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

Environmental and Social Management Plan (ESMP)

Lot-2

51 Basic Health Units (BHUs)

Hyderabad & Mirpur Khas Divisions

March, 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 Standards	**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
GIIP	Good International Industry Practice	**SEP**	Stakeholder Engagement Plan
GBV	Gender Based Violence	**SEQS**	Sindh Environmental Quality Standards
GDs	Government Dispensaries	**SEPA**	Sindh Environmental Protection Agency
GoP	Government of Pakistan	**SIHPP**	Sindh Integrated Health and Population Project
GoS	Government of Sindh	**SOP**	Standard Operating Procedure
GRC	Grievance Redressal Committees	**SSSD**	Sindh Strategy for Sustainable Development
GRM	Grievance Redress Mechanism	**THQ**	Taluka Headquarter
HCF	Health care facilities	**TPV**	Third Party Validation
HFL	High flood level	**WB**	World Bank
IEE	Initial environment examination		

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, to reconstruct 108 Basic Health Units (BHUs) fully damaged during floods in Sindh. 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 reconstruction activities for 51 BHUs in Hyderabad and Mirpur Khas divisions, covering no land acquisition. Compensation may be provided if existing land use affects livelihoods or non-titled residences. E&S screening is completed for the 51 BHUs, which serve populations of 15,000 to 25,000 around each BHU. The BHUs, typically on 3225 sq ft, will be rebuilt with new facilities. Upgrades include rooms for doctors, X-ray, ultrasound, laboratory, labor, and more. Additional improvements will feature a hybrid solar system and water filtration plant.

The project area in Mirpur Khas and Hyderabad divisions ranges from 05 to 30 meters above sea level, with fertile clay and sand alluvial soil. The region has a hot, dry subtropical climate with temperatures reaching 40-45°C and annual rainfall between 1.2 to 76.7 mm. Originally tropical thorn forest, the area is home to trees like acacia, Phulai, Bubul, and Poplar. A total of 270 trees will be affected by the reconstruction of 51 BHUs. Local fauna includes birds, snakes, and lizards, but these species are not impacted by construction activities. There is a risk of water contamination from construction runoff, which can harm ecosystems and community water resources. To mitigate this, any leaks or spills will be immediately cleaned up using best practices to prevent runoff. Traffic near the sub-project sites is low, with local residents are using motor bikes, Rikshaws or walking to health facilities. Construction machinery will generate noise, but it is expected to remain within acceptable limits. Heavy vehicle traffic is minimal, with mostly personal and small transport vehicles on village access roads.

A socio-economic survey and social impact assessment were conducted in March-April 2024 using questionnaires (baseline socio-economic survey forms) and stakeholder consultations. The Socio-Economic Survey covers 332 households and 2,158 individuals including 1051 males and 1107 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, and seasonal flooding in Mirpur Khas, and waste management and transport issues in Hyderabad. Most residents live in self-owned "Paka" or "Semi-Paka" housing, with agriculture as the dominant livelihood. The average household size is six and half, and the native languages of the population are Sindhi, Balochi, Saraiki and Punjabi. It has been identified that out of 332 households the family income of 170 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 51 BHUs, all are in functional conditional, while severely damaged due to the 2022 floods. All BHUs 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 been changed after floods, told by local community, 25 BHU's water was observed unfit to drink, as the taste of water is brackish. Sanitation was poorly maintained at 40 BHUs, with 11 BHUs having better facilities. Waste management was also poor in all BHUs. Roads to BHUs are mostly unpaved. 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 500-meter radius of each BHU. 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 are not being in 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 BHU 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 BHU has been allocated for the ESMP implementation, included in the Bill of Quantities (BOQ), the Construction Contractor, EDSQA, and PMU is responsible for implementation. The contractor must ensure that mitigation measures in the ESMP are followed, with costs included in the contract documents. Non-compliance will result in penalties. To ensure effective E&S compliance, trainings will be conducted to construction crew and local communities. ESMP, E&S policies, guidelines, procedures, codes of practices, World Bank Environmental and social Framework, Environmental Monitoring, land acquisition/land management, Conflict Management, Public Consultation, Participatory consultative techniques, etc.

Community engagement activities will involve residents around target BHUs. 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) in the health sector, including advocacy and information campaigns. Health workers and residents will be sensitized to project activities and the GRM. The GRM will address concerns, complaints, and feedback from the community, health workers, and other stakeholders throughout the project. It will be accessible, culturally appropriate, and allow stakeholders to express grievances. Complaints will be resolved promptly and transparently to build trust and collaboration.

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 prepared[2]. 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.

A total of 108 Basic Health Units (BHUs) will be reconstructed under this project, divided into Package Lot-1 (57 BHUs), and Package Lot-2 (51 BHUs). This ESMP pertains to the subproject, reconstruction of 51 BHUs, damaged by flooding, across two[3] divisions (40 BHUs in Hyderabad and 11 BHUs in Mirpur Khas) in Sindh, as a part of component-1 of the Project, whereas ESMP for subproject 57 BHUs is already prepared separately.

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 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.[4]

[1] Named as Project in this document and subproject refers to reconstruction of 51 BHUs.
[2] This ESMP covers subproject "reconstruction of 51 BHUs", which is a part of Component-1 of the SIHP project.
[3] Division Hyderabad (Districts are; Badin, Dadu, Hyderabad, Jamshoro, Matiari, Tando Muhammad Khan, Tando Allahyar, Thatta, Sujawal),
Division Mirpur Khas (Districts are; Mirpur Khas, Tharparkar, & Umerkot)
[4] SIHPP, PAD November 23, 2022

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

- The present ESMP is based on both primary & secondary data, information, and discussions held with stakeholders which: Addresses the expected environmental 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 51 BHUs and will be made part of the bidding and contract documents so that contractor can comply with its requirements. 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 assess the existing environmental and socioeconomic conditions, 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 equipping decision makers to take informed decisions.

1.4 Approach and Methodology

1.4.1 Approach

The ESMP 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 obtain an impartial impression of the people's perceptions about the subproject and its environmental and social impacts.

1.4.2 Methodology

The ESMP has been prepared employing the generally accepted standard methodology and 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** which includes environmental and social checklist (attached as Annexure A) and base line data for socioeconomic through proforma (attached as **Annexure-B**), however, baseline data (sampling and testing) of various environmental matrices will be conducted by the contractor, before start of any physical work on site. Three teams, consisting of a Civil Engineer, Architect, and Environmental Engineer (for E&S survey), were deployed in the field from March and April 2024, covering the Hyderabad and Mirpur Khas 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. **Consultations with key stakeholders** and potential beneficiary communities. During the field survey the team conducted community and intuitional consultations across three divisions. Key Informant Interviews (KIIs) and Focus Group Discussions (FGDs) were held with locals (501 males and 349 females).
6. **Scoping, screening and impact assessment** while developing interaction between subproject activities and key environmental aspects to screen out the significance of adverse environmental and social impact and proposing generic mitigation measures.
7. **Procedures** for environmental and social management, to manage and monitor the environmental and social aspects of the subproject.
8. **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) components[5]; 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 districts.

Subcomponent 1.2: Strengthening/Rehabilitating of the Health Facilities for Providing

[5] Project Appraisal Document, 23 November 2022

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 (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.

1.5.2 Project Area

The proposed project of 51 BHUs will be carried out in two divisions of Sindh (Hyderabad & Mirpur Khas), described below,

Hyderabad

Hyderabad Division is located in the Southern region of Sindh. It consists It comprises 9 Districts

including Hyderabad, Tando Mohammad Khan, Sajjawal, Tando Allah Yar, Th atta, Badin, Dadu, Matiari & Jamshoro. The division lies between 27° 19' 19.7614 N",67°10'2.4916E" to 23° 57' 45.9356N" ,68°44'18.5378E", with an average altitude ranging from 160 to 0 meter above sea level.

Mirpur Khas Division
Mirpur Khas Division is situated in the South of Sindh and consist of three districts including Mirpurkhas, Tharparkar & Umerkot The division is located between 25°46' 53.8968N",68°54'27.6505E" to 24°23'30N", 71°8'58.3933E" with an altitude of around 137 to 15 meter above sea level.

1.5.3 Construction Activities

All the civil works will be carried out on existing BHU's land. For the contract award, one main contractor will be engaged to handle all 51 BHUs across both divisions: Hyderabad and Mirpur Khas. The list of 51 BHUs are presented in **Annexure-C**. The duration of proposed subproject is 15 months. The subproject execution and procurement will follow World Bank approved procurement plan. The subproject activities consist of:

- Prior to starting the subproject, the Contractor must conduct environmental assessment (water, air, and noise) through a SEPA-approved third party to establish baseline data for each Site/BHU and provide the results in all C-ESMPs.
- Demolition / dismantling of existing damaged structures
- Construction of new structures consisting of Doctor's room, LHV Room, EPI & Nutrition Room, Additional Rooms for Doctor, X-ray room, Basic Laboratory, Ultrasound Room, Labor Room with Autoclave and Scrub, Additional Observation Beds for labor, Female waiting area, Male waiting area, Wheelchair Parking Bay, Store, Pharmacy, Pantry, Washing Area, Meeting Room.
- Installation of Solar panels as alternate energy source, water filtration plants, Sewage and solid waste disposal arrangements.
- Handing over the facility to People's primary Health Initiatives (PPHI).

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 Design of the BHU

Contractors will undertake the construction according to the approved subproject design details (layout plan of BHU is attached as **Annexure-D** along with architectural view as **Annexure-E**.). The subproject's design has been completed.

1.5.5 Structural design details of BHU

The table 1-1; shows the structural designs details. Following design parameters will be followed in the construction: -

- All materials and workmanship shall confirm to the specifications of the contract documents. In absence of any specifications, all materials, tests and workmanship shall confirm 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 confirm 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.
- 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

SR	Type of Room/Building Part	Proposed Measurement/Dimensions (ft x ft)	AREA (Ft^2)
1.	Waiting Lobby	35.50 x 10.00	355.00
2.	LHV Room	12.00 x 10.25	123.00
3.	EPI Room	10.00 x 10.00	100.00
4.	DR/Ultrasound room	14.00 x 7.00	98.00
5.	Pharmacy	10.00 x 8.75	87.50
6.	Doctor Room	12.00 x 10.00	120.00
7.	Passage	10.75 x 4.50	48.38
8.	Corridor 1	25.50 x 5.50	140.25
9.	Corridor 2	32.25 x 8.00	258.00
10.	Laboratory	10.00 x 10.00	100.00
11.	Labor Room	18.00 x 13.75	247.50
12.	Ward	20.50 x 31.50	645.75
13.	Pantry	5.50 x 6.50	35.75
14.	UPS & Electrical Room	5.50 x 6.50	35.75
15.	Bathroom 1	7.25 x 7.00	50.75
16.	Bathroom 2	7.00 x 7.00	49.00
17.	Male Toilet	5.75 x 6.50	37.38
18.	Doctor's Toilet	6.50 x 5.75	37.38
19.	Female Toilet	6.50 x 5.88	38.22
20.	Store Room	10.00 x 6.50	65.00
21.	Auto Clave Room	6.50 x 4.75	30.88
22.	Scrub Room	7.00 x 6.50	45.50
23.	Washing Area	3.88 x 6.50	25.22
Total carpet/internal area			2,774.21
Total covered area			3225

1.5.6 E & S Aspects of the Design

The following key Environment and Social (E & S) aspects have been considered in design, to minimize the E & S risks;

- Building design prioritize climate resilience, specifically addressing flood risks through elevated critical infrastructure and improved entrance to ensure sick individuals can continue to access services, even considering flooding aspects.
- Considered modular design approach adopted for easy scaling up or down based on community needs without major redesigns.
- The building design 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 handwashing 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.

1.5.7 Construction Material

The estimated quantities of construction materials for all 51 BHUs are mentioned in BOQ as Following table 1-2;

Table 1-2: Estimated quantities of construction materials

Sr. No:	Construction Material	Estimated Quantity for a Typical site/BHU	Estimated Quantity for 51 BHUs
1.	Steel	20 Tons	1,020 Tons
2.	Cement (OPC/SR)	1,250 Bags	63,750 Bags
3.	Gravel	1,400 Cubic feet	71,400 Cubic feet
4.	Earth/Soil	4,060 Cubic feet	207,060 Cubic feet
5.	Masonry/Bricks	5,050 Cubic feet	275,550 Cubic feet
6.	Coarse aggregate (Crush)	6,100 Cubic feet	311,100 Cubic feet
7.	Fine aggregate (Sand)	30,500 Cubic feet	1,555,500 Cubic feet

1.5.8 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.

1.5.9 Material Stockpiling

A material stockpiling area will be built near the construction site within the BHU 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.

1.5.10 Contractor's Camps

A contractor's camp will be established on government land within each BHU's existing area, housing 15 – 20 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 locally. The average distance between neighboring BHUs is about 5 to 7 Km. Therefore, there is no possibility to accommodate the labors of two or more BHU/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.

1.5.11 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
1.	Excavator	01
2.	Dumpers	01
3.	Plate Compactor	02
4.	Concrete Mixer Power Driven	01
5.	Water Tankers	01
6.	Surveying Equipment set	01
7.	Utility Installation Equipment	01
8.	Tractor Trolley	01
9.	Concrete lifting Machine	01
10.	Laboratory equipment set as per approval of client	01
11.	Generator 10KVA	01
12.	Concrete Batching	01
13.	Mobile Pump	01

1.5.12 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.

1.5.13 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 are provided in below Table 1-4. The water estimation was done for entire construction period of 15 months using a standard procedure, given in a footnote below.

Table 1-4: Approximate Water Requirements[6]

S.No:	Activity	Estimated Quantity for a Typical site/BHU(Gallons)	Estimated Quantity for 51 BHUs (Gallons)
1.	Concerting	4,800	244,800
2.	Curing	25,500	1,300,500
3.	Workforce	79,900	4,074,900

1.5.14 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 construction of the Basic Health Unit (BHU) is around 2-3 kW. The contractor will manage resources efficiently to keep operations running smoothly while following safety and environmental guidelines.

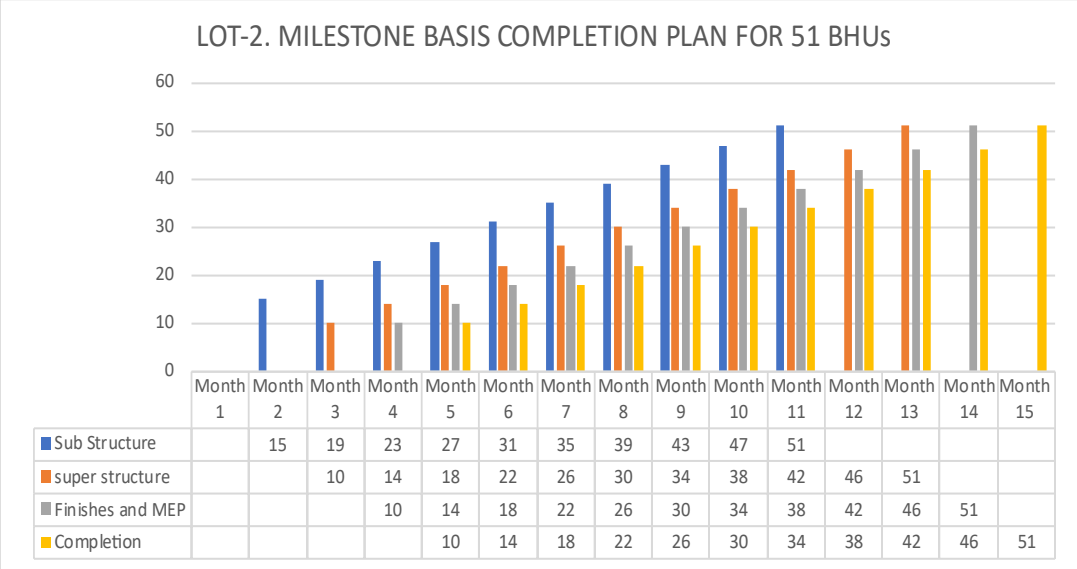
1.5.15 Labor Requirement

The workforce required by the contractor during the execution of the sub-project will be around 15-20 skilled and unskilled laborers for each (one) BHU, 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.

1.5.16 Implementation Schedule

The contractor will complete the construction of 51 BHUs on milestone basis as described in figure 1-1 that simultaneously construction progress will achieve as per given time schedule. The implementation schedule for construction is shown in below figure no, 1-1.

