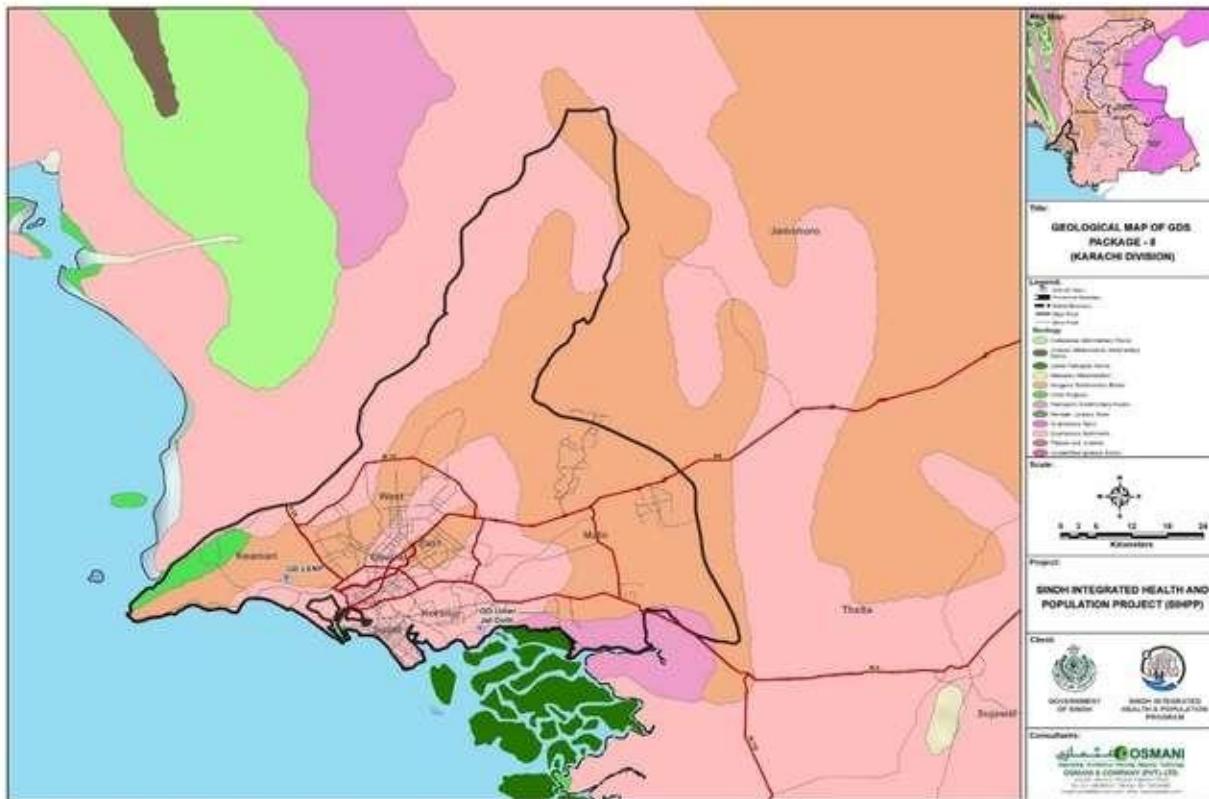


Figure 3-13: Geological Map of GDs in Karachi Division



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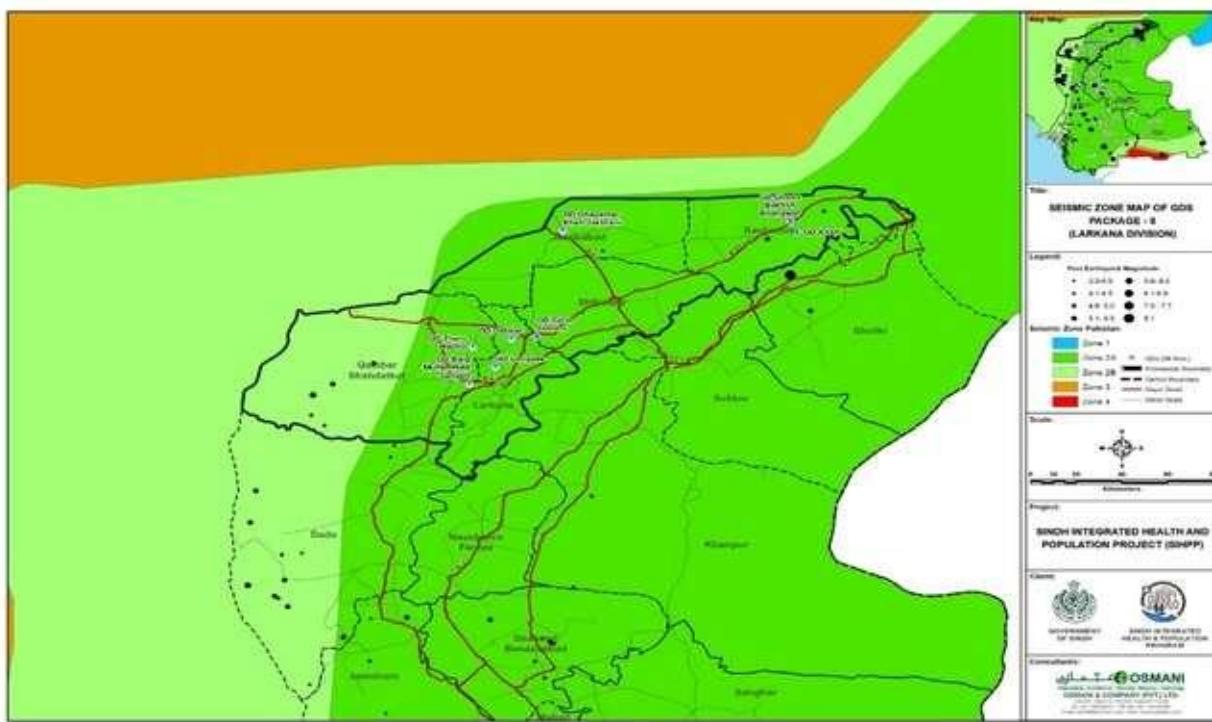


Figure 3-14: Seismic Zone Map of GDs in Larkana Division

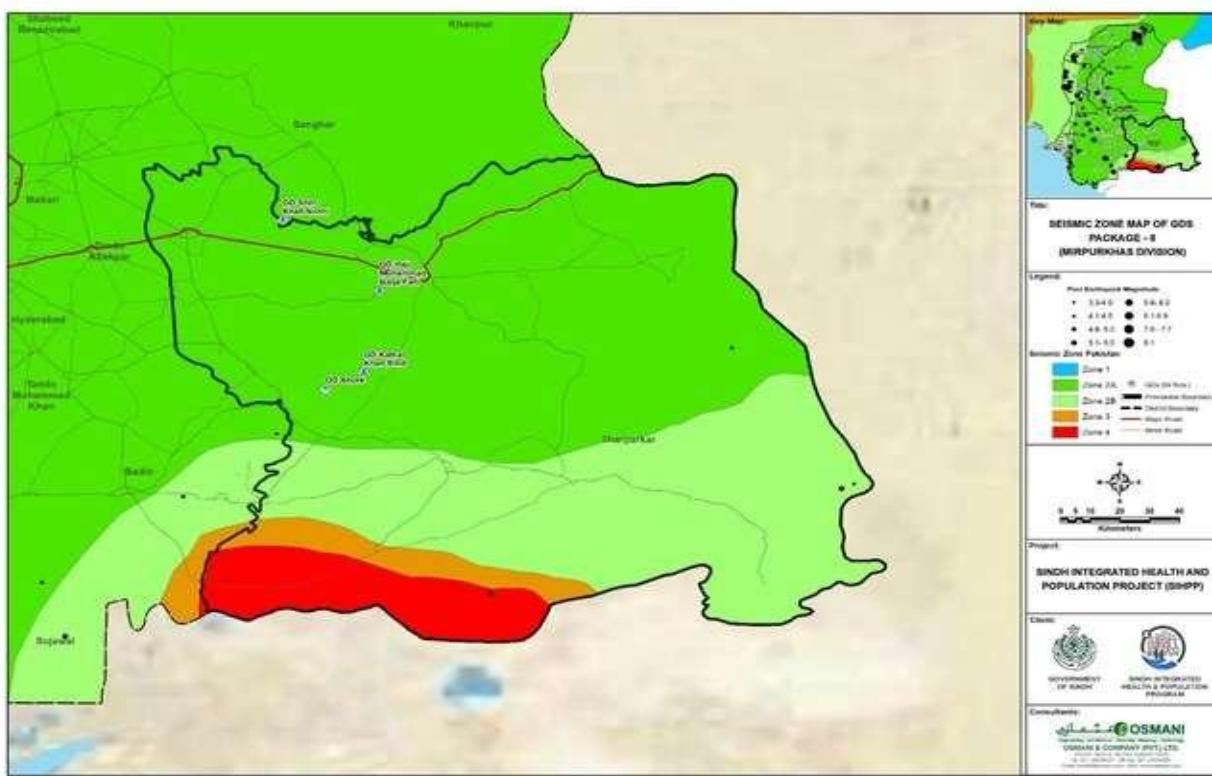


Figure 3-15: Seismic Zone Map of GDs in Mirpurkhas Division



Figure 3-16: Seismic Zone Map of GDs in Shaheed Benazir Abad Division

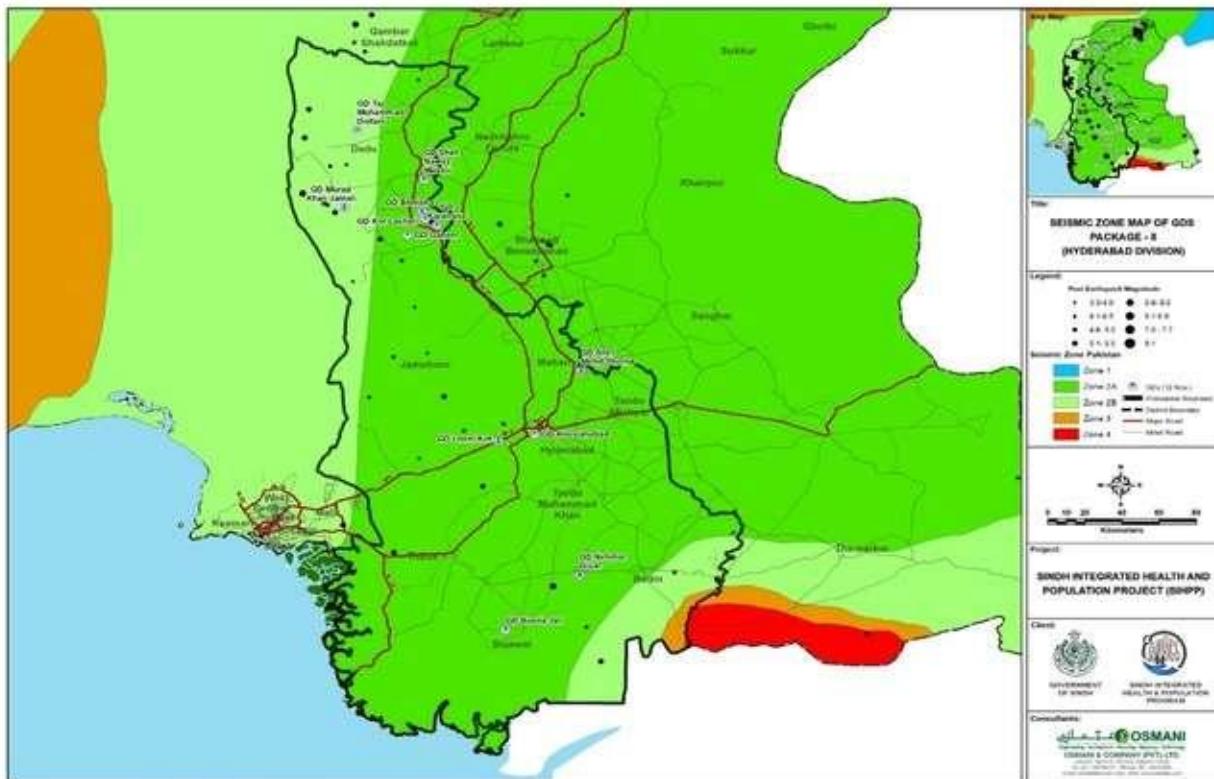


Figure 3-17: Seismic Zone Map of GDs in Hyderabad Division



Figure 3-18: Seismic Zone Map of GDs in Sukkur Division



Figure 3-19: Seismic Zone Map of GDs in Karachi Division



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3.2.3 Soil Morphology

The soil morphology¹⁰ of Sindh is shaped by its arid to semi-arid climate, Indus River deposits, and diverse landscapes. Most soils in the central Indus plain (Hyderabad, Shaheed Benazirabad, Sukkur, Larkana, and Mirpur Khas) are deep alluvial silty clay loams to clays, low in organic matter but suitable for irrigation-based farming. In the southern coastal zone, including Karachi and the Indus Delta, soils are saline and sodic due to seawater intrusion, poor drainage, and tidal influence. The eastern Thar Desert (Mirpur Khas, Hyderabad) has sandy, low-fertility soils, while the western Kirthar uplands (Larkana, Sukkur, Karachi) have shallow, stony soils on limestone and sandstone. Overall, Sindh's soils reflect fluvial, desert, and coastal processes, creating both opportunities and challenges for agriculture and land management.

Through an environmental and social survey, soil testing was conducted at all sites. It was observed that silt and clay soils were encountered in boreholes during the field investigation. The soils at the barrage site are alluvial in nature, primarily consisting of silty clay, clay loam, and loam. See below Soil maps on GDs in all six Divisions Figure No: 3-20 to 3-25.

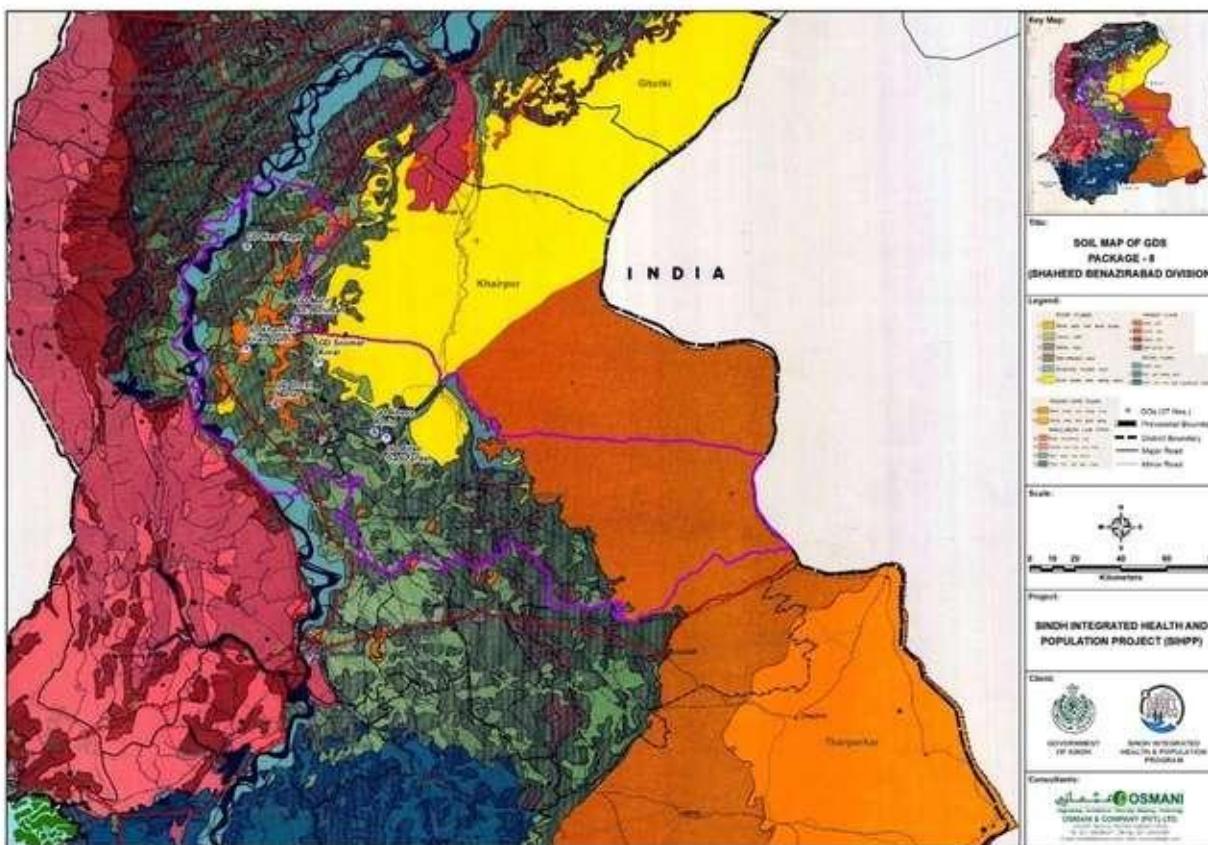


Figure 3-20: Soil Map of GDs in Shaheed Benazir Abad Division

¹⁰ https://irrigation.sindh.gov.pk/public/?utm_source

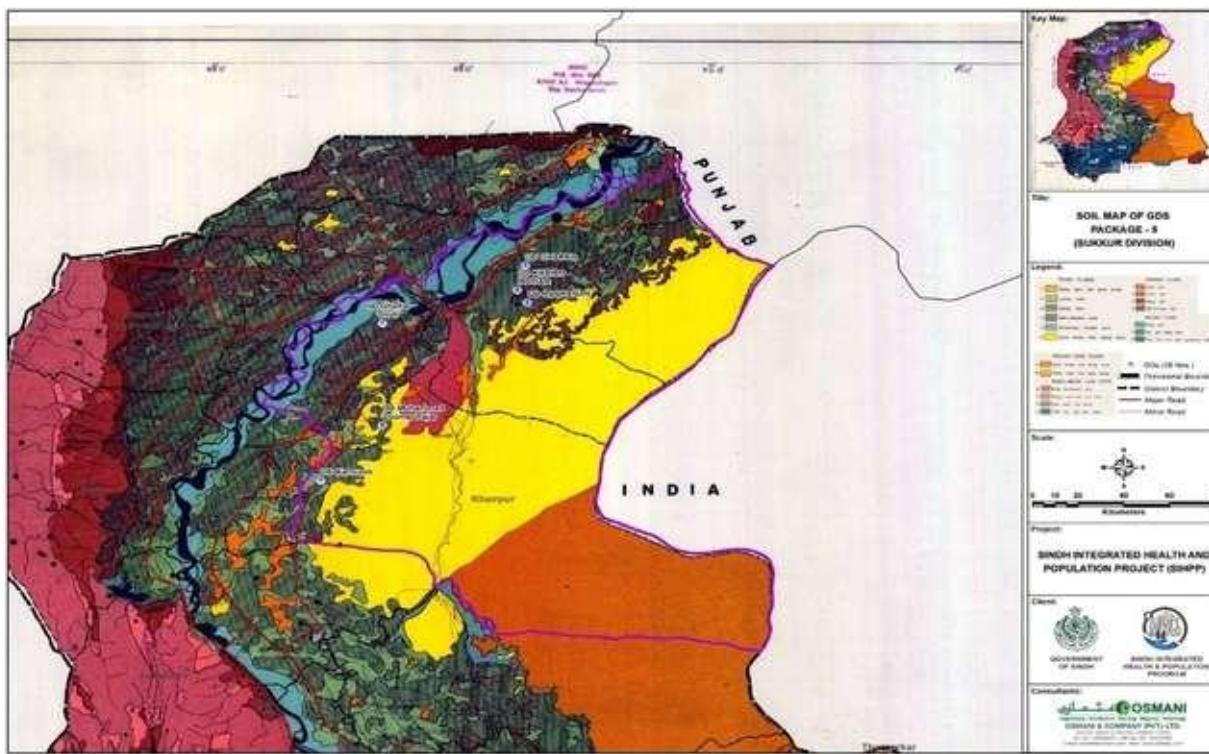


Figure 3-21: Soil Map of GDs in Shaheed Benazir Abad Division

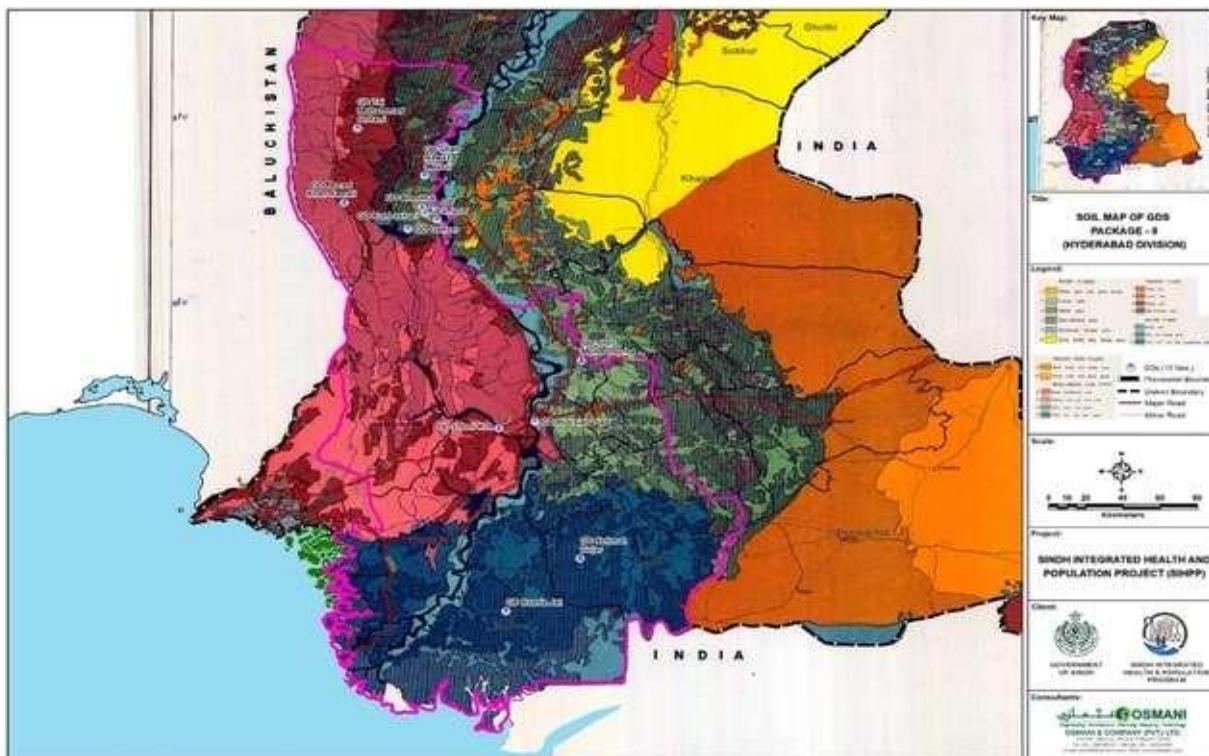


Figure 3-22: Soil Map of GDs in Hyderabad Division

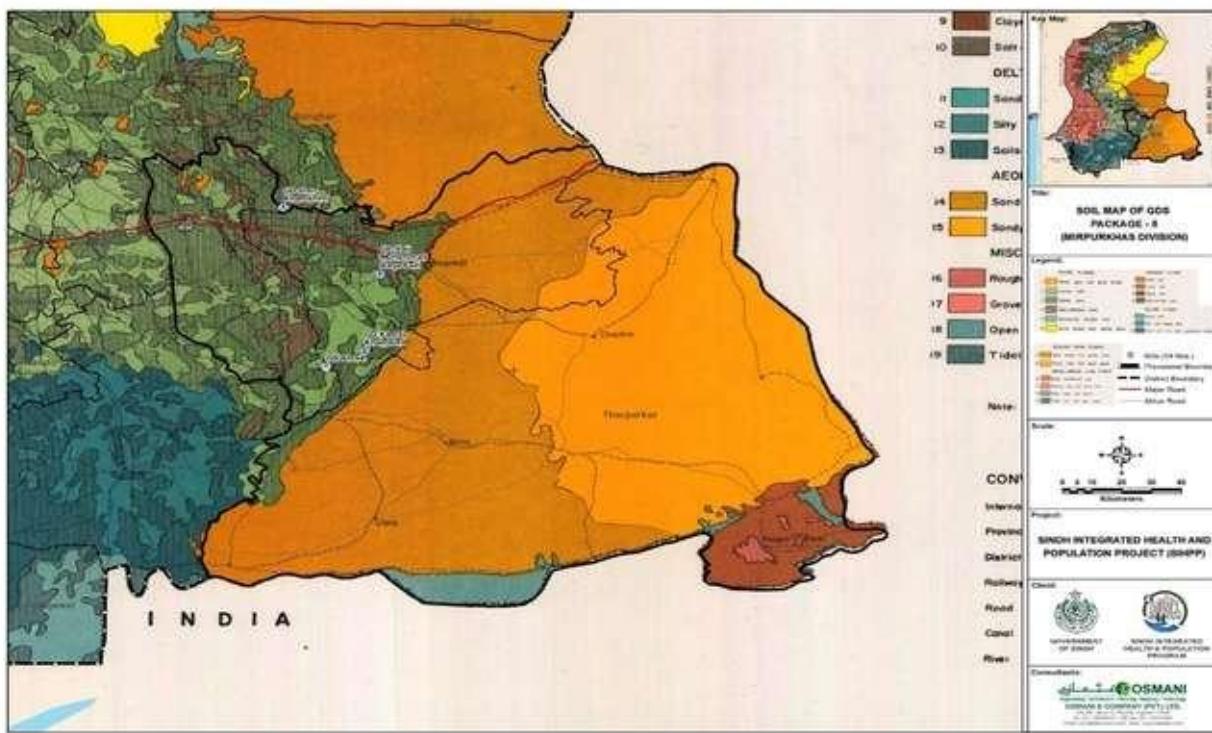


Figure 3-23: Soil Map of GDs in Mirpurkhas Division

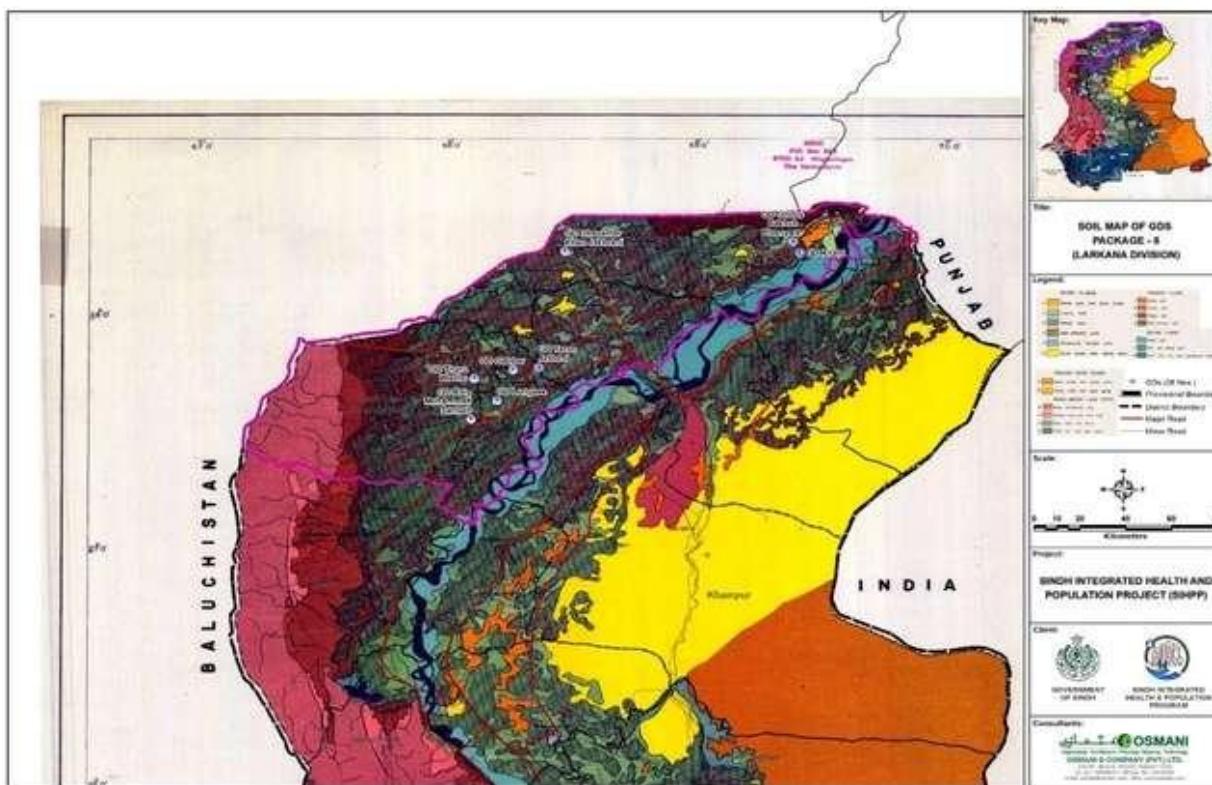


Figure 3-24: Soil Map of GDs in Larkana Division

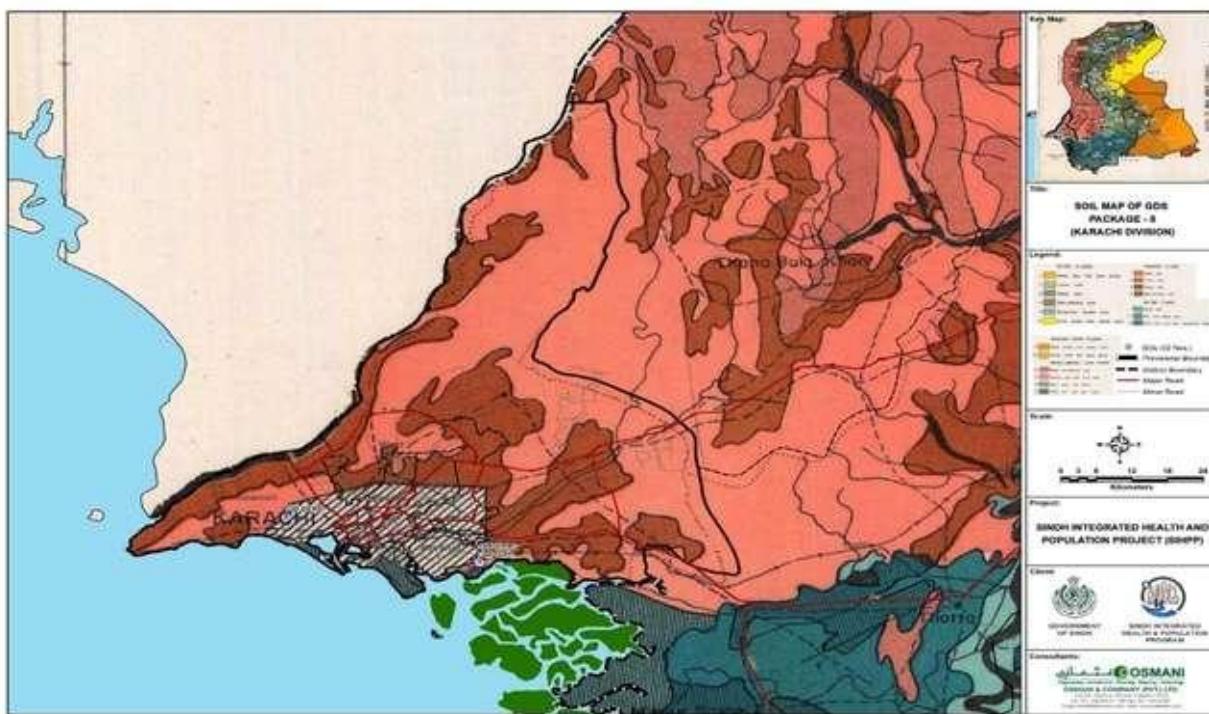


Figure 3-25: Soil Map of GDs in Karachi Division

3.2.4 Surface and Groundwater

The major source of surface water in Sindh is the Indus River, which flows south across the province before draining into the Arabian Sea along the southern coast, including Karachi. Groundwater is found mainly along the left bank of the Indus and is a critical source for rural communities. In many areas, it exists as thin freshwater lenses overlying deeper saline layers, tapped by shallow tube wells and hand pumps for domestic use. In coastal and urban areas such as Karachi and the Indus Delta, freshwater availability is limited and increasingly threatened by seawater intrusion, over-extraction, and high demand, creating added pressure on both surface and groundwater resources.

Water quality of the project areas will not be impacted because the interventions are of limited scope and major civil works are not involved. Nevertheless, mitigation measures are proposed on this ESMP to avoid the minor chances of water pollution for unforeseen cases.

3.2.5 Land Use

Land use¹¹ in the Sindh province is predominantly agricultural, with irrigation from the Indus River supporting the cultivation of crops like rice, cotton, sugarcane, and wheat. Livestock farming, especially dairy and small ruminants, is also common. Urbanization is gradually increasing in cities, but agriculture remains the primary land use activity. As these regions continue to grow, managing land for both sustainable agriculture and urban development will be key for future planning.

During the environmental and social baseline screening, it was observed that all 39 GDs are situated in close proximity to community settlements, within a distance of 5 kilometers.

¹¹ <http://www.sindhagri.gos.pk>



3.2.6 Air Quality and Noise

Air pollution poses a significant risk to human health in Sindh province. Outdoor air pollution in urban areas and household air pollution in rural areas cases of upper and lower respiratory infections in population and particularly in children. Air quality varies from rural to urban areas in Sindh province due to various contributing factors. However, the proposed project will not have any significant impact on both urban and rural air quality due to limited scope of work i.e. rehabilitation and up gradation work. Noise level will not be exceeded from the permissible limits due to project interventions.

Overall, the absence of industrial operations contributed to maintaining good air quality across these divisions. Transport of materials in project area where 39 GDs are located in arid/semi-arid zones will lead to the noise and dust emissions/air pollution from construction activities will be minimal.

3.2.7 Water Quality

Water quality¹² in Sindh is characterized by spatial and seasonal variability, influenced by anthropogenic pressures, hydrogeological conditions, and climatic factors. The province relies heavily on the Indus River system for its surface water needs; however, water quality is compromised by upstream withdrawals, reduced flows, and discharge of untreated municipal sewage, industrial effluents (particularly in Karachi, Hyderabad, and Sukkur), and agrochemical runoff. Key physico-chemical parameters in surface water often exceed WHO and NEQS thresholds, with elevated Biological Oxygen Demand (BOD), Chemical Oxygen Demand (COD), nitrates, phosphates, and pathogen indicators (e.g., total and fecal coliforms).

Groundwater quality is highly variable. In the lower Indus Basin aquifer, which underlies most of Sindh, only 30 – 40% of groundwater is considered potable. High Total Dissolved Solids (TDS) levels (>1,500 mg/L), electrical conductivity, and salinity are widespread, particularly in southern districts and coastal areas due to seawater intrusion and poor recharge. Hydro-chemical analyses indicate elevated levels of sodium, chloride, sulfate, fluoride (often exceeding 1.5 mg/L), and arsenic (in some areas exceeding 50 µg/L). Shallow hand pumps frequently show microbial contamination due to poor sanitary seals and proximity to latrines.

The widespread use of untreated canal and groundwater for irrigation also contributes to soil salinization and reduced crop productivity. The lack of effective wastewater treatment infrastructure, weak monitoring systems, and over-dependence on deteriorating water supply networks further exacerbate the situation. Addressing water quality in Sindh requires integrated interventions, including robust water quality surveillance, groundwater regulation, safe wastewater reuse, and investment in decentralized water treatment technologies.

Through E&S screening it was observed and discussed with the community about the sub-project area drinking water quality. Through stakeholder consultations, it was observed that the drinking water quality at the selected 39 GDs are not fit for drinking. However, confirmatory water testing will be carried out by the contractor before executing the subproject through SEPA approved third party Lab.

3.2.8 Natural Disaster and Vulnerability

Sindh is susceptible to three major natural hazards like floods, earthquakes, and drought. It is also vulnerable to cyclones. The province is susceptible to flooding from the Indus River basin, which causes damages almost annually. These incidents impact infrastructures regularly, but can also destroy roads, schools, hospitals, homes, and irrigation facilities.

¹² Website: Sindh EPA



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Environmental and social screening revealed significant vulnerability to natural disasters in the region. Flooding, exacerbated by the Indus River's high-water levels, causes significant damage to infrastructure, agriculture, and displaces communities. Droughts, worsened by water scarcity and low river flow, lead to crop failures and water shortages. Heat waves, intensified by climate change, pose health risks in urban areas. The region's vulnerability is due to poor infrastructure, reliance on agriculture, limited disaster preparedness, and climate change. Strengthening disaster preparedness, improving flood protection, and promoting climate-resilient practices are essential for mitigating these risks.

All 39 GDs are affected by floods, due to severity of flood.

3.2.9 Climate

The province of Sindh is situated in subtropical region. It is hot in the summer and cold in winter. Temperature frequently rises above 46°C between May and August and the minimum average temperature of 20°C occurs during December and January. The coldest period spans from December to February, with mean monthly temperatures ranging from 20°C in the southern coastal zone to 15°C in the northern region of the province. Summer temperatures peak May and June with mean monthly highs from 25°C to 45°C.

The annual rainfall averages between seven inches, falling mainly during July and August. The south westerly monsoon wind begins to blow in mid-February and continues until the end of September, whereas the cool northerly wind blows during the winter months from October to January. Sindh spans four distinct climatic regions: hot very arid, hot arid, semi-arid and coastal.

3.2.10 Current Situation of the 39 GDs

The 39 GDs across Six divisions of Sindh, have been affected by the 2022 floods. Flood waters have contaminated water sources, disrupted sanitation systems, and made it difficult for health workers to maintain hygiene and provide essential care. Communities face long travel distances to seek medical assistance. The floods have not only damaged infrastructure but also disrupted livelihoods, leaving families without access to food and proper nutrition. Immediate rehabilitation efforts are needed to rebuild flood-resistant health units, restore water and sanitation systems, and ensure the access to essential healthcare services.

3.3 Ecological Environment

The ecological environment of Sindh the ecological environment of Sindh is shaped by the Indus River, irrigation systems, and diverse landscapes. Sukkur Division supports aquatic habitats around the Sukkur Barrage, while Larkana relies on irrigation but faces habitat degradation and water stress. Shaheed Benazirabad and Hyderabad are dominated by agriculture, with ecosystems threatened by salinity, overgrazing, and reduced river flows. Mirpur Khas features mango orchards and irrigated lands but is increasingly vulnerable to desertification and groundwater decline. Karachi Division represents the coastal and marine ecology, with mangroves, tidal creeks, and fisheries under pressure from urbanization, seawater intrusion, and pollution.

Across all divisions, water scarcity, land degradation, and climate change pose serious risks to ecosystems, requiring sustainable management and conservation efforts. The region has different ecosystems, and has a distinct flora and fauna as described below.

3.3.1 Flora

The proposed project sites across Sindh, including the divisions of Larkana, Sukkur, Shaheed Benazirabad,



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Hyderabad, Mirpur Khas, and Karachi, are characterized by flora commonly found in arid and semi-arid rangeland environments. These plant species are largely dependent on seasonal rainfall, with growth peaking during the monsoon season and declining sharply in dry or drought periods. In Karachi and the southern coastal belt, vegetation also includes mangroves and salt-tolerant shrubs adapted to tidal and saline conditions. Importantly, no flora will be removed or cut as part of the rehabilitation works for the 39 GDs, as the interventions are confined to existing facility footprints and do not encroach into natural vegetation zones.

3.3.1.1 Grasses

The rangelands across Sindh are predominantly covered with a variety of native grass species adapted to arid and semi-arid conditions. These rangelands play a crucial role in supporting the livelihoods of rural communities by providing grazing grounds for livestock, which is a major source of income and food security in the region. The primary ecosystem service of these rangelands is livestock grazing, especially in northern and central Sindh.

Common grass species found throughout Sindh's rangelands include: Needle Grass (*Aristida adscensionis*), Buffel Grass (*Cenchrus ciliaris*), Sandbur (*Cenchrus biflorus*), Bermuda Grass (*Cynodon dactylon*), Millet Grass (*Cymbopogon jwarancusa*), Goosegrass (*Eleusine flagellifera*), Sewan Grass (*Lasiusurus sindicus*), and Seed Thrower (*Sporobolus marginatus*). The productivity of these grasses is closely tied to seasonal rainfall, with peak growth during the monsoon and significant decline during drought periods.

3.3.1.2 Forbs

Across the rangelands of Sindh, forbs are an essential and vibrant component of the natural ecosystem. These herbaceous, broad-leaved plants flourish especially during the spring and rainy seasons, adding ecological richness and visual diversity to the landscape. Forbs play a crucial role in supporting rangeland health by attracting a wide range of pollinators such as flies, bees, and other insects, which are vital for ecosystem functioning and biodiversity conservation.

Key forb species commonly found in Sindh's rangelands include: Kapok Bush (*Aerva tomentosa*), Chad (*Cassia holosericea*), Bindweed (*Convolvulus glomeratus*), Two-form Rattlepod (*Crotalaria bifolia*), *Heliotropium ophioglossum*, Jhil (*Indigofera oblongifolia*), and Snout Bean (*Rhynchosia minima*). These species contribute not only to pollination but also enhance soil fertility and provide supplementary forage for livestock, particularly in well-vegetated patches following seasonal rains.

3.3.2 Fauna

A screening survey was carried out across all proposed 39 GDs across Sindh, to assess potential impacts of the project on local wildlife. The assessment confirmed that all project activities are confined to the existing premises of government-owned health facilities, with no encroachment into natural habitats or ecologically sensitive areas. As a result, no wildlife species or critical habitats were identified within or near the project sites. This indicates that the project poses no risk to local fauna and is in compliance with environmental regulations, allowing the rehabilitation works to proceed without ecological disturbance.



4. Socio-Economic Environment

The socio-economic baseline chapter provides an overview of the social and economic conditions around the 39 GDs of eighteen districts: Badin, Jamshoro, Matiari, Dadu, Jacobabad, Kashmore, Karachi West, Karachi Malir, Sujawal, Thatta, Mirpurkhas, Umerkot, Naushahro Feroz, Shaheed Benazir Abad, Kambar and Sukkur. The socio-economic review is based on a literature review and meetings with several stakeholders in the area, and consultations with primary and secondary stakeholders. The socio-economic survey and assessment of social impacts were conducted throughout the months of March and April 2025. The team employed a comprehensive approach utilizing a questionnaire and checklist for conducting Interviews and Focus Group Discussions (FGDs).

The purpose of this social baseline is to provide a comprehensive overview of the social and cultural context of the eighteen districts: Badin, Jamshoro, Matiari, Dadu, Jacobabad, Kashmore, Karachi West, Karachi Malir, Sujawal, Thatta, Mirpurkhas, Umerkot, Naushahro Feroz, Shaheed Benazir Abad, Kambar and Sukkur. This assessment will help in identification of the positive and negative impacts of the project on the local community and contribute to providing plausible mitigation measures with respect to the secondary sources, latest government publications based on national, provincial and sectoral census surveys and reports from NGOs and development agencies were used to establish the macro-environment of the project area. Both quantitative and qualitative data available at the district level was used to provide a comprehensive overview of the major socio-economic parameters: demography, ethnicity, poverty, economy, education, health, utilities and the like.

During the socio-economic survey, people were informed about the project objective, its location and basic design features to assess the socioeconomic conditions of the project areas and community persons, a series of questions were asked during the socio-economic survey with the following objectives:

- Observe and document the existing socio-economic conditions of the within the project area;
- To obtain information about the demographic characteristics of the project area;
- Identify the economic resource dependencies within the project area;
- Explore the situation of housing conditions, civic amenities, drinking water conditions, education and health facilities etc.
- Get feedback from the community about existing and potential social issues; and
- Evaluate the possibilities of addressing their concern through relevant authorities.

4.1 Approach and Methodology

The socioeconomic survey aimed to gather in-depth insights into the living conditions, economic participation, and social well-being of different demographic groups. The study employed a combination of quantitative and qualitative research methods, including structured questionnaires and in-person interviews. This mixed-methods approach allowed for the collection of both statistical data and personal narratives, providing a comprehensive understanding of the survey population's experiences.

The socio-economic survey was conducted with 371 households were randomly selected from GDs and nearby communities to ensure that key demographic groups, including gender, age, education, and income level, were adequately represented. In addition, FGDs and KIIs were conducted with purposeful gender balance to capture perspectives from both men and women, either through separate sessions or inclusive mixed-group discussions, as appropriate to local context.

This near-equal distribution ensured that gender differences could be explored in the analysis of socioeconomic variables such as employment, income, access to services, and overall quality of life. The



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detailed survey questionnaire, FGD guide, and KII checklist used for data collection are provided in Annexure-D for reference.

Data Collection Methods

Primary Data:

- **Household Surveys:** Structured questionnaires were administered to 371 households
- **Key Informant Interviews (KII):** Conducted with local leaders, government officials, and community representatives to gain deeper insights into socioeconomic trends.
- **Focus Group Discussions (FGDs):** Engaged diverse community members, including women and vulnerable groups, to understand social dynamics and challenges.

Secondary Data:

- Census data from the 7th Population and Housing Census-2023 was analyzed.
- Official reports, administrative records, and local government statistics including, Sindh District Profile-2021, Annual School Census 2023-2024 and Sindh Bureau of Statistics were reviewed to validate findings.

Data Analysis

- Descriptive statistics were applied to assess household composition, education levels, employment, and income distribution.
- Thematic analysis was conducted on qualitative data from interviews and FGDs to identify key social and economic concerns.

4.2 The Project Area at a Glance

The proposed project of 39 GDs in six divisions of Sindh (Karachi, Hyderabad, Mirpur Khas, Larkana, Sukkur & Shaheed Benazir Abad), the general socioeconomic characteristics of the region are discussed in the following sections.

Sukkur District

Sukkur District is located in the north-central part of Sindh and forms an important administrative, commercial, and agricultural hub of the province. Covering an area of approximately 5,165 square kilometers, the district lies roughly between 27°30' to 28°10' North and 68°40' to 69°20' East. The terrain is predominantly flat to gently undulating alluvial plains shaped by the Indus River, which flows along the eastern boundary of the district. Unlike coastal districts, Sukkur is situated well above sea level, with an average elevation of about 67 meters above sea level, reducing vulnerability to coastal hazards while supporting extensive irrigated agriculture.

Khairpur District

Khairpur District is located in the northern part of Sindh Province and serves as an important administrative, agricultural, and cultural center of the region. Covering an area of approximately 15,910 square kilometers, the district lies roughly between 26°30' to 27°50' North latitude and 68°10' to 69°50' East longitude. The terrain is predominantly flat to gently undulating alluvial plains, largely influenced by the Indus River system and its irrigation network, which supports extensive agricultural activities.