Figure 1-1 :Lot 2, Implementation Schedule for construction of 51 BHUs



[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	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

[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
	development benefits of a project by treating workers fairly and providing safe working conditions. This standard applies to project workers, including full-time, part-time, temporary, seasonal, and migrant workers.	Procedures (LMP) has been prepared and approved on 22nd March 2024, Worker's code of 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/AID, 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),	Not Relevant. Land acquisition is not expected for the sub-project, as all civil works in Component 1 involve Reconstruction of BHUs which will take place within the existing boundaries of government healthcare facilities, on government owned land. Additionally, no any Voluntary Land Donation

Environmental and Social Standard	Description	Relevance to the Project
	economic displacement (loss of land, assets, or access to assets leading to loss of livelihoods), or both. It aims to minimize or altogether avoid involuntary resettlement and provides guidance for responsible and equitable land acquisition.	(VLD) is involved in this subproject. Based on the site surveys, it is confirmed that there is no informal settlers in the selected BHUs.
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.	Relevant. The implementation of subproject will affect the 270 trees. A reforestation ratio of 1:5 is recommended, requiring the planting of approximately 1,350 trees. 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). 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 BHU, since the proposed activities will be carried out within the existing boundaries of the health care facilities (BHUs). 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	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.	Not relevant. This standard is not relevant, as Financial Intermediaries will not be used.
ESS10 – Stakeholder Engagement and Disclosure	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 and providing means for effective and inclusive stakeholder engagement throughout the life of the project.	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 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 Other Relevant World Bank Guidelines and Policies

The World Bank Group has established its Environmental, Health and Safety (EHS) guidelines[8] for all the interventions that are financed by the group. These EHS Guidelines are technical reference documents with general and sector-specific examples of Good International Industry Practice (GIIP). EHS Guidelines for Health Care Facilities[9]: The EHS Guidelines for Health Care Facilities include information relevant to the management of EHS issues associated with health care facilities (HCF) and World Bank General Environmental Health and safety guide lines to be followed during the construction and operation phases, along with recommendations for their management. The proposed subproject will respect the relevant sections of EHS Guidelines for Health Care Facilities.

[8]https://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/sustainability-at-ifc/policies-standards/ehs-guidelines

[9]https://www.ifc.org/wps/wcm/connect/960ef524-1fa5-4696-8db3-82c60edf5367/Final%2B-%2BHealth%2BCare%2BFacilities.pdf?MOD=AJPERES&CVID=nPtgRx5&id=1323161961169

Policy on Access to Information

Transparency is essential to building and maintaining public dialogue and increasing public awareness about the Bank's development role and mission. It is also critical for enhancing good governance, accountability, and development effectiveness. Openness promotes engagement with stakeholders, which, in turn, improves the design and implementation of projects and policies, and strengthens development outcomes. It facilitates public oversight of Bank-supported operations during their preparation and implementation, which not only assists in exposing potential wrongdoing and corruption, but also enhances the possibility that problems will be identified and addressed early on. In accordance with this Policy, the present ESMP will be disclosed to the public on GoS's website.

2.3 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.

S No.	Policy/Strategy	Brief Coverage	Relevance to Project
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 drinking water during the construction and rehabilitation activities and at operational level as well, the contractor will provide safe and filtered drinking water facilities to all workforce at the site and camp area.
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 Agency, (Review of EC, IEE and EIA) Regulations, 2021	These regulations set out: • Key policy and procedural requirements for filing an EIA; • • 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;	The proposed project falls into Schedule III (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.
6.	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	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

S No.	Policy/Strategy	Brief Coverage	Relevance to Project
		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.	are more stringent than the SEQS, 2016, the Project will ensure compliance with stringent guidelines and standards.
7.	Guidelines for Environmental Assessment	The guidelines that are relevant to the proposed project are listed below: • Guidelines for the Preparation and Review of Environmental Reports, 1997; • Guidelines for Sensitive and Sensitive Areas, 1997; • Guidelines for Public Consultation, 1997; and Sectorial Guidelines for Environmental Reports, 1997.	These guidelines have been considered during the preparation of this report.
8.	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 this rules.
9.	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.
10.	Sindh Cultural Heritage (Preservation) Act, 1994	This provincial act empowers the GoS 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 (BHUs) 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.
11.	Sindh Public Property Act, 2010	The act has been passed to avoid illegal encroachments and provide measures for	The selected Health Facilities (BHUs) reconstruction is carried out within the existing building area of Basic health unit. There is no encroachment. This

S No.	Policy/Strategy	Brief Coverage	Relevance to Project
		removal of encroachment from public property and to retrieve possession.	law is not applicable for the proposed project.
12.	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 factories.	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.
13.	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.
14.	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.

S No.	Policy/Strategy	Brief Coverage	Relevance to Project
15.	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.
16.	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.
17.	Sindh Prohibition of Child Employment Act, 2017	The Prohibition of Child Employment Act (PCEA) 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.	The relevance of this act to the project is to prohibit child employment as per conditions mentioned in this Act. No person under the age of 14 will be employed in any project related work.
18.	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.

S No.	Policy/Strategy	Brief Coverage	Relevance to Project
19.	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 BHUs, 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 51 BHUs.
20.	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.
21.	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.
22.	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 37,000 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.
23.	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.

S No.	Policy/Strategy	Brief Coverage	Relevance to Project
24.	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.

2.4 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).

3. Environmental and Social Baseline Conditions

3.1 Background

The following section provides an overview of baseline conditions across all sites. It not only aims to identify precise environmental and social conditions but also relevant issues within each area to inform mitigation strategies against potential risks and impacts. It summarizes the existing physical, ecological and socio-economic environment of the proposed subprojects, drawing on both primary as well as secondary. Considering the potential impacts of the subproject, existing baseline environmental conditions of the subproject are used as a benchmark for comparison of the physical, ecological and socio-economic conditions before and after construction phases of the subproject.

3.2 Physical Environment

The physical environment of Hyderabad & Mirpur Khas[10] in Sindh, Pakistan, is largely arid and shaped by the Indus River, which serves as the primary water source for the region. Hyderabad, located along the river, one of the world's largest irrigation systems, which diverts water to over 5 million acres of farmland. The region experiences hot conditions, with summer temperatures reaching up to 45°C. Mirpur Khas has fertile plains where major crops like rice, sugarcane, and wheat are cultivated, contributing significantly to Sindh's agricultural output, but it struggles with waterlogging and salinity affecting 25-30% of its land. Hyderabad features semi-arid conditions, and an extensive canal system supporting crops like cotton, wheat, and vegetables. Overall, both divisions experience high temperatures, low humidity, and critical reliance on the Indus for sustenance and irrigation. The main source of surface water in the area is the Kotri Barrage, which is primarily used for agriculture. Additionally, local communities rely on this water source for irrigation and other livelihood activities. The impacts of the 2022 floods were observed during environmental and social screening of the BHUs. it was observed that the floods significantly affected the region by causing damage to infrastructure, agricultural lands, and local livelihoods. The screening also identified potential environmental and social concerns related to water availability, quality, and competing demands between agricultural and other uses.

3.2.1 Topography

The topography[11] of Hyderabad & Mirpur Khas divisions is shaped by the Indus River and can be categorized into the canal irrigation tract (Piedmont Plains) and the eastern tract. Hyderabad is characterized by flat alluvial plains formed by ancient river deposits, with the Kotri Barrage facilitating irrigation and protective bunds shielding it from Kirthar Range hill torrents in the west and Indus floods in the east. Similarly, Mirpur Khas features fertile Piedmont Plains with canal irrigation systems, protected by embankments against hill torrents and flooding.

Across both divisions, environmental and social screening identified 25 out of 51 BHU locations as being below the High Flood Level (HFL). Sujawal and Badin recorded the highest number of BHUs, with 8 locations each, and 3 in each district found to be below HFL. Dadu, Tando Allahyar, and Tando Muhammad Khan each had 4 BHUs, with 2 in Dadu, 2 in Tando Allahyar, and 1 in Tando Muhammad Khan located below HFL. In Matiari, 2 out of 3 BHUs were identified as below HFL, while in Mirpur Khas, 4 out of 6 locations were similarly affected. Hyderabad had 2 BHUs, both below HFL, and in Umer Kot, 1 out of 2 was below the flood level. Thar parker is the only district where none of its 3 locations fall below HFL. This highlights significant flood risks in several districts, emphasizing the need for mitigation and management strategies.

[10] Pakistan Meteorological Department, 2023; Sindh Agriculture Department, 2022
[11] Sindh Irrigation Department, 2023

3.2.2 Geology

The geology[12] of the Hyderabad & Mirpur Khas divisions in Southern Sindh is predominantly shaped by the alluvial deposits from the Indus River and the surrounding Kirthar Range. Both divisions feature vast, fertile plains formed by fine sediments, including sand, silt, clay, and gravel, deposited by the river over centuries. Hyderabad, with its proximity to the Kotri Barrage, is characterized by unconsolidated alluvial deposits that provide fertile ground for agriculture. The region's geology also includes sedimentary rock formations, such as limestone, shale, and sandstone, found in the Kirthar Range to the west. Mirpur Khas is largely composed of alluvial deposits from the Indus River, with a combination of sands, silts, and clays. The region is also influenced by sedimentary formations underlying the surface deposits, with sedimentary rock outcrops located closer to the Kirthar Range. The geology across these divisions is thus characterized by fertile river plains and sedimentary rock formations, making the land ideal for agriculture, though it remains susceptible to erosion and flooding due to the dynamic nature of the river.

The geology of the selected 51 BHUs across both divisions are characterized by fertile river plains and sedimentary rock formations, making the land ideal for agriculture. No any BHU is near water bodies or on unstable soils are more prone to erosion, which can cause physical damage to infrastructure, disrupt health services, and lead to the loss of access.

3.2.3 Soil Morphology

The soil morphology[13] of Hyderabad & Mirpur Khas divisions in southern Sindh is primarily shaped by alluvial deposits from the Indus River, with variations in soil texture and fertility across these regions. Mirpur Khas features sandy loam and silty soils, also fertile but facing significant salinity and waterlogging issues, particularly in older flood plains where irrigation has led to salt accumulation. Hyderabad has a mix of sandy loam and silty clay soils, with fertile lands that suffer from salinity and alkalinity, exacerbated by irrigation practices. Across both divisions, the soils are generally fertile but face common challenges such as salinization, alkalinity, and waterlogging, requiring effective soil management, drainage systems, and soil reclamation techniques like gypsum application to maintain soil health and agricultural productivity.

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 health facility sites are alluvial in nature, primarily consisting of silty clay, clay loam, and loam. This aspect has already been catered for in the foundation design.

3.2.4 Surface and Groundwater

Surface and groundwater resources[14] in Hyderabad & Mirpur Khas divisions are vital for agriculture and daily life, with rainfall being limited and irregular in the semi-arid climate of the region. The Indus River, managed through the Kotri Barrage, provides surface water for irrigation, but pollution and seasonal fluctuations in river flow affect water quality. Groundwater, accessed through wells and tube wells, is increasingly relied upon, particularly during dry periods when rainfall is insufficient. Over-extraction of groundwater has led to a declining water table, and rising salinity is a concern for both water and soil quality. With limited and erratic rainfall, effective water management, including modern irrigation and drainage systems, is essential to ensure sustainable water resources and agricultural productivity in these divisions. Average rainfall[15] is less than 200 mm per annum.

[12] Sindh Geology Department, 2023.

[13] https://irrigation.sindh.gov.pk/public/?utm_source

[14] http://www.pcrwr.gov.pk, http://www.pmd.gov.pk, http://www.sida.org.pk

[15] https://pakistanalmanac.com

The selected sub-project sites rely on groundwater, with no surface water sources being used for these locations. The proposed sites are, on average, between 500 meters and 2 kilometers from the nearest surface water sources, ensuring minimal risk of contamination from construction activities. Wastewater generation is expected to be low; however, if any wastewater is produced, it will undergo proper treatment before disposal to prevent contamination of surface or groundwater sources.

3.2.5 Land Use

Land use[16] in the Hyderabad & Mirpur Khas divisions 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 like Hyderabad & Mirpur Khas, 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 out of 51 BHUs, 39 are surrounded by agricultural fields. In Hyderabad & Mirpur Khas divisions, the 12 BHUs are situated in close proximity to community settlements, within a distance of 500 meters.

3.2.6 Air Quality and Noise

Air quality and noise levels[17] in Hyderabad & Mirpur Khas divisions are significant environmental concerns due to growing urbanization, industrialization, and population. Through Environmental and social screening, identified key concerns related to air quality and noise pollution. In cities like Hyderabad & Mirpur Khas, pollutants from vehicle emissions, construction, and industrial activities lead to poor air quality, with high levels of particulate matter (PM) and gases. Noise pollution from traffic and industries also exceeds safe limits, impacting public health. While rural areas experience lower pollution, agricultural activities can contribute to localized issues. Effective pollution control measures, better monitoring, and cleaner technologies are needed to mitigate these environmental challenges.

The air quality and noise pollution at selected 51 BHUs were observed clean and very low noise pollution. In Mirpur Khas divisions, the fresh air with minimal noise due to the predominantly rural surroundings. In Hyderabad division, similar conditions were observed, with slightly higher noise levels in BHUs located closer to community settlements. Overall, the absence of industrial operations contributed to maintaining good air quality across these divisions. Transport of materials in project area where BHUs 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 quality[18] in the Hyderabad & Mirpur Khas divisions of Sindh is significantly impacted by various factors, including high turbidity, elevated total dissolved solids, low dissolved oxygen and the presence of nitrates, phosphates, and heavy metals. The Indus River, a major source of surface water, faces contamination from industrial effluents, agricultural runoff, and sewage, with high levels of biochemical oxygen demand, indicating organic pollution. Environmental and social screening revealed critical water quality issues in these divisions; Groundwater in regions like Mirpur Khas suffers from rising salinity due to over-extraction and saline intrusion, making it unsuitable for drinking and irrigation. Waterborne diseases, such as cholera and diarrhea, have been linked to these

[16] http://www.sindhagri.gos.pk

[17] http://www.sepa.org.pk

[18] Website: Sindh EPA

water quality issues, with outbreaks occurring in rural areas like Hyderabad.

Furthermore, the contractor will be required to conduct environmental monitoring, sampling, and testing at project sites before the commencement of civil works to establish the baseline, where necessary. The required cost for this activity is estimated the budget for implementing this ESMP. 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 25 Basic Health Units (BHUs) is 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

The Hyderabad & Mirpur Khas divisions in Sindh are highly vulnerable to natural disasters[19], particularly floods, droughts, and heatwaves. 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, particularly in Mirpur Khas. Heatwaves, intensified by climate change, pose health risks in urban areas and. 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 51BHUs are affected by floods, due to severity of flood, the BHUs are badly damaged.

3.2.9 Climate

The climate [20] in Hyderabad& Mirpur Khas divisions of Sindh is hot and arid, Environmental and social screening highlighted the challenging climate conditions in these divisions with scorching summers where temperatures often exceed 40°C, compounded by high humidity in areas like Hyderabad. Winters are milder, with temperatures around 2 °C, but occasional cold spells can lower temperatures further. Rainfall is sparse, averaging less than 240 mm annually, mostly during the monsoon season from June to September, making these regions prone to droughts and water scarcity. High evaporation rates and irregular rainfall exacerbate water shortages, especially in rural areas where agriculture heavily depends on seasonal rainfall. The region also faces occasional dust storms and heat waves, while climate change is increasing the frequency of extreme weather events, further stressing agricultural productivity and water resources, and heightening the vulnerability of local communities to natural disasters. Details are provided in below table 3-1.

Table 3-1: Climate of Below Districts of Southern Sindh[21]

District	Hottest (Max Temp °C)	Coldest (Min Temp °C)	Average Rainfall (mm)
Hyderabad	40°C	9°C	243
Tando Mohd Khan	41°C	8°C	244
Sajjawal	40°C	7°C	212
Tando Allah Yar	42°C	8°C	244
Thatta	41°C	8°C	208.8
Badin	42°C	8°C	307.5
Dadu	45°C	7°C	337
Matiari	42°C	8°C	231
Jamshoro	43°C	8°C	245
Umerkot	43°C	8°C	270
Thar parker	43°C	8°C	273
Mirpur Khas	42°C	9°C	304

[19] Website: Provincial Disaster & Management Authority-PDMA-Sindh.
[20] Website: Sindh EPA, World Bank - Climate Change and Disaster Risks in Pakistan, UNDP Pakistan - Climate Change
[21] https://pdma.gos.pk/hazard-risk-atlases/

3.2.10 Current Situation of the 51 BHUs.

The 51 BHUs across Hyderabad & Mirpur Khas divisions have been severely 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. In Mirpur Khas communities face long travel distances to seek medical assistance. In Hyderabad, the floods have not only damaged infrastructure but also disrupted livelihoods, leaving families without access to food and proper nutrition. Immediate reconstruction 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 Hyderabad & Mirpur Khas divisions in Sindh varies but is primarily shaped by the Indus River and its canal irrigation systems. Hyderabad Division, located along the river, has a rich aquatic ecosystem supported by the Kotri Barrage, providing habitats for migratory birds and aquatic species, though its agricultural lands are under pressure from water scarcity and urbanization. Mirpur Khas division, with its dry climate, relies heavily on irrigation for agriculture but faces challenges of habitat degradation, water over-extraction, and limited natural vegetation.
These divisions contain many habitats including deserts, mountains and agricultural lands. This diverse landscape contributes to significant biodiversity in the region. The region's unique wildlife is protected through national parks, wildlife sanctuaries, and other protected land systems. The region has different ecosystems, and has a distinct flora and fauna as described below.

3.3.1 Flora

The proposed project in Hyderabad & Mirpur Khas characterizes a variety of flora that prefer to grow in the conditions of rangelands. All such plants species are dependent on the rainfall and their productivity and growth is dependent upon the seasonal variations. The growth remains high during rainy seasons and low during drought and low rainfall. The main floral species, that will be cut and replant due to the reconstruction of the 51 BHUs in Hyderabad & Mirpur Khas are indicated in table 3-2 as below;

Table 3-2: Details of Main Floral Species to be cut and replant

Sr. No:	Floral Species	Scientific Name	Plant Type	IUCN Status	To be Removed by reconstruction of 51 BHUs.
1.	Babur	(Acacia nilotica)	Tree	LC	31
2.	Neem	Azadirachta indica	Tree	LC	58
3.	Cornocarpus	Cornocarpus species	Tree	NA	150
4.	Eucalyptus	Eucalyptus spp.	Tree	NA	12
5.	Date Palm	Phoenixdactylifera	Tree	NA	3
6.	Coconut	Cocos Nucifera	Tree	LC	3
7.	Mesquit/Devi	Prosopis Juliflora	Shurbs	LC	13
Total					**270**
LC= Least Concern, NA= Not Assessed, CR=Critically Endangered					

Figure 3-1: Corno Carpuses

Figure 3-2: Neem Tree (On the left side)

Figure 3-3: Babul (On the right Side)

Figure 3-4: Mesquit/Devi (Bushes)

Figure 3-5: Date Palm (On the Right Side)

Figure 3-6: Eucalyptus Trees

3.3.2 Grasses

Rangelands Hyderabad & Mirpur Khas divisions are mainly covered by a variety of grasses species and the main rangeland ecosystem service in Southern Sindh for grazing of livestock and hence the main source of income for community. Following are the major grasses species of rangeland in Southern Sindh: Dhaman (Cenchrus ciliaris), Drabh (Desmostachya bipinnata), Sar (Saccharum spontaneum), and Ghander (Ochthochloa compressa)

3.3.3 Forbs

Hyderabad & Mirpur Khas, the Forbs is the real beauty of the rangelands especially during spring and high rainy seasons. Forbs plays an important role in the rangeland ecosystem which pride attraction to the large variety of flies and insects for pollination purpose. The main forbs of Southern Sindh rangeland ecosystem: Gokhru (Tribulus terrestris), Jangli Palak (Launaea procumbens), Khari Buri (Crotalaria burhia), Wild Indigo (Tephrosia purpurea), Punarnava (Boerhavia diffusa), Bhungra (Corchorus depressus), Sindh Blepharis (Blepharis sindica), and Desert Cotton (Aerva javanica)

3.3.4 Fauna

The screening survey of Hyderabad & Mirpur Khas Abad division's 51 BHUs to assess potential impacts of the project on local wildlife. Since the project activities will be confined to government-owned land of existing BHUs, no fauna or habitats were found within the project areas. This confirms that the project will have no impact on local fauna and complies with environmental standards, allowing operations to proceed without ecological disturbance.

3.4 Socio-Economic Environment

A socio-economic profile provides an overview of the social and economic characteristics of a specific group, community, or population, including demographic factors (age, gender, education), economic conditions (income levels, employment, livelihoods), social aspects (housing, healthcare, literacy), and access to infrastructure and services. The socio-economic aspects are being studied with respect to human and economic development and quality of life values of the population in the Project Area. During the socio-economic survey, people were informed about the project objective, its location and basic design features. To get the maximum information about the PAPs and proposed Project area, both primary and secondary sources were used for data collection. To assess the socioeconomic conditions of the PAPs, a series of questions were asked during the socio-economic survey with the following objectives particularly under frameworks like the World Bank's ESS 10:

- Observe and document the existing socio-economic conditions of the PAPs;
- To obtain information about the demographic characteristics of the PAPs;
- Identify the economic resource dependency of the PAPs;
- 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.

Detailed findings of the survey are discussed in the following sections.

3.4.1 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 332 respondents, carefully selected to represent the broader population. A stratified random sampling method was employed to ensure that key demographic groups—such as gender, age, education, and income level were adequately represented.

The gender distribution of respondents was as follows:

- **Male respondents**: 1051(49%)
- **Female respondents**:1107(51%)

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

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Data Collection Methods

Primary Data:

- **Household Surveys**: Structured questionnaires were administered to 332 households, including 1107 female and 1051 males, covering 2,158 individuals.
- **Key Informant Interviews (KIIs)**: 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 were reviewed to validate findings.

Sampling Strategy

- A stratified random sampling method was used to ensure representation across different demographics, locations, and socioeconomic backgrounds.
- The sample covered both urban and rural areas within Hyderabad and Mirpur Khas divisions.

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.

3.4.2 The Project Area at a Glance

The proposed project of 51 BHUs in two divisions of Sindh (Hyderabad & Mirpur Khas), The general socioeconomic characteristics of the three divisions are discussed in the following sections.

Hyderabad

Hyderabad Division is located in the Southern region of Sindh. It consists It comprises 9 Districts including Hyderabad, Tando Mohammad Khan, Sajjawal, Tando Allah Yar, Th atta, Badin, Dadu, Matiari & Jamshoro. The division lies between 27° 19ˈ 19.7614 N",67°10'2.4916E" to 23° 57ˈ 45.9356N" ,68°44'18.5378E", with an average altitude ranging from 160 to 0 meter above sea level.

Mirpur Khas Division

Mirpur Khas Division is situated in the South of Sindh and consist of three districts including Mirpurkhas, Tharparkar & Umerkot The division is located between 25°46ˈ 53.8968N",68°54'27.6505E" to 24°23'30N", 71°8'58.3933E" with an altitude of around 137 to 15 meter above sea level.

3.4.3 Demography

This section incorporates demographic data (see table 3-3 & table 3-4) from the recently announced results of the 7th Population and Housing Census-2023 conducted by the Pakistan Bureau of Statistics[22].

[22] https://www.pbs.gov.pk/sites/default/files/population/2023/Sindh.pdf

Table 3-3: Demographic Data

Name of Admin Unit	Households	Population 2023	Average Household Size	Population 2017	Growth Rate
Sindh Province	9,871,620	55,696,147	5.64	47,854,510	2.57
Hyderabad Division	2,246,096	11,659,246	5.19	10,596,049	1.61
Mirpur Khas Division	863,467	4,619,624	5.35	4,224,945	1.50

An overview of Sindh Province and both of the sub project divisions are presented in Table 3-4, highlighting their geographical coverage and population distribution. Where overall male population is more than female population. This information provides valuable insights into the spatial extent and demographic characteristics of the region. Understanding these factors helps in addressing infrastructure needs, social services, and economic opportunities across different areas within the province as shown in table 3-4.

Table 3-4: Population of Project area Divisions

Name Of Administrative Unit	Area In Sq. Km	Population-2023		
		All Sexes	Male	Female
Sindh Province	140,914	55,696,147	29,014,424	26,677,501
Hyderabad Division	27,158	11,659,246	6,030,741	5,625,967
Mirpur Khas Division	15,213	7,093,706	3,648,470	3,444,876

3.5 Key Findings of the Socio-Economic Survey

The Key Findings of the Socio-Economic Survey of 51 Basic Health Units (BHUs) 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 BHUs. 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.

During the Socio-Economic Survey of the Subproject area, 332 Households (HH) comprising of 1051 males and 1107 females were documented and key findings are covered in below subsequent sub-sections.

3.5.1 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 49% compared to the 51% female population among the sampled families for the consultation. As per the survey, the household size was 6.5 persons per household. The detail of the population of affected households is given in Table 3-5.

Table 3-5: Gender Composition of Household Population

Total Household	Population and Family Size				Total Population	Average Household Size
	Male	%	Female	%		

332	1051	49	1107	51	2,158	6.5

3.5.2 Age Group of the Household Members

Age is another important demographic characteristic that has a bearing on employment and mobility. The below table 3-6, shows the age distribution of 2,158 individuals, with the majority (28%) aged up to 10 years, followed by 20% in the 18-25 group. Those aged 11-17 and 26-35 make up 16% and 15%, respectively, while 12% fall in the 36-45 range. The smallest group, above 45 years, accounts for 9%. The data highlights a predominantly young population, impacting future education and employment needs.

Table 3-6: Age Group of Household Members

S No.	Frequency Distribution	Number	Percentage
1	Up To 10 years	605	28%
2	11-17	345	16%
3	18-25	431	20%
4	26-35	323	15%
5	36-45	259	12%
6	Above 45	195	9%
Total		**2,158**	**100**

3.5.3 Educational Level

During the survey, it was revealed that the highest proportion of respondents (24.52%) had attained middle-level education, while 22.77% were illiterate. Primary education accounted for 15.46%, and 12.97% had up to 10 years of schooling. Metric and intermediate levels represented 9.14% and 6.90%, respectively, while only 3.35% had graduated and 1.63% held postgraduate degrees, with more females in higher education. Additionally, 3.26% received religious education. The findings highlight the need for improved educational access and literacy programs. Whereas the educational status of the affected HH member is depicted in Table 3-7.

Table 3-7: Educational Level of the Respondents[23]

S. No:	Educational Level	Number of Respondent		Percentage (%)
		Male	Female	
1	Up To 10 years	130	157	12.97
2	Illiterate	236	257	22.77
3	Primary	160	183	15.46
4	Middle	241	254	24.52
5	Metric	102	97	9.14
6	Intermediate	85	66	6.90
7	Graduation	43	32	3.35
8	Post Graduate	24	13	1.63
9	Religious	30	48	3.26
	Sub Total	**1051**	**1107**	**100**
	TOTAL	**2,158**		

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

3.5.4 Occupation & Earning

The occupations have been categorized based on the primary source of income. The survey revealed that 24% of respondents were up to 10 years old, while 20% were engaged in agriculture and livestock. Unemployment and students each accounted for 9%, and 7% were housewives. Government and private jobholders made up 5% and 2%, respectively, while laborers, shopkeepers, and businesspersons had smaller shares. A significant portion relied on agriculture, with notable unemployment and dependency among young individuals. Survey details have been provided in Table 3-8.

Table 3-8: Occupation of the Respondents

S. No.	Professional Status	Number	Percentage (%)
1.	Up 10 years	518	24
2.	Agriculturist +Livestock	432	20
3.	Agriculturist +Govt.Job	108	5
4.	Agriculturist +Private job	21	1
5.	Livestock	108	5
6.	Shopkeeper	64	3
7.	Business	86	4
8.	Labor	86	5
9.	Student	195	9
10.	Govt Job	108	5
11.	Private job	43	2
12.	Housewives	151	7
13.	Driver	21	1
14.	Retired/Old	21	1
15.	Un-employment	196	9
Total		**2158**	**100**

3.5.5 Language Spoken

The majority of population in the project area (two divisions Hyderabad & Mirpur Khas) primarily speak the local languages Sindhi, Urdu and Saraiki.

3.5.6 Religion and Ethnicity

The survey revealed that in both divisions Hyderabad & Mirpur Khas, Muslim population is dominant. However, other religions population like Hindu and Christians also exists around project area.

3.5.7 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 3-9.

Table 3-9: Type of Family System

S. No	Type	Number	Percentage (%)
1	Nuclear	91	27.2
2	Joint	241	72.8
Total		**332**	**100**

3.5.8 Monthly Expenditures

The poverty line of Pakistan is at PKR 3,030 per capita per month. The survey revealed that the 9.26% earned less than 20,000 Pkr income per month, majority of respondents (41.79%) had an income between 21000-36000, while 37.03% earned between 37000-40000. Around 11.90% had an income above 40,000. The data indicates that most individuals fall within the middle-income range, with a smaller proportion earning higher or lower wages. Survey details have been provided in Table 3-10.

Table 3-10: Monthly Expenditure

S. No	Distribution	Number	Percentage (%)
1	Less than 20,000	31	9.26
2	21000-36000	139	41.79
3	37000-40,000	123	37.03
4	40,000 and above	39	11.90
Total		**332**	**100**

3.5.9 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 the ownership of the houses, findings of the survey indicated that 100% of the surveyed respondents owned their houses.

3.5.10 Type of Construction of Housing Structure

The table 3-11 shows the types of houses occupied by respondents. The survey revealed that nearly half of the respondents (48.1%) lived in Pacca houses, while 19% resided in Kacha houses. Around 18.3% lived in straw houses, and 14.6% in semi-Pacca structures. The data highlights that a significant portion of households still rely on less durable housing, indicating a need for improved living conditions.

Table 3-11: Type of Structure

S. No	Type of House	Numbers	Percentage (%)
1	Kacha	63	19.0%
2	Pacca	160	48.1%
3	Semi Pacca	48	14.6%
4	Straw	61	18.3%
	Total	**332**	**100**

3.5.11 Mode of Transport

As far as ownership of means of transportation is concerned, the people normally use their own transport while remaining respondents use public transport. Table 3-12 describes mode of transport being used by the respondents during surveys.

Table 3-12: Mode of Transport

Mode of Transport	Number of Respondents	Percentage (%)
Personal	86	25.93
Public	183	55.03
Public and Personal (both)	63	19.05
Total	**332**	**100**

3.5.12 Access to Social Amenities

Social infrastructure and amenities are key to creating sustainable communities. The survey revealed that telephone/mobile services were available to all respondents (100%), while schools (96.3%), hospitals (94.4%), and roads (94.7%) were also widely accessible. Electricity was available to 91.3%, and gas to 84.7%. However, there was no access to water supply, sewerage, or water filtration plants (0%), highlighting a critical gap in basic infrastructure and sanitation services. Moreover, rest of the available social amenities are given in Table 3-13.

Table 3.13: Access to Social Amenities

Sr. No.	Social Amenities	Number	Percentage
1	Electricity	303	91.3
2	School	320	96.3
3	Hospital	313	94.4
4	Gas	281	84.7
5	Water Supply	0	0.0
6	Sewerage	0	0.0
7	Telephone / Mobile	332	100.0
8	Water Filtration Plant	0	0.0
9	Road	314	94.7

3.5.13 Source & Satisfaction of drinking water

The findings of the survey indicated that 100% of the households had the facility of the drinking water inside their home in the shape of hand pumps and electric water pumps. Also, the findings of the survey revealed that 56% of the respondents were satisfied with the drinking water quality, while 44% of the respondents were not satisfied with the water quality level.

3.5.14 Heritage Aspects

The Environmental and Social screening survey of Hyderabad and Mirpur Khas divisions, it is confirmed that there are archaeological and cultural sites are present in both of the divisions. However, no any archaeological and cultural sites are near by the sub-project areas. Moreover, a chance find procedure will be implemented to address any unexpected discoveries, ensuring full compliance with heritage preservation standards as per World Bank requirements throughout project execution.

3.5.15 Women Issues

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.

3.5.16 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 332 surveyed households,170 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.

3.5.17 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 51 BHUs, no IDPs identified in the project area.

3.5.18 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.

4. 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)[24].

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.

4.1 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 4-1 shows list of identified Stakeholders.

Table 4-1: 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 (*taluka* 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
	Private Sector	Contractors for Construction and rehabilitation works	Component 1
		Other service providers (e.g. ambulance services, supply of medical equipment and medicines)	Component 1
Other	Governmen	Provincial Disaster Management Authority (PDMA)	Component 1 and

[24] 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.