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Hyderabad District

Hyderabad District, the 2023 census shows a population of 2,432,540, up from 2,199,928 in 2017, reflecting an average annual growth rate of about 1.69% between the two censuses. In 2023 there were approximately 448,479 households in the district, with an average household size of about 5.42 persons, indicating relatively large family units similar to other districts in Sindh. Overall, Hyderabad has experienced steady population growth and maintains substantial household sizes over the 2017–2023 period.

Sujawal District

District Sujawal had an estimated population of 839,292 in 2023, up from 779,062 in 2017, reflecting an average annual growth rate of about 1.25% over the period. The district comprised approximately 158,917 households in 2023, with an average household size of 5.28 persons, indicating relatively large family units typical of the region. Overall, the data shows steady population growth with moderate household density between the 2017 and 2023 census periods.

Dadu District

Dadu District is located in the western part of Sindh and serves as an important agricultural and administrative region of the province. Covering an area of approximately 7,866 square kilometers, the district lies roughly between 26°45' to 27°40' North and 67°30' to 68°20' East. The terrain consists mainly of flat alluvial plains in the east and undulating to hilly areas of the Kirthar Range in the west. The Indus River flows along the eastern boundary of the district, shaping its fertile agricultural lands. Dadu District is situated at a moderate elevation, averaging about 38–50 meters above sea level, which supports extensive canal-based irrigated agriculture and reduces exposure to coastal hazards.

Badin District

Badin District is located in the southernmost part of Sindh, forming part of the Indus Delta and coastal belt of the province. Covering an area of approximately 6,858 square kilometers, the district lies roughly between 24°13' to 25°12' North and 68°21' to 69°20' East. The terrain is predominantly flat and low-lying, with many areas close to sea level, making Badin highly vulnerable to coastal flooding, cyclones, and sea-intrusion. The elevation around the district headquarters is about 10–13 meters above sea level.

Jamshoro District

Jamshoro District lies on the right bank of the Indus River and spans an area of about 11,200 square kilometers. The district falls within the central-western part of Sindh, with its headquarters located near 25°25'N and 68°16'E. The landscape is largely composed of plains and riverine areas influenced by the Indus River system. Although detailed elevation profiles are limited, the district generally consists of flat agricultural and semi-arid lands with typical low elevation.

Thatta District

Thatta District is situated in the Lower Indus Delta region covering about 8,570 square kilometers. It is positioned near 24.75°N latitude and 67.91°E longitude. The district comprises coastal plains, deltaic formations, mangrove forests, and estuarine zones. Much of its terrain is very close to sea level — often between 5 to 10 meters — making Thatta highly prone to tidal flooding, sea-level rise, and saline water



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intrusion. It serves as one of Sindh's most climate-sensitive regions.

Matiari District

Matiari District is situated in central Sindh and covers an area of approximately 1,400 square kilometers. It lies between about 25°40' to 26°10' North and 68°20' to 68°50' East. The district landscape consists mainly of fertile alluvial plains formed by the Indus River system. The average elevation is around 20–25 meters above sea level. Owing to its flat terrain and agrarian economy, the district is highly dependent on an extensive canal irrigation network.

Mirpurkhas District

Mirpurkhas District is located in eastern Sindh and covers an area of around 2,925 square kilometers. The district lies between approximately 24°48' to 25°48' North and 68°59' to 69°16' East. It is characterized by flat, fertile plains sustained by the canal irrigation network emanating from the Sukkur and Kotri barrages. The topography is uniformly level with no documented major altitude variations, representing typical agricultural plains of interior Sindh.

Umerkot District

Umerkot District is located in the eastern part of Sindh and covers about 5,608 square kilometers. The district headquarters lies near 25.37°N and 69.73°E. Umerkot is geographically transitional, sharing characteristics of both irrigated plains and desert margins. The district's elevation averages around 21 meters above sea level, with variations from approximately 3 to 90 meters. Terrain shifts from semi-arid plains in the west to more desert-like conditions toward the east bordering Tharparkar.

Shaheed Benazirabad District

Shaheed Benazirabad (formerly Nawabshah) District is situated in central Sindh and covers an area of about 4,502 square kilometers. It lies between 25°59' to 26°38' North and 67°52' to 68°27' East. The district landscape consists of fertile alluvial plains shaped by the Indus River system. The average elevation is approximately 31 meters above sea level. Due to its flat terrain and agricultural base, the district is heavily dependent on the canal irrigation network.

Naushahro Feroze District

Naushahro Feroze District lies in central Sindh over an area of nearly 2,946 square kilometers. The district headquarters is located at approximately 26°50'N and 68°07'E, at an elevation of about 38 meters above sea level. The district forms part of the fertile Indus floodplain with flat agricultural terrain supported by a well-developed irrigation network. Its landscape is typical of the central Sindh plains with no notable highlands.

Larkana District

Larkana District is located in the northwestern part of Sindh Province and functions as a key administrative, agricultural, and socio-economic center of the region. Covering an area of approximately 1,906 square kilometers, the district lies roughly between 27°30' to 28°00' North latitude and 68°00' to 68°40' East longitude. The terrain is predominantly flat alluvial plains formed by the Indus River system, supported by an extensive irrigation network that sustains agricultural production and rural livelihoods across the district.



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Kambar Shahdadkot

Kambar Shahdadkot District is located in the northwestern part of Sindh and is an important agricultural and administrative region of the province. Covering an area of approximately 7,321 square kilometers, the district lies roughly between 27°00' to 28°00' North and 67°30' to 68°45' East. The terrain is characterized mainly by flat alluvial plains in the east and semi-hilly areas toward the western fringes adjoining Balochistan. The Indus River flows along the eastern boundary of the district, contributing to fertile agricultural lands. Kambar Shahdadkot District lies at an average elevation of about 45–60 meters above sea level, supporting extensive canal-based irrigated agriculture and remaining unaffected by coastal hazards.

Jacobabad District

Jacobabad District is located in the northern part of Sindh and is an important agricultural and administrative region of the province. Covering an area of approximately 2,771 square kilometers, the district lies roughly between 27°30' to 28°10' North and 68°15' to 68°50' East. The terrain is predominantly flat alluvial plains shaped by the Indus River system, with riverine (katcha) areas present in parts of the district. The Indus River flows near the eastern side of the district, contributing to fertile agricultural lands.

Kashmore Distirct

Kashmore District is located in the northernmost part of Sindh and serves as an important agricultural and administrative region of the province. Covering an area of approximately 2,580 square kilometers, the district lies roughly between 27°30' to 28°30' North and 68°00' to 69°10' East. The terrain is predominantly flat alluvial plains formed by the Indus River system, with some riverine (katcha) areas along its eastern side. The Indus River flows along the eastern boundary of the district, contributing to fertile agricultural lands. Kashmore District lies at an average elevation of about 55–70 meters above sea level, supporting extensive canal-based irrigated agriculture and remaining unaffected by coastal hazards.

Karachi West

Karachi West District is located in the western part of Karachi Division, Sindh Province, and forms an important urban, industrial, and residential zone of the metropolitan region. Covering an area of approximately 929 square kilometers, the district lies roughly between 24°45' to 25°10' North latitude and 66°45' to 67°10' East longitude. The terrain consists mainly of flat to slightly undulating coastal plains, interspersed with low-lying areas and seasonal drainage channels (nullahs). Unlike inland districts, Karachi West is influenced by its proximity to the Arabian Sea and experiences coastal climatic conditions. The district's landscape supports dense urban settlements, industrial estates, and transport infrastructure rather than agricultural activity, making it a critical component of Karachi's socio-economic framework.

Karachi Malir

Malir District is located in the southeastern part of Sindh and serves as an important administrative and agricultural region of the province. Covering an area of approximately 1,570 square kilometers, the district lies roughly between 24°50' to 25°10' North and 67°10' to 67°20' East. The terrain is predominantly flat alluvial plains formed by the Indus River system, with some low-lying riverine (katcha) areas along its northern and eastern sides. The Malir River flows through the district, contributing to fertile agricultural lands in its vicinity. Malir District lies at an average elevation of about 8–15 meters above sea level, supporting both canal-based and seasonal rain-fed agriculture, while being largely unaffected by mountainous or highland hazards.



4.3 Demography

This section incorporates demographic data (see table 4-1 & table 4-2) from the recently announced results of the 7th Population and Housing Census-2023 conducted by the Pakistan Bureau of Statistics (PBS)¹³.

According to 2017 population census reports, the Sindh province contains 23.04% of Pakistan's total population. Total number of populations is 47.9 million. Out of which 47.98% live in rural Sindh. The average house hold size is 5.6. Most of the population falls in the category of below 15 years. 22.27 % population falls in 15 years to 25 years' age group.

Table 4-1: Demographic Data

Name of Admin Unit	Households	Population 2023	Average Household Size	Population 2017	Growth Rate in %
Sindh Province	9,871,620	55,696,147	5.64	47,854,510	2.57
Hyderabad Division					
Badin	398,066	1,947,081	4.89	1,804,958	1.27
Jamshoro	213,639	1,117,308	5.23	993,908	1.98
Dadu	340,665	1,742,320	5.11	1,550,390	1.97
Thatta	206,281	1,083,191	5.25	982,138	1.65
Matiari	158,559	849,383	5.36	770,040	1.65
Sujawal	158,917	839,292	5.28	779,062	1.25
Hyderabad	448,479	2,432,540	5.42	2,199,928	1.69
Mirpur Khas Division					
Mirpur Khas	313,141	1,681,386	5.37	1,504,440	1.88
Umerkot	222,562	1,159,831	5.21	1,073,469	1.30
Karachi Division					
Karachi West	464,756	2,679,380	5.76	2,077,228	4.35
Karachi Malir	416,512	2,403,959	5.78	1,924,364	3.79
Larkana Division					
Larkana	321,837	1,784,453	5.54	1,521,786	2.70
Kambar/Shahd adkot	267,684	1,514,869	5.66	1,338,035	2.10
Kashmore	208,894	1,233,957	5.9	1,090,336	2.09
Jacobabad	195,056	1,174,097	6.02	1,006,297	2.60
Shaheed Benazirabad Division					
Shaheed Benazirabad (Nawabshah)	334,356	1,845,102	5.51	1,613,506	2.27%
Sukkur	268,755	1,639,897	6.10	1,488,372	1.63
Khairpur	452,588	2,597,535	5.74	2,405,190	1.29

An overview of Sindh Province is being presented in Table 4-2, highlighting their geographical coverage and population distribution. The total population is 87,227,099, with 45,366,150 males, 41,855,033 females, and 1,449 transgender individuals. This indicates a slightly higher number of males compared to females, with transgender persons representing a very small fraction of the total population. Overall, the population distribution shows a predominantly male majority, while the gender-diverse group remains minimal in proportion. This information provides valuable insights into the spatial extent and demographic characteristics of the region. Understanding these factors helps in addressing infrastructure

¹³ <https://www.pbs.gov.pk/sites/default/files/population/2023/Sindh.pdf>



needs, social services, and economic opportunities across different areas within the province.

Table 4-2: Population of Project area Divisions

Name Of Administrative Unit	Area In Sq. Km	Population-2023			
		All Sexes	Male	Female	Transgender
Sindh Province	140,914	55,696,147	29,014,424	26,677,501	
Hyderabad	1,740	2,432,540	1,289,279	1,143,090	171
Badin	6,858	1,947,081	1,012,854	934,153	74
Jamshoro	11,204	1,117,308	578,036	539,205	67
Thatta	8,570	1,083,191	555,252	527,895	44
Dadu	7,866	1,742,320	883,793	858,441	86
Matiari	1,417	849,383	430,096	419,262	25
Sujawal	8,785	839,292	437,151	402,109	32
Mirpurkhas	2,925	1,681,386	882,057	799,250	79
Umerkot	5,608	1,159,831	606,812	552,994	25
Naushero Feroz	2,946	1,777,082	901,622	875,385	75
Shaheed benazir Abad	4,502	1,845,102	936,953	908,082	67
Karachi West	370	2,679,380	1,415,431	1,263,752	197
Karachi Malir	2,160	2,432,248	1,288,599	1,143,424	225
Larkana	1,948	1,784,453	932,604	851,732	117
Kambar/Shahdadkot	5,475	1,514,869	791,116	723,710	43
Kashmore	2,580	1,233,957	628,265	605,646	46
Jacobabad	2,698	1,174,097	595,787	578,201	109
Sukkur	5,165	1,639,897	870,094	769,729	74
Khairpur	15,910	2,597,535	1,315,925	1,281,472	138
Total		87,227,099	45,366,150	41,855,033	1449

4.4 Key Findings of the Socio-Economic Survey

The Key Findings of the Socio-Economic Survey of 39 GDs in Sindh, conducted under the Sindh Integrated Health and Population Project (SIHPP), provide valuable insights into the socio-economic conditions of the communities near by these health facilities. The survey aimed to assess the socio-economic status and overall living conditions of households in the vicinity of these GDs. By collecting data on income, education, employment, healthcare utilization, and basic infrastructure, the findings highlight the strengths and challenges within the project area healthcare system, as well as the socio-economic disparities faced by local populations. These insights are important for informing future health interventions, policy development, and resource allocation to improve both the socio-economic and health outcomes for the people of Sindh. The list of 39 villages/settlements visited for household surveys and consultation. Since there are multiple GDs within a single district, we prioritized coverage of major towns or union council headquarters where sufficient data was available from the villagers. Stakeholder engagement is an ongoing process, and we will conduct extensive consultations during the implementation phase to ensure maximum coverage of villages and settlements. The participants provided information on households, population, and distances, which has been included accordingly. The table is presented division-wise and district-wise for clarity. The identified stakeholders for this project are summarized in Table 4-3, which provides a comprehensive list of all relevant parties. Moreover, Photos 4-1 to 4-39 illustrates the villages of the stakeholders associated with the 39 government dispensaries (GDs) located within a 5-kilometer radius of the project sites. This mapping highlights key villages of stakeholders at 19 districts and local levels, facilitating targeted engagement and effective communication throughout the project.



Table 4-3: Visited Villages along with Tribes, Population and Distance

SR.NO	Villages/Settlement	Tribes	Religion	Households	Population	Distance from site
Hyderabad Division						
GD Kot Lashari (District Jamshoro)						
1	Ghulam Muhammad Machhi	Machi	Islam	100	690	1.2
GD Gaheer (District Jamshoro)						
2	Qubo Haji Abdul Rehman Mallah	Mallah	Islam	85	600	1.2
GD Karampur (District Jamshoro)						
3	Karampur	Chana, Khaskheli	Islam	150	1050	0.4
GD Bhambha (District Jamshoro)						
4	Ghulam Muhammad Machi	Machi	Islam	90	630	1.1
GD Mohd Thoraha (District Matiari)						
5	Haji Gul Muhammad Khaskheli	Khaskheli	Islam	80	540	1.7
GD Busriya Jat (District Sujawal)						
6	Haji Busriya Jat	Jat, Mallah	Islam	50	350	1.4
GD Murad Khan Jamali (District Dadu)						
7	Goth Jurio Jamali	Jamali	Islam	95	640	1.4
GD Shah Nawaz Mastoi (District Dadu)						
8	Gul Muhammad Magsi	Magsi	Islam	40	280	3.1
GD Taj Mohd Doltani (District Dadu)						
9	Gamo Mastoi	Mastoi	Islam	60	420	2.3
GD Nehmat Gujar (District Badin)						
10	Riaz Ahmed Arian	Arian	Islam	65	400	2.3
GD Looni Kot (District Thatta)						
11	Muhammad Baksh Baloch	Baloch	Islam	100	700	1.1
GD Hussainabad (District Hyderabad)						
12	Goth Mohbat Machi	Machi	Islam	45	300	1.1
Division Shaheed Benazirbad						
GD Abbas Keerio (District SBA)						
13	Muhammad Ramzan Shar	Shar	Islam	70	460	0.4
GD Allah Dad Zardari (District SBA)						
14	Haji Muhammad Ramzan Magsi	Jamali	Islam	60	410	0.5
GD Dorahi Maher (District SBA)						
15	Khan Muhammad Unar	Unar	Islam	45	310	1.4
GD Soomar Korai (District SBA)						
16	Yar Mohd Jamali	Jamali	Islam	115	800	2.5
GD Khair Indhhar (District Naushero Feroze)						
17	Haji Khan Chandio	Chandio	Islam	75	480	1.8
GD Khamiso Khan Dahri (District Naushero Feroze)						
18	Abdul Rehman Dahri	Dahri	Islam	80	540	0.9
GD Molvi Abdul Rehman (District						



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SR.NO	Villages/Settlement	Tribes	Religion	Households	Population	Distance from site
Naushero Feroze)						
19	Darya Khan Mari	Mari	Islam	70	490	0.9
GD New Tagar (District Naushero Feroze)						
20	Soomar Khoso	Khoso	Islam	110	770	1.6
Mirpur Khas Division						
GD Adore (District Mirpur Khas)						
21	Sher Muhammad Laghari	Laghari	Islam	35	220	1.9
GD Haji Muhammad Baqa Palli (District Umerkot)						
22	Goth Amanullah Rahimoo	Rahimoo, Kolhi	Islam and Hingu	130	900	1.3
GD Kamal Khan Rind (District Umerkot)						
23	Goth Ishaq Chandio	Chandio	Islam	90	630	1.4
GD Sher Khan Nohri (District Umerkot)						
24	Sher Khan Nohri	Nohri	Islam	310	2100	0.5
Karachi Division						
GD LERP (District Karachi West)						
25	Budbani Colony	Malik	Islam	90	600	1.5
GD Umer Jat (District Karachi-Malir)						
26	Jumo Goth	Brohi	Islam	400	2800	2.7
Larkana Division						
GD Gabbar (District Larkana)						
27	Wali Muhammad Brohi	Brohi	Islam	70	450	1.8
GD Longaee (District Larkana)						
28	Allah Warayo Kalhoro	Kalhoro	Islam	90	630	1.5
GD Yaroo Jalbani (District Larkana)						
29	Hassan Khuhro	Khuhro	Islam	75	480	0.8
'GD Baig Muhammad Sangah (District Kambar Shahdadkot)						
30	Biro Chandio	Chandio	Islam	140	1000	2.2
GD Tharo Wadho (District Kambar Shahdadkot)						
31	Mando Khan Chandio	Chandio	Islam	40	280	1.8
GD Ghos Bakhsh Bhangwar (District Kashmore)						
32	Jalal Muhammad Chachar	Chachar	Islam	240	1700	1.9
GD Khahi (District Kashmore)						
33	Ghulam Mustafa Khoso	Khoso	Islam	70	750	1.9
GD Ghazanfar Khan Jakhrani (District Jacobabad)						
34	Gulab Machi	Machi	Islam	30	210	1.3
Sukkur Division						
GD Roophar (District Sukkur)						



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SR.NO	Villages/Settlement	Tribes	Religion	Households	Population	Distance from site
35	Aqil Mahar	Mahar	Islam	90	630	1.9
	GD Gharko (District Sukkur)					
36	Badal Landar	Landar	Islam	45	310	2.4
	GD Ghaffar Shah (District Khairpur)					
37	Gul Muhammad Sagirani	Sagirani	Islam	110	770	2.1
	GD Karoundi (District Khairpur)					
	Nehal Khan Sangi	Sangi	Islam	35	230	1.4
	GD Muhammad Soomar Rajar (District Khairpur)					
39	Muhammad Soomar Rajar	Rajar	Islam	230	1500	0.3

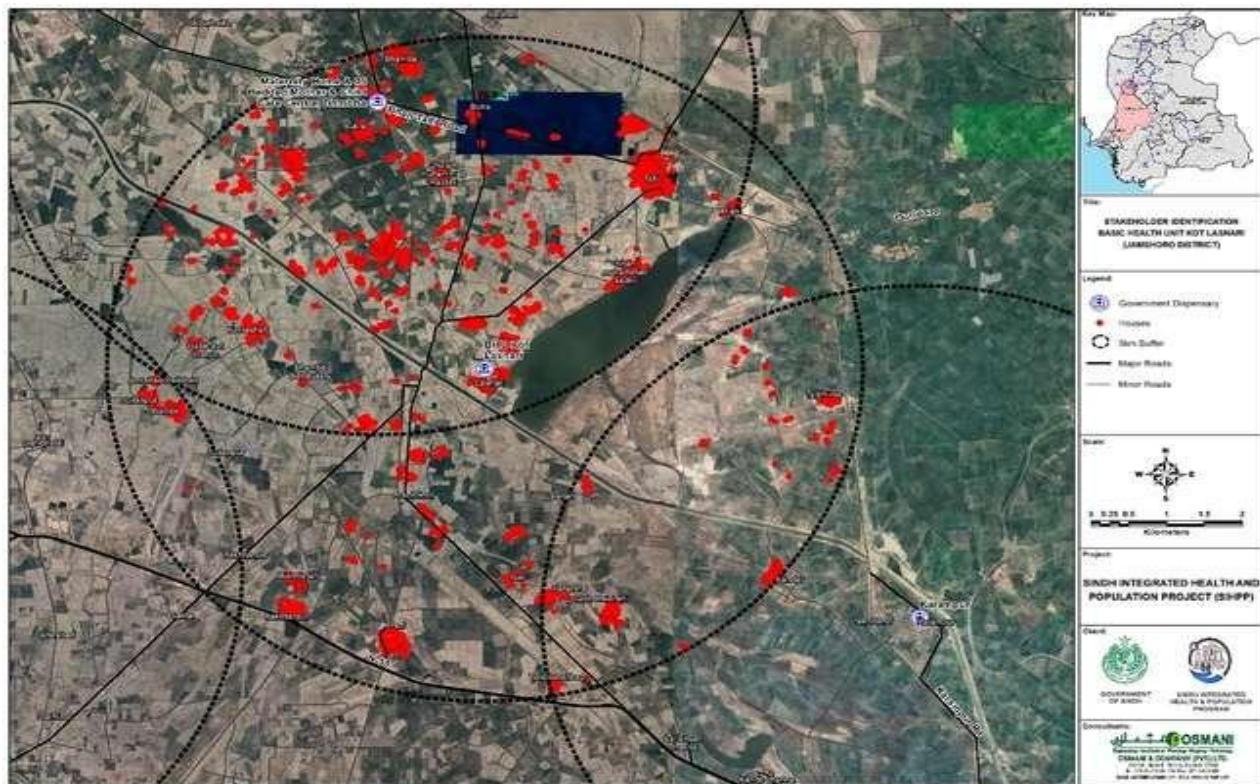


Figure 4-1: Stakeholder Identification of GD Kot Lashari (Jamshoro)

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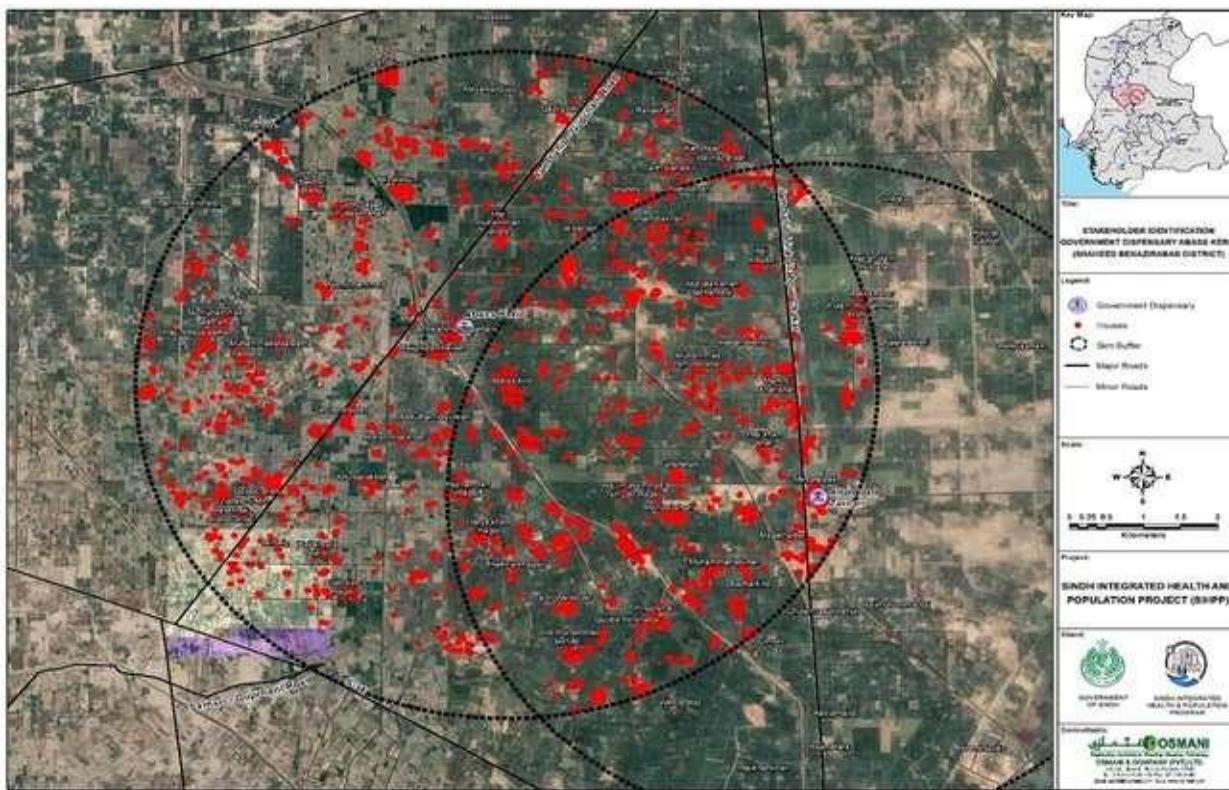


Figure 4-2: Stakeholder Identification of GD Abbad Keerio (Shaheed Benazirabad)

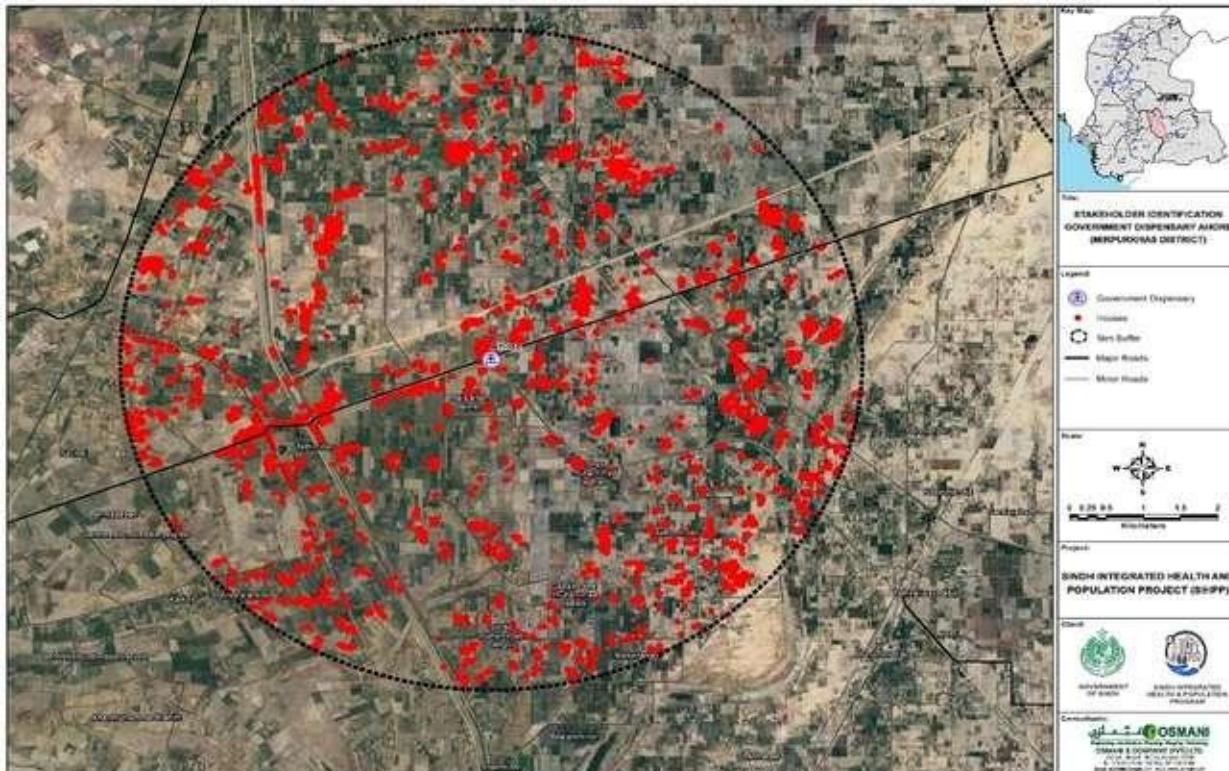


Figure 4-3: Stakeholder Identification of GD Ahore (Mirpru Khas)



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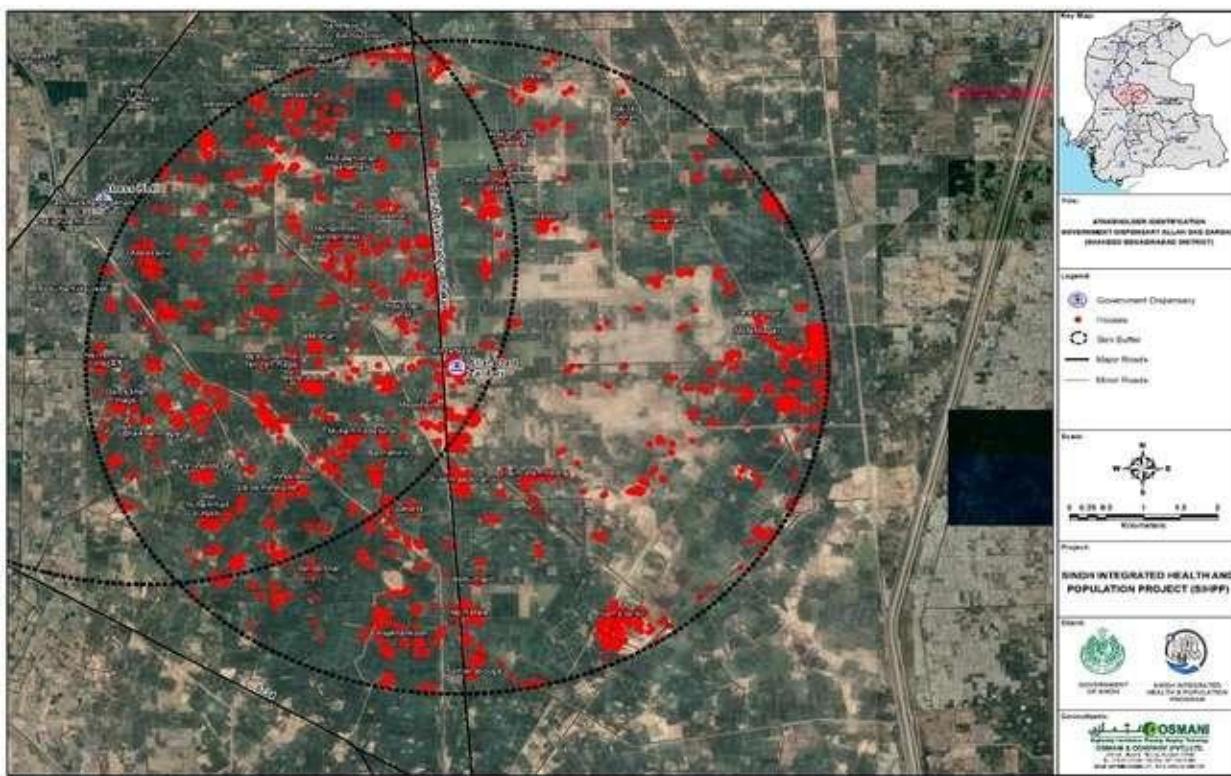


Figure 4-4: Stakeholder Identification of GD Allah Dad Zardari (Shaheed Benazirabad)

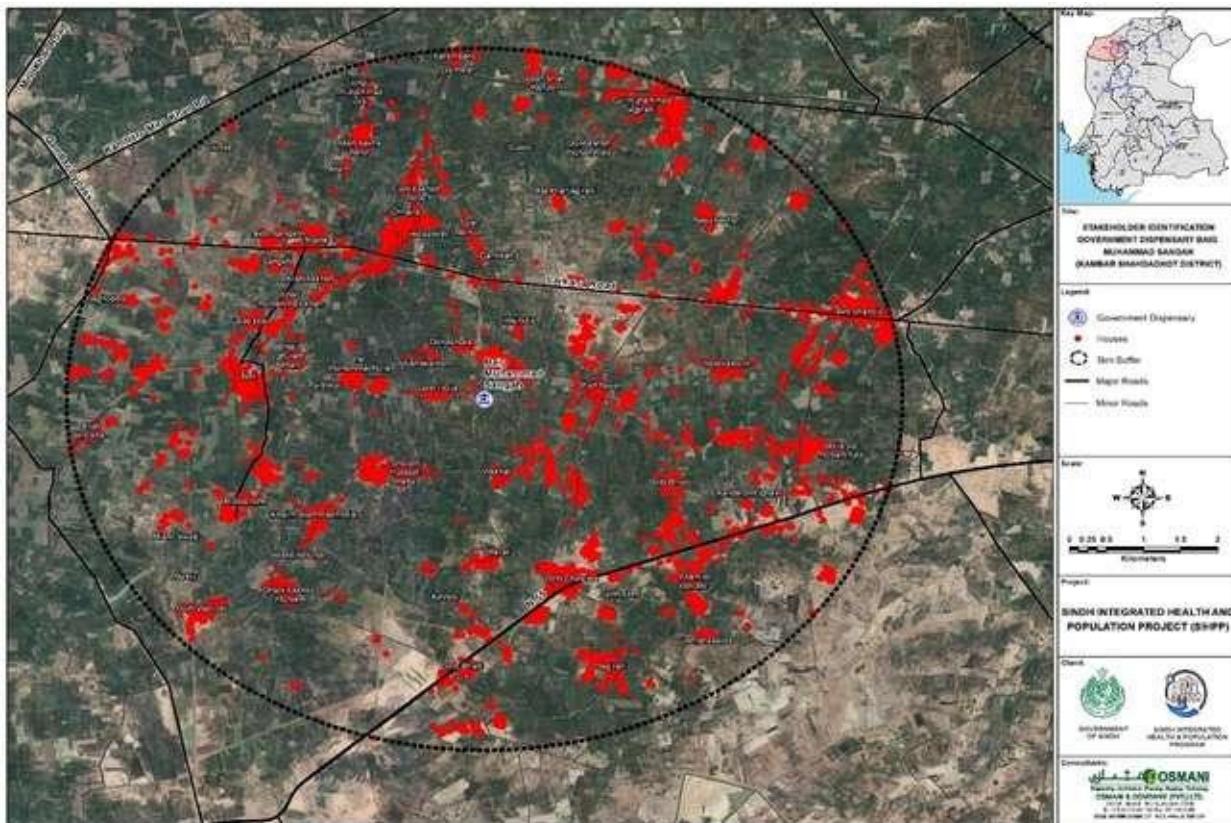


Figure 4-5: Stakeholder Identification of GD Baig Mohd Sangah (Kambar/Shahdadkot)

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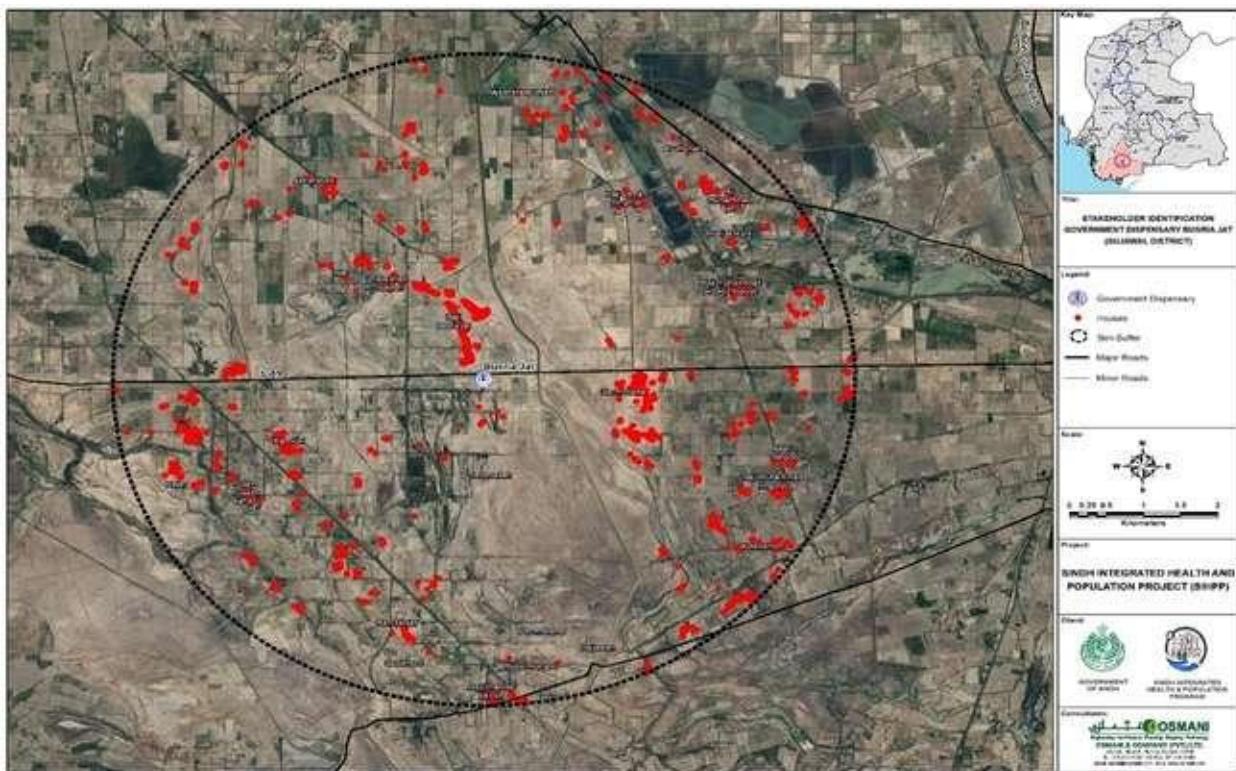


Figure 4-6: Stakeholder Identification of GD Busriya Jat (Sujawal District)

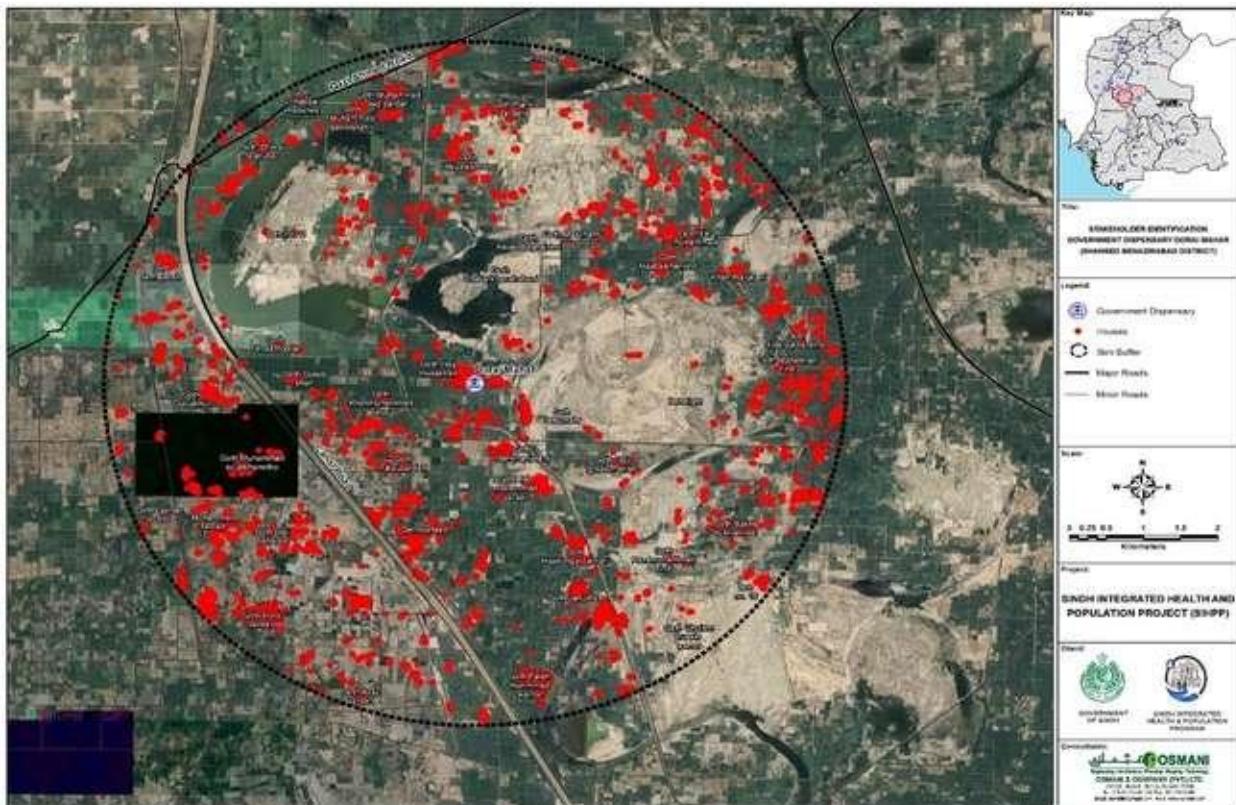


Figure 4-7: Stakeholder Identification of GD Dorahi Mahar (Shaheed Benazirabad Dist.)



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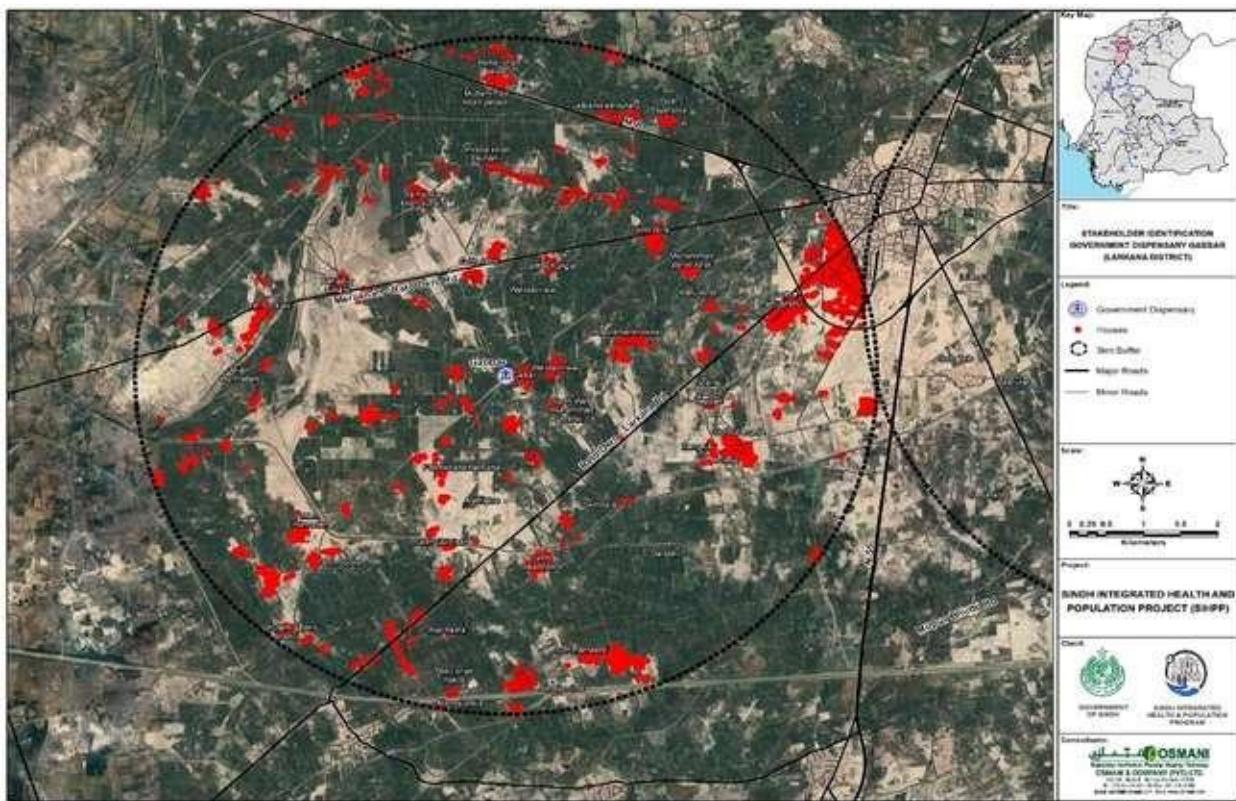


Figure 4-8: Stakeholder Identification of GD Gabbar (Larkana Dist.)

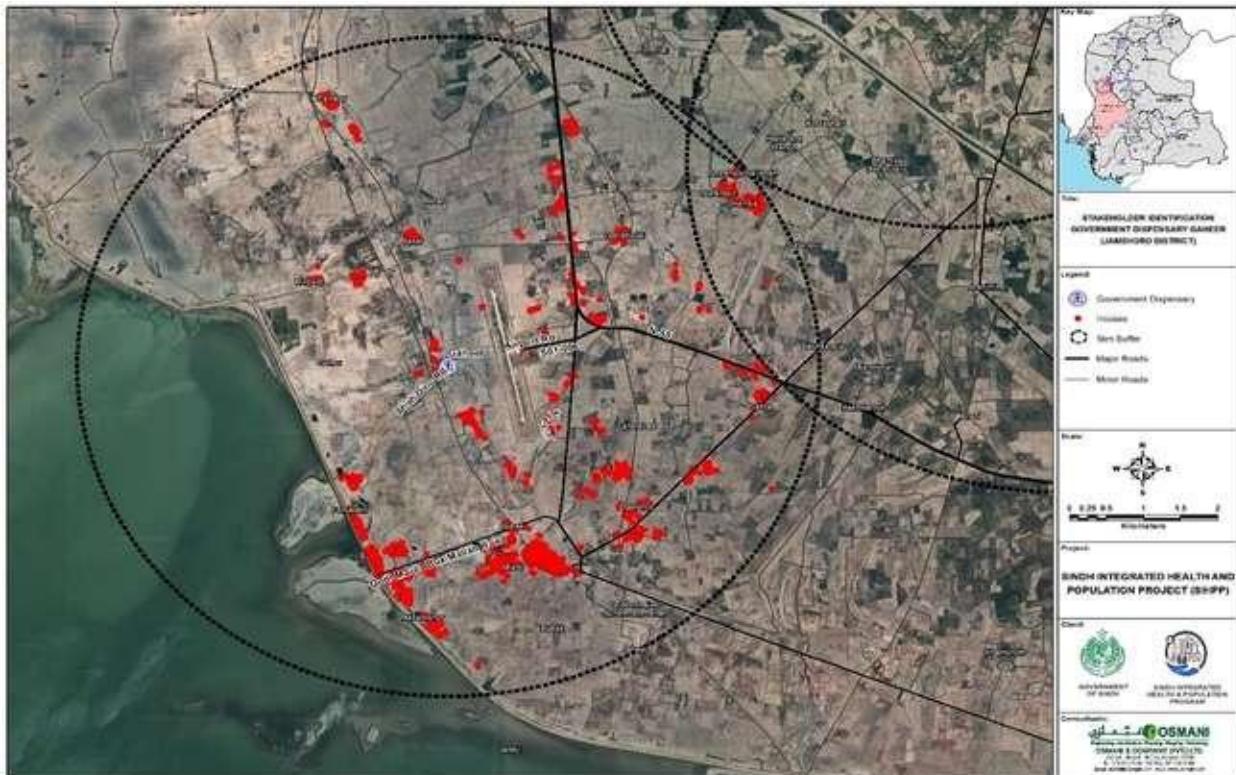


Figure 4-9: Stakeholder Identification of GD Gaheer (Jamshoro Dist.)