Interested Parties	t/Institutional		2
		Planning & Development Department	All
		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	Component 1 and 2
		Social Franchises in PHC and FP	Component 1 and 2
Disadvantaged / vulnerable individuals or groups	Government	Female Staff (involved in project)	Component 1 and 2
	Community	Internally Displaced persons due to flood	Component 1 and 2
		Persons with Disabilities	Component 1 and 2
		Poor Women/Pregnant/Lactating/Girls/Children/ Adolescents with underlying health issues (respiratory and dust allergy) or experiencing emotional or mental stress	Component 1 and 2
		Seasonal Workers	Component 1 and 2
		Female/child headed households	Component 1 and 2
		Religious and ethnic minorities	Component 1 and 2
		Transgender communities	Component 1 and 2
		Senior citizens	Component 1 and 2
		Citizens without CNIC	Component 1 and 2
		People with low / no literacy levels	Component 1 and 2
		Economically marginalized groups including household below poverty line	Component 1 and 2

4.2 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 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 BHUs, List of interviewed Stakeholders consulted and Health facility wise details are given in **Annexure-F**.

The participation process for the projects was inclusive. All stakeholders were at all times encouraged to be involved in the consultation process. Equal access to information was provided to all stakeholders. Special attention is 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 in Hyderabad and Mirpur Khas. 51 BHUs were visited 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:

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

During the consultation process 501 males and 349 females were interviewed. District wise details of participant are given in **Annexure-G**.

4.3 Summary of Stakeholders Consultations Conducted

Stakeholder consultations were carried out in Hyderabad and Mirpur Khas divisions with various stakeholders including Health Facility's staff, Local NGOs & CSOs, District PPHI Office, Academic Institutes, EPA & PDMA, Vulnerable group and minorities etc., and potential beneficiary community and vulnerable groups in flood affected areas. These stakeholders were interviewed through face-to-face sessions.

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 4-2. and consultation photographs are provided in **Annexure-H.**

Table 4-2: Stakeholders' Concerns/ Feedback and Response

S No.	Concerns of Participants	Concerns raised district wise	PMU Response
1.	The existing BHU is in not good condition after flood 2022, So, the new BHU building should construct at the existing building with latest health facilities.	Hyderabad, Tando Mohd Khan, Sajjawal, Tando Allah Yar, Thatta, Badin, Dadu, Jamshoro, Umer Kot, Tharparkar, and Mirpur Khas	The provision of construction of New BHU in project is available.
2.	Ambulances are not available, So the requirement of Ambulances should be fulfilled with BHUs.	Tando Mohd Khan, Sajjawal, Tando Allah Yar, Thatta, Badin, Dadu, and Umer Kot, Tharparkar,	The program has provided the ambulances for referral and emergency response. The ambulances are functional through Sindh Integrated Emergency Health Services (SIEHS)
3.	The members of the community have expressed their concern about the inadequacy of portable drinking water facilities in the BHUs. HF Staff and patients are required to bring their own water from home due to the poor quality of the available drinking water.	Hyderabad, Tando Mohd Khan, Sajjawal, Tando Allah Yar, Thatta, Badin, Dadu, Jamshoro, Umerkot, Tharparkar, and Mirpurkhas	The provision of water filter plant in the health facility project is available
4.	There is concerns of stakeholders about the insufficient supply of electricity, particularly during hot weather in rural areas.	Hyderabad, Tando Mohd Khan, Sajjawal, Tando Allah Yar, Thatta, Badin, Dadu, Jamshoro, Umerkot, Tharparkar, Mirpurkhas	The provision of Solar Panel System of 10kw in this project is available.
5.	Community and 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.	Hyderabad, Tando Mohd Khan, Sajjawal, Tando Allah Yar, Thatta, Badin, Dadu, Jamshoro, Umerkot, Tharparkar, and Mirpurkhas	Include all concerns in modular design with Climate and Disaster Resilience Indicators in the BHU Design.
6.	Height of health facility compound wall is short; it should be raised.	Hyderabad, Tando Mohd Khan, Sajjawal, Tando Allah Yar, Thatta, Badin, Dadu, Jamshoro, Umerkot, Tharparkar, Mirpurkhas	The height of compound wall has been considered in the design to raise as per site location.
7.	During the consultation, participants representing the sub-project sites expressed a strong desire to prioritize the hiring of unskilled labor from the local area. They emphasized that there is a significant pool of unemployed youth in the region and highlighted the importance of providing employment	Hyderabad, Tando Mohd Khan, Sajjawal, Tando Allah Yar, Thatta, Badin, Dadu, Jamshoro, Umerkot, Tharparkar, Mirpurkhas	Special clause will be added in the contract of contractor to ensure full compliance.

	opportunities within the community.		
8.	The community members have expressed their concerns about the environmental impact of certain activities, particularly highlighting issues such as deforestation and damage to local ecosystems. It's apparent that they are specifically concerned about the plans to remove trees within the BHU premises, expressing a strong desire to preserve these trees.	Hyderabad, Tando Mohd Khan, Tando Allah Yar, Jamshoro, Umerkot, and Mirpur Khas	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 mitigation measures have been added.
9.	The movement of commuters in the respective streets/ locations towards the Masjid, school, and hospitals should not be disturbed.	Tando Allah Yar, Badin, Dadu, Jamshoro, Umerkot, Tharparkar, and Mirpurkhas	In case unavoidable, an alternate route will be provided to avoid the disturbance and the issue will be discussed in the construction management plan. GRM is established to address the local complaints
10.	In remotely located health facility, pardah as well as mobility issue make create for women, proper cordoning of the construction area to be ensured.	Hyderabad, Tando Mohd Khan, Sajjawal, Tando Allah Yar, Thatta, Badin, Dadu, Jamshoro, Umerkot, Tharparkar, Mirpurkhas.	The construction site will be properly cordon off during construction. Advocate the construction crew regarding the privacy of women.
11.	Security concerns are at risk of potential threats such as theft and damage. Stakeholders' express concerns regarding the safety and security of construction crew.	Hyderabad, Tando Mohd Khan, Sajjawal, Tando Allah Yar, Thatta, Badin, Dadu, Jamshoro, Umerkot, Tharparkar, Mirpurkhas.	Discussed these concerns with the District Administrations, and other line departments will address these issues. Furthermore, project has well developed Security Management Plan to implement.
12.	The stakeholders 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.	Hyderabad, Tando Mohd Khan, Sajjawal, Tando Allah Yar, Thatta, Badin, Dadu, Jamshoro, Umerkot, Tharparkar, Mirpurkhas	It is in SIHPP's Scope to provide essential WASH (Water, Sanitation, and Hygiene) facilities in the design of BHU and will ensure the compliance during operation phase as well. These facilities are designed to ensure their comfort, privacy, and overall hygiene.

Further site-specific consultation sessions will be carried out before the start of every new activity and will continue till the completion of the project.

4.4 Consultation with Women, Vulnerable Communities & Minorities

The women in rural communities of these divisions carry out agricultural work, household work and look after the family and children. 51 sessions have been conducted with women and minorities. Most of the female population in the project area was not socially and economically at par with the male population because of negation of their roles as producers and providers in all social roles. Thus, women are economically exploited; socially marginalized and politically lacked voices. Lack of skills, Lack of education limited opportunities in the job market, and social and cultural restrictions. Key concerns of women and PMU Response against each is indicated in Table 4-3.

Table 4-3: Key Concerns of Woman and PMU Response

Sr.	Key Concerns	PMU Response
1	The lack of job distribution for local communities, as the local communities are in priority	Provision of this sub-project will give job opportunities to the local communities
2	The lack of skills in women	Provision of Skill development for women in this sub-project
3	An adequate health services at Basic health units after the flood 2022.	Provision of improve health service delivery will be provided by the sub-project.

4.5 Information Disclosure

As disclosure requirement, the environmental and social management Plan (ESMP) will be uploaded on the SIHP project website after the approval of World Bank, (www.sihpp.gos.pk) In addition to this, ESMP document will be made available at the campsites.

5. 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.

5.1 Adverse Environmental and Social Impacts

5.1.1 Technical Design and Layout Planning

The improper design of the buildings can lead to

- **Structural Failure Due to Non-Compliance with Building Codes in Hazard-Prone Areas:** Failure to adhere to relevant building codes in flood-prone regions can result in Increased vulnerability of the building structure to damage or collapse during natural disasters, significant risk of injury or loss of life for occupants in the event of a flood or earthquake, disruption of essential healthcare services during and after a disaster and potential for long-term damage rendering the facility unusable.
- **Poor Ventilation and Lighting Leading to Health Issues:** Inadequate ventilation and insufficient natural or artificial lighting within the healthcare facility can contribute to: Increased risk of airborne disease transmission due to stagnant air, eye strain, headaches, and fatigue for patients and staff due to poor lighting, reduced overall comfort and well-being of individuals using the facility.
- **Health and Hygiene Problems Due to Lack of Sanitation Facilities**: Improper design that neglects adequate sanitation facilities can lead to significant health and hygiene problems, Increased risk of infectious disease transmission due to lack of proper handwashing stations and toilets, Unsanitary conditions within the facility, impacting patient recovery and staff well-being, potential for environmental contamination if wastewater and sewage are not managed correctly.
- **Limited Accessibility and Safety Due to Lack of Ramps and Emergency Exits**: The absence of ramps and insufficient emergency exits in the design can create adverse situations, particularly for vulnerable individuals, difficult or impossible access for persons with

disabilities, the elderly, and those with mobility issues, hindrance to the evacuation of patients and staff during emergencies like fires or other hazards, increased risk of injury or entrapment during emergency situations.

Mitigation Measures

a. Relevant building codes will be followed in design of the buildings.
b. Only shortlisted/pre-qualified suppliers shall be hired for the supply of construction materials and medical suppliers, ambulance services, waste management, solar panels etc.
c. All health care facilities must be user-friendly regardless of the ages, races, gender especially to disabled persons. Ensure provision of facilities such as staircase, ramp (anti slip, free from obstructions, with handrails and gentle slope), appropriate signage, obstructions free entrance, parking with universal symbol, appropriate toilets at health care facilities.
d. All safety precautions will be taken to minimize the safety hazards and risk of accidental electrocution. The electric lines should be properly shielded /insulated.
e. Provision of emergency exits, safety equipment and ramps at an appropriate height and place can help safe evacuation of hospital staff and patients during an emergency.
f. Waste Management Firms considered for selection must have the necessary capacity and experience to safely handle and dispose of hazardous waste
g. Ensure compliance with the World Bank procurement guidelines, ESH and HFC guidelines.
h. In addition, key Environment and Social (E & S) aspects, mentioned in section 1.4.5, have been incorporated in design, to minimize the E & S risks

5.1.2 Pre-Construction Phase Impacts & Mitigation Measures

5.1.2.1 Loss of vegetative Cover

The excavation of foundation and site clearance during the construction of health facilities may lead to removal of natural vegetative cover and trees cutting. It is estimated that about 270 trees within the premises of BHUs will be affected, an average of about 05 trees of different sizes and at different levels of maturity, and summary table attached in **Annexure-I**. This impact is substantial to moderate adverse in nature.

Mitigation Measures

- Clearing of natural vegetation will be minimized as far as possible during the construction works.
- If a tree is cut, compensatory tree plantation (five saplings for each lost tree) will be carried out to reduce the impacts. A complete record will be maintained for any tree cutting or trimming. The record will include: the number, species, type, size, age, condition and photograph of the trees to be cut/trimmed.
- Prioritize replanting same species on an alternating basis, focusing on Native plants. SOP for tree plantation and handing over to the facility management for future upkeep is attached **Annexure-J**.
- Contractor shall provide gas cylinders for cooking purposes and cutting of trees/bushes for fuel shall not be allowed.
- Hunting, poaching and harassing of animals and birds shall be strictly prohibited, and Contractor shall be required to instruct and supervise its labor force.

5.1.2.2 Site Clearance

The demolition of the existing BHUs and removal of trees using tractors and excavators may generate dust, and noise pollution posing potential health and safety risks to the nearby community residing

less than 500 meters from the site as well as potential asbestos exposure due to the building's age posing health risks to workers and nearby communities. The demolition process will generate waste, including bricks, concrete, wood, and hazardous materials. This impact is medium adverse in nature.

Mitigation Measures

- The site will be cordoned off with green cloth or fencing to prevent unauthorized access, and awareness sessions will be conducted to ensure safety compliance.
- Ensure the provision of barriers signage, and warning Sign board to keep the public away from the site.
- Ensure the provision PPEs to workers including dust masks and ear protection.
- Proper waste management practices, including segregating, collecting, and disposing of debris at designated waste disposal sites, will be strictly followed.
- Ensure regular water sprinkling to suppress airborne particles.
- Demolition activities will be restricted to daytime hours and by using suitable equipment.
- Ensure the compliance with SEQs or WHO/IFC guidelines, whichever is stringent (as per advice of Environmental Specialist).
- Dust suppression, noise control, safe demolition, and nearby community safety precautions to minimize health and environmental impacts by demolition works.
- A thorough asbestos assessment will be conducted before demolition, and trained personnel will be deployed to handle and dispose of asbestos containing materials. The asbestos removal plan (where required) will be communicated to workers and the nearby community to address the potential effects of asbestos.

5.1.3 Construction Phase Impacts & Mitigation Measures

5.1.3.1 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 Measure

a. Construction equipment and machinery will be serviced regularly to reduce excessive exhaust emissions.
b. The material stockpiles and access roads will be watered as and when required to minimize the potential for environmental nuisance due to dust.
c. Construction vehicles carrying materials will be covered with tarpaulin sheets to avoid dust pollution.
d. Speed limits will be imposed on all vehicle movement at the worksite to reduce dust emissions. Unnecessary movement of vehicles will be avoided.
e. 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.
f. Continuous air monitoring will be carried out near the sensitive receptors to ensure they do not exceed ambient levels and SEQS.

g. Open burning of solid waste shall be strictly prohibited and ensure the provision of PPEs.
h. Raw materials such as cement, gravel and sand will be kept under sheet covers. The height of material stockpiles will be minimized.
i. Selection of activities that may be deemed to create dust will be undertaken early in the morning or in the afternoons.

5.1.3.2 Water Quality

The assessment revealed that the drinking water quality at the selected 25[25] Basic Health Units (BHUs) out of 51 BHU is unfit for consumption. It was told that staff bring water from their homes or nearby households. During construction, 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 Measure

a. The contractor will test water of all sites, and those with groundwater unsuitable for drinking, the contractor will install filtration plant or RO.
b. During construction activities contractor must provide the safe filtered water to all workforce.
c. In the case of potable water only boiled water will be allowed for drinking/human consumption.
d. 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.
b. Management guidelines proposed in ECP 1: Waste management and ECP 7: Workers' Health and Safety will also be followed.
c. For BHU Operation, A water filtration plant will be installed to ensure a sustainable supply of clean drinking water to the staff and visitors.

5.1.3.3 Noise Generation

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

Mitigation Measure

a. 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
b. Adjacent communities will be notified prior to any typical noise events, where required.
c. Loading and unloading of vehicles and handling operations will be organized for the purpose of minimizing construction noise on the work site.
d. Potential noisy activities will be limited to normal working hours.
e. Adequate PPEs will be provided to workers such as hearing protection.
f. Regular noise monitoring will be carried out and ensure the compliance with SEQ.
g. 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.

5.1.3.4 Traffic Impacts/Disruption of Public Access

The delivery of construction material to subproject sites may may increase the traffic in the area. Movement of construction machinery and open storage of construction material during facility

[25] Districts are Thatta, Sujawal, Badin, and Dadu in Hyderabad Division, whereas Umerkot & Tharparkar in Mirpur Khas division

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 Measure

- 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.

5.1.3.5 Occupational Health and Safety (OHS)

Approximately 15–20 workers will be engaged per BHU in a single 10-hour shift. The expected duration for construction work is 15 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 fromheights (Roof Height 14 feet, whereas overhead tank 22 feet above from natural ground level) 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 Measure

a. An occupational Health and Safety Plan will be included in the Contractor's ESMP.
b. 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.
c. 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.
d. SOPs will be prepared for certain activities such as working on heights, erecting and using scaffolds and using ladders.
e. Safety signs will be installed at the entrance to and around the site.
f. All safety related activities will be documented including all illness/injury, exposures, and near misses.
g. All incidents /accidents will be investigated, recorded, reported and Root Cause Analysis (RCA) for fatal incidents will be done.
h. 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.
i. The contractor will establish an MOU with the nearest ambulance service provider.
j. Proper site sanitation and housekeeping will be maintained on construction sites.
k. Toolbox Talk (TBT) with workers shall be held regularly before the start of work regarding the hazards associated with the work.
l. In case of an incident involving injury, the injured will be taken to the nearest medical facility

after providing necessary first aid.

m. Provision of clean drinking water will be ensured for the project workers.
n. 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.
o. 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.
p. The contractor will designate an OHS focal person at each site to ensure the plan's effective implementation.