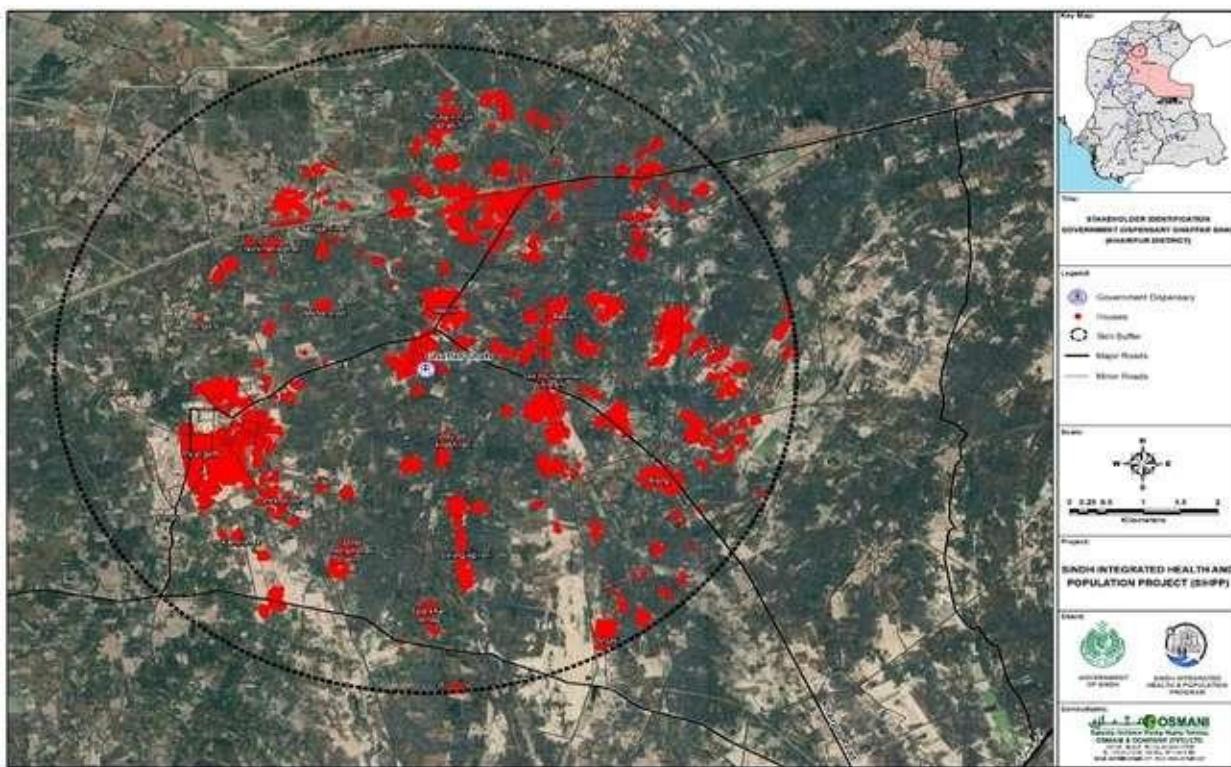


Figure 4-10: Stakeholder Identification of GD Ghaffar Shah (Khairpur Dist.)

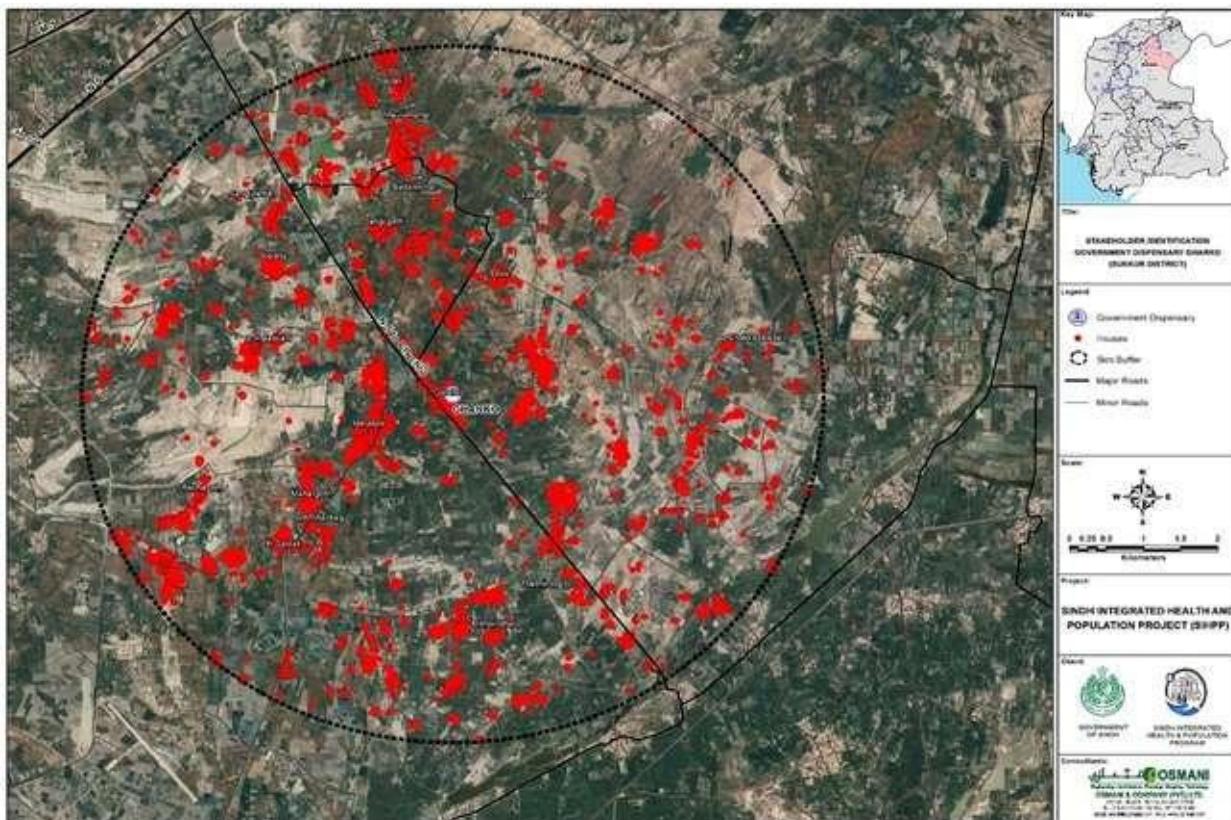


Figure 4-11: Stakeholder Identification of GD Gharkho (Sukkur Dist.)



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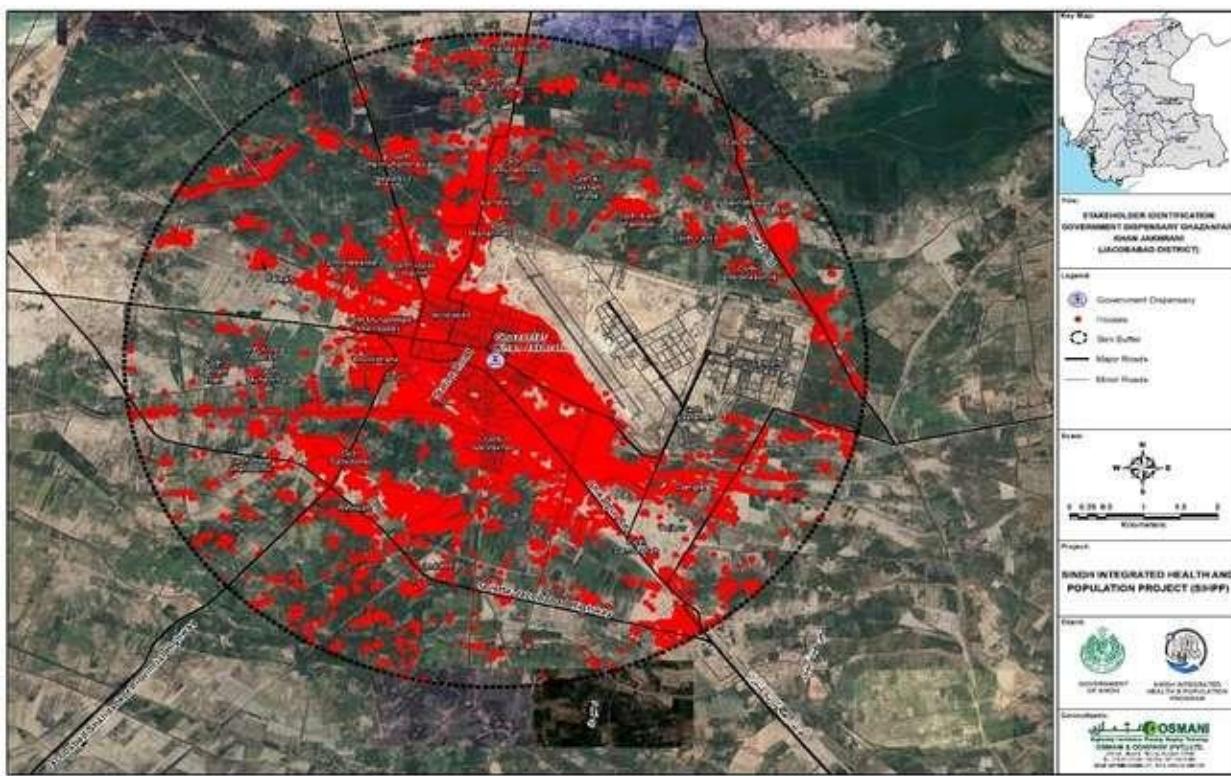


Figure 4-12: Stakeholder Identification of GD Ghazanfar Khan Jakhirani (Jacobabad Dist.)

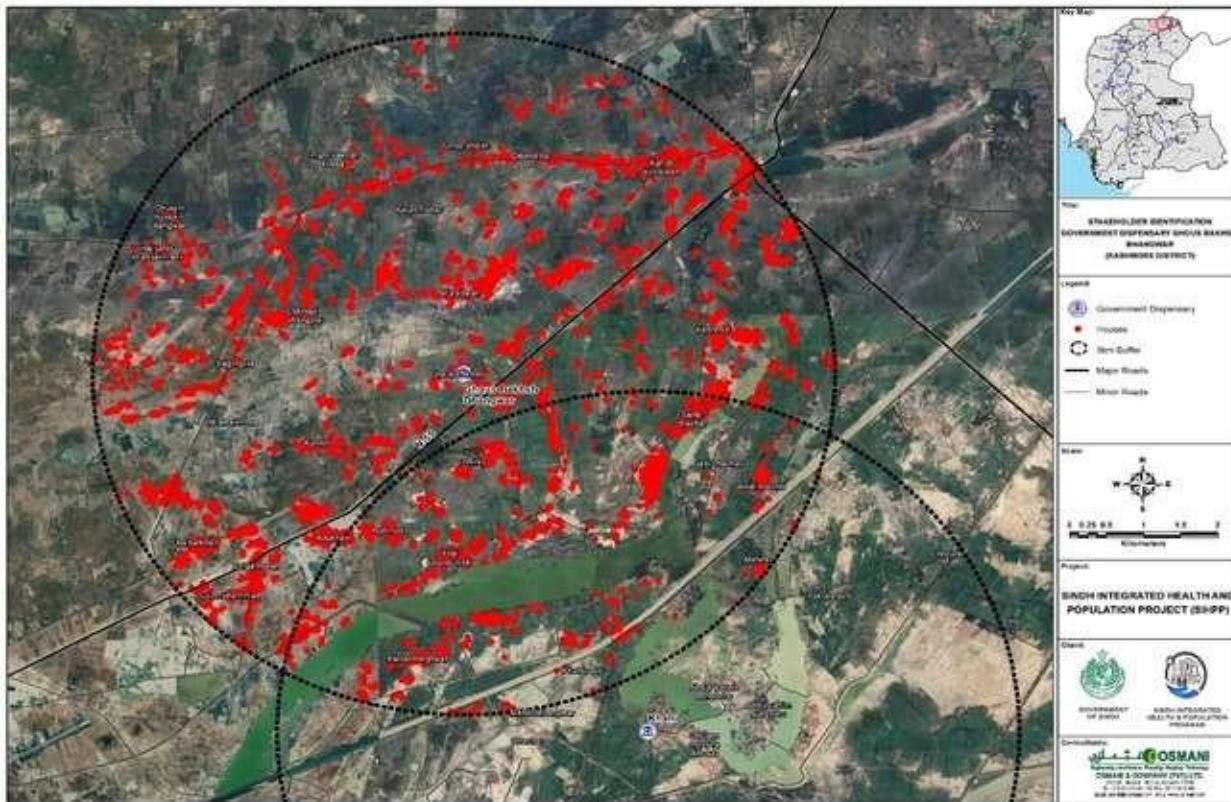


Figure 4-13: Stakeholder Identification of GD Ghos Bakhsh (Kashmore Dist.)



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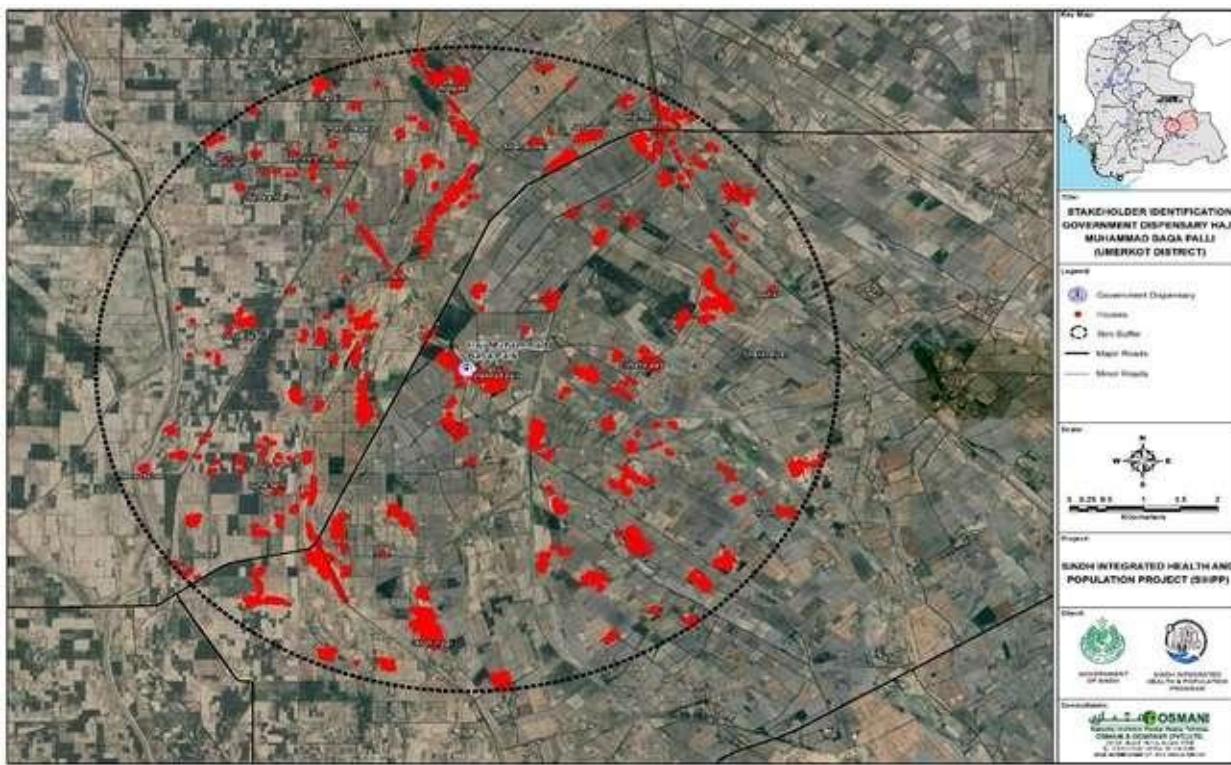


Figure 4-14: Stakeholder Identification of GD Haji Baqa Palli (Umerkot Dist.)

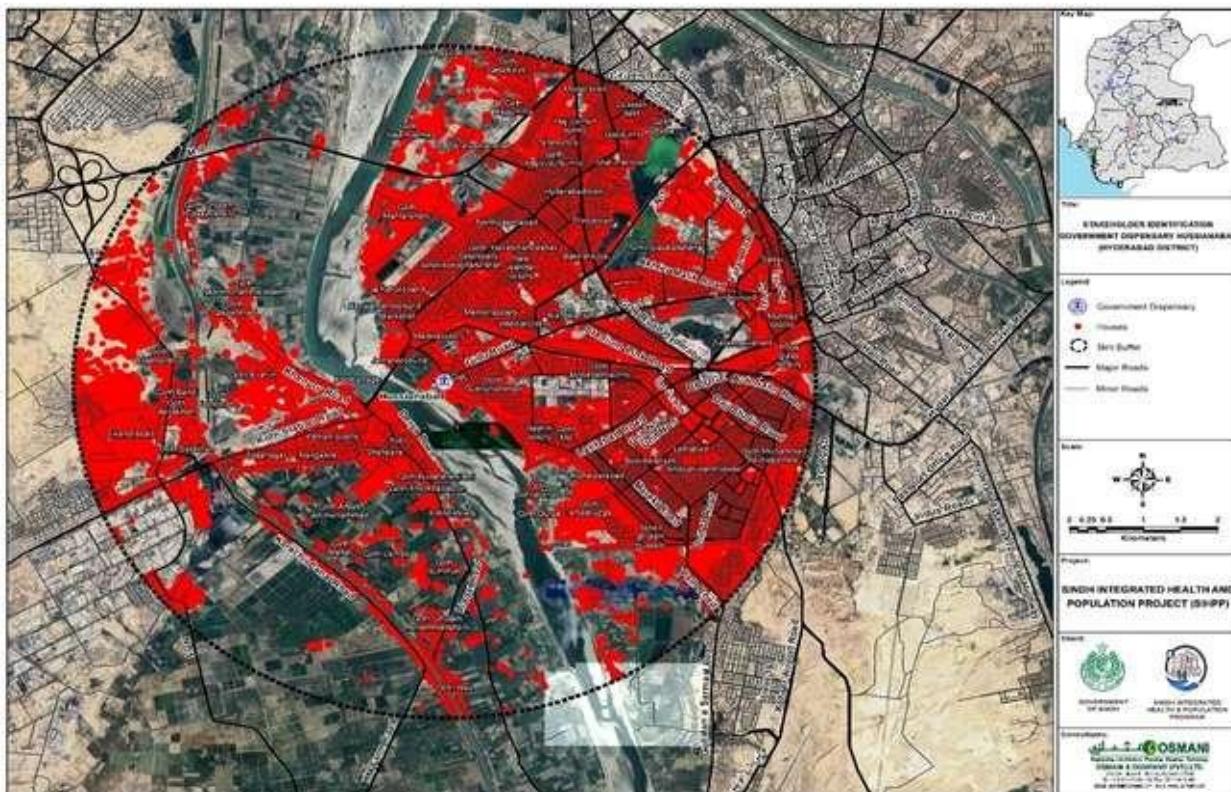


Figure 4-15: Stakeholder Identification of GD Hussainabad (Hyderabad Dist.)



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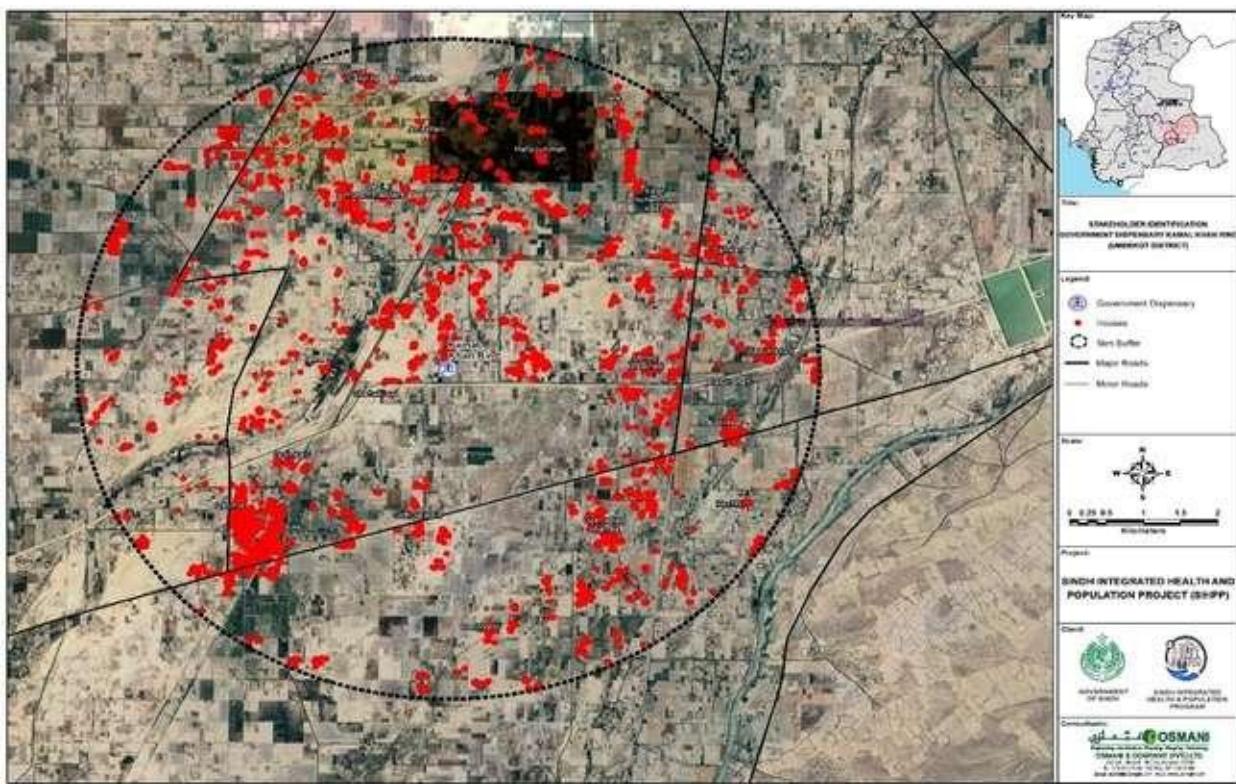


Figure 4-16: Stakeholder Identification of GD Kamal Khan Rind (Umerkot Dist.)

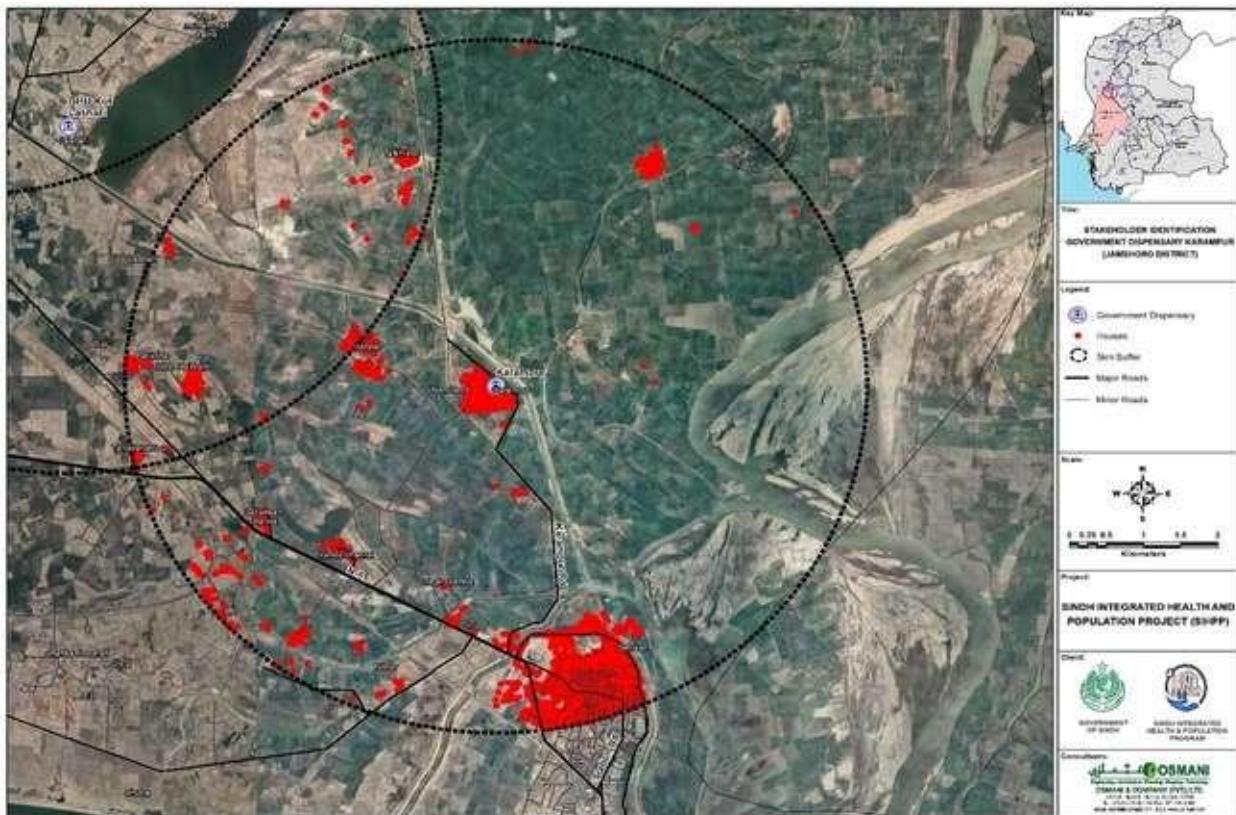


Figure 4-17: Stakeholder Identification of GD Karampur (Jamshoro Dist.)

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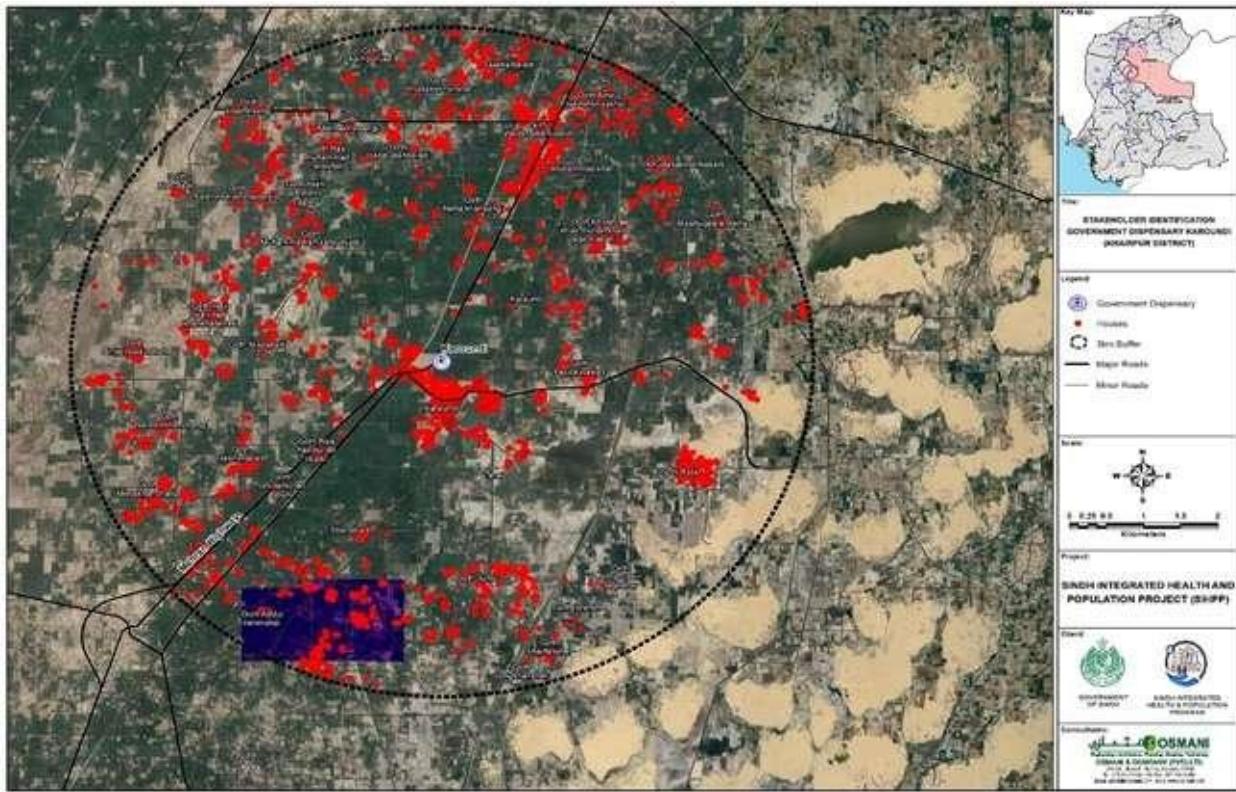


Figure 4-18: Stakeholder Identification of GD Karoundi (Khairpur Dist.)

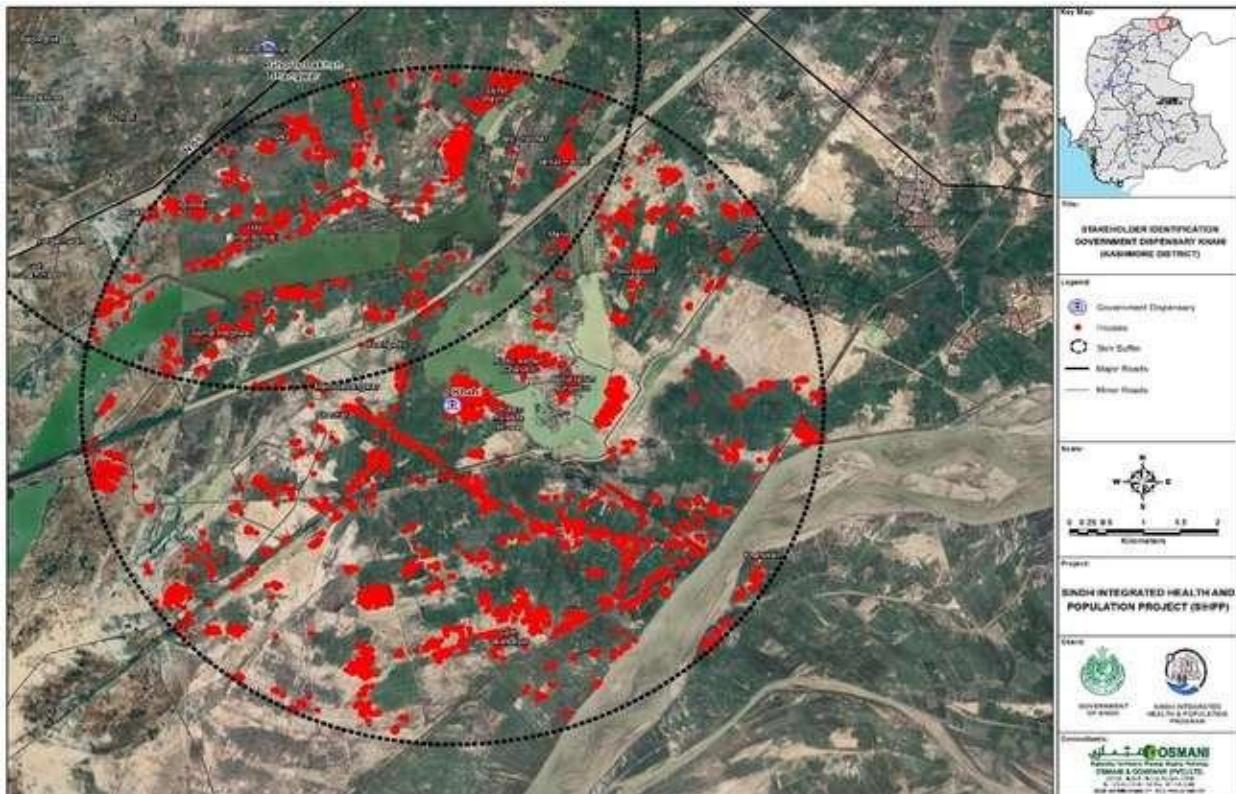


Figure 4-19: Stakeholder Identification of GD Khahi (Kashmore Dist.)



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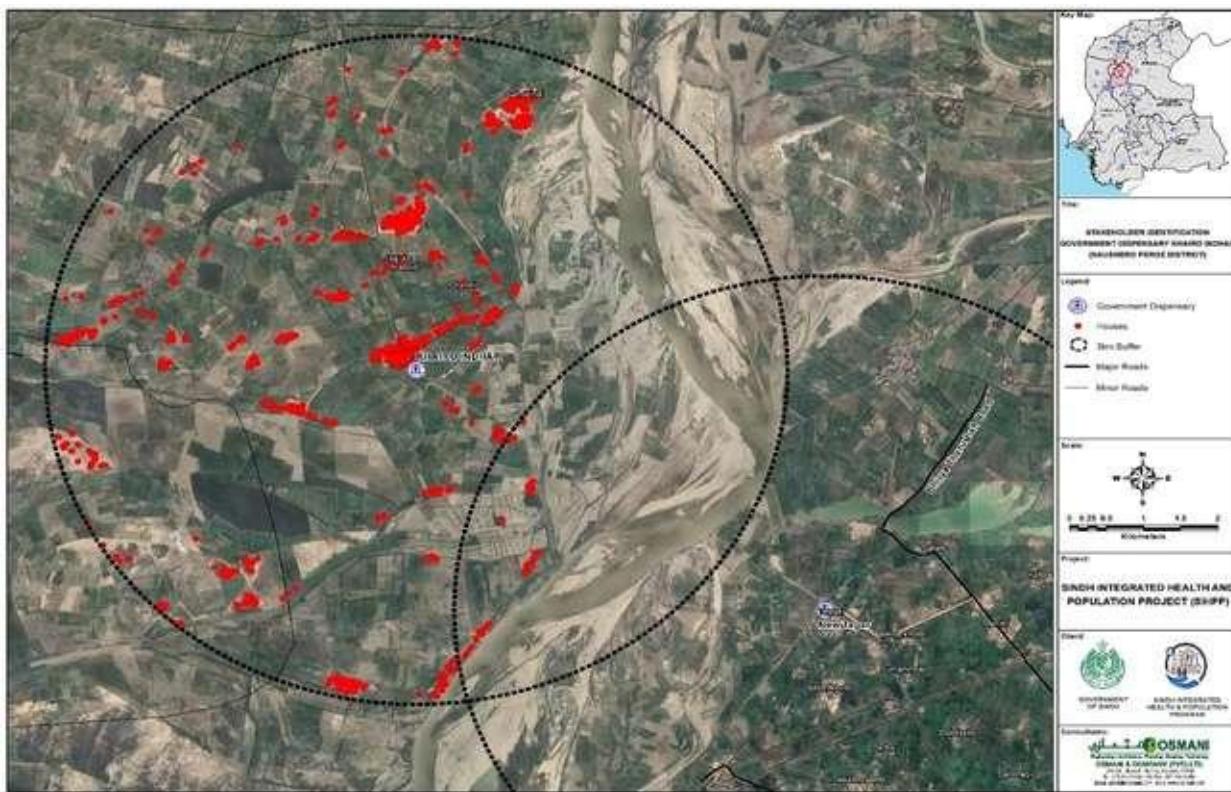


Figure 4-20: Stakeholder Identification of GD Khairo (Naushero Feroze Dist.)

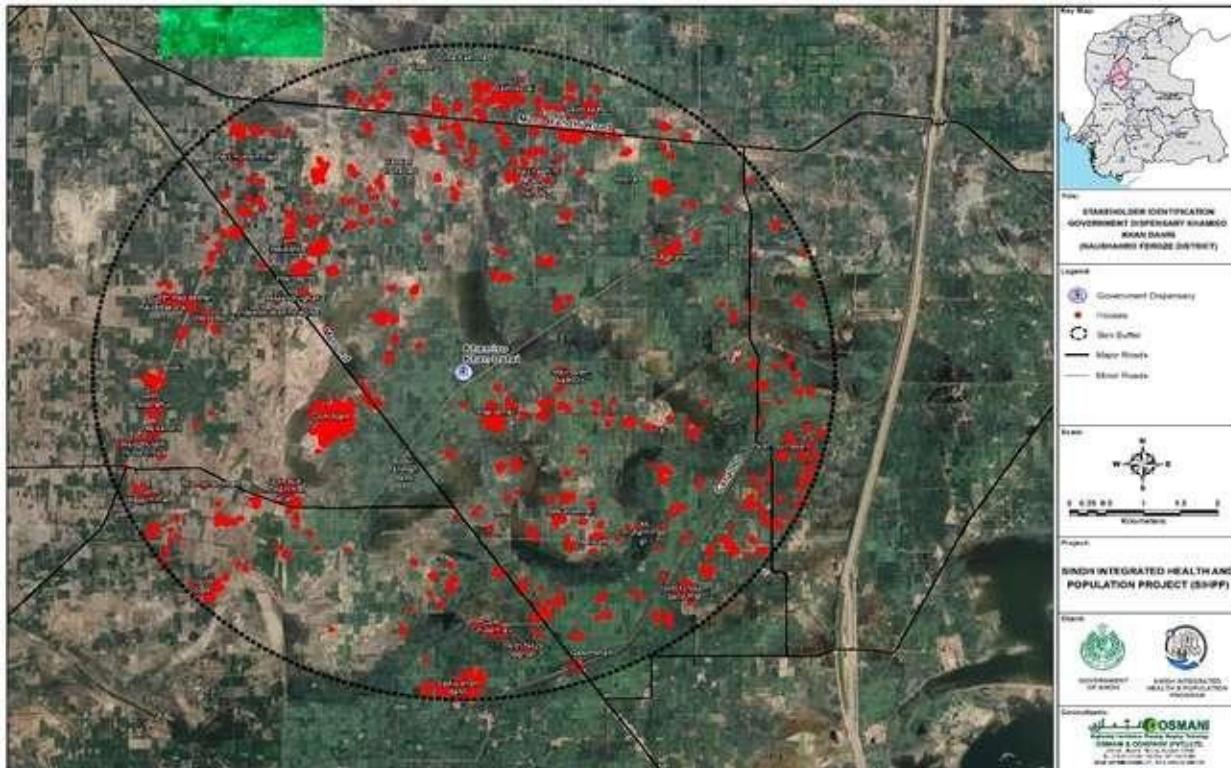


Figure 4-21: Stakeholder Identification of GD Khamiso Khan Dahri (Naushero Feroze Dist.)



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Figure 4-22: Stakeholder Identification of GD LERP (Karachi West)

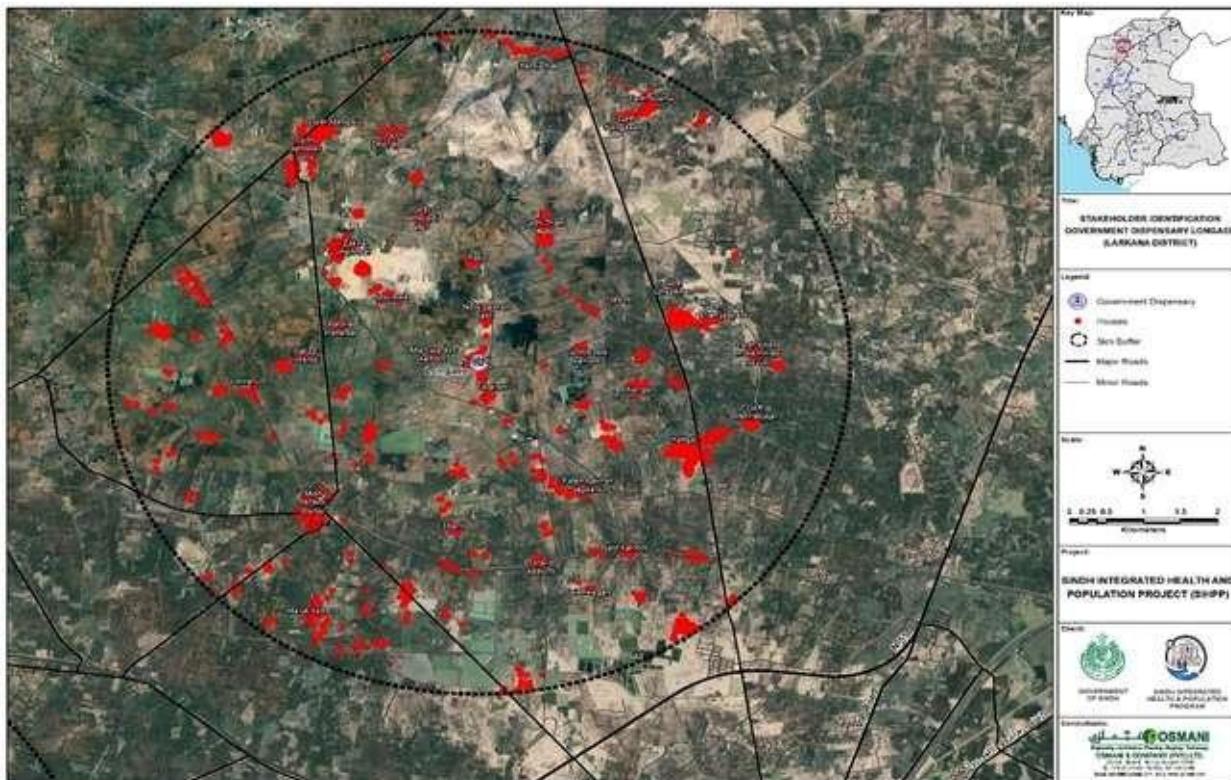


Figure 4-23: Stakeholder Identification of GD Longaee (Larkana Dist.)



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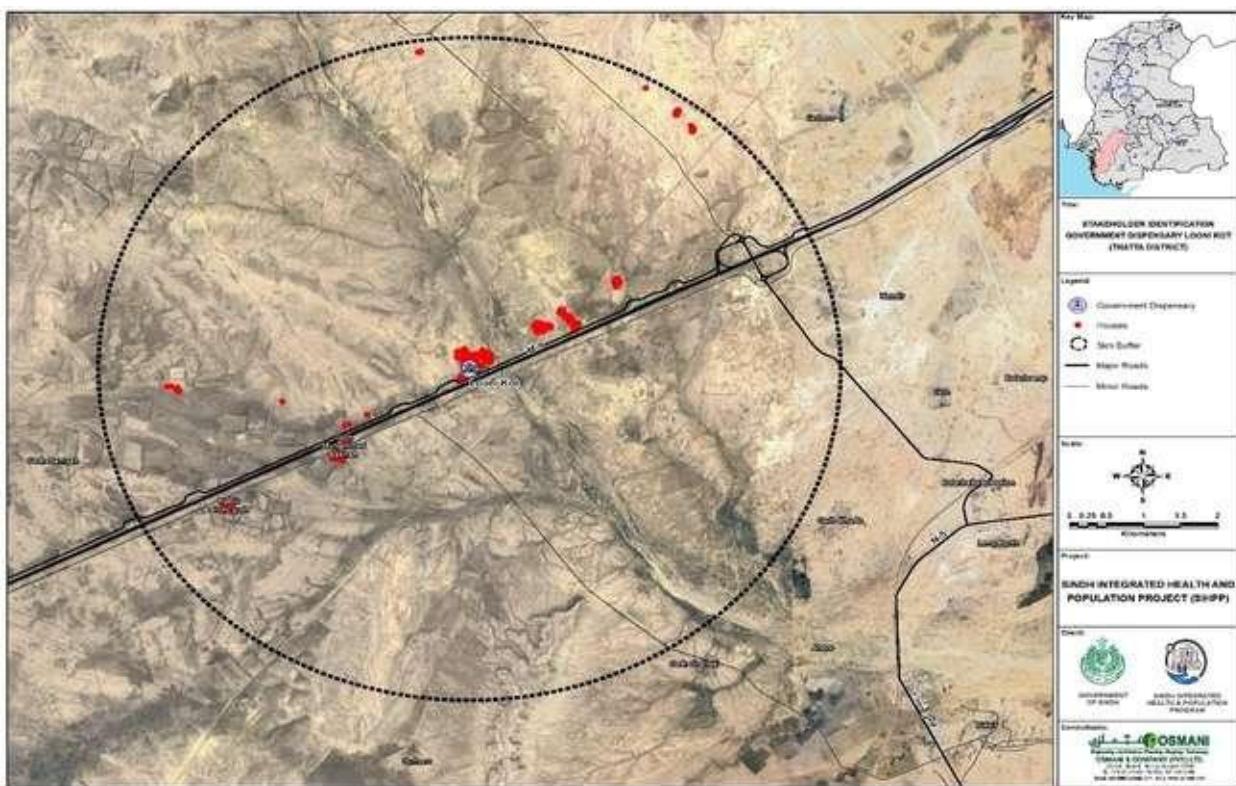


Figure 4-24: Stakeholder Identification of GD Looni Kot (Thatta Dist.)

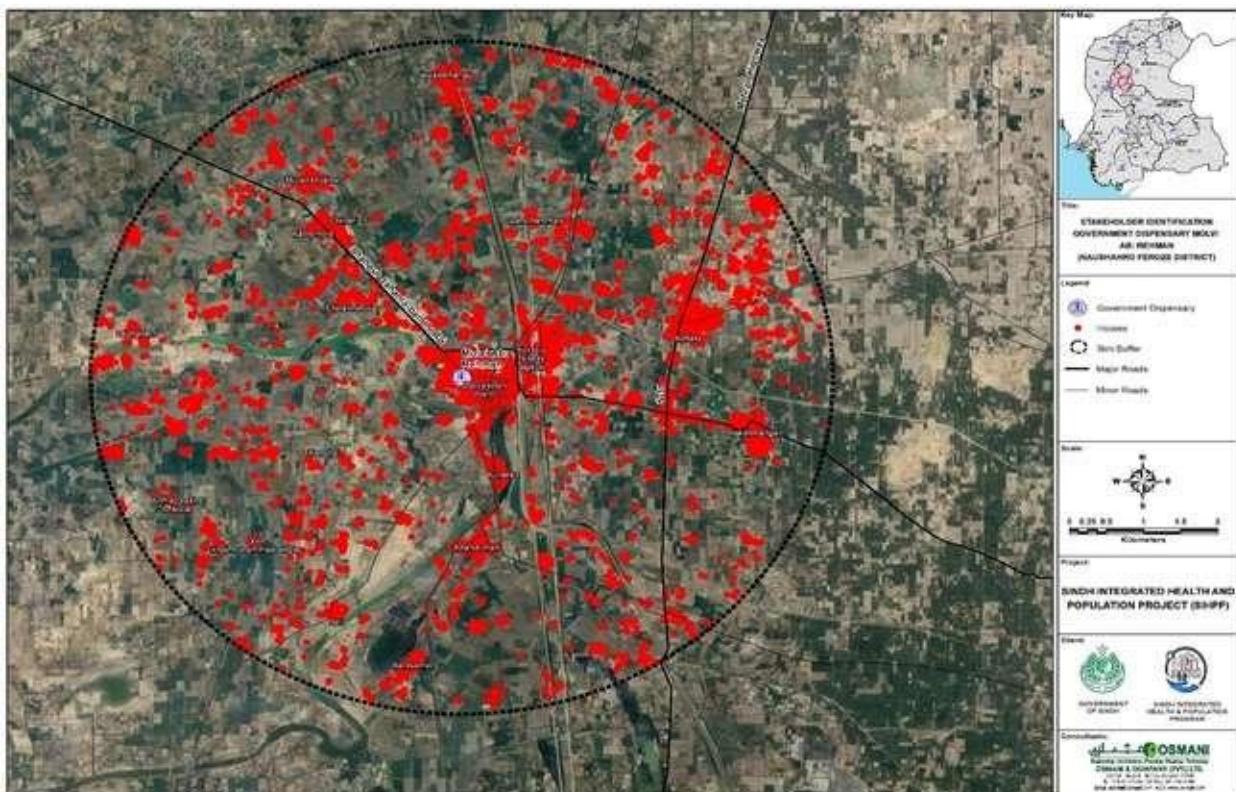


Figure 4-25: Stakeholder Identification of GD Molvi Abul Rehman (Naushero Feroze Dist.)

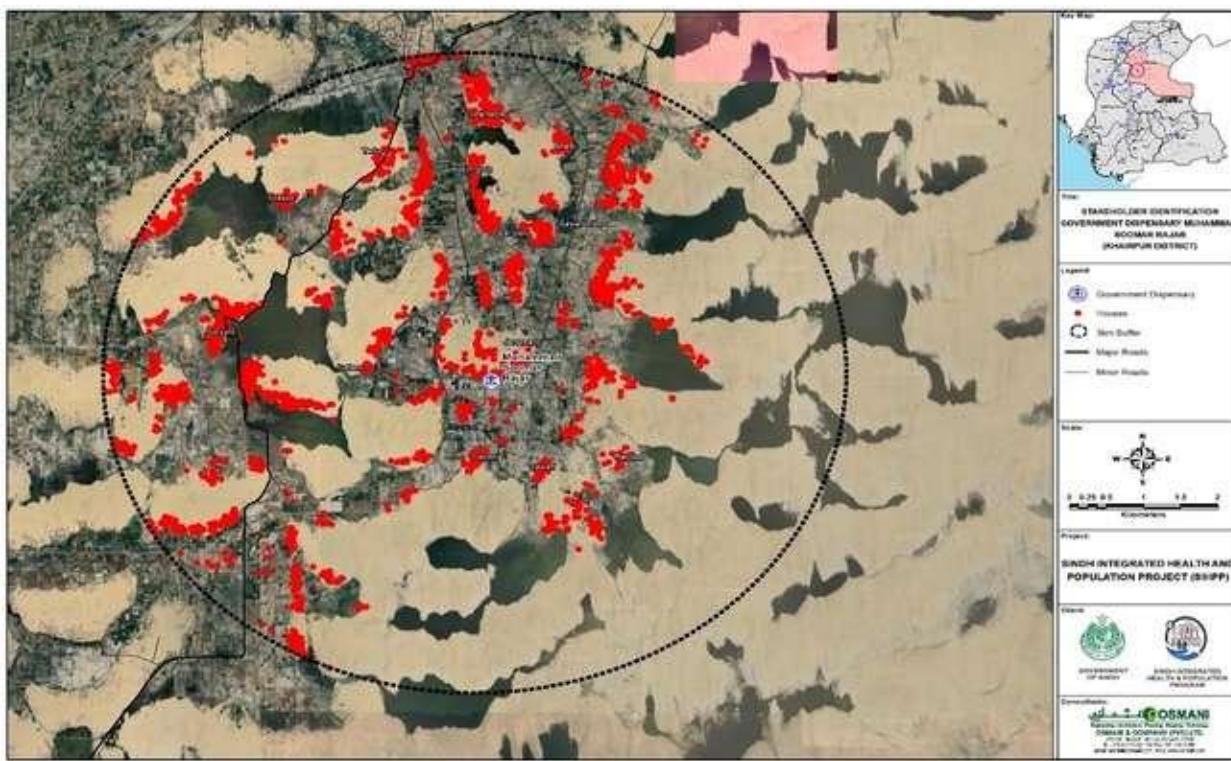


Figure 4-26: Stakeholder Identification of GD Mohd Soomar Rajpar (Khairpur Dist.)

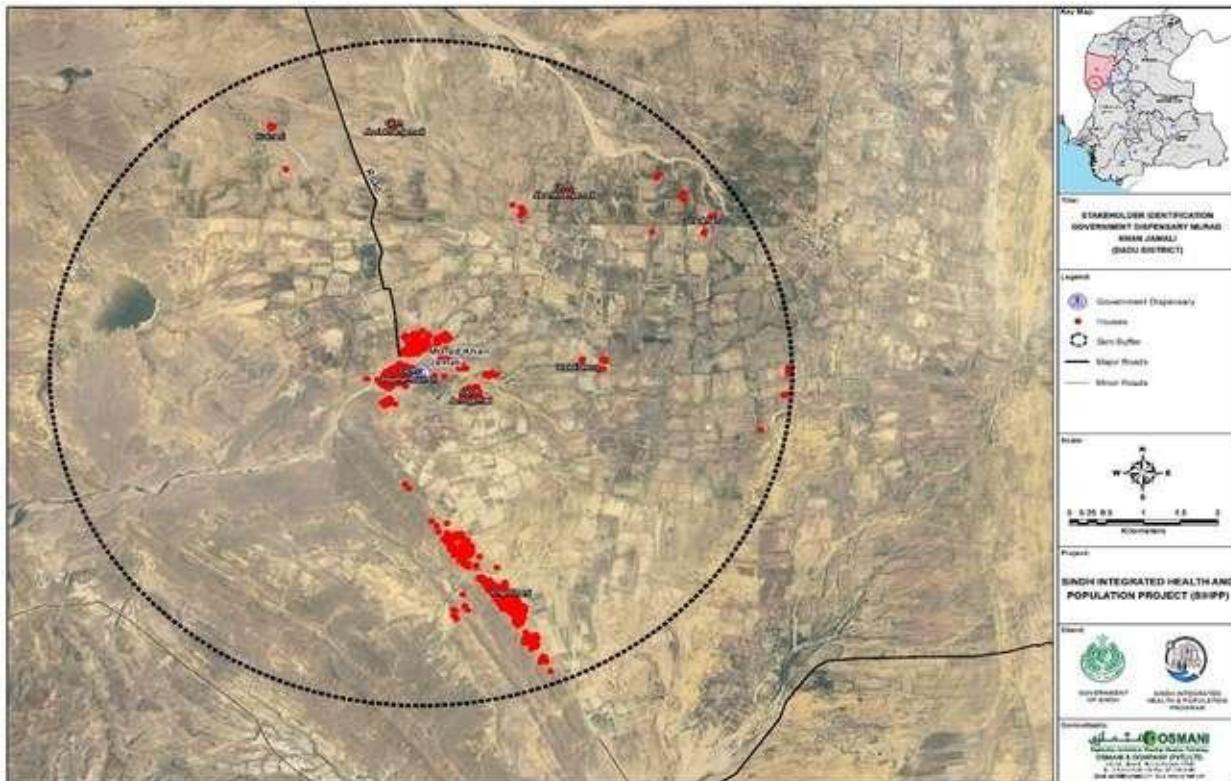


Figure 4-27: Stakeholder Identification of GD Murad Khan Jamali (Dadu Dist.)



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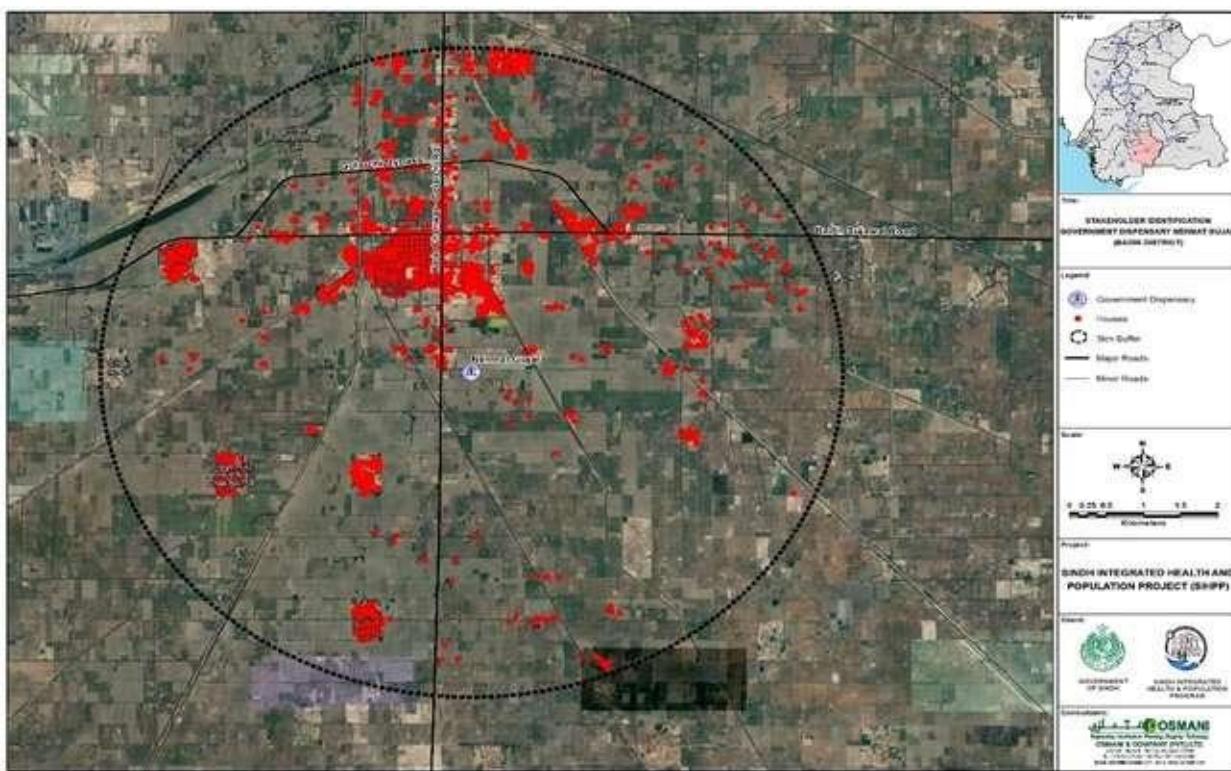


Figure 4-28: Stakeholder Identification of GD Nemat Gujar (Badin Dist.)

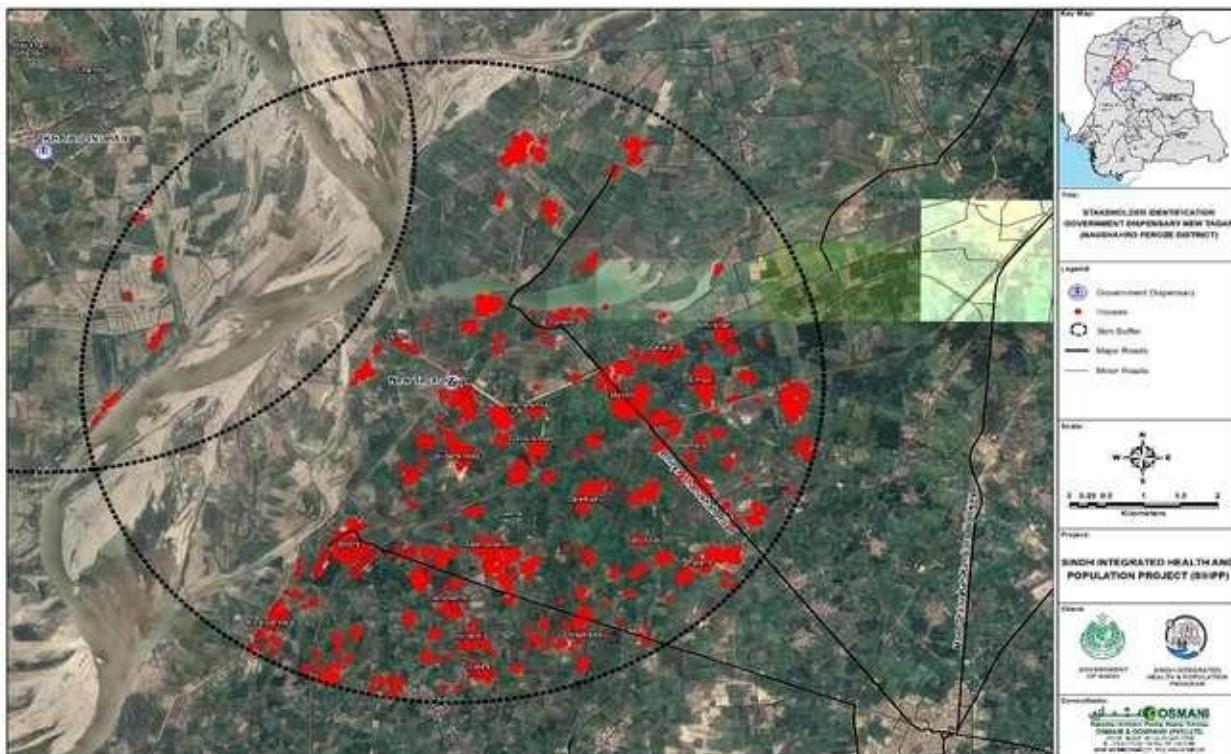


Figure 4-29: Stakeholder Identification of GD New Tagar (Naushero Feroze Dist.)



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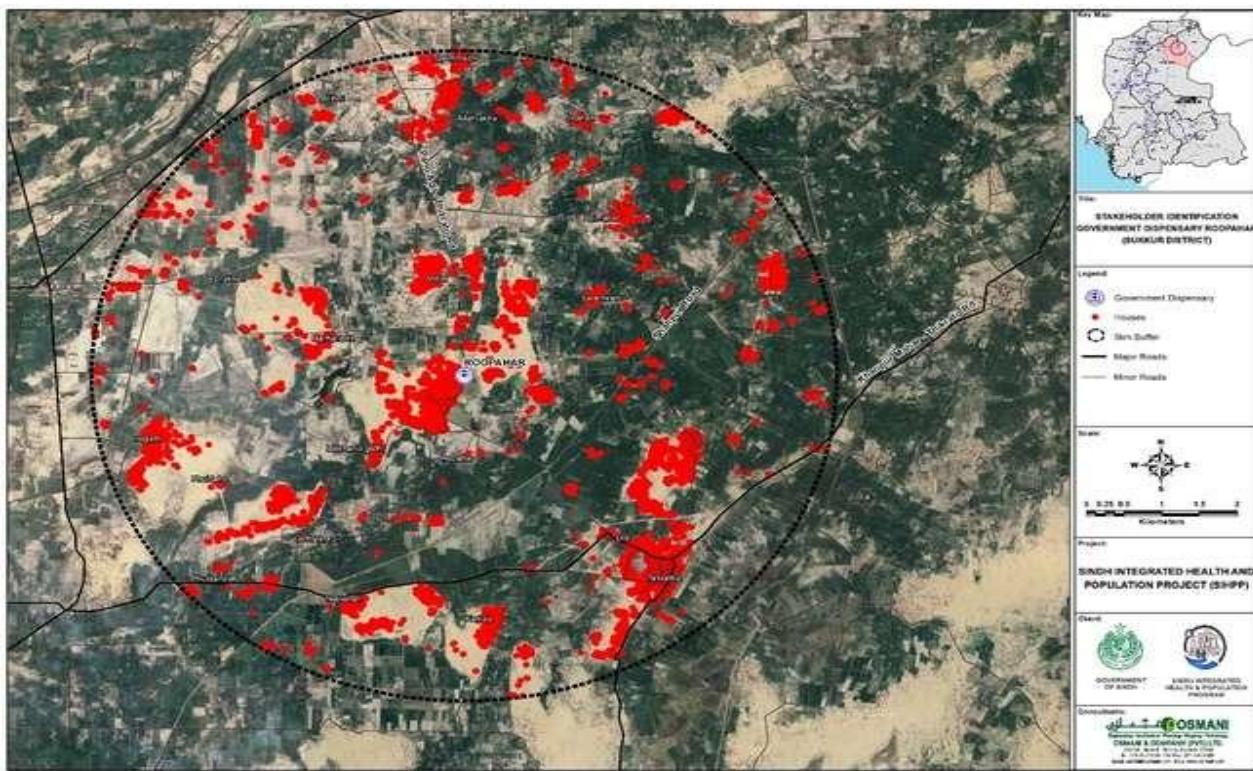


Figure 4-30: Stakeholder Identification of GD Roophar (Sukkur Dist.)

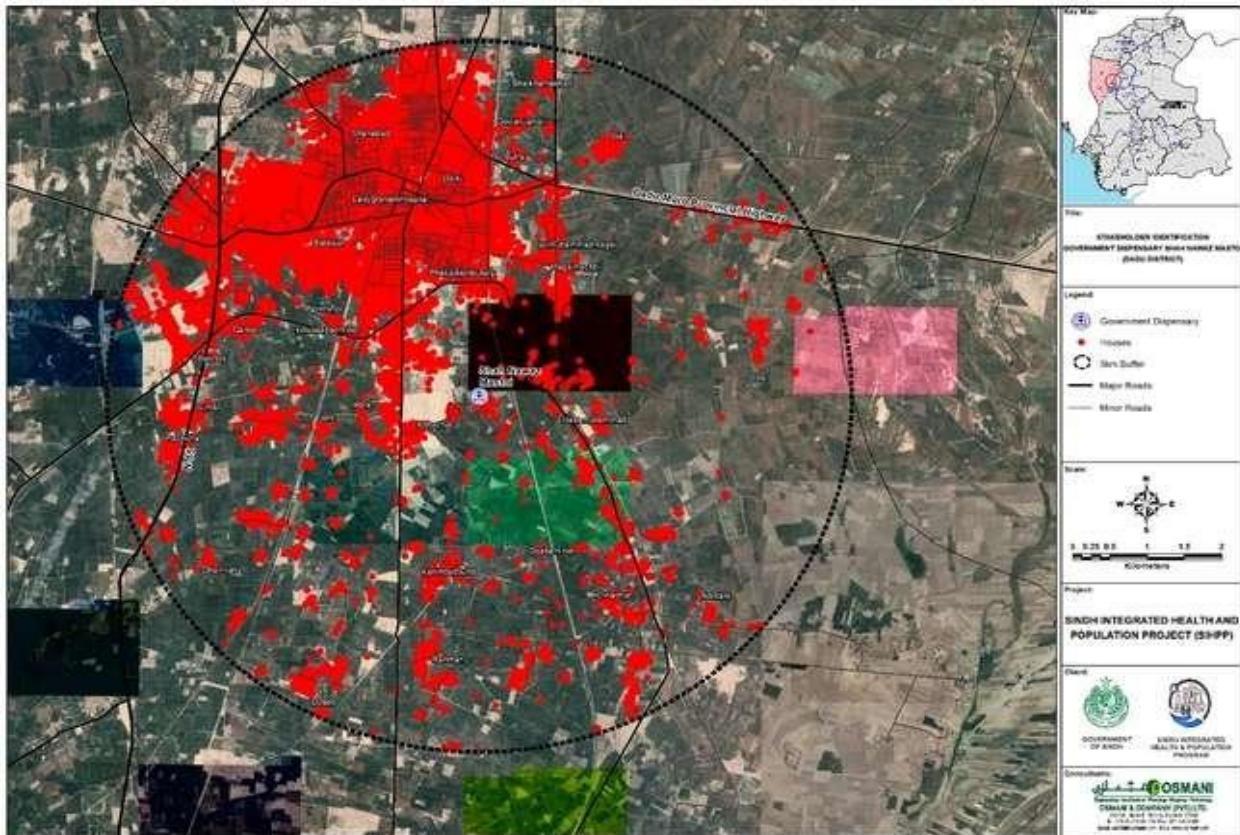


Figure 4-31: Stakeholder Identification of GD Shahnawaz Mastoi (Dadu Dist.)



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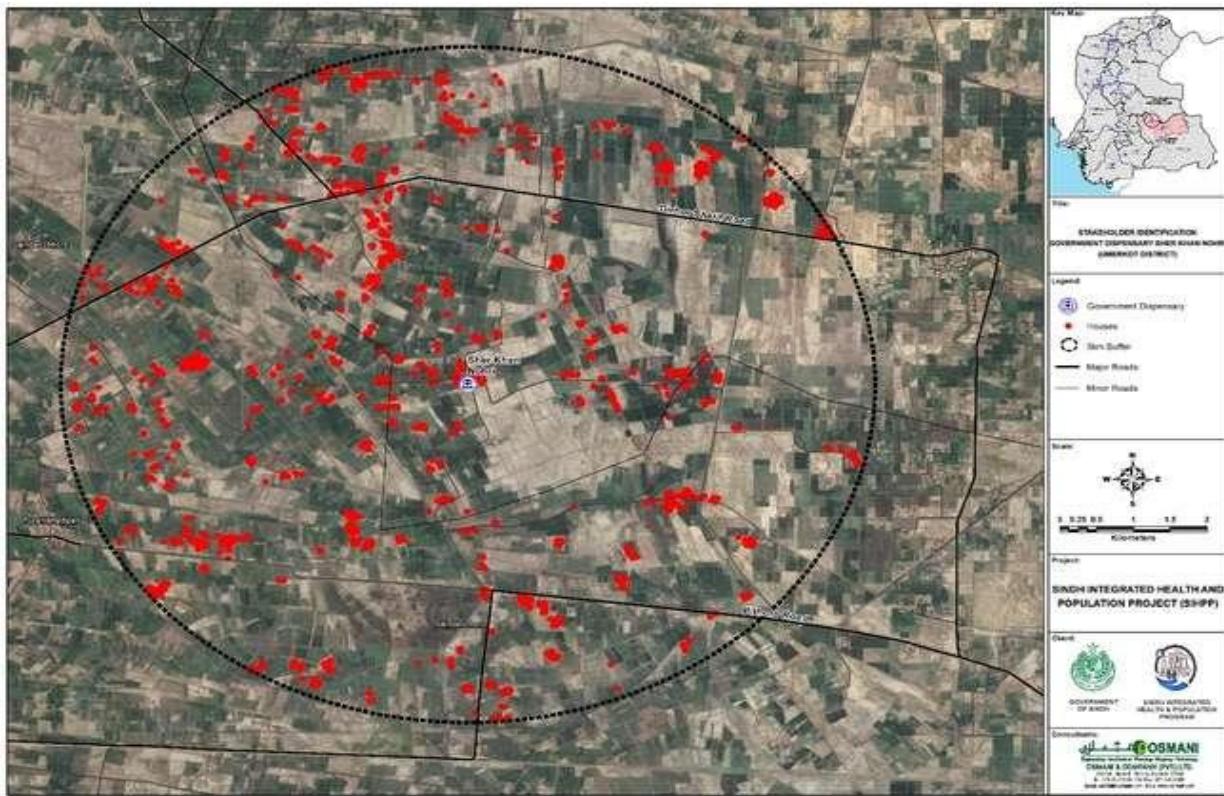


Figure 4-32: Stakeholder Identification of GD Sher Khan Nohri (Umerkot Dist.)

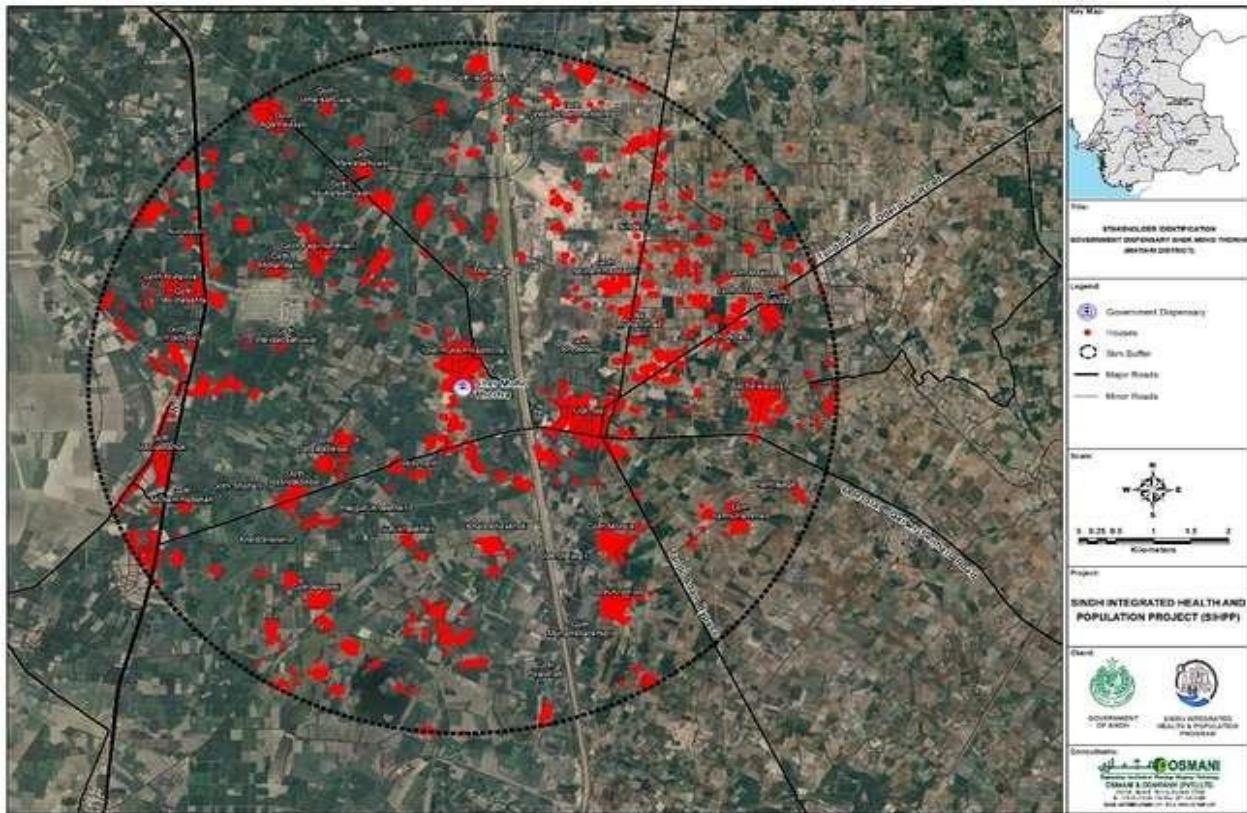


Figure 4-33: Stakeholder Identification of GD Sher Mohammad Thorah (Matiari)

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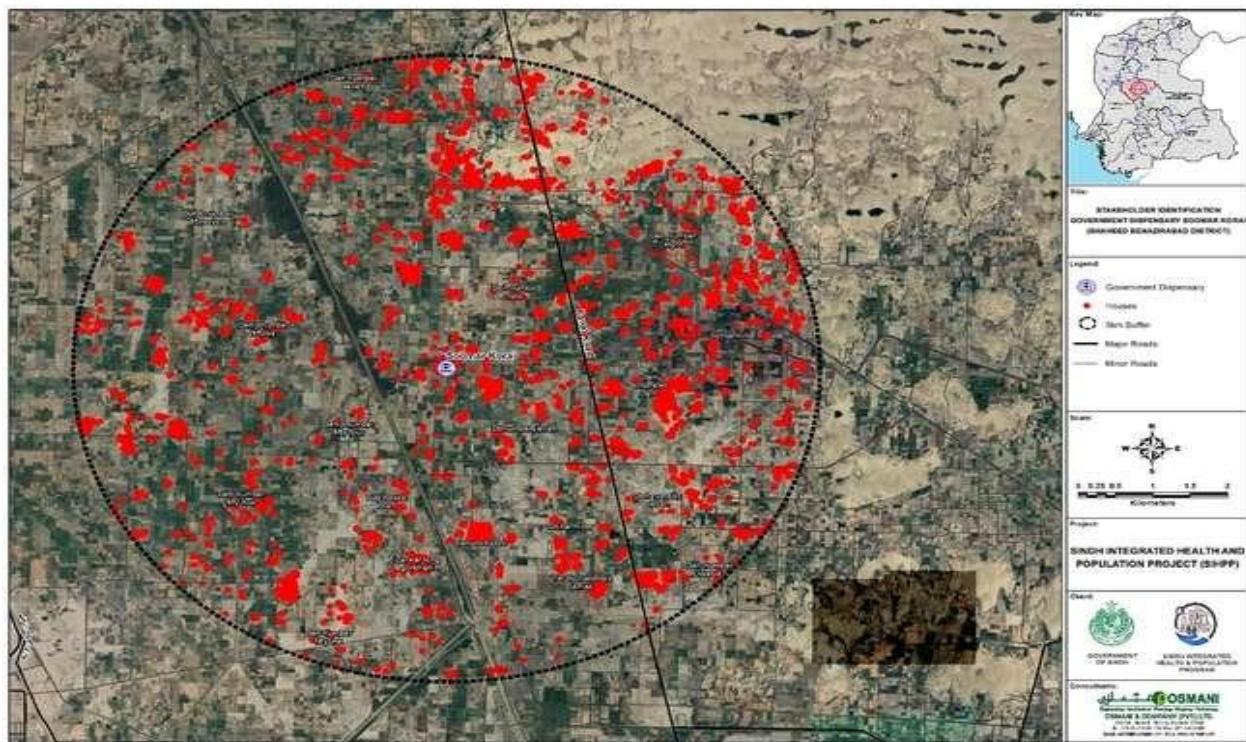


Figure 4-34: Stakeholder Identification of GD Soomar Korai (Shaheed Benazirabad Dist.)

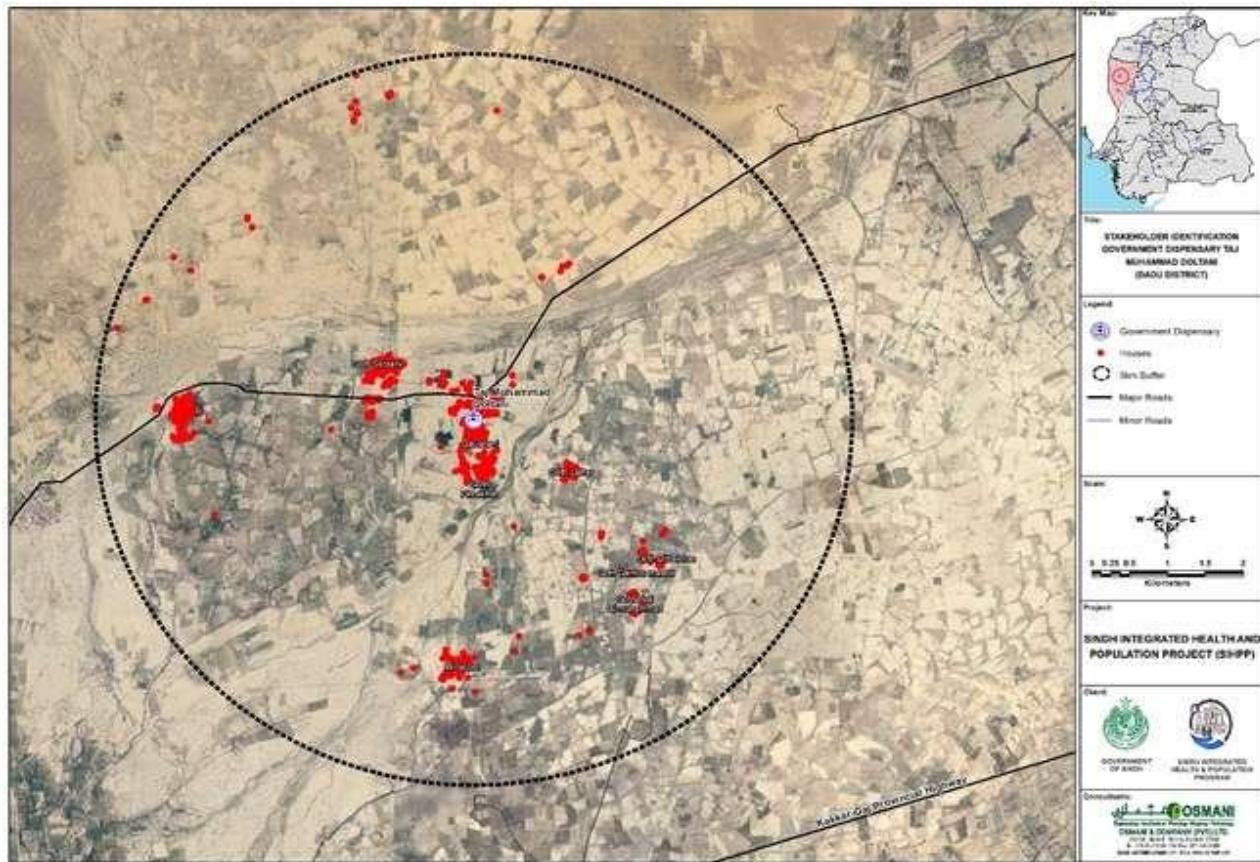


Figure 4-35: Stakeholder Identification of GD Taj Mohammad Doltani (Dadu Dist.)



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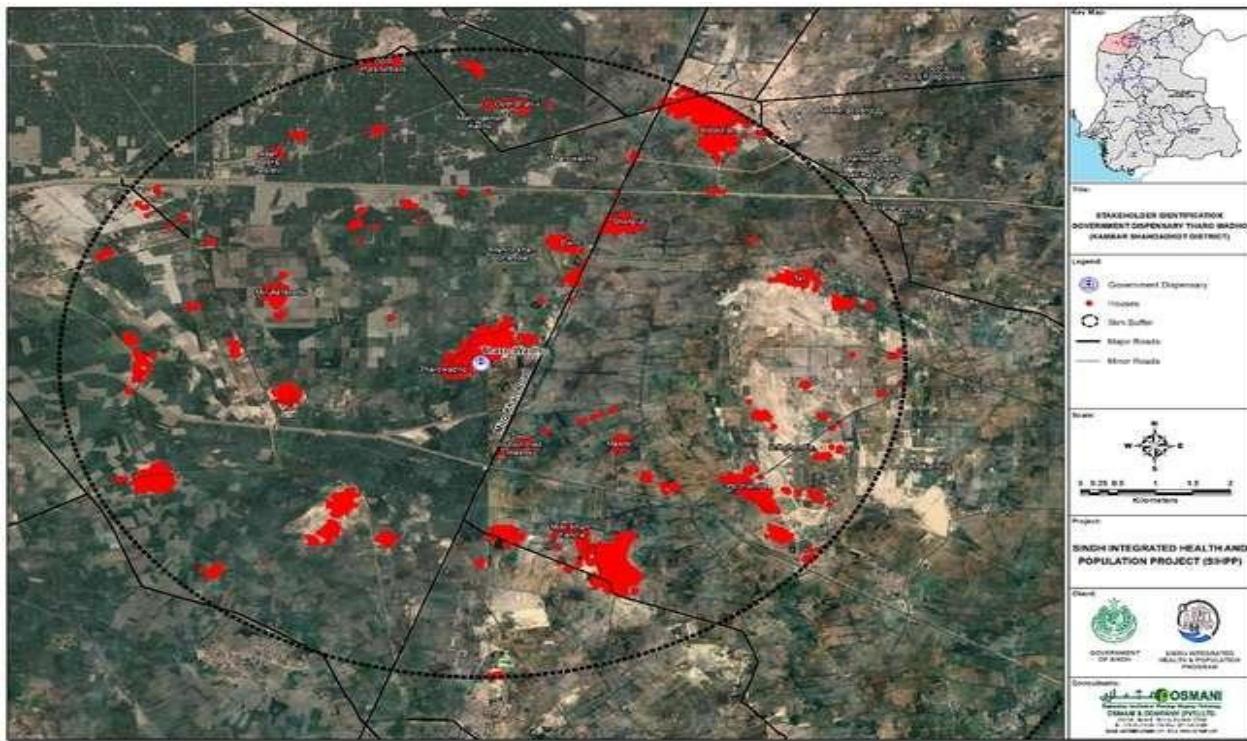


Figure 4-36: Stakeholder Identification of GD Sher Tharo Wadho (Kambar Shhadadkot Dist.)

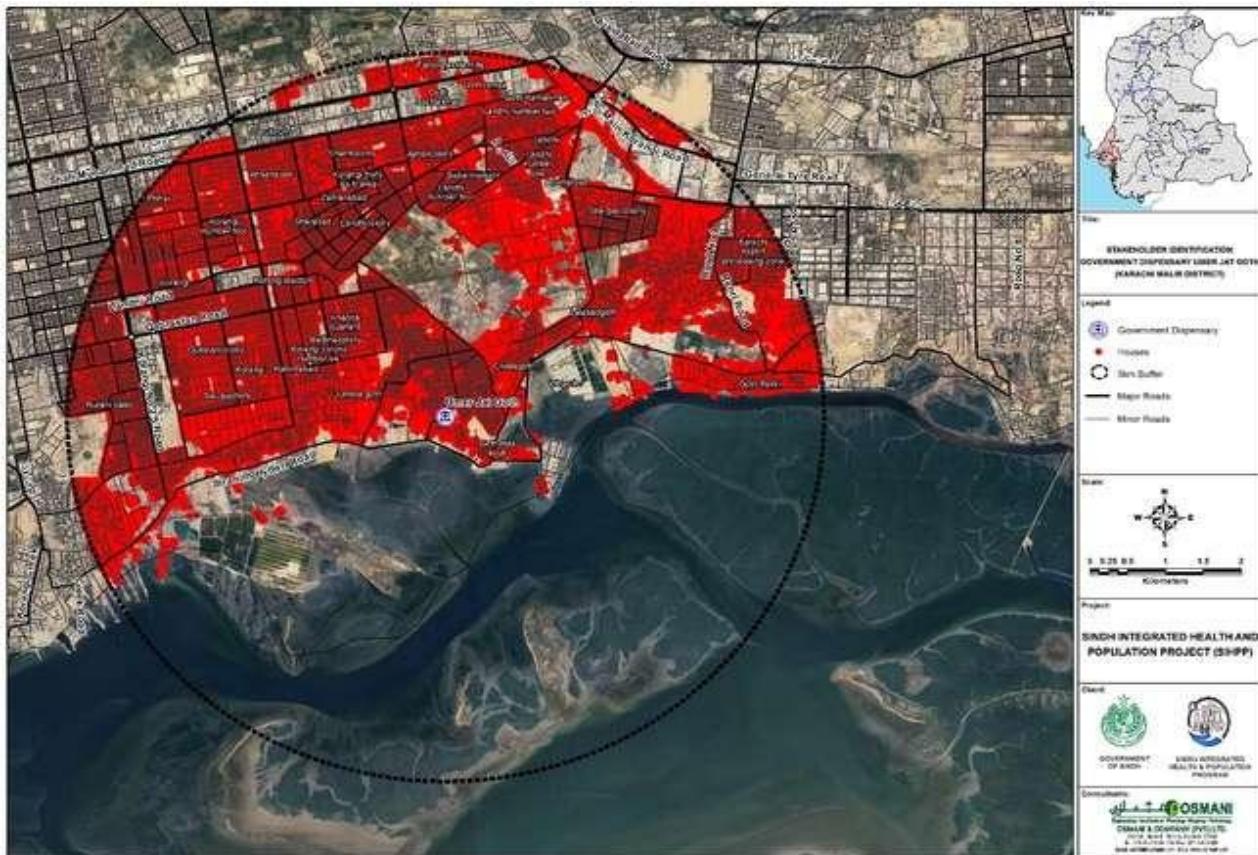


Figure 4-37: Stakeholder Identification of GD Umer je Goth (Karachi Malir Dist.)



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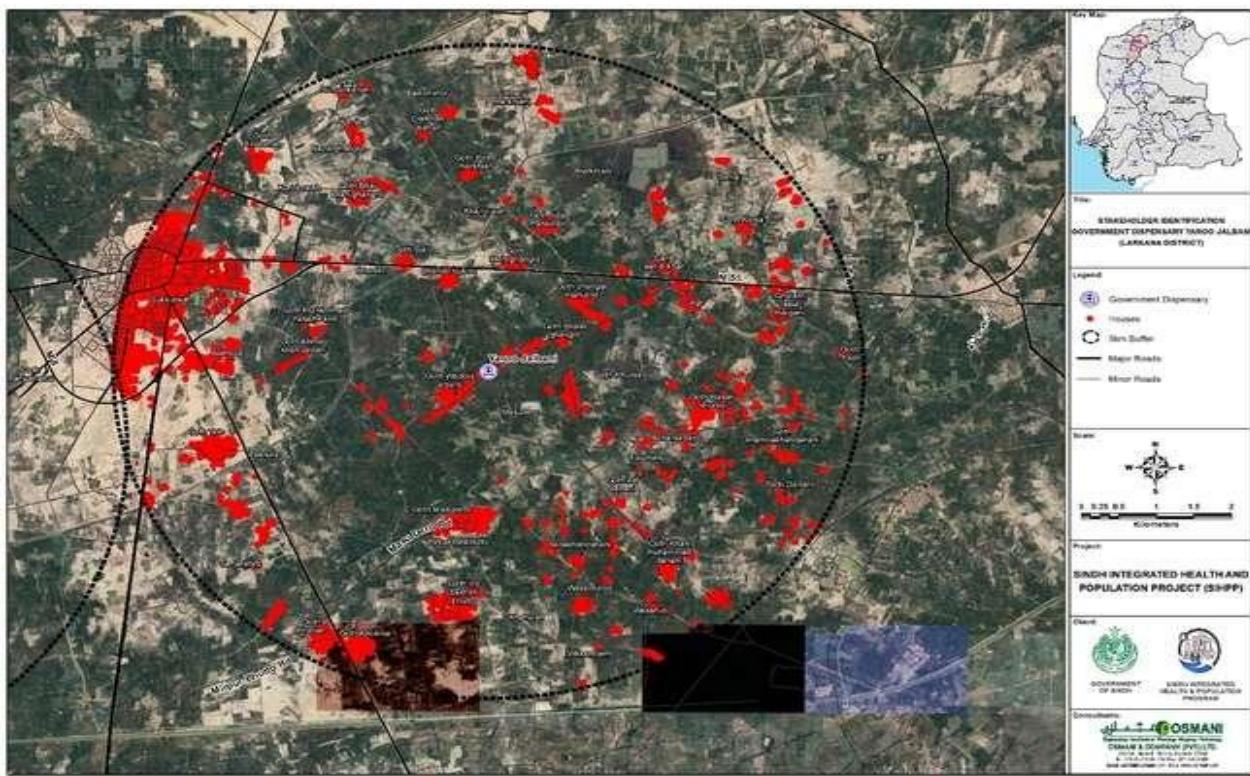


Figure 4-38: Stakeholder Identification of GD Yaroo Jalbani (Larkana Dist.)

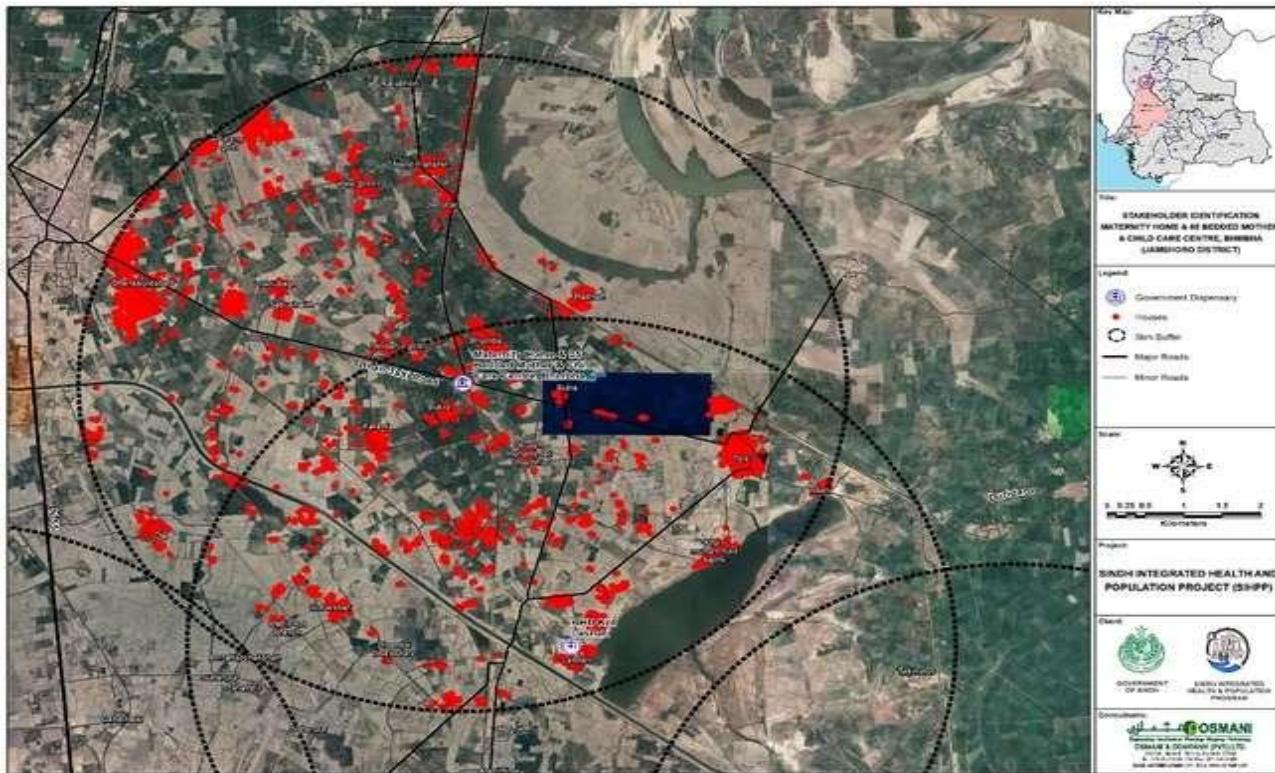


Figure 4-39: Stakeholder Identification of GD Bhambha (Jamshoro Dist.)



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During the Socio-Economic Survey of the subproject area, a total 371 Households (HH) were selected as a representative sample, with approximately 9 to 10 households surveyed from each village. The data collected from these households was systematically documented, and key findings have been summarized in the subsequent subsections.