5.1.3.6 Community Health and Safety

The local community may be exposed to health and safety risks associated with 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 Measure

a. Ensure compliance with the World Bank Group Environment, Health, and Safety (WBG EHS) Guidelines
b. 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.
c. 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.
d. Awareness sessions will be organized to sensitize construction workers and local communities including Children.
e. 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.
f. Ensure effective implementation of GRM to timely address the issues.
g. Delivery of construction materiel and equipment will be timed to coincide with off-peak traffic hours.
h. Storage of material outside the designated area will be prohibited. Construction materials will be brought to the site as and when required.
i. 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.
j. Traffic Management Plan will be included in Contractor's ESMP.
k. Ensure limited transportation of construction material during school hours and communicate such for preparedness.
l. Ensure effective implementation of GRM to timely address the issues;
m. 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 heath 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.

5.1.3.7 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 15-20 workers will be engaged per sub-project site. This will be a moderate adverse.

Mitigation Measure

a. Waste Management Plan will be included in the Contractor's ESMP.
b. Adequate waste collection receptacles will be provided. Burning of waste material will not be allowed.
c. Waste will be regularly removed from the site and taken to the dump site for disposal, with the consent of the Engineer.
d. Burning of any type of waste generated will not be allowed onsite.
e. 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.
f. 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.
g. Segregation and reuse or recycling of all the wastes will be ensured, wherever practical, to protect the natural resources.
h. Equipment washout will be discharged in a manner that avoid contaminating of any nearby water course or natural water bodies.
i. The contractor will be required to provide separate toilets and ablution facilities for construction workers.
j. 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.
k. Training will be provided to all personnel in waste management practices and procedures as a component of the environmental induction process.
l. Resource conservation themes to be included in awareness raising and training sessions for project staff.

5.1.3.8 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 Measure

a. The Contractor will avoid the storage of significant quantity of fuel (for generator etc.) onsite.
b. Any fuel storage will be done within a contained impervious area with all the safety systems inplace.

c. Contained area will be drained through an oil-water separator or be covered to prevent accumulation of rainfall.
d. Storage containers will be labeled as to their content and capacity.
e. Warning signs will be installed in storage areas, such as 'Flammable' and 'No Smoking'.
f. Workers will be made aware of the proper handling practices to avoid spills.
g. Spill clean-up kits to be provided.
h. Regular maintenance of machinery will be conducted to ensure the proper functioning so as toavoid unnecessary leaks.
i. 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

5.1.3.9 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, causing 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

a. Only shortlisted/pre-qualified service providers should be hired for the supply of solar systems;
b. 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;
c. Lead/acid/cadmium-based batteries will not be procured for solarization;
d. Ensure panels are treated with anti-reflective coating which reduces the sun's reflection from PV panels;
e. Ensure that no waste material left behind after the completion of work;
f. The Contractor will be made responsible to repair any damaged caused by the construction activities.

5.1.3.10 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. As most of the selected BHUs are in populated areas surrounded by residential Houses. As a cultural and societal norms privacy issues may arise in the adjacent communities which can lead to discontent, violence and conflict among the workers and residents. This impact could be moderate impact.

Mitigation Measure

a. Ensure the compliance the labor management procedure prepared separately for this project.
b. 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-K.** 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;

c. 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.
d. The use of language or behavior, towards women or children, that is inappropriate, harassing, abusive, sexually provocative, demeaning or culturally inappropriate will be prohibited.
e. It will be captured in the Contractors' Clauses for selected contractors to recruit local labor and practicable to minimize the chances of GBV/SEA and harassment. Provision related to SEA/SH or GBV will be incorporated in the bidding document A separate SEA/SH Action Plan will also be prepared and implemented.
f. Service providers will be identified and mapped to address SEA/SH issues;
g. The exchange of money, employment, goods, or services for favors or other forms of humiliating, degrading or exploitative behavior will be prohibited.
h. Ensure effective implementation of GRM to timely address the issues.
i. 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.
j. The communities will be consulted as well as informed about the construction timings in advance.
k. If privacy of the nearby households is affected, the Contractor will make some fence/screen arrangements for the households.
l. Contractor will warn the staff strictly not to involve in any un-ethical activities and to obey the local norms and cultural restrictions particularly with reference to women.

5.1.3.11 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 Measure

a. Contractors will implement a fair and equitable hiring process.
b. Where possible the employment of vulnerable groups will be encouraged.
c. Employment opportunities will be provided to individuals residing near the project site, aiming to enhance social benefits through the recruitment of local residents.
d. 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.
e. Mapping and engaging stakeholders, including vulnerable groups at the start of the design process and obtaining their feedback about project interventions;
f. Ensure the implementation of the SEP and GRM.
g. Conduct targeted consultations with vulnerable groups.
h. Provide accessible communication formats.
i. Provide job training and job opportunity
j. Ensure culturally appropriate grievance handling.

5.1.3.12 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 Measure

a. 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
b. Contractor will hire local personals for security purpose
c. Inform the current station house officer (SHO) regarding the camp site and security guard information.
d. Inform the district health officer about the staff which will hired by contractor
e. Inform the local elders about the security personal
f. Health facility in charge will be overall responsible to the safety of all construction activities.
g. Contractor will ensure that if any thread received by security staff should be inform to concerned authorities timely.
h. Brief Security management Plan is attached in **Annexure-L.**

5.1.3.13 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

a. 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;
b. 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.
c. 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;
d. Beneficiaries and primary suppliers will be made aware of the provincial labor laws and World Bank regulations regarding child/forced labor.

5.1.3.14 Chance Findings of Important Physical and Cultural Resources

During the course of construction and rehabilitation activities, the subproject may encounter the chance finding of important physical cultural resources. The impacts are assessed as low to moderate adverse.

Mitigation Measures

a. The project sites will be screened for the presence of physical cultural resources prior to commencement of construction and rehabilitation work.
b. Ensure the compliance with the chance find procedure provided attached as **Annexure-M.**

5.1.3.15 Land Acquisition and Involuntary Resettlement

The reconstruction activities will take place on government-owned land; therefore, land acquisition and involuntary resettlement are not anticipated. Furthermore, no voluntary land donation is

involved for these BHUs. Site surveys confirm that there are no informal settlers on the selected BHU sites.

5.1.4 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

e. Ensure the presence of qualified female staff at all the health facilities in order to interact with females accompanying the children for health checkups;
f. Sensitization of health facilities and staff on privacy and gender issues. Ensure the implementation of SEA/SH Action Plan.
g. 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;
h. Ensure the provision of fire prevention and firefighting equipment at health care facilities;
i. Ensure the provision of appropriate PPEs to health service providers and sanitary workers;
j. Ensure the compliance with the GRM.
k. 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;
l. Regular maintenance of the septic tank and sewer line will be carried out for safe disposal of wastewater.
m. Proper waste segregation, storage and disposal will be done at the facility level.
n. For health care waste management, a separate health care waste management plan (HCWMP) has been developed which guides on the handling of infectious waste.

5.2 Potential Positive Impacts

a. Basic health units 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. Construction will provide an improved Health Care environment that will Basic health units 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 regardingjob creation (labor for construction 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 BHUs 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 Construction 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). There will also be opportunities for food vendors who will sell cooked food to

these workers daily.

f. An estimated 15~20 laborers will be employed at each BHUs location. Employment and incomes for these people could have ramifying positive effects.

g. Overall, basic health units 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. The provision of solarization of the BHU 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.

6. 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.

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 bound 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.

6.1 Institutional arrangements

Project Management Unit (PMU)

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 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-N).**

The Environmental & Social Specialists 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. The Environmental & Social Specialists will report to the Project Director and Deputy Project Director.

The E & S Specialists 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 BHUs construction any form. This will include making sure that the firm has also developed training manuals which will also be reviewed and approved by the PMU and World Bank.

The Environmental and Social Specialists 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 once a month and contractor's designated staff will be available on each site to ensure the compliance of E&S aspects. The Environmental andSocial Specialists of the PMU will conduct unannounced visits as well as joint visits with the EDSQA and Contractor'sHSSE Personnel. The subproject implementation framework responsibilities are indicated in Table 6-1.

Table 6-1: Project Implementation Framework Responsibilities

S.N.	Position	Responsibilities
1.	Project Management Unit (PMU)	• 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 Standards compliance Reports prepared by PMU E&S team. • Confirmation of the scope of construction works for each of the selected BHUs. • Monitoring of civil works • Engage other specialists and/or firms to carry out external monitoring as third-party validation.
2.	Environmental Specialist, Social / Gender Specialist (PMU Staff)	• Oversee 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 comply with. • Ensure project activities do not fall under the Exclusion List. • 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 visits • Capacity 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 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-O.**
3.	Engineering Supervision Design Quality & Assurance (ESDQ&A)	• 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 SIHPP- 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 PMU and contractor. • Suggest any additional mitigation measures (if required)
4.	The Contractor	• 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 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 CESMP to the supervisory firm and SHIPP PMU within 28 days of contract signature for approval prior the commencement of works. • 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-P**. • Address any grievances of stakeholders. • Monthly Report on environmental, social, health and safety compliance; and • Oversee the clean-up and decommissioning of the site on the completion of works. • The contractor has to deploy one Environmental, & one Social and one Occupational, Health and Safety Specialist at Division level. • The contractor has to deploy one Environmental, Social and Occupational Health & Safety Officer at District level. • 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.
	Third party validation	• Independent third-party monitors will be responsible for ensuring monitoring the project compliance es with the all environmental and social requirement • To make sure that responses to incidents are handled effectively.

6.2 Impacts Mitigation Monitoring Plan

Environmental and Social mitigation and Monitoring Plan, provided in Table 6-2 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 5.

Table 6-2: Environmental and Social Management & Monitoring Plan (ESMMP)

Sr. No.	Parameters	Environmental and Social Impacts	Mitigation Measures	Frequency	Implementing Agency	Monitoring Agency
Pre- Construction Phase						
1.	Pre-Construction of BHUs civil Works	Design aspect	• Relevant building codes will be followed in design of the buildings. • All health care facilities will be user-friendly, especially to disabled persons, comprising facilities such as staircase, ramp (anti slip, free from obstructions, with handrails and gentle slope), appropriate signage, obstructions free entrance, parking with universal symbol, appropriate toilets at health care facilities. • All safety precautions will be taken to minimize the safety hazards and risk of accidental electrocution. The electric lines will be properly shielded /insulated. • Provision of emergency exits, safety equipment and ramps at an appropriate height and place for safe evacuation during an emergency. • Only shortlisted/pre-qualified suppliers shall be hired for the supply of construction materials and medical suppliers, ambulance services, waste management, solar panels etc. The firm selection criteria will include sufficient capacity and experience of E&S. • Ensure compliance with the World Bank procurement guidelines, ESH and HFC guidelines.	Regular/daily	Construction Contractor	EDSQ&A/PMU E&S team

		Loss of vegetative cover	• Clearing of natural vegetation will be minimized as far as possible during the construction works. • If a tree is cut, compensatory tree plantation (five saplings for each lost tree) will be carried out. A complete record will be maintained for any tree cutting or trimming. The record will include: the number, species, type, size, age, condition and photograph of the trees to be cut/trimmed. • Prioritize replanting same species on an alternating basis, focusing on Native plants. • Contractor shall provide gas cylinders for cooking; cutting of trees/bushes for fuel shall not be allowed. • Hunting, poaching and harassing of animals and birds shall be strictly prohibited.	Regular/ daily	Construction Contractor	EDSQ&A/PMU E&S team
		Demolition of Existing Building	• The site will be cordoned off with green cloth or fencing to prevent unauthorized access, and awareness sessions will be conducted to ensure safety compliance. • Ensure the provision of barriers signage, and warning Sign board to keep the public away from the site. • Ensure the provision PPEs to workers including dust masks and ear protection. • Proper waste management practices, including segregating, collecting, and disposing of debris at designated waste disposal sites, will be strictly followed. • Ensure regular water sprinkling to suppress airborne particles. • Demolition activities will be restricted to daytime hours and by using suitable equipment. • Ensure the compliance with SEQs or WHO/ IFC guidelines, whichever is stringent (as per advice of Environmental Specialist). • A thorough asbestos assessment will be conducted before demolition, and trained personnel will be	Regular/ daily	Construction Contractor	EDSQ&A/PMU E&S team

			deployed to handle and dispose of asbestos containing materials. • The asbestos removal plan (where required) will be communicated to workers and the nearby community to address the potential effects of asbestos.			
Construction Phase						
1.	Construction of BHUs	Air quality Impacts (Dust and Exhaust emissions)	• 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 afternoon.	Weekly	Construction Contractor	EDSQ&A/PM U E&S team/ Third party
		Water Quality	• Availability of safe drinking water • Water source and quality testing (pH, turbidity, microbial contamination) • Proper storage and handling of drinking water • Prevention of spills (fuel, lubricants, chemicals) • Proper waste disposal and drainage management	Once before the commencement of project	Construction Contractor	EDSQ&A/ PMU E&S Team / Third party

			• Designated areas for vehicle washing • Availability and condition of sanitation facilities • Proper wastewater discharge and treatment • Prevention of stagnant water accumulation • Clean drinking water provision for workers • Awareness programs on waterborne disease prevention • Emergency response measures for spills or contamination	and Monthly basis		
		Noise generation	• Construction equipment and machinery will be serviced regularly. • As much as possible, construction activity will be restricted to daylight hours; potential noisy activities will not be allowed outside of normal working hours. • 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.	Weekly	Construction Contractor	EDSQ&A/ PMU E&S Team / Third party
		Traffic Impacts	• 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	Weekly	Construction Contractor	EDSQ&A/ PMU E&S Team / Third party

			alternate routes will be used. • Contractor will prepare the Traffic Management Plan (TMP) as a part of Contractor ESMP.			
		Occupational Health and Safety	• 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. • 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.	Daily	Construction Contractor	EDSQ&A/ PMU E&S Team / Third party

			• 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.			
		Community health and Safety	• 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	Daily/Weekly	Construction Contractor	EDSQ&A/ PMU E&S Team / Third party

			Guidelines are attached as **Annexure-R**) • 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. • 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	• Waste Management Plan will be included in the Contractor's site specific ESMP. • Adequate waste collection receptacles will be provided.	Daily	Construction Contractor	EDSQ&A/ PMU E&S Team / Third party

			• 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 from site and disposed of in an approved manner. • 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	• The Contractor will avoid the storage of significant quantity of fuel onsite.	Daily Monitoring	Construction Contractor	EDSQ&A/PMU E&S team/ Third party

			• 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 avoid unnecessary leaks.			
		Installation of Solar Panel	• 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	• 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.	Daily Monitoring	Construction Contractor	EDSQ&A/PMU E&S team/ Third party

			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 prohibited. • Recruitment of local human resource, as much as it is available and practicable, will be in the Contractors' Clauses to minimize the chances of GBV/SEA and harassment. Provision related to SEA/SH or GBV will be incorporated in the bidding document. • A separate SEA/SH 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. • Ensure effective implementation of GRM to timely address the issues. • Training/orientation sessions will be conducted for PMU and Contractor 's staff on GBV/SEA/SH risks at the project level. • The communities will be consulted as well as informed about the construction timings in advance. • If privacy of the nearby households is affected, the Contractor will make some fence/screen arrangements for the households. • Contractor will warn the staff strictly not to involve in any un-ethical activities and to obey the local			

			norms and cultural restrictions particularly with reference to women.			
		Discrimination against vulnerable groups	• 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. • 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 SEP and GRM.	Daily Monitoring	Construction Contractor	EDSQ&A/PMU E&S team/ Third party
		Risk of Security staff	• 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)master 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	Monthly Monitoring	Construction Contractor	EDSQ&A/PMU E&S team/ Third party

			to the safety of all construction activities. • Contractor will ensure that if any thread received by security staff should be inform to concerned authorities timely. • Brief Security Plan is attached in Annexure L.			
		Forced and Child Labor	• 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.	Daily Monitoring	Construction Contractor	EDSQ&A/PMU E&S team/ Third party
		Chance Findings of Important Physical and Cultural Resources	• 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 provided in Annexure M.	Daily Monitoring	Construction Contractor	EDSQ&A/PMU E&S team/ Third party
		Land Acquisition	• The reconstruction activities will take place on government-owned land; therefore, land		Construction Contractor	EDSQ&A/PMU E&S team/ Third party

			acquisition and involuntary resettlement are not anticipated. Furthermore, no voluntary land donation is involved for these BHUs. Site surveys confirm that there are no informal settlers on the selected BHU sites.			
Operation Phase						
1.	Environmental Impacts	Solid Waste generation	• 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-S**. • 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. • Health Workers will be made aware of the waste management procedures.	Monthly	PMU's Implementation Partner i.e. PPHI.	PMU
		Liquid Waste Generation	• Suitable toilet facilities will be providedat BHUs. • 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	Monthly	PMU's Implementation Partner i.e. PPHI.	PMU

			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.			
		Health and Safety	• 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	• 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 followed • The use of language or behavior, towards women or children, that is inappropriate, harassing, abusive, sexually provocative, demeaning or culturally inappropriate shall beprohibited. • 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 complaintsor grievances pertaining to SEA/SH • Ensure the compliance with the GRM	Weekly Monitoring	PMU's Implementation Partner i.e. PPHI.	PMU/E&S team
		Social conflict	• Availability of Grievance Redressalmechanism	Weekly	PMU's Implementation	PMU/E&S team

			• Discussion with community in consultation meetings	Monitoring	Partner i.e. PPHI.	