4.4.1 Gender Composition of Household

According to the survey of households, the male population was high as compared to the female population in the project area. However, during the consultation for the project the female household's participation was more than the male households. An average the male population was 56% male population as compared to the 44% female population among the sampled families for the consultation. As per the survey, the household size was 5.6 persons per household. The detail of the population of affected households is given in Table 4-4.

Table 4-4: Gender Composition of Household Population

Total Household	Population and Family Size				Total Population	Average Household Size
	Male	%	Female	%		
371	1061	52%	976	48%	2037	5.5

4.4.2. Age Group of the Household Members

Table 4-5, shows the Age group, The age-wise frequency distribution of the surveyed population shows that the majority of individuals fall in the youngest category, up to 10 years of age, accounting for 560 people or 27.5% of the total. The next largest group is those aged 18 to 25 years, comprising 397 individuals (19.5%), followed closely by the 26 to 35 age group, with 351 individuals (17.2%). Children and adolescents between 11 and 17 years make up 291 individuals (14.3%). Meanwhile, individuals aged 36 to 45 account for 234 people, representing 11.5% of the total, while those above 45 years form the smallest group with 204 individuals (10%). Altogether, the total surveyed population consists of 2,037 individuals, reflecting a youthful demographic profile with a significant proportion of children and young adults.

Table 4-5: Age Group of Household Members

S.No	Frequency Distribution	Number	Percentage
1	Up To 10 years	560	27.5
2	17 to 11	291	14.3
3	18 to 25	397	19.5
4	26 to 35	351	17.2
5	36 to 45	234	11.5
6	Above 45	204	10
	Total	2037	100

4.4.3. Educational Level

According to the United Nations Educational, Scientific and Cultural Organization (UNESCO), Pakistan has one of the lowest literacy rates in the world, and stands 160th among world nations. As per the Pakistan Social and Living Standards Measurement Survey (2019), literacy rate in rural Sindh stands at only 39%, whereas the female literacy rate is further disproportionately low at 21% compared to male literacy rate



(55%). Apart from that, only 3.65% rural population is literate beyond higher education.

The educational distribution of the 2,037 respondents shows that 19.6% are illiterate, with nearly equal representation of males (205) and females (194). About 13.2% have primary education, while 14.3% studied up to middle level, with a nearly balanced male-to-female ratio. Respondents who completed matriculation form the largest educated group at 15.6%, followed by those with intermediate education at 14.2%, where females (175) slightly outnumber males (114). Graduation-level respondents account for 10.5%, and postgraduates make up 8.5% of the total, reflecting a gradual decline at higher levels of education. Additionally, 4.1% reported having religious education, with more males (65) compared to females (19). Overall, the data indicates that while illiteracy remains significant, a considerable portion of the population has achieved secondary or higher education, with female participation becoming more visible at certain levels. Whereas the educational status of the affected HH member is shows in Table 4-6.

Table 4-6: Educational Level of the Respondents¹⁴

S. No:	Educational Level	Number of Respondent		Percentage (%)
		Male	Female	
1	Illiterate	205	194	19.6
2	Primary	147	122	13.2
3	Middle	145	146	14.3
4	Metric	172	146	15.6
5	Intermediate	114	175	14.2
6	Graduation	121	93	10.5
7	Post Graduate	92	81	8.5
8	Religious	65	19	4.1
		Sub Total	1061	976
		TOTAL		2,037

4.4.4. Occupation & Earning

According to the Economic Survey of Pakistan, agriculture is the main source of employment in Sindh. 42% of the population works in the agriculture, fisheries and forestry sectors, followed by 35% in services (including government) and 22% in industry and associated jobs.

The field survey covered the professional status of the 2,037 respondents reflects a wide range of occupations and roles within the community. The largest group, 22%, consists of children under the age of 10, highlighting the youthful demographic structure. Among the working population, agriculturists combined with livestock rearing form 11%, while another 9.5% are solely dependent on livestock. A smaller portion combines agriculture with other employment, including 3% engaged in government jobs and 5% in private jobs. Independent occupations include 4% shopkeepers, 4% business owners, and 5% laborers. Students represent a significant 13% of respondents, while housewives account for 11%. Government jobs alone comprise 2%, and private jobs 3%, whereas unemployment affects 6.5% of the population. A small fraction of 1% consists of retired or elderly individuals. Overall, the data suggests that agriculture and livestock remain the dominant sources of livelihood, though a notable share of

¹⁴ Source: Socio-Economic Survey and consultations with the affected households (HH), which are directly or indirectly impacted by the project.



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respondents are engaged in education and informal occupations.

Overall, the data reflects a semi-literate, agrarian-based community with limited formal employment opportunities and a significant proportion of women engaged in domestic roles. Survey details have been provided in Table 4-7.

Table 4-7: Occupation of the Respondents

S. No.	Professional Status	Number	Percentage (%)
1.	Under age of 10	448	22
2.	Agriculturist +Livestock	224	11
3.	Agriculturist +Govt.Job	61	3
4.	Agriculturist +Private job	102	5
5.	Livestock	194	9.5
6.	Shopkeeper	82	4
7.	Business	82	4
8.	Labor	102	5
9.	Student	265	13
10.	Govt Job	41	2
11.	Private job	61	3
12.	Housewives	224	11
14.	Retired/Old	20	1
15.	Un-employment	132	6.5
Total		2,037	100

4.4.5. Language Spoken

The project covers the entire province of Sindh. In the sub-project area, Sindhi is the predominant language spoken by the majority of the population. Additionally, Urdu, Punjabi, Siraiki and other regional languages are also spoken by certain groups.

4.4.6. Religion and Ethnicity

The majority of the population of the Sindh province is Muslim. Although, 90.34% of the total population declares Islam as their faith, the province has still relatively higher proportion of minorities living in it. The largest community amongst minorities is Hindu, which constitute almost 7% of total population reported in Census-2017. Tharparkar has the highest proportion of Hindu population (more than 43%). Other districts also have significant Populations of Hindus and other minority communities. Christians constitute almost 1% of the provincial population. They are mostly concentrated in Karachi, with limited presence in other cities. Their presence in the rural areas is minimal.

4.4.7 Type of family System

The survey indicates that more than half of the household within the project area are nuclear families. Survey details have been provided in Table 4-8.



Table 4-8: Type of Family System

S. No	Type	Number	Percentage (%)
1	Nuclear	130	35
2	Joint	241	65
	Total	371	100

4.4.8. Monthly Expenditures

The poverty line of Pakistan is at PKR 3,030 per capita per month. The field survey data on household income distribution shows that a majority of the respondents fall within the low to middle-income brackets.

The income distribution of the 371 respondents shows that the largest group, 39%, falls within the monthly income range of PKR 21,000 to 36,000, indicating this as the most common earning bracket. About 25.6% earn between PKR 37,000 and 40,000, while 22.9% have a monthly income of less than PKR 20,000, reflecting a considerable portion of low-income households. Only 190 respondents report earnings below PKR 37,000, representing the relatively higher-income segment of the population. Overall, the data suggests that the majority of households fall within the lower to middle-income categories, with a limited proportion earning higher incomes. Survey details have been provided in Table 4-9.

Table 4-9: Monthly Expenditure

S. No	Distribution	Number	Percentage (%)
1	Less than 20,000	85	22.9
2	21000-36000	145	39
3	37000-40,000	95	25.6
4	40,000 and above	46	12.5
	Total	371	100

4.4.9 Ownership status of houses

Housing is a major element of people's material living standards. It is essential to meet basic needs, such as shelter from harsh weather conditions, and to offer a sense of personal security, privacy, and personal space. Good housing conditions are also essential for people's health and affect childhood development. Further, housing costs make up a large share of the household budget and constitute the main component of household wealth.

Regarding house ownership, the survey findings indicate that 55% of respondents own their houses, while the remaining 45% live in rented accommodations or other housing arrangements.

4.4.10 Type of Construction of Housing Structure

The table 4-10, shows the types of houses occupied by respondents. The housing conditions of the 371 respondents reveal varied types of residential structures, reflecting both economic capacity and local living standards. The largest share, 30.6%, reside in straw houses, indicating a significant portion of households dependent on temporary or less durable shelters. Pacca houses, which are more permanent and resilient structures, account for 25.8% of the total, while semi-pacca houses make up 23.1%, reflecting a transitional stage between temporary and permanent housing. Meanwhile, 20.5% of respondents live in kacha houses, constructed from mud or other less durable materials. Overall, the data



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suggests that while about half of the households live in pacca or semi-pacca houses, a considerable proportion still reside in vulnerable structures such as straw and kacha houses, pointing to challenges in housing quality and resilience.

Table 4-10: Type of Structure

S. No	Type of House	Numbers	Percentage (%)
1	Kacha	76	20.50
2	Pacca	96	25.80
3	Semi Pacca	86	23.10
4	Straw	114	30.60
	Total	371	100.00

4.4.11. Mode of Transport

The major source of transport in the villages of the sub-project area is public transport including buses, Van/pickup, Jeeps, Qingqi Rickshaw, while individual cars and motorbikes are other modes of transport in the sub-project area. The farm inputs and outputs are transported through trucks and tractor trolleys.

4.4.12. Access to Social Amenities

Basic civic facilities are available in forest surrounding villages and hamlets although these facilities are compromised. Electricity and road network is available, but mostly the quality of roads is poor while power supply is unreliable and subject to long hours of load shedding. Primary and secondary schools for boys and girls are also available. Students have to approach to the nearest cities for higher studies. Medical facilities are scarce and least available.

The availability of social amenities among the 371 surveyed households shows a mixed picture of access to basic services. Almost all respondents reported access to telephone or mobile networks (100%), reflecting widespread connectivity. Schools are available to 85.2% of the households, while hospitals are accessible to 78.1%, indicating relatively good coverage in education and health facilities. Electricity is available to 75.6% of households, and roads serve nearly 69.8%, suggesting a majority have basic infrastructure. However, access to safe drinking water remains limited, with only 35.2% benefiting from a piped water supply and 62% having access to a water filtration plant. Gas connections are available to just 25.6%, and sewerage systems are present in only 15% of households, pointing to major gaps in sanitation and clean energy services. Overall, while connectivity, education, and health access are strong, significant improvements are needed in water, sanitation, and energy infrastructure to ensure better living standards. The data reflects that while certain services like communication, education, and health are relatively widespread, there are significant gaps in sanitation, clean water, and energy infrastructure. Available social amenities are given in Table 4-11.



Table 4-11: Access to Social Amenities

Sr. No.	Social Amenities	Number	Percentage
1	Electricity	280	75.6
2	School	316	85.2
3	Hospital	290	78.1
4	Gas	95	25.6
5	Water Supply	131	35.2
6	Sewerage	56	15
7	Telephone / Mobile	371	100
8	Water Filtration Plant	230	62
9	Road	259	69.8

4.4.13. Social Cohesion and Conflict

Social organization in all settlements is strongly based on the community (tribal and clans) system, where each tribal and clan have a leader. Though the settlements are multi-tribe/clans, there is a single leader of the settlement, which is recognized by all tribes/clans.

The tribe/clan leaders are mostly landlords and politically active. All families belonging to the same tribes have strong interactions with one another but mostly remain separate from other tribes. This extends to marriages, where it is the preference for young tribal members to marry a member of the same tribe.

4.4.14. Conflict Resolution within Tribes and Villages

In rural areas of Sindh most of the conflict associated among individual and among tribes are associated to land or land base assets. Minor conflict issues are settled down through informal Panchayat system. If the conflict is escalated, it may raise to legal court or to police station. To manage the conflict regarding the project activities GRM system is proposed if following chapter.

In rare cases when parties to dispute do not agree on the decision of village head or tribal chief, the matter is taken to police and a court of law. The police and the courts of law are the last resort and this option is rarely exercised.

According to the consultation and social survey, no major conflict was found in the sub-project area. The minor conflicts like disputes related to marriages petty property disputes at village level are settled by the village head and the conflict of similar nature among tribes are resolved by tribal chief. Mainly conflicts were settled at village level. The people accept the mediation and decisions of the village head and tribal chief as village heads and tribal chief are being held in high esteem by the local population.

4.4.15. Source & Satisfaction of Drinking Water

The findings of published data¹⁵ for quality of drinking water about the rural areas of the province, indicate that water in the project area is of not good quality and is not fit for the drinking. In some areas, ground water is saline therefore the communities have to fetch the water from nearby town. Waterborne

¹⁵ Adolescent food insecurity in rural Sindh, Pakistan: a cross-sectional survey, Romania Iqbal, Rahat Qurashi.



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diseases are abundant in the rural areas.

The findings of the survey indicated that 100% of the households had the facility of the drinking water inside their home and around in the shape of, water wells, hand pumps and electric water pumps. Also, the findings of the survey revealed that 59% of the respondents were satisfied with the drinking water quality, while 41% of the respondents were not satisfied with the water quality level.

4.4.16. Heritage Aspects

Sindh is known for its unique cultural and historical heritage shaped by centuries of indigenous traditions and diverse influences, particularly those of the Rajput and Sindhi communities. The province is home to a vibrant mix of Hindu and Muslim populations who have lived together in harmony for generations. This religious and cultural coexistence is reflected in the regions numerous temples, shrines, folk festivals, traditional music, and crafts.

Although the Environmental and Social Screening Survey confirmed that no archaeological or cultural heritage sites are located within the designated subproject areas, a chance find procedure will be implemented. This measure ensures that any unexpected discoveries during project activities will be managed appropriately, in compliance with the heritage preservation standards set by the Islamic Development Bank and the World Bank.

4.4.17. Women Issues

Women in the project area are not socially and economically at par with their male counterparts. Women are economically and socially marginalized and politically lacked voices. Lack of skills, limited opportunities in the job market, and social and cultural restrictions limit women's chances to compete for resources in the public arena. This situation has led to the social and economic dependency of women that becomes the basis for male power over women in all social relationships. During the survey following issues related to the women highlighted by the respondents which are prioritized as under;

- Limited public transport services, particularly for females.
- Restricted access to proper medical treatment, especially after the 2022 flood, which damaged nearby health facilities, forcing locals to travel to nearby towns. This travel is often difficult for women when medical care is needed.
- Insufficient educational facilities for women in local institutions.
- Lack of skill development centers in the project area.
- Inadequate sanitation and hygiene facilities for females.

4.4.18. Vulnerable Households

Households have been identified due to poverty and making income below the minimum wage rate (Rs. 37,000/month) fixed by the Government of Sindh in the budget of the financial year 2024-25, Among the 285 surveyed households, 190 earn less than Rs. 37,000 per month. To determine the vulnerability, households were enumerated by keeping in view all factors like poverty, women headed household, household headed by differently abled persons or child headed etc.

4.4.19. Internally Displaced Persons

Internally Displaced Persons (IDPs) in Sindh are individuals or groups who have been forced to flee their homes due to factors like conflict, natural disasters, or other emergencies but remain within Sindh's borders. However, during E&S screening of 39 GDs, no IDPs identified in the project area.



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4.4.20. Security Situation and Movement of Project Staff

During the social survey, locals informed that there will be no issue for the contractor and the concerned project staff to live and work in the project area. Furthermore, the labor force would typically comprise of people from all ethnicities residing. Therefore, law and order situation is not likely to pose any problems for the project. For additional precaution, unnecessary movement of workers outside the construction camps during night time will be avoided.

Moreover, if and when will security situation may require at project site, the security management plan will be followed in letter and spirit and will involve law and order agencies.



5. Stakeholder Consultations and Information Disclosure

The project has prepared a Stakeholder Engagement Plan (SEP) to describe objectives, process and outcome of the stakeholder engagement already carried out during the project preparation and to be carried out during the project implementation in accordance with the WB ESS 10 (Stakeholder Engagement and Information Disclosure)¹⁶.

The SEP, being a live document is to be updated throughout the life of the project to ensure effective, robust and transparent stakeholder engagement. Through the ESS 10, the ESF requires the timely, relevant, understandable, and accessible disclosure of project information in a way that is free of manipulation, interference, coercion, discrimination, and intimidation.

5.1 Identification and Classification of Stakeholders

The communities living in the project surrounding areas, associated departments/agencies, NGOs and others, whose assets/land, business, structures, installations, or interests may be impacted due to the project activities. The three categories of Project Stakeholders are: Affected Parties, Other Interested Parties and Disadvantaged/vulnerable individuals or groups. The list of identified stakeholders for this project is provided in Table 5-1: List of Identified Stakeholders.

Table 5-1: List of Identified Stakeholders

Category	Sector	Stakeholders	Project Component	
Affected Parties	Community	Users and general community living in and around the construction sites of GDs, BHUs, RHCs, THQ, DHQ (Mothers/Newborn/Children/Adolescents/Men)	Component 1 and 2	
	Govt/ Institutions	Staff and management of Primary public healthcare facilities (GDs/BHUs/RHCs) including doctors, nurses, dispensers, LHW, CHW, FHW etc.	Component 1 and 2	
		Staff of Secondary and tertiary public healthcare facilities (<i>taluka</i> and district hospitals) including medical superintendents, doctors, nurses, dispensers, administrators, non-medical staff, lab technicians, primary vendors, waste managers, etc.	Component 1 and 2	
		Community Health Workers/Family Healthcare Workers	Component 1 and 2	
		Community Midwives	Component 1 and 2	
		PPHI	Component 1 and 2	
		District Health Offices	Component 1 and 2	
Other Interested	Government/Institutional	Contractors for Construction and rehabilitation works	Component 1	
		Other service providers (e.g. ambulance services, supply of medical equipment and medicines)	Component 1	
		Provincial Disaster Management Authority (PDMA)	Component 1 and 2	
		Planning & Development Department	All	

¹⁶ ESS10 requires that borrowers engage with stakeholders throughout the project life cycle, commencing such engagement as early as possible in the project development process and in a timeframe that enables meaningful consultations with stakeholders on project design. The nature, scope and frequency of stakeholder engagement have to be proportionate to the nature and scale of the project and its potential risks and impacts.



Parties	Social Welfare Department	Component 1 and 2
	Local Government Department	Component 1
	Environment, Climate Change & Coastal Development Department	Component 1
	Women Development Department, Sindh	Component 1 and 2
	Labor and Human Resources Department, Sindh	Component 1 and 2
	Academic institutions	Component 1 and 2
	NGOs/CBOs/CSOs/Private Sector	JIMS, Grievance Redressal Mechanism Information System-GMIS, Private medical facilities, International Development Agencies, INGOs, and NGOs
	Social Franchises in PHC and FP	Component 1 and 2
Disadvantaged / vulnerable individuals or groups	Government	Female Staff (involved in project)
	Community	Internally Displaced persons due to flood
		Persons with Disabilities
		Poor Women/Pregnant/Lactating/Girls/Children/ Adolescents with underlying health issues (respiratory and dust allergy) or experiencing emotional or mental stress
		Seasonal Workers
		Female/child headed households
		Religious and ethnic minorities
		Transgender communities
		Senior citizens
		Citizens without CNIC
		People with low / no literacy levels
		Economically marginalized groups including household below poverty line

5.2. Consultation methodology

During the design phase initial interaction was carried out with the Government Department and PMU to comprehend the objective and methodology of implementation along with identification of various tiers of the Govt linked with the project. The PMU intimated various Govt Officers (DOH, SEPA, District Authorities) and other stakeholders regarding commencement of Survey / Design Phase and presence of the Consultant. The survey teams of the Consultants further coordinated and held meetings with relevant stakeholders of the GDs, List of interviewed Stakeholders consulted and district wise details and a table, which summarizes the number of male and female stakeholders engaged across four districts, covering affected communities, health staff, NGOs/CSOs, government offices, academic institutes, and vulnerable groups, with a total of number individuals consulted are given in **Annexure-E**.

The participation process for the projects was inclusive. All stakeholders were at all times encouraged to be involved in the consultation process. Special attention was given to vulnerable groups, in particular women, persons with disabilities, youth, elderly and the cultural sensitivities of diverse ethnic and religious minority groups and those living in remote or inaccessible areas.

The Environmental and Social (E&S) team, comprising specialists Social/Gender, Environment, and architecture led comprehensive stakeholder consultations for the subprojects. All 39 GDs were visited



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just to collect feedback from stakeholders regarding the planned construction work.

The meetings were held in an open and encouraging atmosphere, allowing participants to express their concerns and views freely. The discussions moved forward as follows:

- (1) A brief project description was explained to the stakeholders.
- (2) Stakeholders were allowed to raise issues or queries regarding the project activities.
- (3) Issues were documented and questions were responded to.

5.3. Stakeholder Engagement

- The community stake holder's engagement was performed as described in the following steps:
- Before engaging in the community-level consultations, the team of social and environmental specialists visited each village within the sub-project area to select the active Community Focal Points (along with their required contact information), ascertaining the existence of any social organizations or individuals actively engaged in community affairs. In addition to the primary Community Focal point, the team also obtained two alternative points of communication.
- With the help of Community Focal Points, the team provided comprehensive information about the forthcoming community consultations in the respective villages.
- Subsequently, three days before the scheduled consultations, the team ensured the specific venue and timing of the consultation by informing the relevant communities through the Community Focal Points.
- Consultations conducted with Community, Health Facility Staff Local NGOs & CSOs, District PPHI Office, Academic Institutes, EPA & PDMA, Vulnerable group and Minorities.

The stakeholder consultation meetings were conducted at both levels including health facilities and in community. In total, 39 community consultation meetings were held. Of these, 30 consultations involving 45 community members were conducted at health facilities, as community members were available there during the visits, while 9 consultation meetings with 20 participants were conducted within the villages. These consultations aimed to capture community perspectives, concerns, and feedback related to the project. Stakeholder engagement is an ongoing process, and we will conduct extensive consultations during the implementation phase to ensure maximum coverage of villages and settlements.

Comprehensive consultations were conducted, as evidenced by the captivating visual documentation in Figure 5.1, featuring male community members actively engaged in the discourse, with a detailed village breakdown provided in Table 5.2.

Table 5-2: Visited Villages along with Tribes, Population and Distance

SR.NO	Villages/Settlement	Date of Consultation	Number of Participation
1. GD Kot Lashari (District Jamshoro)			
1	Ghulam Muhammad Machhi	25-03-2025	2
2. GD Abbas Keerio (District SBA)			
2	Muhammad Ramzan Shar	25-03-2025	3



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SR.NO	Villages/Settlement	Date of Consultation	Number of Participation
3. GD Adore (District Mirpur Khas)			
3	Sher Muhammad Laghari	25-03-2025	2
4. GD Allah Dad Zardari (District SBA)			
4	Haji Muhammad Ramzan Magsi	25-03-2025	2
5. GD Baig Muhammad Sangah (District Kambar Shahdakot)			
5	Biro Chandio	26-03-2025	4
6. GD Busriya Jat (District Sujawal)			
6	Haji Busriya Jat	26-03-2025	1
7. GD Dorahi Maher (District SBA)			
7	Khan Muhammad Unar	28-03-2025	1
8. GD Gabbar (District Larkana)			
8	Wali Muhammad Brohi	28-03-2025	1
9. GD Gaheer (District Jamshoro)			
9	Qubo Haji Abdul Rehman Mallah	01-04-2025	2
10. GD Ghaffar Shah (District Khairpur)			
10	Gul Muhammad Sagirani	01-04-2025	1
11. GD Ghazanfar Khan Jakhrani (District Jacobabad)			
11	Gulab Machi	03-04-2025	2
12. GD Ghos Bakhsh Bhangwar (District Kashmore)			
12	Jalal Muhammad Chachar	03-04-2025	3
13. GD Haji Muhammad Baqa Palli (District Umerkot)			
13	Goth Amanullah Rahimoo	05-04-2025	3
14. GD Hussainabad (District Hyderabad)			
14	Goth Mohbat Machi	05-04-2025	2
15. GD Kamal Khan Rind (District Umerkot)			
15	Goth Ishaq Chandio	05-04-2025	1
16. GD Karampur(District Jamshoro)			
16	Karampur	05-04-2025	1
17. GD Karoundi (District Khairpur)			
17	Nehal Khan Sangi	05-04-2025	1
18. GD Khahi (District Kashmore)			
18	Ghulam Mustafa Khoso	06-04-2025	2
19. GD Khair Indhhar(District Naushero Feroze)			
19	Haji Khan Chandio	07-04-2025	1
20. GD Khamiso Khan Dahri (District Naushero Feroze)			
20	Abdul Rehman Dahri	28-03-2025	1
21. GD LERP (District Karachi West)			
21	Budbani Colony	28-03-2025	2



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SR.NO	Villages/Settlement	Date of Consultation	Number of Participation
22. GD Longaee (District Larkana)			
22	Allah Warayo Kalhoro	28-03-2025	2
23. GD Looni Kot (District Thatta)			
23	Muhammad Baksh Baloch	28-03-2025	1
24. GD Molvi Abdul Rehman (District Naushero Feroze)			
24	Darya Khan Mari	01-04-2025	1
25. GD Muhammad Soomar Rajar (District Khairpur)			
25	Muhammad Soomar Rajar	27-03-2025	1
26. GD Murad Khan Jamali (District Dadu)			
26	Goth Jurio Jamali	27-03-2025	2
27. GD Nehmat Gujar (District Badin)			
28	Riaz Ahmed Arian	27-03-2025	1
28. GD New Tagar (District Naushero Feroze)			
28	Soomar Khoso	02-04-2025	3
29. GD Roophar (District Sukkur)			
29	Aqil Maher	02-04-2025	1
30. GD Shah Nawaz Mastoi (District Dadu)			
30	Gul Muhammad Magsi	02-04-2025	1
31. GD Sher Khan Nohri (District Umerkot)			
31	Sher Khan Nohri	04-04-2025	1
32. GD Mohd Thoraha (District Matiari)			
32	Haji Gul Muhammad Khaskheli	04-04-2025	1
33. GD Soomar Korai (District SBA)			
33	Yar Mohd Jamali	06-04-2025	2
34. GD Taj Mohd Doltani (District Dadu)			
34	Gamo Mastoi	06-04-2025	2
35. GD Tharo Wadho (District Kambar Shahdadkot)			
35	Mando Khan Chandio	06-04-2025	1
36. GD Umer Jat (District Karachi-Malir)			
36	Jumo Goth	01-04-2025	2
37. GD Yaroo Jalbani (District Larkana)			
37	Hassan Khuhro	06-04-2025	1
38. GD Bhambha (District Jamshoro)			
38	Ghulam Muhammad Machi	01-04-2025	3
39. GD Gharko (District Sukkur)			
39	Badal Landar	06-04-2025	1
Total			65

Table 5-3: Photographs captured while consulting male of the villages

	
Consultation at GD Abbas Keerio	Consultation at GD Ahori
	
Consultation at GD Gaheer	Consultation at GD Ghaffar Shah
	
Consultation at GD Gharko	Consultation at Ghos Bakhar Bhangar
	
Consultation at GD Haji Baqa Palli	Consultation at Baqa Pali

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<p>Consultation at GD Hussainabad</p>	<p>Consultation at GD Kamal Khan Rind</p>
	
<p>Consultation at GD Karampur</p>	<p>Consultation at GD Karoundi</p>
	
<p>Consultation at GD Khahi</p>	<p>Consultation at GD Indhar</p>
	
<p>Consultation at GD Murad Khan Jamali</p>	<p>Consultation at GD Naimat Gujar</p>



Consultation at GD Sher Khan	Consultation at GD Sher Mohd Thorah
Consultation at GD Umar Jat	Consultation at Bhambha

Some comments/observations from the males of the community along with actions/ responses are presented in Table-5.4.

Table 5-4: Comments/Observation during male consultation along with action/response

Comments/Observation	Action/Response
Male participants expressed concerns about potential traffic disruptions during the rehabilitation work, emphasizing that this issue should be carefully addressed to minimize its impact on the community.	They were assured that a proper traffic management plan is in place to address concerns about potential disruptions and ensure minimal impact on the community.
Participants expressed their concerns regarding potential noise pollution during the rehabilitation work. They emphasized the importance of taking appropriate measures to minimize disturbances to the community.	Participants were informed that steps will be taken to effectively control noise pollution during the rehabilitation work, ensuring the community experiences as little disruption as possible.
Male participants emphasized the importance of job opportunities, especially for unskilled labor in the subproject, due to the limited livelihood options available.	They were informed that the contractor must hire local workers without specific skills, promising them chances for jobs within the subproject.
Male participants shared concerns regarding the potential disruptions to the privacy of local residents stemming from the establishment of Labor camps and parking areas in close proximity to their settlements. They emphasized the importance of considering this issue with sensitivity to gender dynamics, noting that it could have differential impacts on various community members.	They were assured that the camp would be located away from the village, alleviating worries about possible disruptions to local privacy.
The community members have expressed their concerns about the environmental impact of certain activities, particularly highlighting issues such as	A special clause will be added to the contract of the contractor to ensure full compliance. These issues are already included in the ESMP, and corresponding



Comments/Observation	Action/Response
deforestation and damage to local ecosystems. It's apparent that they are specifically concerned about the plans to remove trees within the GDs premises, expressing a strong desire to preserve these trees.	mitigation measures have been added.

In adherence to local cultural norms that advocate for separate gatherings of males and females, dedicated consultations were orchestrated for the female members of the relevant communities, facilitated by female resource personnel from the project side.

In total, 39 community consultation meetings were held. Of these, 26 consultations involving 76 community members were conducted at health facilities, as community members were available there during the visits, while 13 consultation meetings with 74 participants were conducted within the villages. These consultations aimed to capture community perspectives, concerns, and feedback related to the project. Stakeholder engagement is an ongoing process, and we will conduct extensive consultations during the implementation phase to ensure maximum coverage of villages and settlements.

A list of villages visited during community consultation with women is given in Table 5-5 while photographs are shown in Table 5-6.

Table 5-5: Table showing number of female community members consulted from each village

SR.NO	Villages/Settlement	Date of Consultation	Number of Participation
1. GD Kot Lashari (District Jamshoro)			
1	Ghulam Muhammad Machhi	25-03-2025	2
2. GD Abbas Keerio (District SBA)			
2	Muhammad Ramzan Shar	25-03-2025	3
3. GD Adore (District Mirpur Khas)			
3	Sher Muhammad Laghari	25-03-2025	2
4. GD Allah Dad Zardari (District SBA)			
4	Haji Muhammad Ramzan Magsi	25-03-2025	2
5. GD Baig Muhammad Sangah (District Kambar Shahdadkot)			
5	Biro Chandio	26-03-2025	4
6. GD Busriya Jat (District Sujawal)			
6	Haji Busriya Jat	26-03-2025	4
7. GD Dorahi Maher (District SBA)			
7	Khan Muhammad Unar	28-03-2025	4
8. GD Gabbar (District Larkana)			
8	Wali Muhammad Brohi	28-03-2025	4
9. GD Gaheer (District Jamshoro)			
9	Qubo Haji Abdul Rehman Mallah	01-04-2025	2
10. GD Ghaffar Shah (District Khairpur)			
10	Gul Muhammad Sagirani	01-04-2025	5
11. GD Ghazanfar Khan Jakhrani (District Jacobabad)			
11	Gulab Machi	03-04-2025	2
12. GD Ghos Bakhsh Bhangwar (District Kashmore)			



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SR.NO	Villages/Settlement	Date of Consultation	Number of Participation
12	Jalal Muhammad Chachar	03-04-2025	3
13.	GD Haji Muhammad Baqa Palli (District Umerkot)		
13.	Goth Amanullah Rahimoo	05-04-2025	3
14.	GD Hussainabad (District Hyderabad)		
14.	Goth Mohbat Machi	05-04-2025	2
15.	GD Kamal Khan Rind (District Umerkot)		
15.	Goth Ishaq Chandio	05-04-2025	4
16.	GD Karampur(District Jamshoro)		
16.	Karampur	05-04-2025	5
17.	GD Karoundi (District Khairpur)		
17.	Nehal Khan Sangi	05-04-2025	4
18.	GD Khahi (District Kashmore)		
18.	Ghulam Mustafa Khoso	06-04-2025	6
19.	GD Khair Indhhar(District Naushero Feroze)		
19.	Haji Khan Chandio	07-04-2025	3
20.	GD Khamiso Khan Dahri (District Naushero Feroze)		
20.	Abdul Rehman Dahri	28-03-2025	4
21.	GD LERP (District Karachi West)		
21.	Budbani Colony	28-03-2025	2
22.	GD Longaee (District Larkana)		
22.	Allah Warayo Kalhoro	28-03-2025	2
23.	GD Looni Kot (District Thatta)		
23.	Muhammad Baksh Baloch	28-03-2025	2
24.	GD Molvi Abdul Rehman (District Naushero Feroze)		
24.	Darya Khan Mari	01-04-2025	2
25.	GD Muhammad Soomar Rajar (District Khairpur)		
25.	Muhammad Soomar Rajar	27-03-2025	2
26.	GD Murad Khan Jamali (District Dadu)		
26.	Goth Jurio Jamali	27-03-2025	11
27.	GD Nehmat Gujar (District Badin)		
27.	Riaz Ahmed Arian	27-03-2025	1
28.	GD New Tagar (District Naushero Feroze)		
28.	Soomar Khoso	02-04-2025	3
29.	GD Roophar (District Sukkur)		
29.	Aqil Maher	02-04-2025	3
30.	GD Shah Nawaz Mastoi (District Dadu)		
30.	Gul Muhammad Magsi	02-04-2025	4
31.	GD Sher Khan Nohri (District Umerkot)		
31.	Sher Khan Nohri	04-04-2025	7
32.	GD Mohd Thoraha (District Matiari)		
32.	Haji Gul Muhammad Khaskheli	04-04-2025	2
33.	GD Soomar Korai (District SBA)		
33.	Yar Mohd Jamali	06-04-2025	12



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SR.NO	Villages/Settlement	Date of Consultation	Number of Participation
34.	GD Taj Mohd Doltani (District Dadu)		
34	Gamo Mastoi	06-04-2025	2
35.	GD Tharo Wadho (District Kambar Shahdadkot)		
35	Mando Khan Chandio	06-04-2025	3
36.	GD Umer Jat (District Karachi-Malir)		
36	Jumo Goth	01-04-2025	2
37.	GD Yaroo Jalbani (District Larkana)		
37	Hassan Khuhro	06-04-2025	3
38.	GD Bhambha (District Jamshoro)		
38	Ghulam Muhammad Machi	01-04-2025	3
39.	GD Gharko (District Sukkur)		
39	Badal Landar	06-04-2025	4
Total			150

Table 5-6: Photographs captured while consulting female of the villages

Consultation with female at Badal Landar	Consultation with female at Mando Khan Chandio
Consultation with female at Sher Khan Nohri	Consultation with female at Yar Mohd Jamali



	
Consultation with Female at Goth Jurio Jamali	Consultation with Female at Ghulam Mustafa Khoso

The major comments/observations from the females of the community along with actions/ responses are presented in Table 5.7.

Table 5-7: Comments/Observation during female consultation along with action/response

Comments/Observation	Action/Response
Female participants show concerns that their privacy might be compromised due to increased labor influx while they carry out tasks such as collecting firewood, tending to grazing cattle, and fetching water amidst the ongoing subproject work.	The camps will be far from the settlement, so women and children won't be disturbed. New employees will receive cultural immersion and sensitivity training as part of their orientation. Additionally, a clause will be included in the contract/document stating that there should be no interaction between laborers and women and children
The female participants expressed concerns about the inadequate WASH (Water, Sanitation, and Hygiene) facilities. They particularly highlighted the lack of provisions for female visitors and staff, which is affecting their access to proper sanitation and hygiene.	It is in SIHPP's Scope to provide essential WASH (Water, Sanitation, and Hygiene) facilities in the design of THQ and will ensure the compliance during operation phase as well. These facilities are designed to ensure their comfort, privacy, and overall hygiene.
In remotely located health facility, pardah as well as mobility issue make create for women, proper cordoning of the construction area to be ensured.	The construction site will be properly cordon off during construction. Advocate the construction crew regarding the privacy of women.

Keeping in view the comments and responses it is very essential that the concerns of people may be addressed by applying good governance and management practices before and during the construction work.

5.4 Consultation with Institutional Stakeholders

Stakeholder consultations were carried out in respective districts with various stakeholders. These stakeholders were interviewed through face-to-face sessions, details are provided in table 5.8, This engagement aimed to ascertain institutional needs, inform stakeholders about planned activities, improve project design, create synergies, and enhance the socio-environmental sustainability of the project activities across different components. The key concerns/suggestions of stakeholders and PMU response are shown in Table 5-9. And consultation photographs are provided in Table 5-10.

Table 5-8: List of Institutional Stakeholder

S.No	Name/Designation	Location	Date of Consultation
1	Administrative/Staff	GD Hussainabad	01-04-2025



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2	In-charge	GD Karampur	02-04-2025
3	In-charge	GD Looni KOT	06-04-2025
4	Administrative/Staff	GD Ropahar Pano	28-03-2025
5	In-charge	GD Sher Mohd Thora	01-04-2025
6	Staff	GD Gaheer	26-03-2025

Table 5-9: Photographs captured during Stakeholder Consultation Meeting

Meeting with Staff at GD Hussainabad	Meeting with Incharge GD Karampur
Meeting with Incharge at GD Loonikot	Meeting with Staff GD Ropahar Pano
Meeting with Staff at GD Sher Mohd Thorah	Meeting with Staff at GD Gaheer



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Some comments/observations from the institutional stakeholder along with actions/ responses are presented in Table-5.10.

Table 5-10: Summary of concerns raised by institutional stakeholder

Comments/Observation	Action/Response
The existing GDs is in not good condition after flood 2022, So, the new GDs building should construct at the existing building with latest health facilities.	The provision of construction of New THQ in project is available.
The stakeholders suggested that the project proponent assist local communities in planting trees nearby. These trees should be selected for their ability to improve the area's greenery	planting will prioritize local species, with no promotion of alien species.
The stakeholders suggested that the construction camps be adequately fenced.	Barricaded camps have been proposed for the camp, and activities will be confined within the designated boundary area.
The stakeholders suggested that precautions should be taken to protect fauna and flora during the construction phase.	The campsite will take minimum space and will be placed in open areas. Labor won't be allowed to use local plants for fuel. They will also be trained not to hunt and to protect plants and animals
The stakeholders recommended that during the construction phase, local traditions and customs should be valued and respected. Additionally, it was suggested that the camp office should be established away from the villages/settlements.	It was assured that local cultural values and traditions would be fully respected, and site camps would be established away from the villages.
Health Facility's staff have expressed concerns regarding the conditions of building, particularly highlighting issues like collapse and damage from rain, which raises worries about the safety and suitability of the building.	Include all concerns in modular design with Climate and Disaster Resilience Indicators in the GDs Design.
Ambulances are not available, So the requirement of Ambulances should be fulfilled with GDs.	The program has provided the ambulances for referral and emergency response. The ambulances are functional through Sindh Integrated Emergency Health Services (SIEHS)

5.5 Information Disclosure

As disclosure requirement, the environmental and social management Plan (ESMP) will be uploaded on the SIHP project website (www.sihpp.gos.pk) , while after the approval from the World Bank, and executive summary of the ESMP will be translated into Sindhi and Urdu languages and same will be disclosed on the SIHP website. In addition to this, ESMP document will be made available at the campsites.



6. Environmental and Social Impact Assessment and Mitigation Measures

This chapter identifies the potential environmental and social risks and impacts envisaged due to the implementation of proposed Project. The appropriate mitigation and remedial measures of each environmental and social impact are proposed in this chapter keeping in view the mitigation hierarchy

The following is the list of activities which may have adverse E & S impacts;

- Doctor's room,
- Lady Health Visitor (LHV) room,
- Expanded Program on Immunization (EPI) & Nutrition room,
- Additional rooms for doctors,
- A basic laboratory,
- An ultrasound room, a labor room with autoclave and scrub,
- Additional observation beds for gynecology/labor,
- A female waiting area, a male waiting area,
- A store/yellow room, a pharmacy a washing area, a meeting room, and more.
- The health facility will be equipped to operate on a hybrid solar system, include water filtration plants to provide clean drinking water for visitor

The impact assessment, most of the risks and impacts are anticipated at the implementation/ operational phase and are temporary site-specific, reversible. Further, adopting simple mitigation measures, in accordance with the mitigation hierarchy under the relevant ESSs, these potential impacts will either be avoided altogether, or their likelihood of occurrence and severity will be reduced, thus making the proposed Project environmentally responsible and socially acceptable.

6.1. Adverse Environmental and Social Impacts

The rehabilitation of Government Dispensaries across Sindh may involve certain adverse environmental and social impacts, primarily due to construction-related activities. These impacts are generally temporary and localized but may include dust and noise pollution, waste generation, disruptions to hospital operations, health and safety risks for workers and patients, and limited access to healthcare services during the rehabilitation and operational phase. Proper planning and mitigation measures are essential to minimize these risks and ensure compliance with environmental and social safeguards.

6.1.1 Rehabilitation Phase Impacts & Mitigation Measures

6.1.1.1 Air Quality Impacts

Main sources of air quality pollution are emissions from construction related traffic and machinery (excavator, dumpers, concrete mixer, tractor, lifting machine, generators, transit mixture etc.), excavation, filling of earth material, loading/unloading of material etc. The storage and transportation of material will also generate airborne dust and particulate matter. Dust raised from the above activities will have impacts on the surrounding population. There are no sensitive receptors observed within the vicinity of health facilities. The construction activities will be carried out within the existing health facilities, therefore, overall impact on air quality is assessed to be temporary, moderate to low in nature.



Mitigation Measures

- Construction equipment and machinery will be serviced regularly to reduce excessive exhaust emissions.
- The material stockpiles and access roads will be watered as and when required to minimize the potential for environmental nuisance due to dust.
- Construction vehicles carrying materials will be covered with tarpaulin sheets to avoid dust pollution.
- Speed limits will be imposed on all vehicle movement at the worksite to reduce dust emissions. Unnecessary movement of vehicles will be avoided.
- All dust raising locations shall be kept wet with water sprinkling. Fugitive dust emissions will be minimized by appropriate methods such as spraying water on material where required and appropriate and install dust screens where necessary.
- Continuous air monitoring will be carried out near the sensitive receptors to ensure they do not exceed ambient levels and SEQS.
- Open burning of solid waste shall be strictly prohibited and ensure the provision of PPEs.
- Raw materials such as cement, gravel and sand will be kept under sheet covers. The height of material stockpiles will be minimized.
- Selection of activities that may be deemed to create dust will be undertaken early in the morning or in the afternoons.

6.1.1.2 Water Quality

The assessment revealed that the drinking water quality at all the selected 39 GDs are unfit for consumption. It was told that staff bring water from their homes or nearby households. During rehabilitation work, surface and groundwater quality may further deteriorate due to spills from construction equipment and fuel, vehicle washing, and improper waste disposal. This increases the risk of waterborne diseases on-site and in the surrounding area.

Mitigation Measures

- The contractor will test water of all sites, and those with groundwater unsuitable for drinking, the contractor will install filtration plant or RO.
- During construction activities contractor must provide the safe filtered water to all workforce.
- In the case of potable water only boiled water will be allowed for drinking/human consumption.
- Oil and fuel storage and refilling will be offsite to the extent possible; in case it is done at site, proper arrangements including impermeable surfaces and secondary containment will be provided.
- Management guidelines proposed in ECP 1: Waste management and ECP 7: Workers' Health and Safety will also be followed.
- For GD's Operation, A water filtration plant will be installed to ensure a sustainable supply of clean drinking water to the staff and visitors.

6.1.1.3 Noise Generation

Noise will be generated from vehicular movement, excavation machinery, concrete mixing and other construction activities during the construction phase and will disturb the residents. This impact is assessed to be temporary and low adverse.



Mitigation Measures

- Construction equipment and machinery will be serviced regularly to reduce excessive noise generation and restricted to daylight hours.
- Ensure that machinery and generators will be equipped with well-functioning mufflers.
- Adjacent communities will be notified prior to any typical noise events, where required.
- Loading and unloading of vehicles and handling operations will be organized for the purpose of minimizing construction noise on the work site.
- Potential noisy activities will be limited to normal working hours.
- Adequate PPEs will be provided to workers such as hearing protection.
- Regular noise monitoring will be carried out and ensure the compliance with SEQ.
- Awareness sessions will be conducted with the workers and near community to raise the awareness about the noise pollution, its health impacts and mitigation measures.

6.1.1.4 Traffic Impacts/Disruption of Public Access

The delivery of construction material to subproject sites may increase the traffic in the area. Movement of construction machinery and open storage of construction material during facility construction may cause congestion on local routes and pose threat to the commuters and locals residing nearby. This impact is assessed as moderate adverse.

Mitigation Measures

- The Contractor will restrict truck deliveries, where practicable, to day time working hours.
- Storage of material outside the designated area will be prohibited.
- Suitable signboards will be placed at strategic locations of the access road.
- The Contractor will restrict the transport of oversize loads.
- If community access is hindered, the option of alternate routes will be used.
- Contractor will prepare the Traffic Management Plan (TMP) as a part of Contractor ESMP.

6.1.1.5 Occupational Health and Safety (OHS)

Approximately 20-25 workers will be engaged per GD in a single 10-hour shift. The expected duration for construction work is 12 months. During the construction activities, demolition of building, excavation, removal of construction waste, unloading of construction material, electrical works. Construction site workers may be exposed to risks of accidental collisions with moving vehicles, strains from repeated movements or from lifting and heaving of heavy objects, slips and falls, including falls from heights, resulting in injuries and even fatalities. Accidental cuts from tools and machines are also safety risks. Wet cement as a construction material is corrosive on contact with human skin and risks associated with lack of adequate occupational, health and safety measures used on site including lack of PPE. During summer season, workers will have to work in extreme hot weather conditions which can bring heat stress. This impact is assessed as moderate to substantial.

Mitigation Measures

- An occupational Health and Safety Plan will be included in the Contractor's ESMP.
- Labor Management Procedures (LMP) has been developed for the project and will be followed mitigate the OHS risk. Ensure the compliance with World Bank Group EHS guidelines and Sindh occupational Safety and Health Act, 2017 and SEQs.



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- Health and safety induction will be conducted for all workers. Training will be provided for workers conducting high risk activities. Workers with inadequate training will not be allowed to operate vehicle/machinery.
- SOPs will be prepared for certain activities such as working on heights, erecting and using scaffolds and using ladders.
- Safety signs will be installed at the entrance to and around the site.
- All safety related activities will be documented including all illness/injury, exposures, and near misses.
- All incidents /accidents will be investigated, recorded, reported and Root Cause Analysis (RCA) for fatal incidents will be done.
- Emergency response measures will be provided onsite including posting of Emergency Contacts, provision of first aid kits, provision of emergency transport vehicle, designating of a muster point, provision of fire extinguishers/sand buckets, provision of spill clean- kits, etc. workers will be provided first aid training.
- The contractor will establish an MOU with the nearest ambulance service provider.
- Proper site sanitation and housekeeping will be maintained on construction sites.
- Toolbox Talk (TBT) with workers shall be held regularly before the start of work regarding the hazards associated with the work.
- In case of an incident involving injury, the injured will be taken to the nearest medical facility after providing necessary first aid.
- Provision of clean drinking water will be ensured for the project workers.
- Appropriate and high-quality PPE for workers such as gloves, vests, safety shoes, masks etc., will be provided and their use will be strictly enforced. Training for the workers will be provided in the use of PPE.
- A site-specific Occupational Health and Safety (OHS) and Traffic Management Plan (TMP) will be prepared to address location-specific hazards, impacts, and control measures.
- The contractor will designate an OHS focal person at each site to ensure the plan's effective implementation.

6.1.1.6 Community Health and Safety

The local community may be exposed to health and safety risks associated with rehabilitation/construction activities such as accidents due to movement of vehicles, improper storage of materials, exposure to hazardous materials and wastes air emissions from construction sites especially vulnerable groups. Accidental spillage /releases may contaminate the drinking water source and other water bodies, damage crops, degrade the soil and contaminate ambient air. The transport of equipment and construction materials through the community roads can deteriorate these roads, especially the link roads which are already in poor condition. The labor with different transmittable diseases may cause spreading of those diseases in the local residents. Improper management of domestic solid wastes may cause the spread of vector-borne and water-borne diseases among the workers and local communities. Impacts can be exacerbated during the rainy seasons. This impact is assessed as moderate to substantial.

Mitigation Measures

- Ensure compliance with the World Bank Group Environment, Health, and Safety (WBG EHS) Guidelines
- Construction site will be appropriately fenced or cordoned off to prevent stray animals and vagrant persons, including communities, residents, from straying on to the site.
- Excavated areas and pits will be marked with appropriate signage. Provision of do not enter/do



not pass signs and danger signs will be ensured.

- Awareness sessions will be organized to sensitize construction workers and local communities including Children.
- Vehicles accessing the site will be expected to abide by speed limits and other traffic rules. Drivers will be briefed on safety requirements and exercise caution.
-
- Delivery of construction materiel and equipment will be timed to coincide with off-peak traffic hours.
- Storage of material outside the designated area will be prohibited. Construction materials will be brought to the site as and when required.
- If community access is hindered, alternate routes will be provided. If provision of alternate route is not present, the contractor will inform the public of the date and time of activity well before start of work.
- Traffic Management Plan will be included in Contractor's ESMP.
- Ensure limited transportation of construction material during school hours and communicate such for preparedness.
- Ensure effective implementation of GRM to timely address the issues;
- The communicable disease of most concern during construction phase, like Sexually-Transmitted Disease (STDs) such as HIV/AIDS, will be prevented by successful initiative typically involving health awareness; education initiatives; training health workers in disease treatment; immunization program and providing health service;

Contractor will take due care of the local community and observe sanctity of local customs and traditions by his staff. Contractor will warn the staff strictly not to involve in any unethical activities and to obey the local norms and cultural restrictions.

6.1.1.7 Liquid and Solid Waste Generation

Municipal, construction and hazardous waste will be generated from construction activities including waste material, earth material, wood cut-offs, wood shavings, plastic cut-offs, empty cement sacks, paint cans, electrical wiring, scrap metal etc. (approximately 10-15kg per day). Liquid waste streams will include equipment wash-out after daily construction activity, and human wastes from construction workers. Approximately 20-25 workers will be engaged per sub-project site. This will be a moderate adverse.

Mitigation Measures

- Waste Management Plan will be included in the Contractor's ESMP.
- Adequate waste collection receptacles will be provided. Burning of waste material will not be allowed.
- Waste will be regularly removed from the site and taken to the dump site for disposal, with the consent of the Engineer.
- Burning of any type of waste generated will not be allowed onsite.
- A treatment system for wastewater from toilet facilities will be provided such septic tank or link with exiting draining system and ensure the adequate drainage arrangements.
- If hazardous waste is generated onsite the waste will be carefully collected and removed from site and disposed of in an approved manner. Organic waste will be disposed of through the municipal waste disposal system.
- Segregation and reuse or recycling of all the wastes will be ensured, wherever practical, to protect the natural resources.



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- Equipment washout will be discharged in a manner that avoid contaminating of any nearby water course or natural water bodies.
- The contractor will be required to provide separate toilets and ablution facilities for construction workers.
- All solid and liquid wastes entering waterways will be prevented by collecting solid waste, oils, and wastewaters from brick and concrete where possible and transport to an approved waste disposal site.
- Training will be provided to all personnel in waste management practices and procedures as a component of the environmental induction process.
- Resource conservation themes to be included in awareness raising and training sessions for project staff.

6.1.1.8 Spills and Contamination

Generation of contaminated waste such as left over concrete, used oil from the machinery, paints and other solid waste which could contaminate the soil. Similarly, spills from storage and use of fuel and other hazardous materials may contaminate soil, nearby waterways and, groundwater. This impact is moderate adverse. Handling and use of chemicals including petrol, diesel, oil, lubricants, paints, and other any chemicals, may have environmental implications.

Mitigation Measures

- The Contractor will avoid the storage of significant quantity of fuel (for generator etc.) onsite.
- Any fuel storage will be done within a contained impervious area with all the safety systems in place.
- Contained area will be drained through an oil-water separator or be covered to prevent accumulation of rainfall.
- Storage containers will be labeled as to their content and capacity.
- Warning signs will be installed in storage areas, such as 'Flammable' and 'No Smoking'.
- Workers will be made aware of the proper handling practices to avoid spills.
- Spill clean-up kits to be provided.
- Regular maintenance of machinery will be conducted to ensure the proper functioning so as to avoid unnecessary leaks.
- All the chemicals will be properly handled in designated area, use of spill containment measures and dispose the hazardous waste as per environmental regulations. i.e., Sindh hazardous substances rules 2014 and WBG EHS guidelines for health care facilities.

6.1.1.9 Installation of Solar Panel

The solar panels and their support structure may be damaged by the windstorm. Installation of solar systems may also generate small amount of waste, cause buildings damages if not do correctly, its plumbing and electric wiring, and roof leakage. Solar panels may add weight and increase wear and tear on the roof, potentially reducing its lifespan, especially if the roof is already weakened or damaged. This impact is low adverse in nature.

Mitigation Measures

- Only shortlisted/pre-qualified service providers should be hired for the supply of solar systems;
- The technical design for installation of solar panel must consider all the above-mentioned factors



and load bearing assessment of health facility roof as well. The supporting structure will need to be designed adequately to avoid any damage during the wind storms;

- Lead/acid/cadmium-based batteries will not be procured for solarization;
- Ensure panels are treated with anti-reflective coating which reduces the sun's reflection from PV panels;
- Ensure that no waste material left behind after the completion of work;
- The Contractor will be made responsible to repair any damaged caused by the construction activities.

6.1.1.10 Gender Base Violence/ Sexual Exploitation and Abuse/Sexual Harassment

Risk of gender-based violence may arise due to the presence of labor from outside (although influx of workers will be minimal), new workers (outside of their social spheres) may form close social relationships with local communities, conflicts with locals, increased illicit behavior and crime. This can lead to unacceptable and/or illegal behavior, ranging from unwanted aggressive advances, SEA/SH against women and children. The presence of construction personnel/workers in the local community will escalate the risks of gender-based violence (GBV) and harassment.

Mitigation Measures

- Ensure the compliance the labor management procedure prepared separately for this project.
- The camp layout plan and workers' code of conduct will be prepared by the contractor and will be submitted for review and approval by the Engineer, the sample Worker's code of conduct is attached as **Annexure-F**. Project staff (skilled and unskilled) will sign the code of conduct before commencement of civil works, describing acceptable and prohibited behaviors and communicated through training and publicized;
- The establishment of temporary housing for workers onsite will be discouraged. The contractor will rent out a room/place for outside workers away from the construction site.
- The use of language or behavior, towards women or children, that is inappropriate, harassing, abusive, sexually provocative, demeaning or culturally inappropriate will be prohibited.
- Provision related to SEA/SH or GBV will be incorporated in the bidding document.
- Project Gender Action Plan will also be prepared and implemented.
- The exchange of money, employment, goods, or services for favors or other forms of humiliating, degrading or exploitative behavior will be prohibited.
- Training/orientation sessions will be conducted to sensitize PMU and the Contractor's staff/workers on the importance of addressing GBV/SEA/SH risks at the project level.
- If privacy of the nearby households is affected, the Contractor will make some fence/screen arrangements for the households.

6.1.1.11 Discrimination against vulnerable groups and social exclusion

Discrimination against vulnerable groups particularly in the hiring process of workers might be an issue. Additionally vulnerable groups, may be excluded from stakeholder consultations, particularly in remote and underserved areas limiting their ability to provide feedback on project design and impacts, and potentially preventing them from fully benefiting from the project. This impact substantial adverse.

Mitigation Measures

- Contractors will implement a fair and equitable hiring process.



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- Where possible the employment of vulnerable groups will be encouraged.
- Employment opportunities will be provided to individuals residing near the project site, aiming to enhance social benefits through the recruitment of local residents.
- The wages offered to all staff will be in line with labor laws or higher set standards, which shall be competitive in all categories of workers.
- Mapping and engaging stakeholders, including vulnerable groups at the start of the design process and obtaining their feedback about project interventions;
- Ensure the implementation of the SEPLMP and Labor GRM.
- Conduct targeted consultations with vulnerable groups.

6.1.1.12 Risk of Security staff

In certain areas security concern exists due to law-and-order situation and presence of dacoits etc. There is a need that proper security be provided to all personals working on the project. This could be moderate impact.

Mitigation Measures

- Contractor will provide appropriate security personnel (police/home guard or private security guards) and enclosures to prevent unauthorized entry into the camp area. Security of security staff is very important to protect the personal as well as the camp site Mitigation measures
- Contractor will hire local personals for security purpose
- Inform the current station house officer (SHO) regarding the camp site and security guard information.
- Inform the district health officer about the staff which will hired by contractor
- Inform the local elders about the security personal
- Health facility in charge will be overall responsible to the safety of all construction activities.
- Contractor will ensure that if any threat received by security staff should be inform to concerned authorities timely.
- Brief Security management Plan is attached in **Annexure-G**.

6.1.1.13 Forced and Child Labor

There is a risk that child labor and forced labor may be used during the implementation of the project. This includes indentured labor, and hiring of under age children. These risks are likely to be higher in economically disadvantaged and remote areas. The impacts are assessed as moderate adverse.

Mitigation Measures

- Contractors will be prohibited from hiring children below the age of 14 for any type of labor, and below the age of 18 for hazardous work. Contractor through contractual agreement will be bound to follow the provincial labor laws (Sindh Prohibition of Employment of Children Act 2017) and World Bank requirements during hiring the labor force;
- Project staff will monitor sites to check for child labor and will hold regular consultations to keep a check on forced labor at subproject sites. Workers will be required to provide legally recognized documents, such as a Computerized National Identity Card (CNIC), to verify their age at the time of hiring.
- Awareness will be created among the local communities and project staff about the adverse impacts of child labor. Contractors will be required to follow the LMP with regard to contracts



and terms of employment for labor;

- Beneficiaries and primary suppliers will be made aware of the provincial labor laws and World Bank regulations regarding child/forced labor.

6.1.2 Operational Issues

During operation stage social issue may raise like gender-based violence/ Sexual exploitation/ sexual harassment in the health facility by staff or patients will visit the health facility. Health facility staff may misuse the sensitive data also, occupational health and safety, cold chain management for vaccine and generation of wastes. The impacts are assessed as moderate to substantial adverse.

Mitigation Measures

- Ensure the presence of qualified female staff at all the health facilities in order to interact with females accompanying the children for health checkups;
- Sensitization of health facilities and staff on privacy and gender issues. Ensure the implementation of SEA/SH Action Plan.
- Ensure compliance with Sindh Occupational Safety and Health Act, 2017, Sindh Hospital Waste Management Rules, 2014, and compliance with SEQS, 2016 and World Bank Group Environmental, Health, and Safety Guidelines for Health Care Facilities;
- Ensure the provision of fire prevention and firefighting equipment at health care facilities;
- Ensure the provision of appropriate PPEs to health service providers and sanitary workers;
- Ensure the compliance with the GRM.
- Cold chain management, in accordance to the National Expanded Program on Immunization (EPI) Policy and Strategic Guidelines shall be ensured at all levels.
- Regular maintenance of the septic tank and sewer line.
- Proper waste segregation, storage and disposal will be done at the facility level.
- For health care waste management, a separate health care waste management plan (HCWMP) has been developed which guides on the handling of infectious waste.

6.2. Potential Positive Impacts

- a. GDs often offer maternal and child health services, including prenatal care, postnatal care, and child vaccinations. These services help improve maternal and child health, leading to reduced maternal and infant mortality rates.
- b. Rehabilitation work will provide an improved Health Care environment that will GDs are embedded within the local community, fostering a sense of trust and familiarity. This community-based care approach encourages people to seek healthcare without fear or hesitation.
- c. Implementation activities will have a positive impact for the local economy, particularly regarding job creation (labor for rehabilitation works, maintenance and monitoring).
- d. Civil works will have some impacts on the local economy and income generation; While this additional employment and economic growth may be limited to the construction stage, the civil works in GDs will contribute to an increase in diversified skills base through skills and technology transfer and collective business acumen of the locality, which will have secondary benefits in the long term.
- e. Creation of job opportunities for the locals. At the Rehabilitation phase, it will generate opportunities for increased employment (local artisans and laborers in the district where facilities will be built) and business growth for local communities (boost in trade of construction materials and goods and services for the contractor and contractor's employees).
- f. An estimated 20-25 laborers will be employed at each GDs location. Employment and incomes



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for these people could have ramifying positive effects.

- g. Overall, GDs have a transformative impact on the local population by enhancing healthcare access, promoting preventive care, and addressing health needs at the community level. They are an integral part of the healthcare system, fostering healthier communities and contributing to overall population well-being.
- h. The provision of solarization of the GD could have positive impact for the medical staff as well as the patients those visit the health facility to avail the electricity facility during the stay at health facility also very much beneficial for the medicines in the refrigerator.



7. Environmental and Social Management and Monitoring Plan (ESMMP)

This chapter presents the Environmental and Social Management and Monitoring Plan (ESMMP) which details the mitigating measures that will be implemented to avoid or minimize the potential adverse impacts of the project and the monitoring plan to monitor and evaluate the effectiveness of the actual implementation of the mitigating measures. This chapter summarizes the mitigation, monitoring requirements, institutional arrangement monitoring and measures to be taken during the implementation and implementation budget.

7.1 Key Steps for Environmental and Social Management

- Information disclosure and stakeholder consultations as per guidance provided in the SEP.
- Inclusion of ESMP in bidding documents/ agreements to bind the Contractor for compliance.
- Implementation of mitigation measures provided in this ESMP by the E&S staff/Focal Persons (FPs) of PMU at Headquarter, district and field level and monitoring the compliance.
- Sufficient budget should be allocated in the BOQ under a separate budget head for the effective implementation of mitigation measures.
- Strengthening and capacity building through trainings/awareness sessions/workshops of the E&S staff.
- Information pertaining to implementation of mitigation measures adopted should be reported in detail in the progress reports.
- Roles and responsibilities of key players involved in the implementation of ESMP should be defined.

7.2 Institutional arrangements

The PMU is responsible for civil works technical aspects and associated activities. The SIHPP PMU have an overall supervisory role in the implementation of the project and has as part of its team an Environmental Specialist, Social Specialist (also acting as Gender focal person) who will oversee the environmental, social and health and safety aspects of the project. At the provincial level, the PMU will oversee activities, while at the district level, the PMU has nominated an E&S focal person (Notify by DHO of each District) to manage and monitor E&S activities under the supervision of the PMU team.

The Environmental and Social Specialists of the supervision consulting firm (EDQSA) will also support the PMU in implementation of this ESMP. The E&S monitoring Checklists shall be used to monitor the implementation (Sample attached as **Annexure-H**).

The Environmental & Social Specialists (EDSQA), will ensure that the ESMP are adhered to where applicable, that the contractors comply with the requirements of the Environmental mitigation measures to be issued by the SEPA, and that the Contractor prepare and implement Contractor's Environmental and Social Management Plan and approved by EDSQA and they will report to PMU accordingly.

The E & S Specialists (EDSQA) will support and ensure that ESMP training and capacity building plan for all the sites is prepared by the contractor and that the training activity is a pre-requisite for GDs construction any form. This will include making sure that the firm has also developed training manuals



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which will also be reviewed and approved by the PMU and World Bank.

The Environmental and Social Specialists (PMU) will conduct random visits to multiple sites and will also visit specific sites if any significant concerns may be raised. In addition, the supervision consultant's Environmental and Social (E&S) staff will be responsible for ensuring compliance with all environmental, social, health, and safety (ESHS) requirements across the project sites. EDSQA designated E&S staff will visit and monitor each site on a weekly basis or as need be depending on the scope of E&S mitigations and contractor's designated staff will be available on each site to ensure the compliance of E&S aspects. The Environmental and Social Specialists of the PMU will conduct unannounced visits as well as joint visits with the EDSQA and Contractor's HSSE Personnel. The subproject implementation framework responsibilities are indicated in Table 6-1.

Table 7-1: Project Implementation Framework Responsibilities

S.N.	Position	Responsibilities
1	Project Management Unit (PMU)	<ul style="list-style-type: none">Overall supervisory role in the implementation of the project.Supervision of the selected consulting firm on the implementation of ESMP.Review of Environmental and Social safeguards compliance Reports prepared by PMU E&S team.Confirmation of the scope of construction works for each of the selected GDs.Monitoring of civil worksEngage other specialists and/or firms to carry out external monitoring as third-party validation.
2	Environmental Specialist, Social / Gender Specialist (PMU Staff)	<ul style="list-style-type: none">Clarify the scope of the E&S mitigations in the project and expected role of the contract within the first week of contract signatureOversee the environmental, social and health and safety aspects of the project.Ensure that the local/ regional legal (including SEPA) and World Bank E&S requirements are adhered to and SEP and LMP are implemented.Ensure project activities do not fall under the Exclusion List. (Provided in Annexure-I)Ensure that EDSQA ToRs include provision of Environmental and Social impacts mitigation plan/strategy.Ensure that bidding and contract documents include all relevant E&S requirements.Monitoring of ESMP implementation through site visitsCapacity building of the staff of PMU, field staff, contractors and consultant who will be responsible for implementing the ESMP.Conduct regular site visits and coordination with the supervision firm and the contractor for smooth and effective implementation of E&S aspects.Stakeholder consultations as per the guidelines outlined in the SEP.Review of plans and reports submitted by the supervision firm.Preparation of quarterly environmental and social monitoring reports and submission to the WB.Notify the World Bank within 48 hours of any serious incident related to the project that may significantly impact the environment, communities, the public, or workers. The Incident Reporting Form is attached as an Annexure-J.



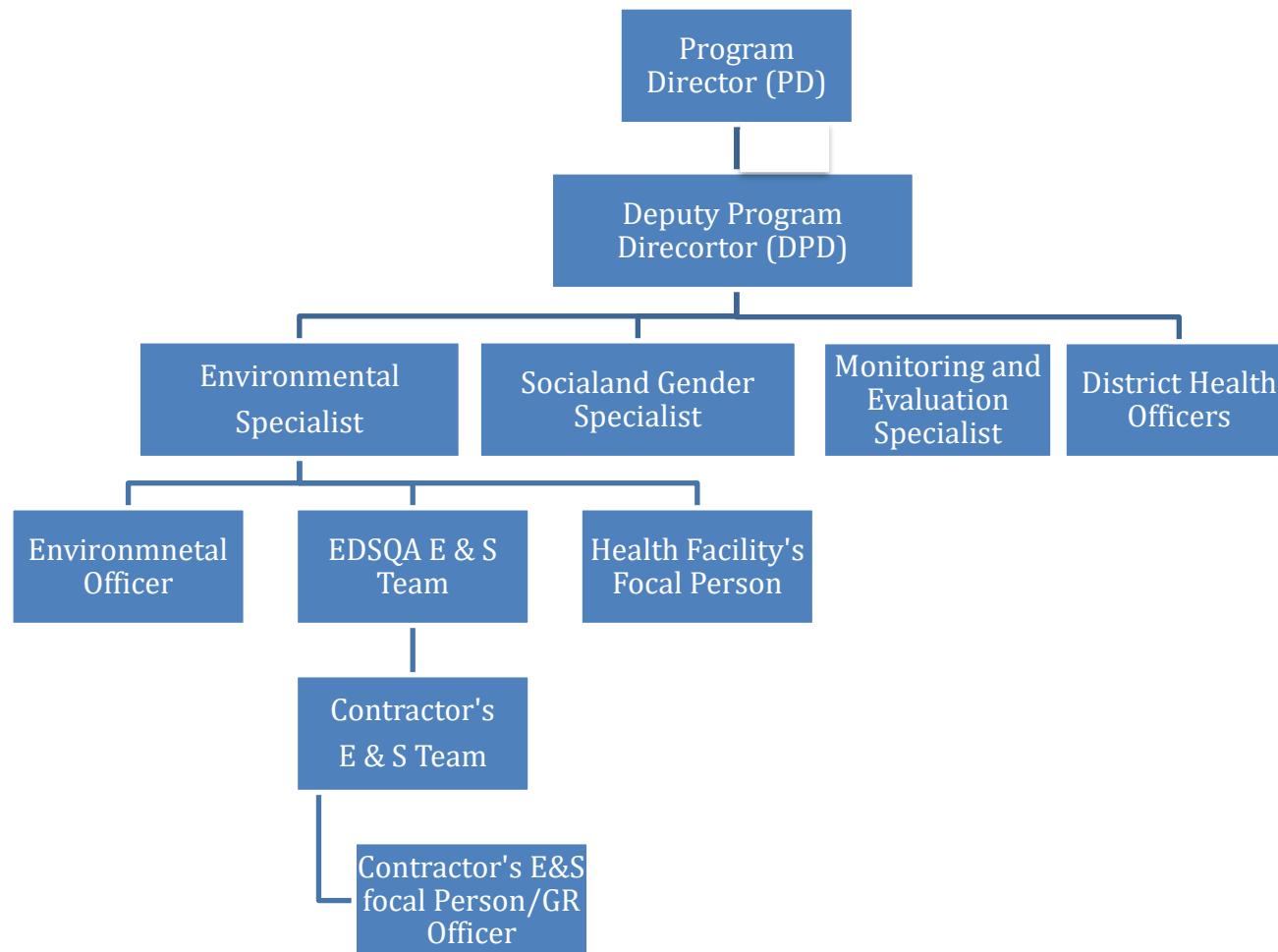
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3	Engineering Supervision Design Quality & Assurance (ESDQ&A)	<ul style="list-style-type: none">Supervision of project interventions for compliance of ESMP requirements through identified and trained E&S staff.Ensuring that the day-to-day construction activities are carried out in an environmentally and socially sound and sustainable manner. Inform the E&S specialists-PMU of any conflict and E&S related matters.Carry out regular site visits and meetings with the contractor and PMU.Review of interim payment certificates IPCs submitted by the contractor and submit report to PMU.Preparation of quarterly environmental monitoring reports and submission to the SIHP- PMU. Progress reporting to PMU.The Supervision consultant firm has to deploy one Environmental and Social Expert at District/divisional level. To organize periodic E & S training programs and workshops for the relevant E & S staff including contractor's E&S team and technical supervision team Suggest any additional mitigation measures (if required)E&S team of EDSQA will lead the E&S monitoring exercises and assurance of ESMP Compliances.
4	The Contractor	<ul style="list-style-type: none">Prepare and implement the Contractor's Environmental and Social Management Plan with the support/consent of E&S staff of PMU and the guidelines provided in the ESMP. The Contractor will submit a draft CESMP to the supervisory firm and SHIPP PMU within 2 weeks of contract signature. Thereafter, the CESMP should be revised, if any comments, and approved by PMU within 4 weeks of contract signature. The CESMP approval will be mandatory prior the commencement of works.Comply with the project's environmental and social mitigation measures, management procedures, and guidelines outlined in the ESMPs, LMP, contract documents, and relevant local legislation, including SEPA's requirements.Take all necessary measures to protect the health and safety of workers and community members, and avoid, minimize, or mitigate any environmental harm resulting from project activities.Prepare a Code of Conduct for its workers written in simple language URDU AND SINDHI. Once understood and accepted the code shall be signed by all workers onsite.Conduct training of workers in health, safety, and environment requirements, including health and safety induction prior to commencement of work onsite and regular toolbox sessions.Liaise with the SHIPP PMU Environmental and Social Specialist and Supervisory Firm Environmental, Health and Safety Personnel on compliance.Conduct site inspections, audits, and permanent supervision at the construction site to ensure adequate and timely implementation of, and compliance with the Contractor's ESMP. The template for contractor's ESMP is attached as Annexure-K.Address any grievances of stakeholders.Monthly Report on environmental, social, health and safety compliance; andOversee the clean-up and decommissioning of the site on the completion of works.The contractor has to deploy one Environmental & Social and one Health and Safety Specialist at Division level.The contractor has to deploy one Environmental, Social and Health & Safety Officer at District level.
5	Third party validation	<ul style="list-style-type: none">Independent third-party monitors will be responsible for ensuring monitoring the project compliance with the all environmental and social requirementTo make sure that responses to incidents are handled effectively.



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7.3 Impacts Mitigation Monitoring Plan

Environmental and Social mitigation and Monitoring Plan, provided in Table 7-2 will be used as the management tool for mitigation measures. The plan includes the envisaged impacts and their recommended mitigation measures and; the person/organization directly responsible for adhering to or executing the required mitigation measures and suggest frequency of monitoring the mitigation measures. Detailed E&S impacts and mitigation measures have been provided in Chapter 6.

Table 7-2: Environmental and Social Management & Monitoring Plan (ESMMP)

Sr. No.	Parameters	Environmental and Social Impacts	Mitigation Measures	Frequency	Implementing Agency	Monitoring Agency
Rehabilitation Phase						
1.	Rehabilitation of GDs	Air quality Impacts (Dust and Exhaust emissions)	<ul style="list-style-type: none"> Construction equipment and machinery will be serviced regularly. The material stockpiles and access roads will be watered as and when required. Construction vehicles carrying materials will be covered with tarpaulin sheets. Speed limits will be imposed on all vehicles at the worksite. Unnecessary movement of vehicles will be avoided. Fugitive dust emissions will be minimized by appropriate methods such as spraying water where required and installing dust screens where necessary. Regular air monitoring will be carried out near the sensitive receptors. Open burning of solid waste shall be strictly prohibited Raw materials such as cement, gravel and sand will be kept under sheet covers. The height of material stockpiles will be minimized. Selection of activities that may create dust will be undertaken early in the morning or in the afternoons after school timings. 	Weekly	Construction Contractor	EDSQ&A/PMU E&S team/ Third party
		Noise generation	<ul style="list-style-type: none"> Construction equipment and machinery will be serviced regularly. As much as possible, construction activity will 	Weekly	Construction Contractor	EDSQ&A/ PMU E&S Team / Third party



			<p>be restricted to daylight hours; potential noisy activities will not be allowed outside of normal working hours.</p> <ul style="list-style-type: none">• Machinery and generators will be equipped with well-functioning mufflers• Nearby dwellers and communities will be notified prior to any typical noise events.• Adequate PPEs will be provided to workers such as hearing protection.• Regular noise monitoring will be carried out.• Awareness sessions will be conducted with workers and nearby community to raise the awareness about the noise pollution, its health impacts and mitigation measures.			
	Traffic Impacts		<ul style="list-style-type: none">• The Contractor will restrict truck deliveries, where practicable, to day time working hours.• Storage of material outside the designated area will be prohibited.• Suitable signboards will be placed at strategic locations of the access road.• The Contractor will restrict the transport of oversize loads.• If community access is hindered, the option of alternate routes will be used.• Contractor will prepare the Traffic Management Plan (TMP) as a part of Contractor ESMP.	Weekly	Construction Contractor	EDSQ&A/ PMU E&S Team / Third party
	Occupational Health and Safety		<ul style="list-style-type: none">• An occupational Health and Safety Plan will be included in the Contractor's site specific ESMP.• Labor Management Procedures (LMP) has been developed for the project and will be followed to mitigate the OHS risk.;• Ensure the compliance with World Bank Group EHS guidelines and Sindh occupational Safety and Health Act, 2017.• Appropriate level of training will be provided to workers. Workers with inadequate training will not be allowed to operate vehicle / machinery.	Daily	Construction Contractor	EDSQ&A/ PMU E&S Team / Third party



			<ul style="list-style-type: none">• SOPs will be prepared for high-risk activities such as working on heights, erecting and using scaffolds and using ladders.• Safety signs will be installed at the entrance to and around the site.• All safety related incidents will be documented including all illness/injury, exposures, and near misses.• All incidents /accidents will be investigated, recorded, reported and Root Cause Analysis (RCA) for fatal incidents will be done.• Emergency response measures will be provided onsite including posting of Emergency Contacts, provision of first aid kits, provision of emergency transport vehicle, designating of a muster point, provision of fire extinguishers/sand buckets, provision of spill clean- kits, etc. workers will be provided first aid training.• The contractor will establish a MOU with the nearest ambulance service provider.• Proper site sanitation and housekeeping will be maintained on construction sites.• Toolbox Talk (TBT) with workers shall be held regularly before the start of work.• In case of an incident involving injury, the injured will be taken to the nearest medical facility after providing necessary first aid.• Provision of clean drinking water will be ensured for the project workers.• Appropriate and high-quality PPE and safety gear for workers such as gloves, vests, safety shoes, masks etc., will be provided and their use will be strictly enforced. Training will be provided in the use of PPE.• The contractor will designate an OHS focal person at each site to ensure the plan's effective implementation.			
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			<ul style="list-style-type: none">Compliance of emergency response plan as provided in Annexure-L.			
	Community health and Safety		<ul style="list-style-type: none">Mitigation measures will ensure compliance with the World Bank Group Environment, Health, and Safety (WBG EHS) Guidelines, including but not limited to the following:The construction site will be appropriately fenced or cordoned off to prevent stray animals and people, including communities, residents, from straying on to the site.Where the public could be exposed to danger by any of the site activities, the Contractor will as appropriately provide suitable measures such as, but not limited to, barricading of construction area.Excavated areas and pits will be marked with appropriate signage.Awareness sessions will be organized to sensitize construction workers and local communities.The free flow of traffic around the work site will be maintained. Trucks or other construction equipment will not be left standing on the roadway or shoulders.A Traffic Management Plan will be prepared and implemented by contractor. Traffic Management Guidelines as provided in Annexure-M.Vehicles accessing the site will follow speed limits and other traffic rules.Drivers will be trained on safety requirements and exercise caution.Ensure effective implementation of GRM to timely address the issues faced by the community.As much as possible, delivery of construction materiel and equipment will be timed to coincide with off-peak traffic hours.	Daily/Weekly	Construction Contractor	EDSQ&A/ PMU E&S Team / Third party



			<ul style="list-style-type: none">Storage of material outside the designated area will be prohibited.If community access is hindered, alternate routes will be provided. The contractor will inform the public of the date and time of activity well before start of work.No limited transportation of construction material during school hours.A safety procedure and protocol will be developed for vacating children away from activity when materials arrive.Ensure effective implementation of GRM to timely address community issues;Potential of communicable disease during construction phase, like Sexually-Transmitted Disease (STDs) such as HIV/AIDS, will be prevented by health awareness; education initiatives; training; immunization program and providing health service;Contractor will take due care of the local community and observe sanctity of local customs and traditions by his staff.			
	Solid waste generation		<ul style="list-style-type: none">Waste Management Plan will be included in the Contractor's site specific ESMP.Adequate waste collection receptacles will be provided.Burning of waste material will not be allowed.Waste will be regularly removed from the site and taken to the dump site for disposal, with the consent of the Engineer.Adequate toilet facilities will be provided based on the number of workers.A treatment system for wastewater from toilet facilities will be provided (provision of soak pit and septic tank or link with exiting draining system).If hazardous waste is generated onsite the waste will be carefully collected and removed	Daily	Construction Contractor	EDSQ&A/ PMU E&S Team / Third party



			<p>from site and disposed of in an approved manner.</p> <ul style="list-style-type: none">● Organic waste will be disposed of through the municipal waste disposal system.● Excess earth material will be used in landscaping,● The site will be restored to its environmental status once all works are completed.● Segregation and reuse or recycling of all the wastes will be ensured.● Equipment washout will be discharged in a manner that avoid contaminating any nearby water course or natural water bodies.● The contractor will be required to provide separate toilets and ablution facilities for construction workers.● Solid wastes entering waterways will be prevented by collecting solid waste, oils, and wastewaters where possible and transport to an approved waste disposal site.● Training will be provided to all personnel in waste management practices and procedures.● Resource conservation themes to be included in awareness raising and training sessions for project staff.			
	Spills and Contamination		<ul style="list-style-type: none">● The Contractor will avoid the storage of significant quantity of fuel onsite.● Any fuel storage will be done within a contained impervious area with all the safety systems in place.● Contained area will be drained through an oil-water separator or be covered to prevent accumulation of rainfall.● Storage containers will be labeled as to their content and capacity.● Warning signs will be installed in storage areas, such as 'Flammable' and 'No Smoking'.● Workers will be made aware of the proper	Daily Monitoring	Construction Contractor	EDSQ&A/PMU E&S team/ Third party



			<p>handling practices to avoid spills.</p> <ul style="list-style-type: none">• Spill clean-up kits to be provided.• Regular maintenance of machinery will be conducted to avoid unnecessary leaks.			
	Installation of Solar Panel		<ul style="list-style-type: none">• Only shortlisted/pre-qualified service providers should be hired for the supply of solar systems;• The technical design for installation of solar panel will consider E&S factors and load bearing assessment of health facility roof.• The supporting structure will be designed adequately to avoid any damage during the wind storms;• Lead/acid/cadmium-based batteries will not be procured for solarization;• Ensure panels are treated with anti-reflective coating which reduces the sun's reflection from PV panels;• Ensure that no waste material left behind after the completion of work;• The Contractor will repair any damage caused by the construction activities.	Regular	Construction Contractor	EDSQ&A/PMU E&S team/ Third party
	Gender based Violence/ Sexual Abuse & Exploitation/ Harassment		<ul style="list-style-type: none">• Ensure the compliance to the labor management procedure prepared separately for this project.• The camp layout plan and workers' code of conduct will be prepared by the contractor and will be submitted for review and approval by the Engineer. Project staff will sign the code of conduct before commencement of civil works;• Establishment of temporary housing for workers onsite will be discouraged. The contractor will rent out a room/place for outside workers away from the construction site.• The use of language or behavior, towards women or children, that is inappropriate, harassing, abusive, sexually provocative, demeaning or culturally inappropriate will be	Daily Monitoring	Construction Contractor	EDSQ&A/PMU E&S team/ Third party



			<p>prohibited.</p> <ul style="list-style-type: none">• Provision related to SEA/SH or GBV will be incorporated in the bidding document.• Project Gender action Plan will also be prepared and implemented. Service providers will be identified and mapped to address SEA/SH issues;• The exchange of money, employment, goods, or services for favors or other forms of humiliating, degrading or exploitative behavior will be prohibited.• .• Training/orientation sessions will be conducted for PMU and Contractor's staff on GBV/SEA/SH risks at the project level.• If privacy of the nearby households is affected, the Contractor will make some fence/screen arrangements for the households.• .			
	Discrimination against vulnerable groups		<ul style="list-style-type: none">• Contractors will implement a fair and equitable hiring process.• Where possible the employment of vulnerable groups will be encouraged.• Employment opportunities will be provided to individuals residing near the project site, aiming to enhance social benefits through the recruitment of local residents. Employment opportunities for people living close to the project site will be provided in order to increase social benefits by targeting recruitment of local people.• The wages offered to all staff will be in line with labor laws or higher set standards, which should shall be competitive in all categories of workers, See attached Annexure-N (Notification of Minimum Wages).• Mapping and engaging stakeholders, including vulnerable groups at the start of the design process and obtaining their feedback about project interventions;	Daily Monitoring	Construction Contractor	EDSQ&A/PMU E&S team/ Third party



			<ul style="list-style-type: none">• Ensure the implementation of the SEP and GRM.			
	Risk of Security staff		<ul style="list-style-type: none">• Contractor will provide appropriate security personnel (police/home guard or private security guards) and enclosures to prevent unauthorized entry into the camp area. Security of security staff is very important to protect the personal as well as the camp site Mitigation measures• Contractor will hire local personals for security purpose• Inform the current station house officer (SHO) regarding the camp site and security guard information.• Inform the district health officer about the staff which will hired by contractor• Inform the local elders about the security personal• Health facility in charge will be overall responsible to the safety of all construction activities.• Contractor will ensure that if any threat received by security staff should be inform to concerned authorities timely.	Monthly Monitoring	Construction Contractor	EDSQ&A/PMU E&S team/ Third party
	Forced and Child Labor		<ul style="list-style-type: none">• Contractors will be prohibited from hiring children below the age of 14 for any type of labor, and below the age of 18 for hazardous work. Contractor through contractual agreement will be bound to follow the provincial labor laws (Sindh Prohibition of Employment of Children Act 2017) and World Bank requirements during hiring the labor force;• Project staff will monitor sites to check for child labor and will hold regular consultations to keep a check on forced labor at subproject sites. Workers will be required to provide legally recognized documents, such as a	Daily Monitoring	Construction Contractor	EDSQ&A/PMU E&S team/ Third party



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			<p>Computerized National Identity Card (CNIC), to verify their age at the time of hiring.</p> <ul style="list-style-type: none">• Awareness will be created among the local communities and project staff about the adverse impacts of child labor. Contractors will be required to follow the LMP with regard to contracts and terms of employment for labor;• Beneficiaries and primary suppliers will be made aware of the provincial labor laws and World Bank regulations regarding child/forced labor.			
		Chance Findings of Important Physical and Cultural Resources	<ul style="list-style-type: none">• The project sites will be screened for the presence of physical cultural resources prior to commencement of construction and rehabilitation work.• Ensure the compliance with the chance find procedure. Chance find procedure is attached as Annexure-O.	Daily Monitoring	Construction Contractor	EDSQ&A/PMU E&S team/ Third party
Operation Phase						
1	Environmental Impacts	Solid Waste generation	<ul style="list-style-type: none">• For health care waste management, a separate health care waste management plan (HCWMP) has been developed which guides on the handling of infectious. HCWMP is attached as Annexure-P.• Proper waste segregation, storage and disposal will be done at the facility level.• Waste Adequate waste collection receptacles will be provided.• Ensure compliance with Sindh Occupational Safety and Health Act, 2017, Sindh Hospital Waste Management Rules, 2014, and compliance with SEQS, 2016 and World Bank Group Environmental, Health, and Safety Guidelines for Health Care Facilities• Waste will be regularly removed from the site and taken to the dump site for disposal.• Waste will not be allowed to accumulate in significant quantities and should be consolidated in a designated area.	Monthly	PMU's Implementation Partner i.e. PPHI.	PMU



			<ul style="list-style-type: none">Health Workers will be made aware of the waste management procedures.			
	Liquid Waste Generation		<ul style="list-style-type: none">Suitable toilet facilities will be provided at GDs.Train to Health workers to prevent and respond to spills of construction materials, fuels, and chemicals promptly.Regular maintenance of the septic tank and sewer line will be carried out for safe disposal of wastewater.Dispose of liquid waste in compliance with local regulations and permits. Never dispose of chemicals, oils, or other hazardous substances into storm drains or natural water bodies.Implement industry-recognized best management practices to minimize the impact of liquid waste on the environment. These may include coverings for stockpiles, dust control measures, and proper storage of medical materials.Properly store, handle, and dispose of chemicals and materials to prevent them from entering water bodies.	Monthly	PMU's Implementation Partner i.e. PPHI.	PMU
	Health and Safety		<ul style="list-style-type: none">Ensure the provision of fire prevention and firefighting equipment at health care facilities.Ensure the provision of appropriate PPEs to health service providers and sanitary workers.Cold chain management, in accordance to the National Expanded Program on Immunization (EPI) Policy and Strategic Guidelines shall be ensured at all levels and ensuring that the cold chain does not contain Ozone Depleting substances.	Weekly Monitoring	PMU's Implementation Partner i.e. PPHI.	PMU/E&S team
2	Social Impacts	Gender based Violence/ Sexual Abuse & Exploitation/ Harassment	<ul style="list-style-type: none">Sensitization of health facilities and staff on privacy and gender issues. Ensure the implementation of SEA/SH Action Plan.Code of Conduct for Health Workers will be followedThe use of language or behavior, towards women or children, that is inappropriate, harassing,	Weekly Monitoring	PMU's Implementation Partner i.e. PPHI.	PMU/E&S team



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			<p>abusive, sexually provocative, demeaning or culturally inappropriate shall be prohibited.</p> <ul style="list-style-type: none">• The exchange of money, employment, goods, or services for favors or other forms of humiliating, degrading or exploitative behavior shall be prohibited.• GRM information shall be disseminated so community is aware of the mechanism available for any complaints or grievances pertaining to SEA/SH• Ensure the compliance with the GRM			
	Social conflict		<ul style="list-style-type: none">• Availability of Grievance Redressal mechanism• Discussion with community in consultation meetings	Weekly Monitoring	PMU's Implementation Partner i.e. PPHI.	PMU/E&S team

To ensure that the E&S compliance is documented a reporting mechanism will be established. Monthly progress meetings are expected to be held at which HSSE matters will be reported on and discussed. In addition, reporting will be done by the SIHPP PMU, Engineering Design Supervision Quality & Assurance Supervisory (EDSQA) Firm and the Contractor.



7.4 Role of SIHPP PMU

A quarterly Environmental and Social Compliance Report will be prepared by the Environmental and Social Specialists, documenting the status of compliance, areas of non-compliance, corrective actions recommended, and other improvements required. This report will be submitted to the World Bank on a quarterly basis the reporting mechanism is explained in Reporting Mechanism below.

Table 7-3: Reporting Mechanism

Report	Contents	Prepared by	Submitted to
Monthly ESMP Compliance Report	ESMP Compliance Physical Progress Report including observations, corrective actions taken, incident/accident reporting, grievances redressal status.	Construction Contractor	EDSQA Team
Monthly ESMP compliance Monitoring Report	ESMP Compliance Physical Progress Report including observations, corrective actions taken, incident/accident reporting, grievances redressal status	E&S team of EDSQA	E&S team PMU
Quarterly Progress and Compliance Monitoring report.	Quarterly progress of the physical E&S activities undertaken, corrective measures taken, compliances from the previous & current period, incidents/accidents reporting, grievances status, plan for the next quarter, capacity building	E&S Specialist PMU	PD/DPD and onward sharing with WB team
Project Completion Report.	describing the final status of compliance with the E&S risk management measures and submit it to the World Bank	PMU	WB

7.5 Capacity building

The principal objective of the training activities is to ensure the sound and sustainable implementation of the ESMP. A successful implementation of ESMP will require comprehensive training and demonstrations. These workshops will focus on identifying and discussing environmental and social issues that will arise during the implementation of this ESMP. These will also sensitize participants about environmental and social obligations under the ESMP, managing each GDs site relevant problems, and strategizing implementation of this ESMP activities. E&S team at the PMU will execute the training programs on each GDs construction working site. Training reports will be developed for the training session conducted. Plan for E&S safeguards training is explained below in table 7-4.



Table 7-4: Plan for E&S Safeguards Training

Description	Aspects to be Covered	Participants	Responsibility	Frequency
ESMP	Objectives and use of ESMP Legal requirement of E&S Management of E&S Monitoring mechanism and Reporting mechanism	District level Health officers, PPHI DMs, construction contractor and field staff	E&S team PMU	At the start of GDs construction activities Refresher afterwards as and when required/ Quarterly.
Construction related E&S issues	GRM Management (maintenance of grievance records, information disclosure, grievance closure, reporting etc.) Monitoring	Local Community, GRM Focal Person (Contractor) Councils	E&S team PMU	At the start of GDs construction Activities Refresher afterwards as and when required/ Quarterly.
Construction related E&S issues	Management of waste, air, and water quality at site, OHS and GRM <ul style="list-style-type: none"> ● Code of conduct/ Behavioral Standards ● Safe and defensive driving ● Management of hazardous substances ● Housekeeping, hygiene and waste disposal and pollution prevention and control ● Handling and management of E-Waste ● Healthcare waste management ● Labor Management Procedures ● Occupational Health and Safety ● Emergency Response Preparedness ● Community Health and Safety Grievance Redress Mechanisms 	Contractor workers E&S FPs at Field Level, Project Workers, health department staff, and health facility staff other project staff (as a capacity building measures). ,	Contractor E&S staff E&S staff-PMU Supervision Consultant	Monthly during construction works Prior to initiation of project activities and then conducted periodically throughout project implementation.



7.6 Cost of Implementation

Separate estimated budget of 4,858,000/= has been allocated for the implementation of the ESMP for each GD, which will be the part of BOQ.

Cost for Environmental Social Management Plan (ESMP) for rehabilitation of 39 GDs

Table 7-5: Cost for ESMP for rehabilitation of 39 GDs

S No.	Description	Qty	Frequency	Unit	Rate (Rs)	Amount for 01 GD	Amount (Rs) for 39 GDs	Remarks
1	Training workshops for PMO, CSC, Contractors & Others (labor) on different topics, HSE, PPES, GRM, SEA/SH/ etc.	12	Once every month for period of 12 months	No.	60,000	720,000	28,080,000	
2	Consultations, Reporting & Communication	12	Once every month for period of 12 months	No.	20,000	240,000	9,360,000	
3	Ambient Air Quality Monitoring (24 hrs.)	5	Once in pre-construction period, quarterly during construction period (4)	No.	32,000	160,000	6,240,000	
4	Noise Monitoring Meter (for PMO/ CSC)	1	Procured to conduct noise monitoring on site at intervals	No.	150,000	150,000	5,850,000	
5	Drinking Water Quality Monitoring, monthly during construction, conduct the water testing in presence of consultant representative with due protocols, form approved lab, and submission of water quality test report on every month.	12	Once before commencement of work and once in a month during construction period,	No.	26,000	312,000	12,168,000	

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6	Waste Water Quality Monitoring, monthly during construction, conduct the water testing in presence of consultant representative with due protocols, form approved lab, and submission of water quality test report on every month.	12	Once in a month during construction period,	No.	31,000	372,000	14,508,000	
7	Personal Protective Equipment's including; ear muffs, safety shoes, masks, gloves, safety helmets, safety vests, warning tapes and safety signage	12	-	Month	50,000	600,000	23,400,000	
8	Divergence Equipment's including; Jarsy Barriers, Safety Cones, Hard barricades	12	-	Month	5,000	60,000	2,340,000	
9	Medical masks, sanitizers and soaps (Kits per head)	12	-	Month	10,000	120,000	4,680,000	
10	First aid box (2), quality first aid medicines containing antibiotics and other seasonal medicine for seasonal diseases, flue, fever and scabies etc, and temperature gun/ infrared thermometers	12	-	Month	21,000	252,000	9,828,000	
11	Fire Fighting Equipment purchase and monthly refilling	12	-	Month	16,000	192,000	7,488,000	
12	Tree Plantation (39 x10), total replant 390 trees.	390	-	No.	1000	10,000	390,000	10 Trees in Each GD



13	Health & Hygiene including; provision of waste collection bins, cleaning of site and dormitory areas, use of disinfectants and solid waste management	12	-	Month	16,000	192,000	7,488,000	
Total Amount of ESMP Rs.					3,380,000	131,820,000		

Note:

The contractor has to deploy one Environmental, & one Social and One Occupational, Health and Safety Specialist at Division level. The Cost of these specialists will be included in overall project cost-staff requirement in key personals of bidding document.