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.

6.2.1 Role of SIHPP PMU

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

Table 6-3: Reporting Mechanism

Report	Contents	Prepared by	Submitted to
Weekly ESMP Compliance Report	ESMP Compliance Physical Progress Report including observations, corrective actionstaken, incident/accident reporting, grievances redressal status.	Construction Contractor	EDSQA Team
Monthly ESMP compliance MonitoringReport	ESMP Compliance Physical Progress Report including observations, corrective actionstaken, incident/accident reporting, grievances redressal status	E&S officer of EDSQA	E&S team PMU
Quarterly Progress and Compliance Monitoring report.	Quarterly progress of the physical E&S activities undertaken, corrective measurestaken, 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

6.3 Inclusion of ESMP in Bidding / Contract Documents

The Contractor is required to implement the mitigation and management measures established in the Contractor's ESMP and outlined in this ESMP and is required to cover all cost relating to the environmental, social,health and safety requirements, including the provision of materials, equipment, and supplies such as all appropriate and required PPEs to ensure compliance. These requirements will be clearly communicated in the Bidding Document to ensure that potential contractors are aware of the requirements and include the necessary resources including personnel and funds to ensure compliance.The ESMP will form part of the Contract Document.

6.4 Capacity building

The principal objective of the training course is to ensure the sound and sustainable implementation ofthe 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 the each BHUs site relevantproblems, and strategizing implementation of this ESMP activities. E&S team at the PMU will execute
the training programs on each BHUs construction working site. Training reports will be developed for the training session conducted. Plan for E&S Standards training is explained below in Plan for E&S Trainings as given in Table 6-4.

Table 6-4: Plan for E&S Standards 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 mechanismReporting mechanism	District level Health officers, PPHI DMs, construction contractor andfield staff	E&S team PMU	At the start of BHUs construction activities Refresher afterwards as and when required/ Quarterly.

Construction related E&S issues	GRM Monitoring	Local Community Councils	E&S team PMU	At the start of BHUs construction Activities. Refresher afterwards as and when required/ Quarterly.
Constructionrelated E&S issues	Management of waste, air, and water quality atsite, OHS and GRM ● 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	Contractorworkers 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.

6.5 Cost of Implementation

Separate estimated budget of 33,75,000/= has been allocated for the implementation of the ESMP for each BHU, which will be the part of BOQ.

A. Cost for Environmental Social Management Plan (ESMP) of Hyderabad Division (40 BHUs)

Table 6-5: Cost for ESMP of Hyderabad Division (40 BHUs)

S No.	Description	Qty	Frequency	Unit	Rate (Rs)	Amount for one BHU (Rs)	Amount (Rs) for 40 BHUs	Remarks
Trainings & Reporting								
1	Training workshops for PMO, CSC, Contractors & Others (labor) on different topics, HSE, PPES, GRM, SEA/SH/ etc.	15	Once every month for period of 15 months	No.	60,000	900,000	36,000,000	
2	Consultations, Reporting & Communication	15	Once every month for period of 15 months	No.	20,000	300,000	12,000,000	A standalone SEP has also been prepared for the project.
Environmental Monitoring								
3	Ambient Air Quality Monitoring (24 hrs.)	6	Once in pre-construction period, quarterly during construction period (5)	No.	32,000	192,000	7,680,000	
4	Noise Monitoring Meter (for PMO/ CSC)	1	Procured to conduct noise monitoring on site at intervals	No.	150,000	150,000	6,000,000	
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.	15	Once before commencement of work and once in a month during construction period,	No.	26,000	390,000	15,600,000	

S No.	Description	Qty	Frequency	Unit	Rate (Rs)	Amount for one BHU (Rs)	Amount (Rs) for 40 BHUs	Remarks
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.	15	Once in a month during construction period,	No.	31,000	465,000	18,600,000	
Operational Expenses								
7	Personal Protective Equipment's including; ear muffs, safety shoes, masks, gloves, safety helmets, safety vests, warning tapes and safety signage	15	-	Month	50,000	750,000	30,000,000	
8	Divergence Equipment's including; Jarsy Barriers, Safety Cones, Hard barricades.	15	-	Month	5,000	75,000	3,000,000	
9	Medical masks, sanitizers and soaps (kit per head)	15	-	Month	10,000	150,000	6,000,000	
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	15	-	Month	21,000	315,000	12,600,000	
11	Fire Fighting Equipment purchase and monthly refilling	15	-	Month	16,000	240,000	9,600,000	
12	Tree Plantation (1:5) total 227 trees will cut in Hyderabad division and will replant 1,135 trees.	1,135		No.	500	5,000	567500	Tree plantation will be carried as per 1:5 and where no tree cutting will involve, 10 trees will be planted.

S No.	Description	Qty	Frequency	Unit	Rate (Rs)	Amount for one BHU (Rs)	Amount (Rs) for 40 BHUs	Remarks
13	Health & Hygiene including; provision of waste collection bins, cleaning of site and dormitory areas, use of disinfectants and solid waste management	15		Month	16,000	240,000	240000	
					Total Amount of ESMP Rs.	**4,172,000**	167,247,500	

Note:

- The contractor has to deploy one Environmental, & one Social and one Occupational, Health and Safety Specialist at Division level. The Cost of these three (3) 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 eleven (11) (at 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.

B. Cost for Environmental Social Management Plan (ESMP) of Mirpur Khas Division (11 BHUs)

Table 6-6: Cost for ESMP of Division (11 BHUs)

Sr. No.	Description	Qty	Frequency	Unit	Rate (Rs)	Amount for One BHU (Rs)	Amount (Rs) for 11 BHUs	Remarks
Trainings & Reporting								
1	Training workshops for PMO, CSC, Contractors & Others (labor) on different topics, HSE, PPES, GRM, SEA/SH/ etc.	15	Once every month for period of 15 months	No.	60,000	900,000	9,900,000	
2	Consultations, Reporting & Communication	15	Once every month for period of 15 months	No.	20,000	300,000	3,300,000	A standalone SEP has also been prepared for the project.
Environmental Monitoring								
3	Ambient Air Quality Monitoring (24 hrs.)	6	Once in pre-construction period, quarterly during construction period (5)	No.	32,000	192,000	2,112,000	
4	Noise Monitoring Meter (for PMO/ CSC)	1	Procured to conduct noise monitoring on-site at intervals	No.	150,000	150,000	1,650,000	
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.	15	Once before commencement of work and once in a month during construction period	No.	26,000	390,000	4,290,00	

Sr. No.	Description	Qty	Frequency	Unit	Rate (Rs)	Amount for One BHU (Rs)	Amount (Rs) for 11 BHUs	Remarks
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.	15	Once in a month during-construction period,	No.	31,000	465,000	5,115,000	
Operational Expenses								
7	Personal Protective Equipment's including; ear muffs, safety shoes, masks, gloves, safety helmets, safety vests, warning tapes and safety signage	15	-	Month	50,000	750,000	30,000,000	
8	Divergence Equipment's including; Jarsy Barriers, Safety Cones, Hard barricades	15	-	Month	5,000	75,000	3,000,000	
9	Medical masks, sanitizers and soaps (kit per head)	15	-	Month	10,000	150,000	1,650,000	
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	15	-	Month	21,000	315,000	3,465,000	
11	Fire Fighting Equipment purchase and monthly refilling	15	-	Month	16,000	240,000	2,640,000	
12	Tree Plantation (1:5), total 43 trees will cut in Mirpur Khas division and will replant 215 trees.	215		No.	500	5000	107,500	Tree plantation will be carried as per 1:5 and where no tree

Sr. No.	Description	Qty	Frequency	Unit	Rate (Rs)	Amount for One BHU (Rs)	Amount (Rs) for 11 BHUs	Remarks
								cutting will involve 10 trees will be planted.
13	Health & Hygiene including; provision of waste collection bins, cleaning of site and dormitory areas, use of disinfectants and solid waste management	15	-	Month	16,000	240,000	2,640,000	
	Total Amount of ESMP Rs.					**4,172,000**	45,837,000	

Note:

- The contractor has to deploy one Environmental, & one Social and one Occupational, Health and Safety Specialist at Division level. The Cost of three (3) 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 three (03) (at 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.

6.6 ESMP Implementation Cost by Project Management Unit (PMU)

The Environmental and Social Management Plan (ESMP) implementation for the project will be overseen by the Project Management Unit (PMU), ensuring that all environmental and social Standards are effectively addressed throughout the project lifecycle. This includes managing the training of relevant staff and engaging with local communities to promote awareness and participation. Regular monitoring, evaluation, and reporting will be conducted to ensure that the ESMP is followed and its objectives are achieved, ensuring the sustainable development of the project while minimizing negative impacts. To ensure to compliance of ESMP, SIHPP-PMU have designated staff (Environment, Social Specialist and Environment officer) to monitor the activities
The cost of ESMP Implementation is shown in below table 6.7, this is overall project cost has been included.

Table 6-7: Budget for ESMP Implementation - PMU (15 months)

Sr. No.	Description	Frequency	Unit Rate (PKR)	Cost (PKR)	Remarks
1.	Training / Capacity Building Program at Provincial/Division/ District level	Bi-annually	12,22,500	2,445,000	Trainings will be Provided to consultant, contractor and health care staff.
2.	Third Party Validation	Annual	1,100,000	1,100,000	Once for year
3.	IEC Material/ per facility	Yearly	(2000x51)	102,000	51 BHUs
	Grand Total			3,647,000	

The cost outlined above covers the overall implementation of the Environmental and Social Management Plan (ESMP) for the 51Basic Health Units (BHUs) for the duration of 15 months, the PMU will implement the ESMP as described. This will focus on environmental mitigation, social management, and stakeholder engagement at each facility. The PMU will be responsible for overseeing the execution, ensuring compliance, and monitoring throughout the project. With a comprehensive approach, this plan ensures adherence to all environmental and social standards, with allocated costs for training, assessments, and ongoing evaluation, ultimately supporting the project's sustainable success.

7. Grievance Redressal Mechanism

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.

7.1 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:

- Develop an organizational framework to address and resolve the grievances of individual(s) or community, fairly equitably and timely.
- To provide enhanced levels of satisfaction to the aggrieved.
- To provide easy accessibility to the aggrieved / affected individual or community for immediate grievance redress.
- To identify systemic flaws in the operational functions of the program and suggest corrective measures.
- To ensure that the program's operation is in line with its conception and transparency to achieve its goals for sustainability.
- To ensure effective implementation of the Project elements directly relevant to improving governance and accountability.

7.2 Composition of Grievance Redressal Committees

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

1. **Grievance Redressal Committee at the PMU**
    a. The GRC at the PMU shall be headed by PD
    b. Two women members shall be part of GRC
    c. The GRC shall be represented by all key stakeholders from PMU and external members including representation from Health department, PPHI, etc. Details for the GRC members are provided in the subsequent sections.
    d. There shall be a GRM focal person at the PMU level whose job is to ensure that GRM procedures defined and followed as per planned. The prime responsibility to lead the GRM lies with the Social and Gender Specialist. However, the Social Safeguard and Gender Specialist may constitute a separate team, or delegate tasks to other persons as the need may arise.

2. **Grievance Redressal Committee at District Level**
    a. The GRC at the district level will address complaints referred to by the PMU GRM where resolution is beyond the scope of the program staff and required intervention of district level.
    b. Two women members shall be part of GRC
    c. There shall be nominated GRM focal person at each district. The GRM Focal person shall be nominated by the DHO of the District.
3. **Grievance Redressal Committee at site/Health Facility level**
    a. The GRC at the site/Health Facility level will address complaints received by local community and shared the status with district GRC on daily basis.
    b. Two women members shall be part of GRC

7.3 Grievance Registration Channels

The complaint registration procedure shall involve the following modes of access. The GRM will entertain the anonymous complaints also:

1. **Complaint Register:** A complaint register shall be present at every project site. It shall be the responsibility of every site GRM focal person to make daily inspection of the Complaint Register and sign the register at the time of inspection. The complaint register will be designed at the PMU.
2. **Complaint Box:** There shall be one visible complaint box at every project site. It shall be responsibility of every site GRM focal person to inspect the complaint box and forward the complaint to PMU after making entry in the complaint register, including updating it regarding the resolution or referrals.
3. **Phone Number:** It shall be responsibility of the GRM focal person at PMU to cell number (0304-144-8989) issued for the project and make it widely publicized as the "complaint number" for the project. The number must be managed by staff trained in accepting and logging complaints and must have female staff available for any complainant who wants to speak to a female.
4. **WhatsApp Number:** A similar number as the one mentioned above shall also be available on WhatsApp as well for quick conversation and/or exchange of any photographic evidence regarding a grievance/complaint. mail: It shall be responsibility of the GRM focal person to create one email ID, and make it widely publicized for the purpose or receiving Email Address:
5. **Web-Portal:** The project website shall have dedicated section/tab regarding Complaint Registration
6. Complaints may also be sent in writing by post/mail to the PMU-SIHPP at the following address: Office No. 120, Plot No. 180-C, Al Murtaza commercial lane 2, Phase VIII DHA, Karachi & Email: sgs@sihpp.gos.pk Engagement with the Complainant
7. Below are Complaint Channels as in Table 7-1.

Table 7-1: Complaint Channels

S.NO	CHANNEL	DETAIL
1.	What's App / SMS/ call	0304-144-8989
2.	Email.	sgs@sihpp.gos.pk
3.	Web-Portal	https://www.sihpp.gos.pk/grievance-redressal.php
4.	Office Address	Office No. 120, Plot No. 180-C, al Murtaza Commercial Lane 2, Phase VIII DHA, Karachi

Following the timelines stipulated in this document, the GRM focal person shall, after receiving the complaint, acknowledge to the complainant that their complaint has been received and provide a complaint number. The complainant shall immediately be informed about the tentative time of complaint resolution. This can be done through a feedback SMS, What's App message, email or any other mode found convenient by the GRM focal person.

Complaint resolution and will be closed after the follow-up and confirmation from complainant and on satisfactory closure.

The GRM within the project ambit will have provision for registering anonymous complaints, however, to ensure the legal basis, it is preferred that complaints are registered with proper identification of the complainants. Nevertheless, anonymous complaints will be treated equally importantly. Confidentiality is a fundamental aspect of the project and ensuring confidentiality and accountability is particularly critical in the case of GBV complaints

7.4 Responsible Parties

Identification of entities and individuals responsible for addressing different types of grievances, including their roles and responsibilities are below, Terms of Reference (ToRs) for Grievance Redress Entities in the GRM**.** Grievance Reporting and Coordination Hierarchy and Details of responsible parties are provided in below Table 7-2.

Table 7-2: Responsible Parties

Individuals/Committee	Role & Responsibilities
PMU Focal Person for GRM	Ensure the notification of complaints to Grievance Redressal Committees (GRCs)
	Notification for the Focal persons at field level, preparation of training material and impart training sessions to human resource who are dealing with GR
	Development of a comprehensive GR Policy and operational mechanism covering the scope, mode of lodging grievances, mechanisms for timely redressal and an effective appellate and oversight mechanism in local language
	Distribution of the GR policy to all staff, beneficiaries, and potential users
	Development and distribution of grievance manual for staff
	Designing of processing steps for GRM, including, i) uptake, (ii) sorting, (iii) processing, (iv) following up, (v) verification/ investigation, (vi) assessing & reporting, and (vi) responding to complaints
GRCs	Ensure the confidentiality of complainants during the GRM process
	Engage the Government institutions and other relevant Stakeholders in Grievance resolution
	To define process and propose possible solutions for a specific Grievances within the designated timeframe from receipt of the Grievance
	Collaborate with Partner Institutions and other NGOs, CSOs and other entities to conduct outreach initiatives to increase awareness among Stakeholders as to the existence of the GRM and how its services can be accessed through the community engagement activities and communication wing of PMU, with special consideration (e.g., targeted messages, etc.) for women and the vulnerable groups
	Monitor and follow up to Grievance resolutions, as appropriate

ANNEXURES

Annexure-A: E & S Screening Checklist for SIHPP

SINDH INTEGRATED HEALTH AND POPULATION PROJECT

ENVIRONMENTAL AND SOCIAL SCREENING CHECKLIST

BHU TURK FARM

A	**General Information**	
1	Subproject Location	**District: Badin** **Taluka: Tando Bago** **UC: Khalifo Qasim** **Village: Khalifo Qasim**
2	Subproject Activities	The sub-project will be constructed from the ground up and will include the following features: a Doctor's room, a Lady Health Visitor (LHV) room, an Expanded Program on Immunization (EPI) & Nutrition room, additional rooms for doctors, an X-ray room, a basic laboratory, an ultrasound room, a labour room with autoclave and scrub, additional observation beds for gynaecology/labour, a female waiting area, a male waiting area, a wheelchair parking bay, ambulance parking, a store, a pharmacy, a pantry, 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 visitors, and feature fire extinguishers, Infrastructure to synchronize public health data and medicine stores, and fire alarms.
3	Proposed Date of Commencement of Work	Subject to the finalization of relevant documents and procedures.
4	Important geographic / topographic feature (if any)	24.74436 (Northing) 69.06593 (Easting)
5	Important biological feature (if any)	Flora: 02 number of trees (2-Conocarpuses) will be affected due to project construction activities. Fauna: The district hosts common bird species like the black drongo, blue rock pigeon, cattle egret, jungle babbler. Resident birds include black and grey partridges, kingfishers, pond herons, bulbuls, and doves, no direct impact on biodiversity is anticipated during implementation of project.

B: Environmental Issues

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?	Yes		√			The subproject activities will encompass site clearance, including the demolition of existing structures and the removal of vegetation. All tasks will be carried out within the current boundaries 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 (10-15 workers) with temporary washrooms, and a kitchen for the labor camp. Additionally, water, electrical, and sewerage systems will be connected to the existing utilities network. An Environmental and Social Screening Report (ESSR)/Site Specific ESMP will be developed by the contractors, including mitigation plan outlining the relevant mitigation measures.
3	Will the subproject require a large amount of raw 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. In case of leftover debris, it will be disposed of to ensure the proper waste management practices
4	Will the subproject generate large amounts of residual wastes, construction material waste?	Yes		√			The subproject will produce a significant amount of residual waste from the reconstruction/construction work, which will be disposed to backfill the site.

Sr. No	Issues	No/Yes	Risk Level				Remarks/Mitigation Measures
			Low	Moderate	Substantial	High	
5	Is the sub-project expected to result in soil erosion?	Yes	√				The subproject will include excavation, land clearing, and leveling. These activities may not disturb the surrounding soil outside the site location. This impact will be short-term, occurring only during the construction phase.
6	Is the sub project expected to create borrow pits for construction material?	No					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 remnants of hospital waste in the soil and improper disposal of waste generated at the construction site. However, these impacts will be managed by implementing the measures outlined in the general ESMP as well as detailed in site specific 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. For health care waste it will be managed at designated place for the waste collection and later on disposed of accordingly. During operational phase the BHUs will be operated by People's Primary Healthcare Initiatives (PPHI), the medical waste will be managed through their established Disposal method and SOP's.

Sr. No	Issues	No/Yes	Risk Level				Remarks/Mitigation Measures
			Low	Moderate	Substantial	High	
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 healthcare waste present in the soil.
10	Will the subproject increase ambient noise levels?	Yes	√				During the construction phase, 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. However, these impacts will be temporary and are not expected to pose a significant long-term risk.
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?	Yes		√			The subproject will require the removal of a small amount of vegetation, potentially involving the removal of two (02) trees. Within the premises of BHU and surrounding areas to mitigate this impact, new trees will be planted at a ratio of 1:5 (five trees planted for every tree removed on site). Prioritize replanting same species on an alternating basis, focusing on Native plants.
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

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 laborers with locals, particularly by the induction of outside labor and establishment of construction camps (if any)?	Yes		√			There is a potential for social conflicts arising from interactions with labor. However, the contractor will be encouraged to hire local labor whenever feasible, and activities at the labor 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 labor in subproject activities?	Yes		√			There is a concern regarding the potential use of forced labor and child labor by the Contractor. However, strict measures will be implemented through contractual agreements and the ESMP to ensure that no child or forced labor 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 healthcare waste in the soil. 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), COVID-19 pandemic during subproject implementation and operation.	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 duration of these risks will be limited.

Sr. No	Issues	No/Yes	Risk Level				Remarks/Mitigation Measures
			Low	Moderate	Substantial	High	
5	Risks related to community health and safety due to the transport, storage, and/or disposal of hazardous, nonhazardous, 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 and health care waste 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 labor 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 as directed by the in-charge and the client; 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 acquisition or clearance of the existing site?	No					No displacement of residents or loss of shelter will occur since no land acquisition is necessary.
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	No					There are no plans for an anti-encroachment drive to forcibly evict or relocate people at the site.

Sr. No	Issues	No/Yes	Risk Level				Remarks/Mitigation Measures
			Low	Moderate	Substantial	High	
	out?						
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, the existing trees within the BHU may be impacted during the site clearance activities.
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.
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 pro- posed subproject?	Yes		√			Consultations with relevant stakeholders are ongoing and will continue throughout the execution phase. All stakeholders will be 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 &	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. However, the relevant

Sr. No	Issues	No/Yes	Risk Level				Remarks/Mitigation Measures
			Low	Moderate	Substantial	High	
	rehabilitation activities?						measures to manage this aspect shall be included in the ESMP and Worker Code of Conduct.
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.

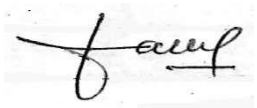
Environmental and Social Management Plan (ESMP): Based on environmental and social screening indicating low to moderate risks, an Environmental and Social Management Plan (ESMP) will be developed. It identifies and mitigates potential environmental and social impacts of a project, ensuring compliance 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 comprehensive briefing was provided to the EPA regarding the project's benefits and expected outcomes. The Deputy Director expressed concerns about drinking water quality, flora and fauna (potential impact from tree cutting), and air pollution (dust emissions), particularly during construction and operation phases. He stressed the importance of adhering strictly to Environmental Quality Standards during activities that could potentially impact the environment. Additionally, he emphasized the importance of worker health and safety, recommending the use of personal protective equipment (PPE) and inclusion of these measures in the ESMP for implementation.

Sindh Environmental Protection Agency (SEPA) NOC / Environmental Approval Required	[✓] Yes, [ ] No, if Yes, select the required study from below.

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

Survey Performed By:



Name: Abdul Jabbar **Designation: Environmental Engineer** **Signature:** _____ **Date**: 27-03-2024

Reviewed and Approved By:

Name: Col. Ajmal Rasheed **Designation: Environmental Engineer\Team Lead** **Signature:** _____ **Date**: 26-09-2024

PICTORIAL REPRESENTATION OF PROJECT SITE

1. **External Structure / Boundary Wall**

Front

Right

Back

Left

Annexure-B: Baseline Social Economic Survey

Project: ___ SIHPP_____Location__BHU Turk Farm _____ Date____27-03-2024_____

Name of Respondent____Allah Dita_____

Father's Name_____Muhammad Saleh_____**Contact No:** _____

Permanent Address of the Respondent

Village/Goth: ___Khalifo Qasim___ Approx. Household_201_Union Council _Khalifo Qasim

Tehsil/Taluka_Tando Bagho, District: __Badin_____Caste___Solangi_____

Marital Status (Tick): Married_M__Un-Married_Divorced/ Separated/Widowed

Demographic Profile of Respondent (Children up to 10 yrs (#): M_2__, FM _1__=T__3____)

Sr. No.	Relationship with Respondent	Sex Male=1 Female=2	Age (Yrs.)	Education	Name of Business/ Occupation		Income from Business/ Occupation (Rs. / Annum)		Health Condition
					Main	Secondary	Main	Secondary	
1	Father	Male	55	Matric	Farmer		25000 PKR		Good
2		Daughter	9	Primary					
3		Son	7	Primary					
4		Son	5	Not yet					
5									

Language Spoken _____Sindhi, Urdu, Punjabi_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		✓			

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

Social Amenities	Available (Yes-No)	Satisfactory (Yes-No)	Remarks
Electricity	Yes	No	
Gas	Yes	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 ii. Hand Pumps hand pumps
iii. Borehole iv. Tanker v Any other _____
Quality**: Good**_____ **Poor:** poor____ **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-:_____

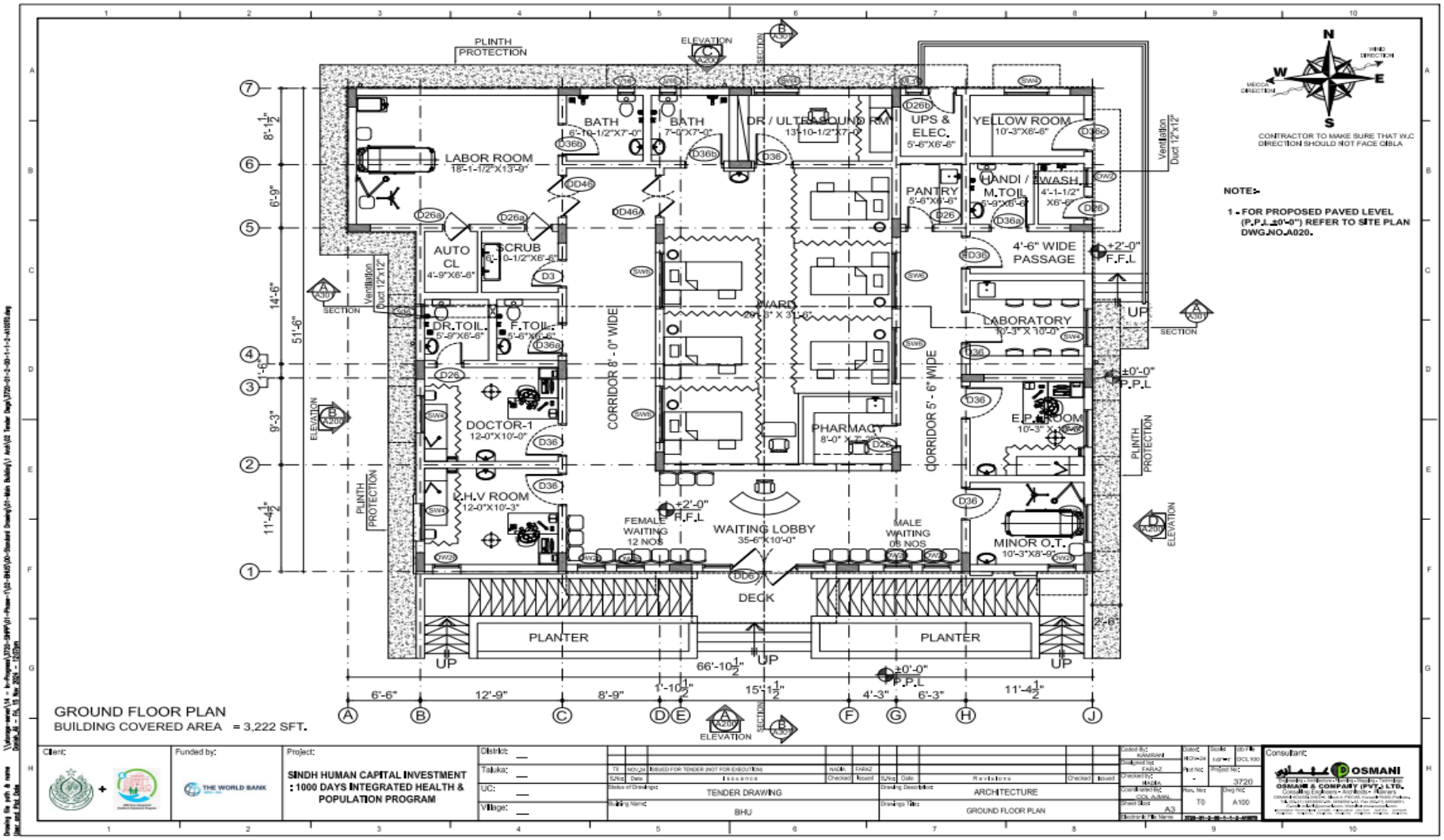
Perceptions of Respondents for the Project

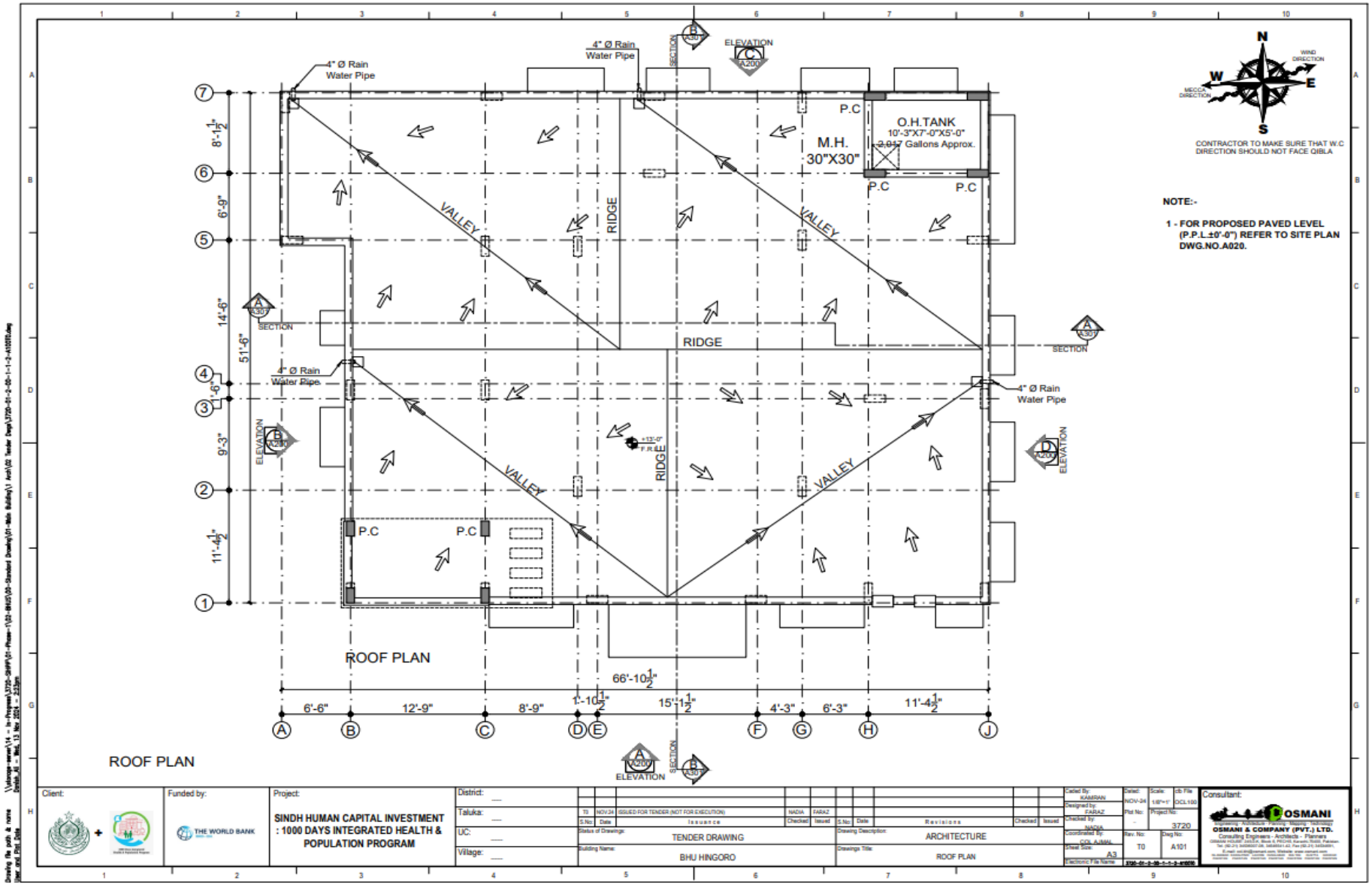
In your opinion, should this Project be implemented at the proposed location?
i. Yes____Yes____ ii. No____ ____
i. If yes, then reasons ii. If no, then reasons
---------- ----------
Major diseases common in the proposed project area: ____Malaria, diarrhea, _____
In your opinion, what are some pressing needs of this area?
_____
General Remarks of the Respondents
_____
General Observations of Interviewers
_____
Name of Interviewer: ____Atif_____ **Date:** ____02-04-24_____