- The contractor has to deploy one Environmental, Social and Occupational Health & Safety Officer at District level. The Cost of each district officer will be included in overall project cost-staff requirement in key personals of bidding document.
- The Contractor shall nominate one focal person as the GR Officer and one site supervisor/engineer to serve as the E&S focal person at each active site



8. Grievance Redressal Mechanism (GRM)

The Grievance Redress Mechanism (GRM) is an institutional arrangement to provide an avenue to Project stakeholders to address all type of grievances related to the Project. The GRM defines grievance as any formal communication that expresses dissatisfaction about an action or lack of action, about the standard of service, works or policy, deficiency of service, works or policy of the program management and its implementation mechanism. The GRM is designed to be accessible, culturally appropriate, and understandable for all project stakeholders. Such a mechanism allows for trust-building between the implementers and beneficiaries, and could help prevent discontent, conflicts, and unrest arising from the project. Effective GRM gives an opportunity to the Project to implement a set of specific measures to ensure good governance and accountability, by improving the effectiveness of the program project activities, increasing transparency and managing / mitigating risks of the Program.

8.1 Objective of the GRM

The overall objective of the grievance resolution procedure is to ensure that grievances from stakeholders are handled in a systematic and transparent manner in order to promote mutual confidence and trust during all stages of the Project.

The Specific objectives of the GRM are as follows:

- To furnish efficient communication channels and a structured process for the registration of complaints, ensuring a swift, transparent, and impartial response and resolution without any risk of reprisals for the environmental and socially impacted stakeholders within the subproject area.
- To demonstrate responsibility towards the local community for their environmental well-being by preventing and mitigating any adverse environmental effects caused by the project activities.
- They provide free and fair access to diverse members of the local community, including more vulnerable groups such as women and youth, keeping the confidentiality and privacy of complainants.
- To provide easy accessibility to the aggrieved / affected individual or community for immediate grievance redress.
- The GRM is directly linked to transparent implementation of the ESMF.

8.2 GRM structure

The Grievance Redressal Mechanism (GRM) within SIHPP operates across three tiers, commencing at the site level, followed by the Project Management Unit (PMU), and culminating at the District Level Committee. The grievance is initially submitted by the affected individual to the project level Grievance Redressal Mechanism (GRM). Subsequently, it is directed to the relevant level, responsible for addressing and resolving the grievance. These responsible entities maintain records of the grievances resolved. The grievances that are not addressed at Project Level GRM can be filed in the court of law.

Potential grievances under the SIHPP may include issues related to construction impacts such as noise, dust, waste, or safety concerns; unfair recruitment or delayed payments; poor service quality; non-



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compliance with environmental or social safeguards; and misconduct by staff or contractors. Grievances may also involve sensitive matters such as Sexual Exploitation and Abuse (SEA), Sexual Harassment (SH), or Gender-Based Violence (GBV), which will be handled through a confidential and survivor-centered process.

The delineation of processes at each level is as follows:

8.2.1 Site-level/Health Facility level Grievance Redress Mechanism (GRM)

At the site level, a Grievance Redress Cell will be established to document the concerns and grievances of Project Affected Persons (PAPs) and local community. The Contractor's appointed Community Liaison Officer (CLO) will serve as the Focal Person and Convener, tasked with registering grievances and maintaining comprehensive records. Grievance Focal Points (GFPs) will be selected by the community at each subproject site, comprising individuals, both male and female, readily accessible to the community. Grievances, whether communicated in writing or verbally, can be received by the CLO, and the CLO will meticulously record them in the grievance register. The contents of the Grievance Register will be regularly updated by the CLO, who will share the monthly record with the Project Management Unit's Grievance Redress Committee (GRC). The resolution of site-level grievances falls under the purview of the contractor and the project manager. In cases where a grievance persists unresolved, the project manager of each sub-project will formally forward it in writing to the GRC.

The responsibilities of GR Cell shall include the following:

1. Review, consider and resolve grievances site level.
2. Conduct fact-finding pertaining to grievances.
3. Resolve grievances within a period of one week.
4. Undertake analysis of data on grievances and use this to make informed decisions.
5. Maintain confidentiality if complainants wish to remain confidential.
6. Maintain an updated GRM database/ Complaints Log;

Throughout the complaint investigation, the Grievance Redress Committee (GRC) collaborates with both the Contractor and the Supervision Consultant. Should mitigation measures be identified during the investigation, it is incumbent upon the Contractor to expeditiously implement these measures. The Supervision Consultant assumes the responsibility of overseeing and ensuring the diligent execution of these measures by the Contractor.

8.2.2 PMU Level GRM

A Grievance Redress Committee (GRC) has been established at the SHIPP PMU office to address grievances raised by affected persons or parties at the PMU level. If a grievance persists unresolved despite diligent efforts within the stipulated 21 days, it will either undergo an additional 21-day review



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with mutual consent of the Project Director and the complainant or be escalated to the Project Steering Committee (PSC) for resolution, depending on the GRC's evaluation of the most effective resolution strategy.

At the PMU level, there is a Grievance Redress Committee (GRC), which operates as a dedicated body, ensuring the effectiveness and efficiency of the grievance redress process. It comprises Project Director, Environmental, Social Safeguard, and Gender Specialists from the PMU-SIHP, a representative from the Supervision Consultant, and Co-opted members in the sub-project area. The Focal Person and Convener of the GRC is the Social Safeguards Specialist. All the decisions or findings made by the GRC will be binding on the contractor.

Public notices will be disseminated by the PMU to inform the public about the Grievance Redress Mechanism (GRM) in the project area. The contractor will prominently display signage containing the contact details of the GRC in the Sindhi/Urdu languages.

Complainants may submit their grievances through the following channels:

- Email: sgs@sihpp.gos.pk
- WhatsApp / SMS / Call: 0304-144-8989
- Web Portal: <https://www.sihpp.gos.pk/grievance-redressal.php>
- Office Address: Office No. 120, Plot No. 180-C, Al Murtaza Commercial Lane 2, Phase VIII, DHA, Karachi (GRC office at the PMU).

These phone numbers and email ID will be managed by GRC based at PMU. The Social Safeguard Specialist will be the designated focal person to receive a complaint(s) in writing, through calls, and emails. The Social Safeguard Specialist will have resources and facilities to maintain a complaints database which will be digitized and available online, and will communicate with the contractor, and Supervision Consultant. Considering the limited mobility of female community members beyond their villages and residences, it is imperative for the female staff from the Project Management Unit (PMU), particularly the Gender Specialist, to undertake visits to local communities for the purpose of documenting grievances. The frequency of these visits will be contingent upon the nature and scale of activities in a given area, as well as the prevalence of grievances.

The responsibilities of the GRC at PMU are:

1. The Social Safeguard & Resettlement Specialist shall be the focal person for GRC, which is responsible for logging the complaint and date of receipt onto the complaint database and informing the Supervision Consultant and the Contractor.
2. The GRC will coordinate with site-level GRCs and District GRCs government to receive project-related complaints made directly to them;
3. The GRC shall review, consider and resolve grievances related to environmental and social issues during implementation received at the PMU level;
4. The GRC, with the Supervision Consultant, is responsible for investigating the complaint to determine its validity and assess whether the source of the problem is due to project activities



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and identifying appropriate corrective measures. If corrective measures are necessary, GRC, through the Supervision Consultant, will instruct the Contractor to take necessary action;

5. Resolve grievances presented to the GRC within a period of two weeks;
6. Inform the Complainant of the investigation results and the action taken;
7. Undertake analysis of data on grievances and use this to make informed decisions;
8. GRC decisions, if not acceptable to the complainant(s), can be appealed to the Supervision Consultant;
9. Maintain updated online GRM database/Complaints Log.

This Provincial GRC will receive unresolved complaints/grievances from sub-project level GRM for further action to satisfy the community persons. Moreover, GRC (PMU) can also receive new complaints/grievances from any affected persons. The provincial and district level GRC committees are notified by Government of Sindh.

In case the complaint remains unresolved because of the dissatisfaction of the concerned affected persons, the complaint will then be forwarded to the District Level GRC for further action. The District level GRC will then resolve the complaint/grievance on its behalf. If the affected persons are dissatisfied with the decision of the district level GRC, then he/she can reach out to the court of law.

The mechanism is developed to ensure the access of affected persons to a GRM that openly and transparently deals with the complaints/grievances in consultation with all concerned consistent with the World Bank safeguard requirements.

8.2.3 District Level GRM

The DGRCs have been notified in all districts of the project. It will address complaints referred by the PMU GRC where resolution requires involvement of district level officials. The District level GRCs will be headed by District Health Officer (DHO), Medical Superintendent (MS), Representative from PPHI, Social Welfare Departments, , Co-opted Member for any relevant complaint & any Coopted member from community.

8.3 Composition of GRC-SIHPP

The following persons/committees have been identified for functionalization of the GRM. The details of composition of GRCs at each level.



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Site Level GRC Composition

1. Community Liaison Officer-CLO (Convener)
2. Project Manager
3. Contractor
4. Coopted Member (From Community)

PMU Level GRC Composition

1. Project Director
2. Social Safeguard Specialist (Convener)
3. Environment Specialist
4. Gender Specialist
5. Representative from Supervision

District Level GRC Composition

District Health Officer (Convener)
Medical Superintendent (MS)
Representative from PPHI
Social Welfare Departments
Representative from Supervision Consultant
Coopted Member (From

8.4 GRM for Workers

The role of the Community Liaison Officer (CLO) at the site level encompasses serving as the Grievance Focal Point (GFP) specifically for labor or worker complaints. Upon successful resolution of an issue, no additional follow-up is necessary, and the case will be duly documented and closed. However, if a grievance remains unresolved at the site or contractor level, workers have the option to directly approach the Grievance Redress Committee (GRC) regarding their concern. Each site will prominently display signage featuring the contact details of the GRC in the Sindhi/Urdu languages.

8.5 GRM for GBV and SEA/SH

Grievance Redress Mechanisms (GRM) will integrate mechanisms to track complaints related to SEA/GBV, including a feedback system for regular and timely feedback on actions taken to respond to complaints. These mechanisms will protect the confidentiality of individuals without compromising access to justice. Grievances related to GBV and SEA/SH will always be escalated to the PMU, and will be dealt with by the GRC/GAC PMU designated GBV specialist. GBV/SEA-related complaints will be communicated to World Bank no later than 48 hours after being received by the GR Cell (site level) or by the GRC (PMU level).

Awareness-raising sessions with the labor and community will be held every fortnightly by contractor's E&S Team for awareness regarding Gender base violence, Sexual Exploitation and Abuse (SEA) and Sexual Harassment (SH). Record of each session will be maintained by CLO, Supervision Consultant and Contractor's. This ensures ongoing awareness and helps address community concerns related to GBV and SEA/SH.

8.6 Reporting and Monitoring

The Contractor's E & S staff/Focal Person will document all the concerns and grievances of raised by affected persons at the site level. The Gender Specialist within the Project Management Unit (PMU) will be responsible for managing complaints related to Gender-Based Violence (GBV), including Sexual Exploitation and Abuse/Sexual Harassment (SEA/SH) at the project level.



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To ensure confidentiality and safety of the complainants, the SIHPP PMU will establish secure procedures for submitting grievances, including safe channels for reporting and restricted access to sensitive information. All complaints will be handled using a survivor-centered approach, ensuring non-retaliation and appropriate referral to support the service was required.

Any GBV/SEA-related complaints must be reported to the World Bank within 48 hours of receipt, either by the GR Cell at the site level or by the PMU. PMU will maintain detailed, anonymized records of each complaint, including the investigation process, actions taken, and outcomes. These records will be incorporated into the monthly Environmental Management and Monitoring reports, ensuring confidentiality and protection of the complainant's identity.

8.7 Accessibility, Awareness, and Information Dissemination (IEC)

The Project Management Unit (PMU) will ensure broad accessibility to the GRM through regular awareness and IEC activities in local languages (Sindhi and Urdu). GRM information, including contact numbers, email, and web portal details, will be displayed on signboards at all project sites and health facilities. Community Liaison Officers and female staff will conduct outreach sessions to inform Communities, especially women and vulnerable groups, about complaint procedures, confidentiality, and available reporting channels.



ANNEXURES



Annexure-A: Environmental and Social Screening Checklist

**SINDH INTEGRATED HEALTH AND POPULATION PROGRAM
ENVIRONMENT AND SOCIAL SCREENING CHECKLIST
GD NEW TAGAR**

A	General Information	
1	Subproject Location	District: Naushahro Feroz Taluka: Kandiaro UC: Derbelo Village: -
2	Subproject Activities	The sub project activities included rehabilitation & renovation of existing structure of GD along with construction of Community Hall, Residential Quarter and Labour Room along with Filtration Plant, Hospital, Waste Disposal etc will be required.
3	Proposed Date of Commencement of Work	Subject to the finalization of relevant documents and procedures.
4	Important geographic / topographic feature (if any)	26.99159 (Northing), 68.05192 (Easting)
5	Important biological feature (if any)	Flora: <u>00</u> number of trees will be effected due to project construction activities Fauna: Birds, Laughing dove, crow and there will be no impact on fauna due to project construction activities, and these are very common in rural area of Sindh.

B: Environmental Issues



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Sr. No	Issues	No/Yes	Risk Level				Remarks/Mitigation Measures
			Low	Moderate	Substantial	High	
1	Will the subproject involve significant land disturbance or site clearance?	No					No Land Disturbance will involve. The rehabilitation activities will be carried out in existing building of the healthcare facility.
2	Will the subproject require the setting up of ancillary facilities?	Yes	✓				The establishment of ancillary facilities will be necessary, including waste management facilities, a temporary labor camp (8-10 workers). Additionally, water, electrical, and sewerage systems will be connected to the existing utilities network. An Environmental and Social Management Plan (ESMP/ESSR) and Site Specific ESMP will be developed, including mitigation plan outlining the relevant mitigation measures.
3	Will the subproject require large amount of raw material or construction materials, energy and/or water?	Yes	✓				Locally available construction materials (such as cement, gravel, sand, soil, steel, etc.), water, electricity, and fuel for generators will be required and stored in a designated area. Staff and contractors will be provided with the necessary instructions.
4	Will the subproject generate large amounts of residual wastes, construction material waste?	Yes	✓				The subproject will produce a low amount of residual waste from the rehabilitation work. Mitigation measures will be incorporated in ESMP/ESSR.
5	Is the sub-project expected to result in soil erosion?	No					Rehabilitation activities may not disturb the surrounding soil outside the site location, any unavoidable soil disturbance will be minimized and addressed through ESMP mitigation measure.
6	Is the sub project expected to create borrow pits for construction material?	Yes	✓				The contractor will be instructed not to create any borrow pits. Instead, the required filling material will be sourced as needed from local vendors.
7	Will the subproject result in potential soil or water contamination (e.g., from oil, grease and fuel from equipment yards)?	Yes	✓				The subproject may potentially contaminate soil and water due to rehabilitation/upgradation and improper disposal of waste generated at the construction site. However, these impacts will be managed by implementing the measures outlined



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Sr. No	Issues	No/Yes	Risk Level				Remarks/Mitigation Measures
			Low	Moderate	Substantial	High	
							in the ESMP/ESSR as well as detailed in Contractor's ESMP.
8	Will the subproject involve the storage, handling or transport of hazardous substances?	Yes	✓				Hazardous substances such as fuel, paints, and similar materials will need to be stored temporarily. Efforts will be made to ensure proper storage away from the construction building, managed by the contractor.
9	Will the sub project disturb the ambient air quality and/or increase the level of harmful air emissions (due to generation of dust from construction activity, vehicular/ machinery exhaust emissions, etc.)	Yes	✓				The ambient air quality will be temporarily affected by airborne dust particles, which may contain hazardous chemicals from Construction Materials. However, these impacts will be managed by implementing the measures outlined in the ESMP/ESSR as well as detailed in Contractor's ESMP.
10	Will the subproject increase ambient noise levels?	Yes	✓				During the rehabilitation/up gradation, the subproject may involve the use of machinery that will increase ambient noise levels. Construction crew will use Personal Protection Equipment (PPEs) to reduce the impact. Site activities will be scheduled according to avoid the Noise disturbance to the nearby community.
11	Are there any protected areas on or around the locations which could be affected by the project?	No					There is no protected area located near the subproject site. The activities will be carried out within allocated area (boundary wall).
12	Will there be any adverse impact on the flora due to project activities?	No					As the project involves rehabilitation and up gradation only, with no new construction, there will be no impact on flora, and no vegetation will be cut or removed.
13	Will there be any adverse impact on the fauna due to project activities?	No					The activities of the subproject will be confined within the boundaries of the healthcare facility, thus no impact on fauna is expected.

C: Social Issues



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Sr. No	Issues	No/Yes	Risk Level				Remarks/Mitigation Measures
			Low	Moderate	Substantial	High	
1	Will there be any social conflicts arising from the interaction of labourers with locals, particularly by the induction of outside labour and establishment of construction camps (if any)?	Yes		✓			There is a potential for social conflicts arising from interactions with labour. However, the contractor will be encouraged to hire local labour whenever feasible, and activities at the labour camp will be confined within the facility's boundary wall. If necessary, the construction/workers' camp will be set up within the existing facility boundary to minimize social conflicts.
2	Will there be a risk of using Child and forced labour in subproject activities?	Yes		✓			There is a concern regarding the potential use of forced labour and child labour by the Contractor. However, strict measures will be implemented through contractual agreements and the ESMP to ensure that no child or forced labour is employed during the project execution.
3	Will the subproject result in an increase in noise levels, vibrations, and a decline in ambient air quality due to the operation of construction machinery/vehicles? On the nearby community or sensitive receptors (mosque, temple, church, graveyard, hospital, school/college/university), if any?	Yes	✓				The ambient noise level and air quality may experience temporary disturbances due to airborne dust particles containing hazardous chemicals from rehabilitation activities. Additionally, machinery used during the construction phase may temporarily increase ambient noise levels. However, these impacts will be moderate and short-term, and will be effectively managed by implementing the measures provided in the ESMP.
4	Risks related to Occupational Health and Safety (OHS) caused due to construction and rehabilitation activities, generation of waste (hazardous and non-hazardous), and spread of diseases such as waterborne, vector-borne, communicable infections (HIV/STDs),	Yes		✓			There is a potential for occupational health and safety (OHS) risks such as electrical hazards, risk due to work at height, struck by accidents, slips, trips, falls, exposure to the extreme weather, handling of construction and hazardous waste etc. which will be short-term and addressed through the implementation of the ESMP, during construction and operation phases. However, the



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Sr. No	Issues	No/Yes	Risk Level				Remarks/Mitigation Measures
			Low	Moderate	Substantial	High	
	COVID-19 pandemic during subproject implementation and operation.						duration of these risks will be limited.
5	Risks related to community health and safety due to the transport, storage, and/or disposal of hazardous, non-hazardous, or dangerous materials (such as fuels and other chemicals, construction waste, and health care waste) and spread of diseases during construction, rehabilitation and operation?	Yes		✓			Health and safety risks and potential hazards associated with construction materials may occur, but these will be mitigated through the implementation of the ESMP and strict supervision of the contractor's activities during the construction phase.
6	Risks of Sexual Exploitation and Abuse (SEA), Sexual Harassment (SH), and Violence Against the Children (VAC) during subproject implementation & operation?	Yes		✓			There is a risk of Sexual Exploitation and Abuse (SEA), Sexual Harassment (SH), and Violence Against Children (VAC). Local labour will primarily be hired to mitigate these risks. The impacts will be managed by implementing specific measures outlined in the ESMP and Worker Code of Conduct. Additionally, a dedicated SEA/SH Assessment Action Plan will be developed and executed as part of the project.
7	Risk of increase in traffic and pedestrian safety due to the construction vehicle movement, particularly near sensitive receptors.	Yes		✓			There is a risk of traffic and pedestrian issues, but effective measures outlined in the ESMP will be implemented to minimize these as much as possible.
8	Will there be land acquisition? If yes, is the site for land acquisition and ownership status and current usage of land to be acquired known?	No					The subproject will be carried out on government land; thus, no land acquisition will be necessary. No any Voluntary Land Donation (VLD) is involved.
9	Will there be a loss of shelter and residential land due to the land	No					No displacement of residents or loss of shelter will occur since no land acquisition is necessary.



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Sr. No	Issues	No/Yes	Risk Level				Remarks/Mitigation Measures
			Low	Moderate	Substantial	High	
	acquisition or clearance of the existing site?						
10	Are any informal settlers or flood-affected persons present on the subproject site where construction and rehabilitation activities will be carried out?	No					There are no informal settlers or individuals affected by flooding present at the subproject site.
11	Has there been any Anti-Encroachment Drive to forcefully evict/move people at the site where the works are planned to be carried out?	No					There are no plans for an anti-encroachment drive to forcibly evict or relocate people at the site.
12	Will there be a loss of agricultural land, crops, trees, and fixed assets due to land acquisition?	No					There is no land acquisition involved at this site. However, there will be no impact on flora, and no vegetation will be cut or removed.
13	Will people lose access to natural resources, communal facilities and services due to involuntary land use restrictions or access to legally designated parks / protected areas?	No					The activities of the subproject will take place within the current boundaries of the facility, which is located on government-owned land.
14	Any estimate of the likely number of persons affected by the subproject? If yes, approximately how many? Are any of them falling into disadvantaged/vulnerable groups such as Female/child headed households, Internally Displaced Persons (IDPs), Refugees, Ethnic and religious minorities, Persons with disabilities, Transgender communities, Senior citizens, or economically marginalized groups?	No					There will be no disruption to people's access to natural resources, as the subproject activities will be confined within the current boundaries of the facility on government land.



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Sr. No	Issues	No/Yes	Risk Level				Remarks/Mitigation Measures
			Low	Moderate	Substantial	High	
15	Have there been any past security-related issues at the subproject site?	No					It is anticipated that there will be no security-related issues at the site. However, local authorities will be notified for assistance as needed.
16	Has stakeholder engagement taken place with relevant stakeholders (Provincial / District level Government Departments / Communities/NGOs/CSOs) for the proposed subproject?	Yes		✓			Consultations with relevant stakeholders are ongoing and will continue throughout the execution phase. All stakeholders are being engaged to ensure their involvement in relevant ESMP measures.
17	Is the proposed subproject being implemented in an area with natural hazard risk? (e.g., floods, earthquakes, cyclones etc.).	Yes		✓			Construction activities will be planned with consideration for storm water flood conditions observed in the 2022 flood event. However, there are no urban flooding conditions present.
18	Will there be any impact on women that may hinder their mobility during reconstruction & rehabilitation activities?	Yes		✓			There will be minimal disruption to the mobility of women, as the subproject activities will be conducted within the existing boundaries of the facility.
19	Will the proposed subproject potentially involve shifting of public utilities?	No					The utilities will be connected to the existing network, and no relocation of public utilities will be necessary.
20	Are any indigenous peoples (as per World Bank ESS7) present in the subproject area?	No					There are no native or indigenous people present in the subproject area.
21	Will the construction and rehabilitation activities cause socio-cultural issues and damage any cultural heritage site?	No					During reconstruction and rehabilitation, there will be no damage to any heritage sites involved. However, "Chance Find Procedure" to be followed during project implementation in case of any chance find physical culture resource during excavation, and shall be made a part of ESMP.



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Environmental and Social Management Plan (ESMP): Based on environmental and social screening indicating low to moderate risks, an Environmental and Social Management Plan (ESMP) will be developed. It identifies and mitigates potential environmental and social impacts of a project, ensuring compliance with relevant regulations. By proactively managing risks, the ESMP promotes sustainability, addresses community concerns, and fosters effective stakeholder engagement. Overall, it helps to minimize negative consequences while enhancing the project's long-term viability. An Environmental and Social Screening Report (ESSR)/Site Specific ESMP will also be developed by the contractors, including mitigation plan outlining the relevant mitigation measures.

No Objection Certificate (NOC) A detailed briefing was given to the EPA regarding the project benefits and outcomes. The environmental contamination and cost-effective solutions (to install environment friendly incinerators in the operations phase) were discussed. The Director showed his concerns about the drinking water quality, flora and fauna (cutting of trees may affect them) and air contamination (Dust Emission) especially during the construction and operation. He said that Environmental Quality Standards must be maintained during any activity likely to cause the potential impact. He also emphasized on worker's safety and advised the use of personal protection equipment during the working hours, and mentioned it in ESMP for implementation.

Sindh Environmental Protection Agency (SEPA) NOC / Environmental Approval Required	<input type="checkbox"/> Yes <input type="checkbox"/> No, if Yes, select the required study from below
Type of Environmental and Social Study	<input type="checkbox"/> EIA [], IEE [], Environmental Checklist <input type="checkbox"/>
Any other NOC from Government of Sindh (GoS)/ Government of Pakistan (GoP) Required	<input type="checkbox"/> Yes, <input type="checkbox"/> No, if Yes, please specify
For World Bank Approval	
Further assessment required	<input type="checkbox"/> Yes <input type="checkbox"/> No, if Yes, select the required study from below
Type of Environmental and Social Assessment	<input type="checkbox"/> ESIA [], ESMP [], E&S Checklist shall suffice [], RAP [], PCRMP [], Water Balance Study [], GHG Estimation [], BAP [], E&S Audit []

PICTORIAL REPRESENTATION OF PROJECT SITE

1. **External Structure / Boundary Wall**



Front



Right
Side



Back

Left
Side



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Survey Performed By:

Name: Abdullah Designation: Environmental Engineer Signature: _____ Date: 20-01-2024 _____

Review and Approved By:

Name: Col. Ajmal Rasheed Designation: Environmental Engineer\Team Lead Signature: _____ Date: 22-01-2014 _____





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Annexure-B: Baseline Social Economic Survey

Project: <u>SIHPP</u> Location <u>GD New Tagar</u> Date <u>30-01-2025</u>	
Name of Respondent <u>Tufail Malik</u>	
Father's Name <u>Suhail Malik</u> Contact No: _____	
Permanent Address of the Respondent	
Village/Goth: <u>Kandiaro</u> Approx. Household <u>1200</u> Union Council <u>Kandiaro</u>	
Tehsil/Taluka <u>Kandiaro</u> District: <u>Naushero Feroz</u> Caste <u>Lund</u>	
Marital Status (Tick): Married <u>M</u> Un-Married <u>Divorced/ Separated/Widowed</u>	

Demographic Profile of Respondent (Children up to 10 yrs (#): M 2, FM 1 =T 3)

Sr. No .	Relatio n ship with Respon dent	Sex	Age (Yrs.)	Educ ation	Name of Business/ Occupation		Income from Business/ Occupation (Rs. / Annum)		Health Condition
					Main	Secondar y	Main	Secondar y	
1	Father	Male	35	Matric	Shop keeper		35000 PKR		Good
2		Daughter	09	Primary					
3		Son	05	Not Started yet					
4		Daughter	03	Not Started yet					
5									

Language Spoken Dhatki & Sindhi Religion Islam

Type of family System 1. Joint: Joint 2. Nuclear _____

Monthly Expenditures

	Less than 20,000	20,000-30,000	35,001-40,000	40,000 and above	Remarks
Monthly Expenditure			35,000		

Money Lending

During the last one year, did you borrow money?

i. Yes _____ ii. No _____ no _____ Remarks _____

Housing Conditions

Personal Personal Rented _____ Other _____ Encroacher _____

Type of Structure a) Kacha _____ b) Pacca _____ pacca _____ c) Semi-Pacca _____ d) Straw _____

Access to Social Amenities



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Social Amenities	Available (Yes-No)	Satisfactory (Yes-No)	Remarks
Electricity	Yes	No	
Gas	NO	No	
Water Supply	No	No	
Water Filtration Plant	No	No	
Telephone	Yes	Yes	
Sewerage/Drainage	No	No	
Hospital /BHU/RHU/Dispensary	Yes	Yes	
Education Facilities (School/College/University)	Yes	Yes	
Religious Institution	Yes	Yes	
Accessibility (Roads/Track)	Yes	Yes	
Other			

Women's Participation and Role in Different Household Activities

Activities	Participation
Household activities	yes
Child caring	yes
Farm/Crop activities	no
Livestock rearing	yes
Sale & Purchase of properties	no
Social obligations (marriage, birthday & other functions)	yes
Local representation (councilor/political gathering)	no
Decision Making	no

Source of Drinking Water: i. Public Water Supply YES ii. Hand Pumps

iii. Borehole iv. Tanker v. Any other _____

Quality: Good _____ Poor: YES If Poor Reason) _____

Does any NGO Exist in your Area?

Yes, _____ No _____ No _____ If yes,

Name of NGO :-: _____

Are you member of NGO? yes----- No----- if yes,

Role of NGO:-: _____

Perceptions of Respondents for the Project

In your opinion, should this Project be implemented at the proposed location?

i. Yes _____ Yes _____ ii. No _____

i. If yes, then reasons _____

ii. If no, then reasons _____

Major diseases common in the proposed project area: _____ Malaria, diarrhea, _____

In your opinion, what are some pressing needs of this area?

General Remarks of the Respondents

General Observations of Interviewers _____

Name of Interviewer: _____ Date: _____ 20-01-2024



Annexure-C: Location and coordinates of 39 GDs

S.No	DIVISION	District	Actual GD Name as per Contract	Lat	Long
1	MPK	Mirpurkhas	GD Ahore	25.00427	69.43075
2	MPK	Umerkot	GD Kamal Khan Rind	25.06022	69.54587
3	MPK	Umerkot	GD Haji Muhammad Baqa Palli	25.3314	69.5934
4	MPK	Umerkot	GD Sher Khan Nohri	25.56533	69.30086
5	HYD	Dadu	GD Murad Khan Jamali	26.55856	67.39883
6	HYD	Dadu	GD Shah Nawaz Mastoi	26.7056	67.7872
7	HYD	Dadu	GD Taj Muhammad Doltani	26.96131	67.46298
8	HYD	Jamshoro	GD Karampur	26.46715	67.84784
9	HYD	Jamshoro	GD Gaheer	26.4157	67.7078
10	HYD	Jamshoro	GD Bhmbha	26.53655	67.77521
11	HYD	Jamshoro	GD Kot Lashari	26.50047	67.78978
12	HYD	Badin	GD Nehmat Gujar	24.63408	68.53995
13	HYD	Matiari	GD Sher Mohd Thorha	25.70366	68.54524
14	HYD	Hyderabad	GD Hussianabad	25.37296	68.32136
15	LRK	Larkana	GD Longaee	27.64679	68.1724
16	LRK	Larkana	GD Yaroo Jalbani	27.78885	68.33595
17	LRK	Larkana	GD Gabbar	27.77771	68.23645
18	LRK	Jacobabad	GD Ghazanfar Khan Jakhrani	28.2804	68.43941
19	LRK	Kambar Shahdadkot	GD Baig Muhammad Sangah	27.56757	68.0707
20	LRK	Kambar Shahdadkot	GD Tharo Wadho	27.74002	68.08413
21	LRK	Kashmore	GD Khahi	28.27515	69.35896
22	LRK	Kashmore	GD Ghous Bakhsh Bhangwar	28.32261	69.33379
23	SBA	Shaheed Benazirabad	GD Soomar Korai	26.51296	68.37358
24	SBA	Shaheed Benazirabad	GD Abass Kerio	26.23943	68.59458
25	SBA	Shaheed Benazirabad	GD Allah Dad Zardari	26.21662	68.64234
26	SBA	Shaheed Benazirabad	GD Dorai Maher	26.348	68.20496
27	SBA	Naushahro Feroze	GD Molvi Ab: Rehman	26.679	68.2828
28	SBA	Naushahro Feroze	GD New Tagar	26.9695	68.0941



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29	SBA	Naushahro Feroze	GD Khamiso Khan Dahri	26.5649	68.09072
30	SUK	Khairpur	GD Ghaffar Shah	27.60285	68.64848
31	SUK	Khairpur	GD Muhammad Soomar Rajar	27.14998	68.64776
32	SUK	Khairpur	GD Karoundi	26.90372	68.40587
33	SUK	Sukkur	GD GHARKO	27.85933	69.20848
34	SUK	Sukkur	GD KHAIRO INDHAR	27.02351	67.99605
35	SUK	Sukkur	GD ROOPAHAR	26.40767	67.76079
36	HYD	Sujawal	GD Busria Jat	24.34758	68.18109
37	HYD	Thatta	GD Looni Kot	25.33714	68.14597
38	KHI	Karachi Malir	GD Umer Jat Goth	24.81027	67.18876
39	KHI	Karachi West	GD LERP	24.89197	66.896



Annexure-D: Stakeholder Engagement form

Stakeholders include any individual or group who may have a direct or indirect “stake” in the project – anyone who can be affected by it, or who can have an effect by the Project actions.

The more a stakeholder group will be materially affected by the proposed project, the more important it is for them to be identified, properly informed, and encouraged to participate in the consultation process.

Stakeholder Consultation Questionnaire Format

Name of moderator:		
Address:		Town/Location:
Signature:	Title:	Date:
Number of participants:		

This tool will be used in the focus group discussions with the community members. The members will be organized in a focus group format and the E&S team will work as the moderator of the focus group discussions. The moderator shall start with the following opening; Hello. My name is _____ and I'm the moderator for today's group discussion. Our purpose is to discuss environmental and social concerns in relation to a World Bank project being launched around your community.

Explain the project: The Government of Sindh (GoS) has launched the Sindh Integrated Human Capital: 1000 Days Program - Integrated Health and Population Project with support from the World Bank (WB) to improve utilization and quality of RMNCAH+N services, for poor and vulnerable population, especially adolescent and women, in targeted areas of Sindh. The program involves rehabilitation and up gradation of existing health care facilities and training of female health service providers to increase the demand for maternal and family planning services.

Before we get started, following are some ground rules for the discussion

1. **CONFIDENTIALITY.** Everything that you say here will be kept strictly confidential. Nothing said in this group will ever be associated with any individual by name. We would also ask that you similarly maintain the confidentiality of what is said in the group.
2. **VOLUNTARY PARTICIPATION.** Your participation in this group is entirely voluntary. You may stop participating at any time. You do not have to answer any questions that you do not wish to answer. You may withdraw from the group at any time with no consequences.



3. THANKS. Thank you for arranging your schedule today to be here for this session. We are grateful to you for, your time, your opinions and your courage in voicing your point of view.

Baseline situation:

1) Are you satisfied with the existing health care facilities in your surrounding? Please explain:

1.1 Satisfied about Health Care Facilities (explain how):	
---	--

2) If not satisfied, please ask the following question?

2.1 Name of health care facility that you know: _____

Answer the following	Agree	Disagree
No sufficient staff		
Staff is not cooperative		
No sufficient equipment		
Space is limited/ too congested		
No medicines		
Any other (specify).....		
Any other (specify).....		

Pre-Design Phase:

3. The government is going to introduce a project to improve the quality of health care facilities. Do you agree that the activity should be encouraged in this area? Yes () No ()

a) If yes to question 3, Please give reasons?

b) If no, please give reasons

6. The Project involves the up gradation of the existing facilities; what are your



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suggestions regarding Project interventions to improve the facilities?

Health care facility (tick the following)

- I) upgrade the facility: -----
- II) Increase trained staff: -----
- III) Provide heating and cooling facilities: -----
- IV) Provide medicines: -----
- V) Improve equipment: -----
- VI) Cleaning and waste management: -----
- VII) Improve drinking water facility: -----
- VIII) Provide sanitation facilities: -----
- IX) Provide round the clock electricity: -----
- X) Provide heating and cooling facilities: -----
- XI) any other specify: -----

7. How would you or the community benefit from the proposed interventions?

8. Do you think that the project activities may result in the temporary or permanent loss of livelihoods (business; household infra-structure such as granaries, outside toilets and kitchens, etc., crops, trees, recreation, women free movement)? Please explain.

9. Do you think that any project activity may result in resettlement of individuals or families or may require the acquisition of land (public or private, temporarily or permanently)? Share your concerns if any

10. Do you think there will be any other environmental or social impacts of the project (both positive and negative)? Share your concerns if any

Construction Phase



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11. The Project will involve construction and rehabilitation work, so there will be dust, noise and solid waste (debris) issues around the project area? What are your suggestions to reduce it?

12. Would local socio-economic changes result from the proposed project, like jobs for skilled and semi-skilled labor and other businesses?

13. Please, outline the problems that could emanate from this kind of activity that you know

14. Is there any historical, archaeological or cultural heritage site of significance around here that you think may be affected due to project activity?



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Gender Based Violence

1) Do you feel that there is risk of Gender-based violence (GBV) or harassment to women and children during construction?

2) Will there be restrictions on mobility of students and teachers during construction?

If yes, how?

If no, why?

3) What sort of Risk Mitigating Measures do you want in order to maintain safety and security during construction?

4) Is there any other issue that is not mentioned in this questionnaire that you consider relevant to mention, please add

Vulnerable groups or indigenous people

1) Are there any vulnerable groups or indigenous people living near the project sites? If so, do you have an idea of the number of people residing in the area?



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- 2) How are the vulnerable groups and indigenous people accessing health and education services in the area?
- 3) Do you think there would be any risk to vulnerable groups or indigenous people through this project?



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Annexure-E: District Wise Details of Stakeholder Consultations

S.#	Districts	Affected Parties (AP)				Other Interested Parties								Vulnerable	
		Community		Health Facility Staff		Local NGOs & CSOs		District PPHI Office		Academic Institutes		EPA & PDMA		Vulnerable group and Minorities	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1	Mirpur Khas	2	2	3	3	1	1	1	1	2	1	1	0	1	1
2	Umerkot	1	3	4	3	0	0	0	0	1	2	0	0	0	0
3	Dadu	3	2	2	1	1	1	1	0	2	1	1	0	1	1
4	Jamshoro	4	2	3	2	0	1	1	0	1	2	2	1	1	0
5	Badin	2	3	3	2	1	1	1	1	2	1	1	0	1	1
6	Matiari	3	2	4	2	1	1	1	0	1	2	1	1	0	0
7	Hyderabad	2	3	3	3	0	0	0	0	2	3	0	0	1	1
8	Larkana	2	1	4	3	1	1	2	1	0	2	2	1	0	0
9	Jacobabad	1	2	5	3	1	1	1	1	2	3	1	0	0	1
10	Kamber Shahdadkot	3	2	4	2	0	0	0	0	1	2	1	1	1	0
11	Kashmore	1	3	3	2	1	1	1	2	2	3	2	0	0	1
12	Nausheroferoz	2	4	4	3	0	0	0	0	2	1	0	0	1	0
13	Shaheed Benazir Abad	3	2	2	2	1	1	1	1	2	2	1	1	0	1
14	Khairpur	2	3	3	3	1	1	2	1	2	1	0	0	1	0
15	Sukkur	2	4	3	4	1	1	2	1	2	1	0	0	1	0
16	Thatta	2	3	4	3	0	0	0	0	2	3	0	0	1	1
17	Sujawal	2	1	4	3	1	1	2	1	0	2	2	1	0	0
18	Karachi Maler	1	2	5	3	1	1	1	1	2	3	1	0	0	1
19	Karachi West	3	3	2	3	1	1	1	2	1	2	1	1	0	1
	Sub Total	41	47	65	50	13	14	18	13	29	37	17	7	10	10
	Male														193
	Female														178
	Total														371



Annexure-F: Workers' Code of Conduct

I, _____, acknowledge that that adhering to environmental, social, health and safety (ESHS) standards, following the project's environmental, social, health and safety (OHS) requirements, preventing GBV/SEA/SH and child abuse/exploitation is important. Any activity, which constitutes acts of gross misconduct is therefore grounds for sanctions, penalties, or even termination of employment. All forms of misconduct are unacceptable be it on the work site, the work site surroundings, or at worker's camps. Prosecution of those who commit any such misconduct will be pursued as appropriate. I agree that while working on this project, I will:

1. Consent to a security background check;
2. Treat women, children (persons under the age of 18), project staff including other workers, and persons with disability with respect regardless of race, color, language, religion, political or other opinions, national, ethnic, or social origin, property, birth, or another status;
3. Not use language or behavior towards men, women, or children/learners that are inappropriate, harassing, abusive, sexually provocative, demeaning, or culturally inappropriate;
4. Carry out his/her duties competently and diligently;
5. Comply with all applicable national/provincial laws, regulations, and World Bank requirements
6. Comply with the CESMP as approved by the Client to meets its ESHS and OHS objectives as well as preventing and/or mitigating the risks of GBV
7. Maintain a safe working environment including but not limited to:
 - a. Ensuring that workplaces, machinery, equipment, and processes under each person's control are safe and without risk to health, preventing avoidable accidents, and reporting conditions or practices that pose a safety hazard or threaten the environment
 - b. Wearing required personal protective equipment;
 - c. Using appropriate measures relating to chemical, physical and biological substances, and agents; and
 - d. Following applicable emergency operating procedures.
8. Not engage in any form of sexual harassment including unwelcome sexual advances, requests for sexual favors, and other unwanted verbal or physical conduct of a sexual nature at work site, the work site surroundings/nearby communities, or at worker's camps
9. Not participate in sexual activity with children/learners—including grooming or online grooming. Mistaken belief regarding the age of a child and consent from the child is not a defense;
10. Not exchange money, employment, goods, or services for sex, with community members including sexual favors or other forms of humiliating, degrading, or exploitative behavior;
11. Refrain from all forms of GBV, are unacceptable, regardless of whether they take place on the work site, the work site surroundings, at worker's camps or within the local community.
12. Attend training related to HIV and AIDS, SEA/SH, occupational health, and any other relevant courses/Trainings as a part of this project;
13. Report to the relevant committee any situation where I may have concerns or suspicions regarding acts of misconduct by a fellow worker, whether in my company or not, or any breaches of this code of conduct provided it is done in good faith;
14. Regarding children (under the age of 18):
 - a. Refrain from hiring children for labor, which is inappropriate given their age, or developmental stage, which interferes with their time available for education and recreational activities, or which places them at significant risk of injury.



- b. Bring to the attention of my manager the presence of any children on the construction site or engaged in hazardous activities.
- c. Comply with all relevant local legislation including labor laws and World Bank requirements in relation to child labor and forced labor.

15. Refrain from any form of theft for assets and facilities including from surrounding communities.

16. Remain in the designated working area during working hours;

17. Refrain from possession of alcohol and illegal drugs and other controlled substances in the workplace and being under the influence of these substances on the job and during working hours;

18. Follow prescribed environmental occupation health and safety standards;

19. Channel grievances through the established grievance redress mechanism.

I do hereby acknowledge that I have read the foregoing Code of Conduct, do agree to comply with the standards contained therein and understand my roles and responsibilities to prevent and respond to ESHS, OHS, and GBV issues. I understand that any action inconsistent with this Code of Conduct or failure to act mandated by this Code of Conduct may result in disciplinary action which could include:

- 1. Informal warning.
- 2. Formal warning.
- 3. Additional Training.
- 4. Loss of up to one week's salary.
- 5. Suspension of employment (without payment of salary), for a minimum period of 1 month up to a maximum of 6 months.
- 6. Termination of employment.
- 7. Report to the Police if warranted.

Signed by: _____

Signature: _____

Date: _____

For the Employer/Contractor

Signed by: _____

Signature: _____

Date: _____



Annexure-G: Security Management Plan

1. Introduction

This security management plan is being developed for the Project Entitled “Sindh Integrated Health & Population Project-SIHPP” which is being implemented in 30 districts of Province Sindh of Pakistan. It includes Standard Operating Procedures to provide guidelines, regulations, standards, options and hierarchical structure, as well as Policies, Procedures and Protocols (PPP’s) for maintaining security of the assets, data, human resources, and boundaries of the currently implemented project. It has been developed after detailed consultation with all the specialists of this project including Project Director and local recipient communities. It is important to mention that this document only provides as a guidance resource and field-based security plans will be devised for the field team in accordance with the local context. SMP provide and maintain a safe physical environment and manage staff activities to reduce the risk of personal injury and property loss during the implementation of the SIHPP Project. This Security Management Plan covers both Component 1, 2, 3 and 4 of the Project activities.

SMP for the project lies under the oversight and responsibility of the Project Director at PMU level will work closely with the Ministry of Interior and Coordination of National Government in the deployment of the security guards for the project office. The command and communication structure of the National Police Service will be adopted. The police service shall perform its functions under the overall direction, supervision and control of the Inspector General of Police at Provincial level. The management of security for operations will comply with the four basic pillars of security management:

SMP encompasses the systematic implementation of policies, procedures, and technologies to safeguard an organization's assets, information, and operations from potential threats and risks. It involves the strategic planning, coordination, and oversight of security measures to ensure the confidentiality, integrity, and availability of critical resources. Security management includes risk assessment, threat analysis, and the development of countermeasures to mitigate vulnerabilities. This multifaceted discipline also involves the establishment of access controls, monitoring systems, incident response protocols, and ongoing training to enhance the organization's resilience against evolving security challenges. Effectively managing security requires a comprehensive and adaptive approach, staying abreast of emerging threats and continually refining strategies to address the dynamic nature of the security landscape.

Objective of the SMP: to provide and maintain a safe physical environment and manage staff activities to reduce the risk of personal injury and property loss during the implementation of the SIHPP Project.

Security Approach: The Project Director will ensure that security procedures and criteria are fully designed and updated, and the means fully available to ensure the security for project operations.

The security plan describes how security is organized to face identified threats and how security is continuously reassessed and reorganized in correlation with security situations and operations being undertaken.

The Project Director will leverage in using the existing national and local security infrastructure to access and share conflict related information and encouraging local police leaders to specifically address conflict risks in community engagement activities in timely manner.

2. Standards and Good International Practice

This security management plan is anchored on World Bank Environmental and Social Standard 4 (ESS4) that covers Community Health and Safety on sub section (b) Personnel Security in line with the World



Bank Good Practice Note on Assessing and Managing Risks and Impacts of the Use of Security and the Guidelines for Implementation of the UN Basic Principles on the Use of Force and Firearms by law Enforcement Officials.

The standard role of the public security will be to maintain the rule of law, including safeguarding human rights and deterring acts that threaten the project personnel and facilities. The public security forces to be deployed shall be competent, appropriate and proportional to the threat. The security force shall abide by the World Bank Good Practice Note on Assessing and Managing Risks and Impacts of the Use of Security to comply with the commitments on human rights bolstered by its compliance with:

- World Bank Good Practice Note on Assessing and Managing Risks and Impacts of the Use of Security Personnel, 2018,
- Voluntary Principles on Security and Human Rights Toolkit Version 3, 2008,
- Guidelines for Implementation of the UN Basic Principles on the Use of Force and Firearms by law Enforcement Officials, 2016, and
- The Universal Declaration of Human Rights, 1948.

3. Security Management

Security Management for the project lies under the oversight and responsibility of the Project Director at provincial level and will work closely with the Ministry of Interior/home and local administration in the deployment of the security officers to the project. The command and communication structure of the Sindh Police Service will be adopted. The management of security for the project will comply with the four basic pillars of security management:

- DETECT an adversary.
- DETER an adversary if possible.
- DELAY the adversary until appropriate authorities can intervene.
- RESPOND to the adversary's actions.

1. Overview of the Security Situation

Different security risks exist in the project area and may impact the project. The main security risks within the project area include:

- Criminal offences;
- Terrorism;
- Inter-tribal or communal violence which could pose a threat to project personnel;
- Reaction of community to an incident or accident involving project personnel or asset;
- Threat of armed attack;
- Theft/ Larceny; and
- Kidnapping

The project has adopted a systematic and careful examination of the workplace, work activity, working environment and those people who may be at any security risk. Risk assessments shall identify what might go wrong and how, with an evaluation of any security hazards undertaken, this will determine the control measures needed to prevent or minimize the potential security risks. A 5x5 impact and likelihood risk matrix has been adopted as the most appropriate security risk Likelihood versus Consequences 5x5 Risk Assessment Matrix have been adopted.

The matrix works by selecting the appropriate consequences from across the bottom, and then cross referencing against the row containing the likelihood, to read off the estimated risk rating. Likelihood



verses Consequences 5x5 Risk Assessment Matrix See Table -1:

Table 1: Likelihood verses Consequences 5x5 Risk Assessment Matrix

High ↓	LIKELIHOOD	5	5	10	15	20	25	RISK HIGH MEDIUM LOW
		4	4	8	12	16	20	
		3	3	6	9	12	15	
		2	2	4	6	8	10	
		1	1	2	3	4	5	
		1	1	2	3	4	5	
CONSEQUENCES								

Likelihood verses Consequences 5x5 Risk Assessment Matrix has been supported with a table which ties together the risks with the mitigations, roles and responsibilities and timelines and the security situation analysis for the 15 Counties see Table 2:

Table 2: Project Security Risks and Mitigation Measures

Risk description	Likelihood	Impact	Severity	Responsibility	Mitigation Action
Criminal offences: Theft/ Larceny	Medium	Medium	Medium	Project Director	Use of physical security personnel, Staff crime security awareness, Establish formal and consistent reporting and communications mechanisms with public security forces and other stakeholders Adequate lighting, Perimeter fencing.
Terrorism	High	High	High	Project Director	Enhance intra / intra agency cooperation within the project area, Engage with and empower border communities as key contributors in border security and management, Implement Community Policing, Implement Security information exchange mechanisms.



Risk description	Likelihood	Impact	Severity	Responsibility	Mitigation Action
Inter-tribal or communal violence which could pose a threat to project personnel	Medium	Medium	Medium	Project Director	Keep abreast of the peace building process among the affected communities, Use Traditional institutions in creating peace, security, law and order in community policing and conflict management,
Armed attack / Kidnapping	Medium	High	High	Project Director	Use of physical security personnel, Project staff crime security awareness, Establish formal and consistent reporting and communications mechanisms with public security forces and other stakeholders Adequate lighting Perimeter fencing especially materials areas and camp(s). Allow only daytime travel to project staff
Community Hostility	Low	Medium	Medium	Project Director	Adhere to all provisions in the Project Stakeholder Engagement Plan,
SEA/GBV, and incident response	Low	Low	Low	National Project Coordinator	Adhere to all provisions in the Project Grievance Redress Mechanism Abide by the requirements of SEA/GBV Action Plan, Continuous SEA/GBV awareness creation.

From the risk assessment on Table 2, the project manager shall leverage this process to determine which locations require Police Service, armed security support etc. In the lower risk areas, the project could consider deploying private security unarmed guards to undertake basic security duties such as access control and perimeter security management; if deemed necessary the police may be engaged on a reactive basis. This approach will alleviate undue pressure on local policing resources and reduce the risks of engaging armed officers. An appropriate, formal agreement shall be developed to support service delivery and mitigate the identified risks and respond to stakeholder concerns.

Care will be taken to ensure that security response or presence of security forces will not result in additional risks to communities or individuals within the project implementation areas.

2. Alert States

The PMU will adopt the SIHPP project area alert status in evoking the security state response levels,



triggers and actions specific to the project site. Table 3, 4, 5 and 6 with the color shades of Green, Yellow, Orange and Red respectively are the security level responses to be adhered to. Local and regional events (triggers) will be linked to the alert states; the local security situation will be monitored daily and all available information assessed to ensure early identification of increases in risk, which may require a change in alert state.

Table 3: Security Response Level: Green- Business as Usual- Security Risks Effectively Controlled

Security Response Level GREEN Business as Usual- Security Risks Effectively Controlled	
Event Indicator	Recommended Action(s)
<p>No direct threat exists and no incidents have taken place to warrant heightened security measures:</p> <p>Under this level the status remains at GREEN.</p> <ul style="list-style-type: none">• Site operations are running normally with employees going about their lives with no, or very limited, restrictions.• There are no restrictions on vehicle movement or crew changes• Occasional unrest or demonstrations away from operational sites. No direct threat to the operation• Effective government control and/or rule of law in place. Liaison remains regular and effective• Continued good will of the majority of the local community remains assured	<p>No restriction to normal movement compliant with local police advisory requirements. Staff and vehicles may move around the area within the protective envelope of the project area security.</p> <ul style="list-style-type: none">• Complete all pre-planning actions• Train staff and ensure awareness of actions to be taken- site drills.• All crisis management and evacuation plans are in place and are maintained as 'living documents'• The security situation, crime levels, political and social events are monitored closely. On-going collection and assessment of information through liaison with authorities and local community,• Ensure daily Personnel on Board (POB) is maintained.• All stakeholders are aware of the contents of the evacuation plan and understand their role within it• Vehicle Escorts taken when traveling to areas where civil unrest has occurred.• Maintain close liaison and good Community Relations



Table 4: Security Response Level: Yellow- Enhanced Security Measures Required

Security Response Level Yellow Enhanced Security Measures Required	
Event Indicator	Recommended Action(s)
<p>Increased level of disturbance and/or increased probability of impact to operations. Sporadic civil disorder events. A direct threat has been detected to one or more areas of the operation but it is not considered imminent.</p> <ul style="list-style-type: none"> • Area-wide protests and/or strike action that do not directly impact project operations or personnel, but do present a risk to external logistical operations or works. • Increase in inter-tribal violence adjacent to project area of operations or camp locations. • Vehicle movement is disrupted • Increased difficulty in accessing mission critical items or functions due to local security situation • Significant police or paramilitary deployment required to maintain rule of law; localized curfews in place. • Heavy handed response from police and security service • Erosion of the support and good will of local communities • Difficulties in maintaining good relations with local authorities and traditional leaders 	<p>Project operations continue. Enhanced security controls and operational restrictions required:</p> <ul style="list-style-type: none"> • Necessary communications equipment available and all systems checked • Ensure site specific security plans are available and have been revised and practiced • Ensure all security, crisis and evacuation plan representatives understand their roles and responsibilities • Brief local security forces on roles and responsibilities and rules of engagement. Apply controls to ensure actions are tracked. • Review local security risks and controls; operating area Journey Management Plan- implement additional controls. • Maintain regular communication with all stakeholders, including authorities, local community, other sites and activities. • If situation likely to continue, re-assess stocks of resources at operational sites and ability to re-supply (food / water / fuel / people). • Assess requirements to increase physical security controls, access, perimeter protection, and road escorts. • Issue “Business Essential” travel advisory (If not already done). • All employees are briefed / updated on the security situation and controls- revise the evacuation plan • Consideration given to recommending changes to the daily routine to include: <ul style="list-style-type: none"> ○ identification of any out of bounds areas; ○ local travel restrictions; • Review which business critical and sensitive documents need to be protected and how.

**Table 5: Security Response Level: Orange-Increased Security Measures**

Security Response Level Orange Implementation of Increased Security Controls and Preparation for Lock Down and/or Site Evacuation	
Event Indicator	Recommended Actions
<p>Significant obstacle or direct threat has been detected to operations and is deemed imminent, or a security incident has taken place close to one of the project sites:</p> <ul style="list-style-type: none"> • Wide spread civil unrest, not contained by police or paramilitary forces. • Frequent acts of violence close to project operations. • SIHPP specifically threatened and/or targeted. • Reinforcement of police by military forces to enforce martial law and impose curfews in key areas. • Substantial political or inter-tribal violence • Government ordered curfew in place • Law and order become fragile, shortages of food / water / supplies / power / communication outages. • Failure to observe security restrictions regarded as life-threatening. • Loss of support and good will of majority of local community, • Liaison with authorities and traditional leaders breaks down 	<p>Project operations are suspended. Significant increase in security controls and operational restrictions. All movement outside camps ceases.</p> <ul style="list-style-type: none"> • All external movement ceases • Twice daily call schedule with Client Security Manager • Ensure sites including material and equipment are secured – security protection in place. • Consider further increase in security controls including; further reinforcement of security guarding, (police support). • Briefings to local security forces on roles and responsibilities- liaison with local commanders increased. • Consider resupply requirements for all locations and caretaker maintenance and security of unmanned locations. • Instigate evacuation drills and brief all staff on actions • Prepare vehicles for possible road moves and ensure thorough rehearsals have been conducted for any moves under escort.



Table 6: Security Response Level: Red-Cease Operations, Lock down & Evacuation

Security Response Level RED Cease Operations and Lock Down or Evacuate Site	
Event Indicator	Recommended Actions
<p>The operation has experienced a direct attack or there is credible evidence of an imminent attack.</p> <ul style="list-style-type: none"> • Direct threats against project operations • Major civil disorder in areas of operation • Lines of supply untenable (road closures / security risks) • Total collapse of law and order • No or limited local security forces protection • Security force reaction may damage reputation • Major difficulties in accessing basic necessities • Frequent power and communications disruption. 	<p>Suspension of operations and/or activation of total lock down or evacuation plan:</p> <ul style="list-style-type: none"> • Confirm operational plan and nomination of key points of contact during evacuation. • Implement evacuation plan • Ensure adequate caretaker security in place if full operations are suspended. • Ensure all critical or sensitive documents have been collected and are ready for destruction or removal • Detailed briefing of all remaining personnel on situation and emergency response plans (as attached template of Template Emergency Response Plan Annexure-P). • Provide ongoing communications, guidance and assistance to local and security staff remaining in the project area

Alert State Status Boards

Alert State boards are to be displayed at the camp and indicate the current security alert state and associated restrictions to movement in the project area.

Site Security Layers

All project facilities will undergo the following security layers/protocols.

- i. Physical security (guards).
- ii. Access control system.
- iii. Intelligence Network.
- iv. Security induction.
- v. Awareness.
- vi. Trainings.

These different security layers together reduce the risk of having one system being by-passed. They are implemented by the Security commanders.

Physical Security

This will mainly comprise of fences, gates, guard posts, surveillance / electronic cameras which will be manned by trained personnel who shall document and record daily incidents at the various points and provide reports to their superiors for appropriate action.



Security operating Procedures

This shall entail some of the key security operating procedures which will comprise of:

- **Boundary security:** Security will maintain control of the project's perimeter by deploying personnel at strategic points along the boundaries of the project facilities and also channel people to access-control points that will have security personnel (both armed and unarmed);
- **Access Control Policy and Procedures:** Access to project sites by project personnel and visitors will be through a formal, documented access control procedures to facilitate the implementation of access control policy and associated access controls. Project personnel will be issued with badges and will at all times carry and display these badges when in the field. The badges will enable the bearer to access project facilities upon site security enquiry. Visitor badges will be issued to all visitors who are not employees of the project.
- **Luggage search:** A search of personal luggage will be performed by the guards at the access control point to ensure no access of all the prohibited items into the project facilities.
- **Vehicle Access Control Procedures:** All Vehicles accessing project facilities will be accessed through with the driver only after going through a security check/search for prohibited items. The driver must declare his entire luggage at the main gate (Personal luggage) for checking as well
- **Decision tree model:** the project security shall adopt a structured approach using the collaborative approach for all the armed security operatives in prioritizing the collection of relevant data during incident response. The structured tree model approach helps to define how questions are answered, allows the incident response team to respond consistently with predictable results. The structured approach also provides for definable, reproducible structures to be created facilitating controlled cost exposure during an incident response cycle.
- **Information and Communication:** The project will detail procedures for categorizing, handling, and controlling sensitive information.
- **Code of conduct:** Every police officer shall be subject to Force standing orders and to the provisions of the Code of Regulations for the time being in force.
- **Firearms Security:** The project will adhere to the relevant legislation regarding firearms storage on-site, as well as the responsibilities and procedures for issuing and storing any security firearms, ammunition, and non-lethal weapons. This shall include: location for storage; how weapons are properly secured during storage; records for issuance; who they may be issued to; safeguarding while in possession of the personnel; and audits.
- **Special Situations:** There may be instances where large-scale events (e.g., criminal activity, demonstrations, civil disorder) require interventions by public security which is not specifically associated with the project. When planning for such events or emergencies, there shall be clarity on how project security passes control over to formal public security (for example, police, military, emergency responders in conjunction with the project established decision tree).

Security Supervision and Control

The project will have a clearly defined management structure and responsibility, including overall lines of control, accountability, and supervision for the security effort. In making such arrangements, the project will be guided by the principles of proportionality and GIIP, and by applicable law, in relation to hiring, rules of conduct, training, equipping, and monitoring of such security workers. The project will seek to ensure that government security personnel deployed to provide security services act in a manner



consistent with paragraph 24 of ESS 4, and encourage the relevant authorities to proactively engage with local communities on security issues and address any concerns, subject to overriding security concerns.

The Project coordinator will (i) make reasonable inquiries to verify that the direct or contracted workers retained to provide security are no implicated in past abuses; (ii) train them adequately (or determine that they are properly trained) in international human rights standards or minimal use of force techniques (less use of firearms), and appropriate conduct toward workers (in line with the Labor Management Plan) and affected communities (in line with ESMP); and (iii) require them to act within the applicable law and any requirements set out in the ESCP.

All incidents including thefts, attempted, attempted break-ins must be reported to the center manager and the local police authorities, who will initiate an investigation to determine sequence of events, what may have contributed to the incident, probable cause(s) and contributing factors), and recommendations, corrective actions, and mitigation measures (based on investigative findings) – an incident report will be issued to the Project Coordinator with details of the above actions.

Site specific project requirements such as stakeholder engagement, security arrangements disclosure, incident response, and grievance management would be formally agreed with the appropriate authorities in line with the Project Stakeholder engagement Plans and Grievance Redress Mechanism.

The security responsibilities, authorities and communication process shall follow Government directives and legal provisions from project management down through the project staff when communicating instructions and reporting security breaches.

All project personnel are required to be aware of the need for constant vigilance, care and compliance with security procedures, as well as the necessity to report any incident or suspicion to the OCS.

Security personnel / the police will be deployed to provide security to all project sites and facilities. Their roles and responsibilities are detailed below;

- To Implement the Standard Operating Procedures properly without fear or discrimination.
- To ensure respect of the access control procedures and make sure that they are applied to all project personnel.
- Perform interior Patrols days and nights to ensure there are no intruders within the project facilities.
- Check the border status on a regular basis using back tracking security method.
- To report any security incident to the guard posts or security commanders.
- Maintain constant communication with the control room on hourly basis while on duty.
- Report to the control room in case of any technical issues.
- Ensure a proper behavior at all time while applying the SOP; avoid exchanging of words with the project staff.

The security risk assessment process shall be further examined by the relevant parties. This may result in a project level Memorandum of Understanding (MOU) with state security institutions or private security companies, setting out a framework for cooperation and setting standards and expectations. Key clauses for drafting MOU have been adopted from international literature and customized to suit the project including:

- Building trust among relevant stakeholders especially the Local Government, NGOs, civil society and community members to prepare the ground for a meaningful MoU,
- Adherence to the provisions contained in the VPs (Voluntary Principles on Security and Human Rights) and the UN Code of Conduct for Law Enforcement Officials and the UN Basic Principles



- on the Use of Force and Firearms by Law Enforcement Officials,
- Institute a vetting procedure to ensure that no one allegedly implicated in past human rights and law abuses (i.e. there is a conviction, pending case or very strong evidence) provide security to the company.
- Institute a training program, for public security forces assigned to the project operations,
- Develop an acceptable protocol for equipment transfers in a manner aligned with the VPs;
- An agreed system of information-sharing around security issues, with due regard for necessary confidentiality.

Other softer measures to be included in the MOU include the camp access protocols, grievance mechanisms, engagement commitments that can, without concern for confidentiality, be made publicly available in order to build trust and or promote cooperation.

Journey Management

Each site manager has the overarching responsibility for project-wide journey management. A journey management log is to be maintained at the control room whereupon vehicle movements are logged and monitored. This will be shared to the National PMU safeguards team by email.

Project staff will be required to complete a Journey Management Plan form, which has to be authorized by the site / station manager.

Security Grievance Redress Mechanism

To extent possible, the SMP shall adopt the Project Grievance Redress Mechanism in managing the security related grievances. Key areas of emphasis will be on the following steps:

- Step 1: Publicizing Grievance Management Procedures,
- Step 2: Receiving and Keeping Track of Grievances,
- Step 3: Reviewing and Investigating Grievances,
- Step 4: Developing Resolution Options and Preparing a Response,
- Step 5: Monitoring, Reporting, and Evaluating a Grievance Mechanism, and
- Step 6: Dedication of adequate resources both human and capital.

Basic Principles on the Use of Force and Firearms by Law Enforcement Officials

The project has adopted the basic principles from the guidelines for implementation of the UN basic principles on the use of force and firearms by law enforcement officials. The adopted principles include:

1. IP and appointed law enforcement agency shall adopt and implement rules and regulations on the use of force and firearms against persons by law enforcement officials.
2. IP and the law enforcement agency shall develop a range of means as broad as possible and equip law enforcement officials with various types of weapons and ammunition that would allow for a differentiated use of force and firearms.
3. The use and deployment of non-lethal incapacitating weapons shall be carefully evaluated in order to minimize the risk of endangering uninvolved persons,
4. Law enforcement officials, in carrying out their duty, shall, as far as possible, apply non-violent means before resorting to the use of force and firearms. They may use force and firearms only if other means remain ineffective or without any promise of achieving the intended result,
5. Whenever the lawful use of force and firearms is unavoidable, law enforcement officials shall:
 - a) Exercise restraint in such use and act in proportion to the seriousness of the offence and the



legitimate objective to be achieved;

- b) Minimize damage and injury, and respect and preserve human life;
- c) Ensure that assistance and medical aid are rendered to any injured or affected persons at the earliest possible moment;
- d) Ensure that relatives or close friends of the injured or affected person are notified at the earliest possible moment.

6. Where injury or death is caused by the use of force and firearms by law enforcement officials, they shall report the incident promptly to their superiors. A detailed report shall be sent promptly to the PMU for responsible administrative review and judicial control, and also to the World Bank,

7. IP shall ensure that arbitrary or abusive use of force and firearms by law enforcement officials is punished as a criminal offence in line with relevant National and provincial laws,

8. Exceptional circumstances such as internal political instability or any other public emergency may not be invoked to justify any departure from these basic principles,

9. The law enforcement agency shall ensure that all law enforcement officials are selected by proper screening procedures, have appropriate moral, psychological and physical qualities for the effective exercise of their functions and receive continuous professional training, and

10. IP and the law enforcement agency/ies shall undertake the policing of unlawful assemblies, policing persons in custody or detention in line with the provision of the UN basic principles on the use of force and firearms by law enforcement officials, 2016.



PMU-SIHPP

Annexure-H: E & S Monitoring Checklist

ENVIRONMENTAL, SOCIAL, HEALTH AND SAFETY MONITORING CHECKLIST SINDH INTEGRATED HEALTH AND POPULATION PROJECT (SIHPP)

Project Name: _____

Activities Inspected _____

Location _____

Weather Condition _____

Date: _____

Time: _____

SNo	Performance Indicators	Yes	No	N/A	Description	Remarks
1.	Heavy Dust					
2.	Excessive noise or vibration					
3.	Water sprinkling at the construction and disposal sites					
4.	Discharge of waste water to nearby water course/water body					
5.	Any spillage of fuel/oil observed					
6.	Dumping of solid waste at designated Site					
7.	Dumping of construction waste/spoil at designated Site					
8.	Protection of Flora/Fauna					
9.	Availability of Drinking water					
10.	Site housekeeping					
11.	Warning signs displayed near construction zone.					
12.	Use of PPEs by the beneficiaries and workers					
13.	Any incident/accident (use separate proforma)					
14.	Any GBV/SEA and privacy related complaints					
15.	Availability of first aid boxes at site					
16.	Any land ownership provided to women beneficiaries					
17.	Any involuntary resettlement under the project					
18.	Proportion of local labor in the project					
19.	Child/Force Labor					
20.	Is the GRM properly in place					
21.	Regular monitoring of complaint register is in practice					
22.	Any exclusion, specially to women, disadvantaged groups and marginalized people from project forums					
23.	Any elite capture related grievance					
24.	Participation of women, children, and vulnerable groups in consultations and project activities					
25.	Any Unusual Conditions (e.g., heavy rain, extreme weather)					
26.	Chance finds during construction					

Note If any:

Filled By: _____ Signature Name: _____	Extra Note if needed: _____
---	--------------------------------



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Position: _____



Annexure-I: Exclusion List

- Any construction in protected areas or priority areas for biodiversity conservation, as defined in national law
- Activities that have the potential to cause any significant loss or degradation of critical natural habitats, whether directly or indirectly, or which would lead to adverse impacts on natural habitats
- Activities that involve extensive harvest and sale/trade of forest resources (post, timber, bamboo, charcoal, wildlife, etc.) for large-scale commercial purposes.
- Activities that involve the use of international waterways.
- Any activity affecting physical cultural heritage such as graves, temples, churches, historical relics, archeological sites, or other cultural structures.
- Activities that may cause or lead to forced labour or child abuse, child labour exploitation or human trafficking, or subprojects that employ or engage children, over the minimum age of 14 and under the age of 18, in connection with the project in a manner that is likely to be hazardous or interfere with the child's education or be harmful to the child's health or physical, mental, spiritual, moral, or social development.
- Any activity that will cause physical relocation of households or will require the use of eminent domain.
- Any activity with significant environmental and social risks and impacts that require an Environmental and Social Impact Assessment (ESIA).



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Annexure-J: Incident Report Format

Serious Incident Report	
General Information	
Program name, country, region	
Contractor Name	
Person submitting the information	
Organizations and/or companies involved in the incident	
Details of the people affected, status (e.g. if they are working as rangers, volunteers, etc.), names, ages, gender. Details of the community or communities involved	
Details of the Incident	
Date and time the Incident occurred	
Location	
Type of Incident	<input type="checkbox"/> Fatalities, serious injuries and accidents at work
	<input type="checkbox"/> Fatalities, serious injuries and accidents affecting local communities and others
	<input type="checkbox"/> Violations of human rights or accusation of human rights violations, incl. sexual and gender-based violence and harmful child labor
	<input type="checkbox"/> Conflicts, disputes and disturbances leading to loss of life, violence or the risk of violence
	<input type="checkbox"/> Environmental incidents
Detailed chronological description of the Incident and its circumstances (if possible, with photos)	
Root Cause Analysis	
Detailed description of key causational factors (internal and external), potential management failings and identification of absent/ inadequate/ failed/ unused management and control measures (e.g., non-compliances with E&S standards or	



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measures)			
Specification of relevant roles and responsibilities of the agencies, authorities and others involved			
Reaction to the incidents by the victims, involved families or communities as well as local/national/international media			
Agency or agencies responsible for investigation of the case. What is the scope of the investigation? Does this include a root cause analysis?			
Response and Corrective Actions			
Description of the response (if available) and agencies involved.			
Description of any corrective actions, plans or next steps to prevent the incident from recurring or follow up to close the case or proceed with further investigations (include action plan with responsibilities and schedule)			
Incident Report Approval			
	Position	Name	Date
Prepared by			
Approved by (E&S Coordinator or Senior Management)			



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Annexure-K: Template of Contractor's ESMP

1 INTRODUCTION

- 1.1 Requirements of CESMP
- 1.2 Aims and Objectives of CESMP
- 1.3 CESMP Administration
- 1.4 Institutional Arrangements for implementation of CESMP
 - 1.4.1 PMU (Project Coordinator and its E&S Staff)
 - 1.4.2 Design and Supervision Consultants
 - 1.4.3 The Contractor

2 PROJECT DESCRIPTION

- 2.1 Location of the Subproject
- 2.2 Contract Description

3 DESCRIPTION OF CONSTRUCTION AREA AND BOUNDARIES

- 3.1 Project Boundaries
- 3.2 Camp Site
- 3.3 Borrow Areas and Materials

4 RISK ASSESSMENT

- 4.1 Risk Assessment and Management
- 4.2 Risk Identification
- 4.3 Risk Assessment Process
- 4.4 Response Options
- 4.5 Sensitive Receptors Assessment
 - 4.5.1 Sensitive Receptor Analysis
 - 4.5.2 Impact on Sensitive Receptors Short-Term Construction Related Activities
 - 4.5.3 Impact of Construction Equipment.
 - 4.5.4 Mitigation- Measures for Noise-Reducing
 - 4.5.5 Impact of Ground borne Dust
 - 4.5.6 Mitigation Measures for Dust
 - 4.5.7 Impact of Operational Noise
 - 4.5.8 Mitigation-to Reduce Operational Noise
 - 4.5.9 Impact of Air Contamination and Smoke
 - 4.5.10 Mitigation Measures for Smoke
 - 4.5.11 Impact of Traffic
 - 4.5.12 Mitigation for Construction Traffic

5 CONSTRUCTION CAMP MANAGEMENT PLAN

- 5.1 Drinking Water Supply
- 5.2 Room / Dormitory Facilities
- 5.3 Sanitary Facilities
- 5.4 Canteen, Cooking and Laundry Facilities
- 5.5 Standards for Nutrition and Food Safety
- 5.6 Leisure, Social and Telecommunications Facilities
- 5.7 Parking Area
- 5.8 Types of Safety & Security Events
- 5.9 Signage & Access Control
- 5.10 Drugs and Alcohol Usage
- 5.11 Security Risk
- 5.12 Hazards and Vulnerability Identification & Management



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6 POLLUTION PREVENTION AND CONTROL PLAN

- 6.1 Air Pollution Control
- 6.2 Noise Pollution and Control
- 6.3 Water Pollution
- 6.4 Spill Prevention and Contingency Plan
- 6.5 Plant and Vehicle Maintenance
- 6.6 Treatment of Spills
- 6.7 Run-off from Camps and Worksites
- 6.8 Ground Pollution

7 EMERGENCY PREPAREDNESS & RESPONSE PLAN

- 7.1 Purpose
- 7.2 Emergency Drills
 - 7.2.1 Fire Fighting
 - 7.2.2 Emergency Drills
 - 7.2.3 Emergency Evacuation
 - 7.2.4 Roles and Responsibilities
- 7.3 Emergency Response Team

8 WASTE MANAGEMENT PLAN

9 TRAFFIC MANAGEMENT PLAN

10 PLANS FOR HANDLING OF HAZARDOUS MATERIALS

11 TREES PLANTATION PLAN

12 TRAINING PLAN

13 COMPLIANCE AND EFFECTS MONITORING PLAN

- 13.1 General
- 13.2 Objectives of the Monitoring
- 13.3 Compliance and Effects Monitoring
 - 13.3.1 Compliance Monitoring:
 - 13.3.2 Environmental Effects Monitoring
 - 13.3.3 Social Effects Monitoring
- 13.4 Role & Responsibilities
- 13.5 HSE Inspections

14 Reports

- 14.1 General
- 14.2 Complaint Mechanism

15 Estimated Budget for the Implementation of CESMP

16 PHYSICAL CULTURAL INFRASTRUCTURES (PCIS)

Annexure: Compliance & Effect Monitoring Checklists (Daily & Weekly)



Annexure-L: Template Emergency Response Plan

Emergency Response Plan (ERP) provides an overview of the procedures to mitigate and control the impacts on the project in the event of emergency situations usually occurring suddenly and unexpectedly during the implementation of proposed Project and provide maximum protection to all personnel (involved in the implementation). The E&S Specialists-PMU will be responsible for the implementation of this plan with the support of field staff (E&S Focal Persons) at district level.

Emergency Preparedness and Response Procedures

- In case of any emergency (if occur), the E&S Focal Persons (at Site) will coordinate with relevant department for rescue service, in particular for fire, flooding, earthquake emergencies;
- Staff should be trained for emergency response, and the necessary equipment should be readily available at all times to ensure that all required measures can be implemented safely and rapidly. Written instructions for the different types of emergencies should be display at appropriate locations;
- First Aid Facility/ kits, PPEs and appropriate firefighting equipment will be provided at project site at suitable locations;
- Equipment shall be regularly examined and maintained;
- Fire drills will be conducted at least biannually to ensure that workers are familiar with the action to take in the event of fire;
- Fire awareness materials shall be placed at appropriate locations to educate the service providers and locals on what to do in the event of fire such as safe evacuation;
- In the event of emergencies involving spillage, the spillage or leakage should be stopped as soon as practicable and cleaned up promptly and/ or disinfected;
- Absorbent materials, disinfection chemicals, protective clothing, masks, eye protection, gloves should be used as appropriate in the clean-up and disinfection operations;
- All materials arising from the clean-up of spilled waste should be disposed of in an appropriate manner (as described in Environmental and Health Care Waste Management Plan);
- In case of an incident or accident, report needs to be generated by the E&S Specialists with the support from E&S Focal Persons at district level and same will be made a part of quarterly progress report. The E&S Focal persons should be familiar with the safeguards incidence response toolkit (SIRT) as a guide to report and manage incidents;
- Follow-up investigations of the incidents should be conducted so that improvement measures can be taken to avoid recurrence of similar incidents in future;
- Contacts for police, emergency services and helplines should be displayed at project site; and
- In addition to above, applicable mitigation measures listed in ESMP shall be followed.

Training

Ensure that all staff members are trained on the emergency response protocols and procedures. This includes training on the use of emergency equipment such as first aid kits, PPEs and fire extinguishers etc. Trainings provided by E&S Specialists-PMU or E&S Focal Persons or External Parties at district level during the implementation of proposed Project will also cover the emergency response topic.

Conduct Emergency Drills

Regularly conduct emergency drills to ensure that all staff members are familiar with the emergency response protocols and procedures. This will help to identify any weaknesses in the emergency response plan and provide an opportunity to make improvements.

**Maintain Emergency Equipment**

Ensure that all emergency equipment is regularly checked and maintained. This includes first aid kits, PPEs, and fire extinguishers.

Review and Update Emergency Response Procedures

Review and update the emergency response procedures on a regular basis to ensure that they remain relevant and effective.



Annexure-M: Traffic Management Guidelines

Introduction

The Government of Sindh (GoS) has formulated the Sindh Integrated - Integrated Health and Population Project with support from the World Bank (WB) and in line with the national/provincial laws as well as WB safeguards' requirements. To address potentially negative environmental and social impacts of the program, the GoS has conducted an environmental and social assessment of the proposed activities. As an outcome of this assessment, this Environmental and Social Management plan (ESMP) has been prepared.

Objectives

The Traffic Management Plan (TMP) is used to ensure that roads are clear at site during the construction period of the public transportation corridor works, and prevent traffic accidents from occurring in the project scope in construction.

Principles

- a. National and local regulations on road traffic and safety should be complied with;
- b. A traffic management mechanism should be established and capacity building should be strengthened on traffic management in construction; and
- c. Detailed and specific measures on traffic management and emergency response should be prepared and strictly implemented.

Traffic management mechanism

- d. Road Traffic Safety Law of the Sindh Government
- e. Sindh Motor vehicle ordinance, 2001
- f. Sindh urban transport policy
- g. Requirements of ESF and WBG EHS Guidelines

Traffic management responsibilities

The PMU, the construction agencies (contractors), and the Road authorities would take different responsibilities (as shown in Table A) in traffic management in the construction period, and they should keep dynamic consultation and cooperation according to the construction progress and traffic situations.

Table-A: Responsibilities for Traffic Management

Responsible party	Responsibilities
Contractor	<ol style="list-style-type: none"> 1. Prepare a detailed traffic organization plan based on the construction organization programs and submit it to PMU for review before construction commissioning; 2. Establish clear organizational structure and duties on traffic management in construction; 3. Provide specific training to related personnel on traffic management in construction; 4. Prepare detailed measures of traffic management within the traffic control zones for the road works based on the approved traffic organization plan, and implement these measures; 5. Record the implementation of these measures, and report any issues once they are recognized;



Responsible party	Responsibilities
	<p>6. Prepare emergency response plans for traffic accidents in construction;</p> <p>7. Respond to traffic accidents and emergencies in construction as needed.</p>
EDSQA firm (Supervision Consultant)	<p>1. Supervise the traffic management at site during construction</p> <p>2. Compliance of approve traffic management plan at site</p> <p>3. Regular reporting to PMU</p>
Program Management Unit (PMU)	<p>1. Review the traffic organization plan;</p> <p>2. Conduct supervision and inspection on the implementation of traffic management in construction;</p> <p>3. Review emergency response plans for traffic accidents in construction.</p> <p>4. Respond to traffic accidents and emergencies in construction as needed.</p>

Traffic management measures

Detailed traffic management measures for the construction period will be prepared in accordance with the relevant laws and regulations. Following basic measures, including but not limited to following, should be considered: -

- Conduct construction section by section, and avoid all-line construction that might cause large-scale traffic jams.
- Set special transportation routes in construction, and conduct traffic diversion.
- Adjust bus stops or routes based on construction arrangements.
- Set up proper traffic management facilities such as barriers, lights, safe guardrails and marks as required within the traffic control zones for the road works.
- Provide access roads for pedestrians and/or set proper safe guardrails and marks as needed.
- Properly arrange the construction personnel, machinery and materials on site to prevent unnecessary traffic congestion.

Safety personnel of each construction team should inspect construction sites every day; and specific personnel should be designated to divert traffic at construction peak hours or traffic jams occur.

Emergency response plans on traffic accidents

The contractors should prepare a detailed emergency response plan for traffic accidents in construction, and equip with necessary facilities for handling emergencies. They should establish a combined emergency response mechanism to traffic accidents and other relevant authorities in charge of road-related public facilities. Preventive measures should be undertaken to avoid accidents in construction, and report and take actions in a timely manner once there are any problems.

Contractor will prepare TMP

The following points to be considered for the preparation of TMP by the Contractor:

- Key Stakeholders
- Permits and approvals
- Potential impacts and mitigation measures



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- Traffic diversion and road closures
- Speed limit
- Public notification and community engagement
- Monitoring procedure.



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Annexure-N: Notification for minimum wages



GOVERNMENT OF THE SINDH
LAW MINISTRY
MINISTRY OF LABOUR & EMPLOYMENT
Karachi, dated 17th July, 2023

Notification

No. 1-18-10-5/2023-4 In accordance with Section 4(1) of the Sindh Minimum Wages Act, 2023, and in exercise of the powers granted under Section 6(1) (a) of the same Act, the Government of Sindh is pleased to fix the minimum monthly wages at Rs. 40,000/- for unskilled adult and adolescent workers employed in all industrial and commercial establishments across the province. This will take effect from 1st July, 2023, subject to the following conditions:

- These revised minimum wages will apply to all unskilled adult and adolescent workers working in any industrial or commercial establishments, whether registered or unregistered, throughout Sindh.
- This minimum wage shall be uniformly applicable across the entire province and will come into force from 1st July, 2023, as per the provisions of the Sindh Minimum Wages Act, 2023.
- Male and female workers in this category shall receive equal pay.
- Working hours, overtime rates, non-days, and paid holiday provisions for these workers shall be governed by the Sindh Factories Act, 2013, the Payment of Wages Act, 2023, and other applicable labor laws.
- The wages for skilled and semi-skilled workers in any industry must not be lower than the minimum wage fixed for unskilled workers.
- All employers, regardless of whether their establishment is registered or unregistered, must pay their unskilled and adolescent workers not less than Rs. 40,000/- per month, or stated in the attached schedule.
- "Wages" shall be interpreted according to the definition provided in Section 2(ya) of the Sindh Minimum Wages Act, 2023.
- Employers must ensure that piece-rated workers are ensured that each workers earn at least Rs. 150 per hour on any working day.
- The new minimum wage is not to be considered the maximum. Any current wages higher than the new minimum wage should be abandoned. Employers are encouraged to



offer higher wages either voluntarily or through collective agreements based on experience, local living costs, or other relevant factors.

ii. The revised wage rates shall apply to all new and old new workers, including those employed on a temporary or piece rate basis, effective from the date specified in the official notification issued by the Labour & Human Resources Department under Section 4 of the Sindh Minimum Wages Act, 2023 i.e. 1st July, 2023.

iii. Working hours shall be 40 hours/maximum/forty hrs, unless otherwise directed, overtime, regular non-days, premium, power, bonus, incentive, provision fund, local (for/individual), education, insurance, paid holiday leave, and attendance bonuses must continue to be provided by the employer. These cannot be counted toward meeting the minimum wage requirement.

iv. Vacation allowances, incentives, and the value of welfare facilities mentioned above shall not be used to offset the minimum wage.

v. All Government, semi-government and private institutions that hire manpower for different sectors through contractors must ensure that no worker is engaged when the proposed wage is less than the minimum of Rs. 40,000/- per month.

vi. A detailed schedule of the minimum wages for unskilled adult and adolescent workers is provided below:

Category of Workers	Recommended Minimum Rates of Wages		
	Per Hour	Per Day	Per Month
Unskilled Adult & Adolescent Workers employed in all industrial & commercial establishments of Sindh Province	Rs.175	Rs.1750	Rs.52,500



Minister of Labour and Employment

No. 1-18-10-5/2023-4



Karachi, dated, the 17th July 2023

R/10



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**Environmental & Social Management Plan (ESMP)
Rehabilitation of 39 GDs
In 19 Districts of Sindh**

8 copy is furnished for information on:

1. The Secretary, Ministry of Human Resource and Labour Resource Development, Government of Sindh, Islamabad
2. The Chairman, Planning & Development Board, Government of Sindh, Karachi
3. The Senior Secretary, Board of Revenue, Sindh, Karachi 3.
4. The Provincial Secretary to Chief Minister Sindh, Karachi
5. The Provincial Secretary to Chief Secretary Sindh, Karachi
6. The Secretary to Government of Sindh (ES)
7. The Deputy Secretary (ES) to Chief Secretary Sindh, Karachi
8. The Director General, Directorate of Labour, Sindh, Karachi
9. The Commissioner, Sindh Employees Social Security Institute, Karachi
10. The Secretary, Sindh Workers Welfare Board, Karachi
11. The Chairman, Sindh Minimum Wages Board, Karachi
12. The Commissioner, Mawa Labour Welfare Organisation, Sindh, Karachi
13. The Superintendent, Sindh Commissioner Planning Dept, Karachi, for the next issue of Health Commission Gazette publication no.
14. The Provincial Employees Federation of Pakistan, 1st Floor, New Lab Building No 12, Welfare Road, off 12 Chundrigar Road, Karachi
15. The President, Association of Trade and Industries, KOTI, KTH, Karachi, No 03, KTH, Super Highway, F.B. Area, North Karachi, Hyderabad, Sindh, Hyderabad and Baloch
16. The President, Chamber of Commerce and Industries (Karachi, Hyderabad, Baloch, Lahore & Multan)
17. The (A) Workers Federation in Sindh
18. The PI to Minister Labour & Human Resource Sindh, Karachi
19. The PI to Secretary Labour & Human Resource Department, Government of Sindh, Karachi
20. Office Writer (ES)



ES/ES



Annexure-O: Chance Find Procedure

Chance Find Procedures Project may involve excavations. Therefore, the possibility of chance find is not ignorable. In case of any chance find, the contractor will immediately report through Supervision Consultant to DG Directorate General of Archaeology, Sindh and Project Director PMU SIHP, to take further suitable action to preserve those antique or sensitive remains, the contact details of the DG of Archaeology (Email # dgantiquitiessindh@gmail.com, Cell +92-21-99332224, +92-21-99332890 and Address # Antiquities House - C-82, Block-2, Near Bilal Masjid ,Clifton, Karachi, Sindh 75600) Representative of the Director will visit the site and observe the significance of the antique, artefact and Cultural (religious) properties and significance of the project. The report will be prepared by representative and will be given to the Director. The documentation will be completed and if required suitable action will be taken to preserve those antiques and sensitive remains. In case any artefact, antiques and sensitive remains are discovered, chance find procedures should be adopted by contractor workers as follows:

- Stop the construction activities in the areas of chance find.
- After stopping work, the contractor must immediately report the discovery to the Supervision Consultant.
- The Director decides to take over the antiquity for purposes of custody, preservation and protection, the person discovering or finding it shall hand it over to the Director or a person authorized by him in writing.
- Delineate the discovered site or area.
- Consult with the local community and provincial Archaeological Department.
- The Director shall, constitute a team of archaeologists for undertaking preliminary investigation and will decide about further course of action in light of findings of the team.
- The suggestion of the local communities and the concerned authorities will be suitably incorporated during taking the preventive measures to conserve the antique, artefact and cultural (religious) properties; and secure the site to prevent any damage or loss of removable objects. In case of removable antiquities or sensitive remain, a night guard shall be arranged until the responsible local authorities take over.
- Avoid the use of heavy construction machinery during the excavation process.
- Strict Monitoring and supervision as per monitoring plan given in ESMP r should be enforced during works.



Annexure-P: Healthcare Waste Management Plan

1. Introduction

The government of Sindh under the "Sindh Integrated Health and Population Project-(SIHPP)". Implementation of Environmental & Social Management framework (ESMF) in conformity with the (Health Care Waste Management) Sindh HCWM Rules 2005, a comprehensive Health Care Waste Management Plan (HCWMP) has been developed. The Main objective of HCWMP is to strengthen the hospital waste management system in accordance with Healthcare Waste Management Rule (HWM) rules, 2005 for the safe collection, segregation, storage, transportation and final disposal of the waste. Planning of HCWMP is not limited to the preparation of internal guidelines/instructions for the Management of health care waste but rather a process to sustain and optimize the operation of HCWMP systems in health care facilities. It is the ambition of the District Health Authority (DHA) and Primary People Health care Initiative (PPHI) that the implementation of this plan at operation governmental dispensaries under the SIHPP will result in improved HCW management.

This plan discusses the Health Care Waste Management Plan. It focuses on systems and practices for (i) collection and segregation, (ii) transportation and storage and (iii) safe disposal of health care waste.

Despite many efforts taken by the government and civil society, medical waste (including immunization waste) management across Pakistan remains a challenge, especially at the Tehsil and Union Council levels. Medical waste management practices shows that medical waste is not regulated and not always disposed in an efficient manner. Most of the primary level healthcare facilities do not have effective systems and procedures in place, nor have infrastructure to manage and dispose-off infectious waste. The hazards associated with improper waste disposal by any healthcare facility operation are mostly caused by not following the infection control protocols, not using proper personal protective equipment (PPE), and not employing proper procedures for waste collection, transportation, storage, and final disposal. In addition, recycling of medical waste also poses very serious health risks for the workers involved in recycling and also consumers using the recycled products. Moreover, safety of staff handling sharps such as syringes and needles is at risk if proper procedures are not followed. Air and water quality deterioration is another associated potential impact if the waste is disposed by burning and/or burial.

Current Practices for Waste Management at Project site (Health facility)

The waste at project site (health facility) is collected in colored paddled bins and taken outside (in safety boxes) to the disposal facility.

All the health facilities have adequate capacity to dispose of the waste safely as the technical staff deputed are specifically trained for the said activity. Moreover, the same waste management practice was put in place by Sindh environment protection 2014.

Collection and Segregation

The first and most significant element of the healthcare waste management is collection and segregation. Segregation means separating different waste streams keeping in view the type of treatment and disposal practices. A proper system of segregation would thus identify waste according to the source and type of disposal or disinfections. It would also require containers specifically for each category of waste.

In all type of health care facilities, waste generated has to be classified and segregated into various standard categories such as non-risk waste and risky/ hazardous waste as shown in **Table 1**. Compliance of segregation process will be applied to all project sites, simple enough to be implemented by waste management workers and finally to be easily monitored using a standard checklist. Colored containers



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have to be provided along with training of health care staff.

Table 1: Classification and Color Coding of Healthcare Waste to be Adopted for Waste Segregation

Classification	Description	Color of Container	Type of Container
Class 1 (NON-RISK WASTE)	All domestic waste: paper, cardboard, vegetable peelings, food packing, cold drink bottles, cans etc.	White /Green	Suitable Container with plastic bag
Class 2 (SHARPS):	Broken syringes and needles, blades, glass pieces and scalpels, broken and empty vaccine bottles etc.	Yellow, marked Sharp/Danger Waste	Puncture Proof container
Class 3 (INFECTIOUS):	Waste from infected patients, discarded or disposable materials and equipment which have been in contact with such patients (such as used syringes), PPEs (gloves, masks etc.)	Blue, marked Contaminated/Infectious Waste	Container with yellow waste bag

The segregation will be carried out at the source of generation i.e., at health facility. Segregation will be done by type of wastes and collected in the assigned bags. The filled bags will be transported to designated storage/ disposal points.

Transportation

A time-table should be developed for transporting waste on daily basis and shoulder-carrying must be avoided. Wheeled containers / trolleys should be used to transport the waste/plastic bags to the disposal site, particularly for infectious wastes. The collected waste should not be left, even temporarily, at any place other than the designated disposal site.

All concerned staff members are properly trained in the handling, loading, unloading, transportation and disposal of waste (sharps and infectious), and are fully aware of emergency procedures for dealing with accidents and spillages.

Safe Disposal

The hazardous waste should be disposed of immediately through transported to designated incinerator (where applicable).

The bags shall be removed when it is not more than three quarters full and sealed, preferably with self-locking plastic and not by stapling. The bags removed should be immediately replaced with a new one of the same type particularly for infectious wastes.

Non-hazardous waste should also be disposed of through Municipal Corporation according to its regular schedule. Adequate numbers of non-risk waste containers shall be placed at site.



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Personal Protective Equipment

All the workers involved in waste management must be equipped with appropriate PPEs.

Monitoring and Testing

The project will monitor the soil, air (where applicable/as burning of waste is involved) and water quality in the surroundings of health care facilities on periodic basis including the third-party validation (described in ESMP) to ensure that the disposal of waste is not impacting soil, air and water quality of the area. The implementation progress reports of the project cover the progress on this Plan as well.

The Health Care Waste Management Plan shall be regularly monitored, documented, reviewed, and revised and updated by the Waste Management Team as and when necessary.