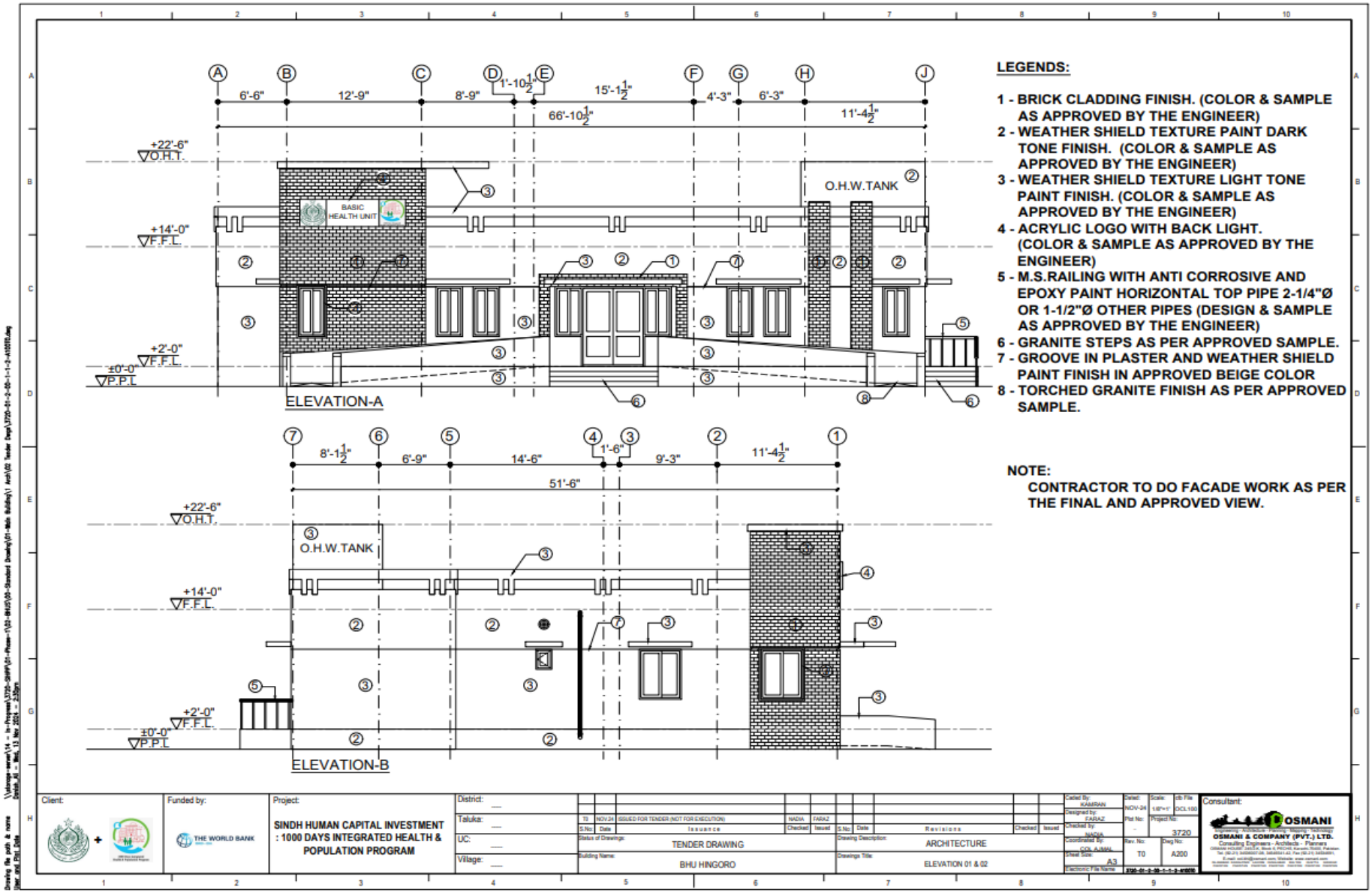
Annexure-C: Location and coordinates of 51 BHUs

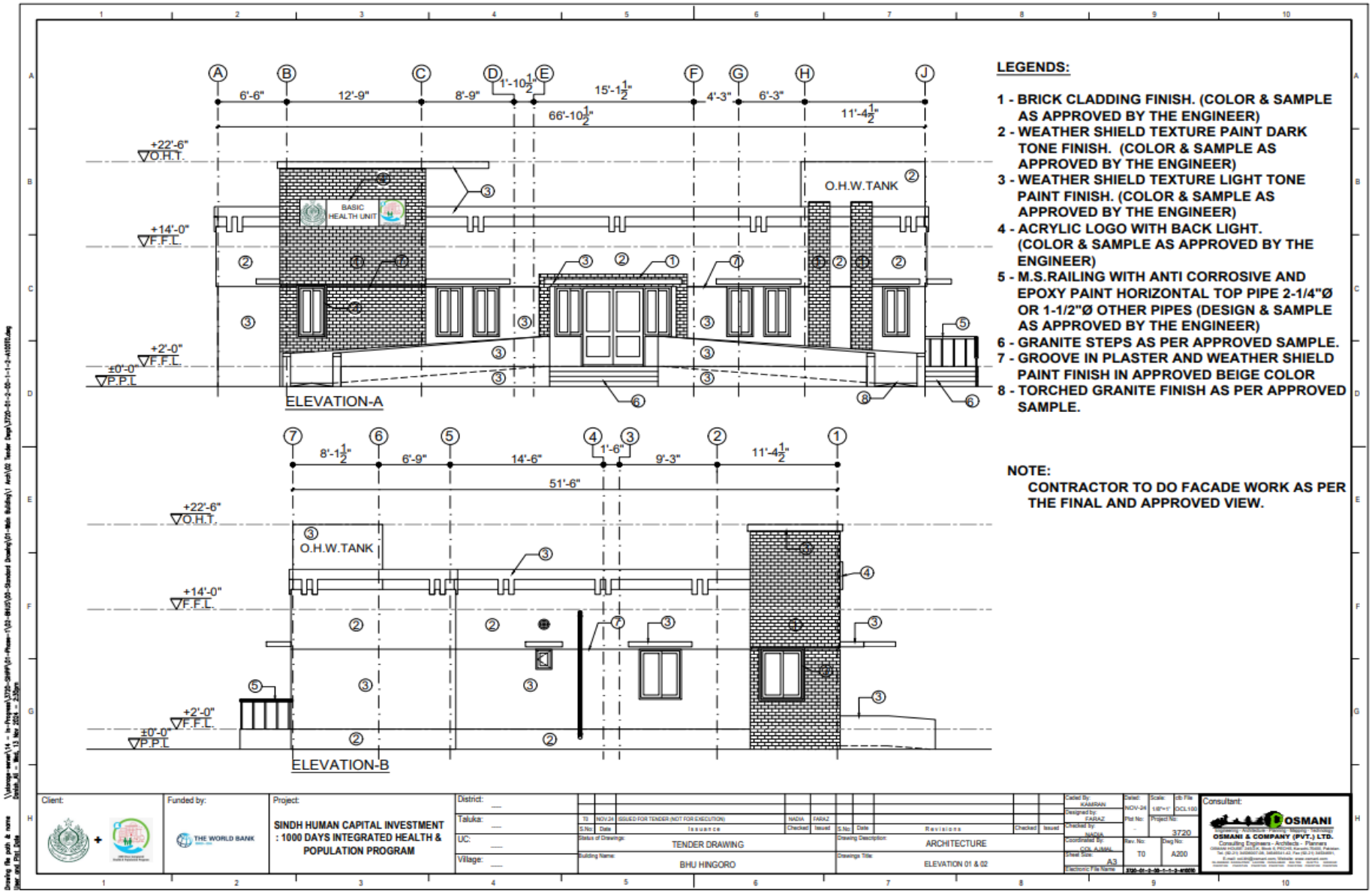
Sr. No.	District	Health Facility Name	Latitude	Longitude
1.	Badin	BHU Abdullah Shah	24.5906111	68.9575333
2.		BHU Lal Bux Notkani	24.5259036	68.8538311
3.		BHU Plus wali Muhammad malkani	24.8756583	69.2570361
4.		BHU Turk Farm	24.74445	69.0658389
5.		BHU Yousif Soomro	24.6609167	68.9082139
6.		BHU Haji Dodo Gishkori	25.1714923	68.9366242
7.		BHU Plus Ghulam Shah Mori	24.9544567	68.9799416
8.		BHU Plus Nabi Bux Kamboh	25.1021863	68.7672022
9.	Dadu	BHU Pipri	26.713871	67.738417
10.		BHU Chowkandi	27.1082592	67.2557344
11.		BHU Chorr	27.1582167	67.6515083
12.		BHU Dhani Bux Bughio	27.0580433	67.8100217
13.	Hyderabad	BHU Norai Sharif	25.17022	68.476787
14.		BHU Khaisana Mori	25.4440136	68.5835626
15.	Jamshoro	BHU plus Lakha	25.9554368	68.200501
16.	Matiari	BHU Bagho Khan Jamali	26.072221	68.398305
17.		BHU Nabi Bux Jamali	26.044109	68.424276
18.		BHU Plus Bhanoth	25.8691922	68.3468941
19.	Mirpur Khas	BHU Lal Chand Bunglow	25.6124921	69.0235099
20.		BHU Sikrayari	25.178688	69.25067
21.		BHU Kangoro	25.241016	69.035678
22.		BHU Karam Ali Leghari	24.986759	69.365883
23.		BHU Ubedullah Bhurgri	25.352122	69.291439
24.		BHU Faqeer Basheer Laghari	25.12586	69.016778
25.	Sajjawal	BHU Begna Mori	24.420795	68.257232
26.		BHU Laiq Pur	24.8558623	68.2187462
27.		BHU Shah Nawaz Laghari	24.7170412	68.1582903
28.		BHU Syed Qadir Dino Shah	24.6196947	68.0293515
29.		BHU Ali Muhammad Gugo	24.7583001	68.1154571
30.		BHU Plus Belo	24.7240832	68.0677116
31.		BHU Jungo Jalbani	24.282378	67.9211745
32.		BHU Raj Sheikh Bachal	24.4134978	68.1267034
33.	Tando Allahyar	BHU Plus Shadyoon	25.4095417	68.873295
34.		BHU Plus Dhingano Bozdar	25.4271517	68.6538883
35.		BHU Plus Shahnawaz Muhajir	25.5706533	68.7146317
36.		BHU Plus Jhando Mari	25.6442467	68.9051317
37.	Tando Mohd Khan	BHU Wasi Malook Shah	25.1938619	68.6296578
38.		BHU plus Saeed Mattoo	25.1915102	68.5708921
39.		BHU plus Shaikh Bhirkio	25.0115483	68.552583
40.		BHU Plus Ghulam Shah Bagrani	25.02966	68.569156
41.	Tharparker	BHU Jadam Jhangi	24.9538	70.634682
42.		BHU Arokhi	24.5843	69.603181
43.		BHU Bhakuo	24.5319689	69.8443786
44.	Thatta	BHU Noor Muhammad Thaheem	24.7408309	67.6730975
45.		BHU Dhandhari	24.2491626	67.730299
46.		BHU Janghree	25.3881665	67.9647109
47.		BHU Plus Garho	24.3050921	67.6054001
48.		BHU Gail Mori	24.538421	67.9144509
49.		BHU plus Achar Jakhro	24.7981193	67.8489439
50.	Umer Kot	BHU Araro Bhurgri	25.408025	69.312595
51.		BHU Sawan Rajar	25.452855	69.5136666

Annexure-D: Design details of 51 BHUs




4" Ø Rain Water Pipe
ELEVATION
SECTION
P.C
O.H.TANK
10'-3"X7'-0"X5'-0"
2,017 Gallons Approx.
M.H.
30"X30"
VALLEY
RIDGE
SECTION
4" Ø Rain Water Pipe
ELEVATION
+13'-0" F.R.E
P.C
P.C
ROOF PLAN
66'-10½"
6'-6"
12'-9"
8'-9"
1'-10½"
15'-11½"
4'-3"
6'-3"
11'-4½"
A
B
C
D
E
F
G
H
J
8'-1½"
6'-9"
14'-6"
51'-6"
1'-6"
9'-3"
11'-4½"
1
2
3
4
5
6
7
N
W
E
S
WIND DIRECTION
MECCA DIRECTION
CONTRACTOR TO MAKE SURE THAT W.C DIRECTION SHOULD NOT FACE QIBLA
NOTE:-
1 - FOR PROPOSED PAVED LEVEL (P.P.L ±0'-0") REFER TO SITE PLAN DWG.NO.A020.
ROOF PLAN
Client:
Funded by:
THE WORLD BANK
Project:
SINDH HUMAN CAPITAL INVESTMENT : 1000 DAYS INTEGRATED HEALTH & POPULATION PROGRAM
District:
Taluka:
UC:
Village:
TENDER DRAWING
BHU HINGORO
ARCHITECTURE
ROOF PLAN
Consultant:
OSMANI
OSMANI & COMPANY (PVT.) LTD.
Consulting Engineers - Architects - Planners
3720
A101


ELEVATION-A
ELEVATION-B
O.H.W.TANK
BASIC HEALTH UNIT
+22'-6" O.H.T.
+14'-0" F.F.L.
+2'-0" F.F.L.
±0'-0" P.P.L
LEGENDS:
1 - BRICK CLADDING FINISH. (COLOR & SAMPLE AS APPROVED BY THE ENGINEER)
2 - WEATHER SHIELD TEXTURE PAINT DARK TONE FINISH. (COLOR & SAMPLE AS APPROVED BY THE ENGINEER)
3 - WEATHER SHIELD TEXTURE LIGHT TONE PAINT FINISH. (COLOR & SAMPLE AS APPROVED BY THE ENGINEER)
4 - ACRYLIC LOGO WITH BACK LIGHT. (COLOR & SAMPLE AS APPROVED BY THE ENGINEER)
5 - M.S.RAILING WITH ANTI CORROSIVE AND EPOXY PAINT HORIZONTAL TOP PIPE 2-1/4"Ø OR 1-1/2"Ø OTHER PIPES (DESIGN & SAMPLE AS APPROVED BY THE ENGINEER)
6 - GRANITE STEPS AS PER APPROVED SAMPLE.
7 - GROOVE IN PLASTER AND WEATHER SHIELD PAINT FINISH IN APPROVED BEIGE COLOR
8 - TORCHED GRANITE FINISH AS PER APPROVED SAMPLE.
NOTE:
CONTRACTOR TO DO FACADE WORK AS PER THE FINAL AND APPROVED VIEW.
Client:
Funded by:
THE WORLD BANK
Project:
SINDH HUMAN CAPITAL INVESTMENT : 1000 DAYS INTEGRATED HEALTH & POPULATION PROGRAM
District:
Taluka:
UC:
Village:
TENDER DRAWING
BHU HINGORO
ARCHITECTURE
ELEVATION 01 & 02
Consultant:
OSMANI & COMPANY (PVT.) LTD.


A B C D E F G H J
6'-6" 12'-9" 8'-9" 1'-10½" 15'-1½" 4'-3" 6'-3" 11'-4½"
66'-10½"
+22'-6" O.H.T.
+14'-0" F.F.L.
+2'-0" F.F.L.
±0'-0" P.P.L
BASIC HEALTH UNIT
O.H.W.TANK
ELEVATION-A
7 6 5 4 3 2 1
8'-1½" 6'-9" 14'-6" 1'-6" 9'-3" 11'-4½"
51'-6"
+22'-6" O.H.T.
O.H.W.TANK
+14'-0" F.F.L.
+2'-0" F.F.L.
±0'-0" P.P.L
ELEVATION-B
LEGENDS:
1 - BRICK CLADDING FINISH. (COLOR & SAMPLE AS APPROVED BY THE ENGINEER)
2 - WEATHER SHIELD TEXTURE PAINT DARK TONE FINISH. (COLOR & SAMPLE AS APPROVED BY THE ENGINEER)
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6 - GRANITE STEPS AS PER APPROVED SAMPLE.
7 - GROOVE IN PLASTER AND WEATHER SHIELD PAINT FINISH IN APPROVED BEIGE COLOR
8 - TORCHED GRANITE FINISH AS PER APPROVED SAMPLE.
NOTE:
CONTRACTOR TO DO FACADE WORK AS PER THE FINAL AND APPROVED VIEW.
Client:
Funded by:
THE WORLD BANK
Project:
SINDH HUMAN CAPITAL INVESTMENT : 1000 DAYS INTEGRATED HEALTH & POPULATION PROGRAM
District:
Taluka:
UC:
Village:
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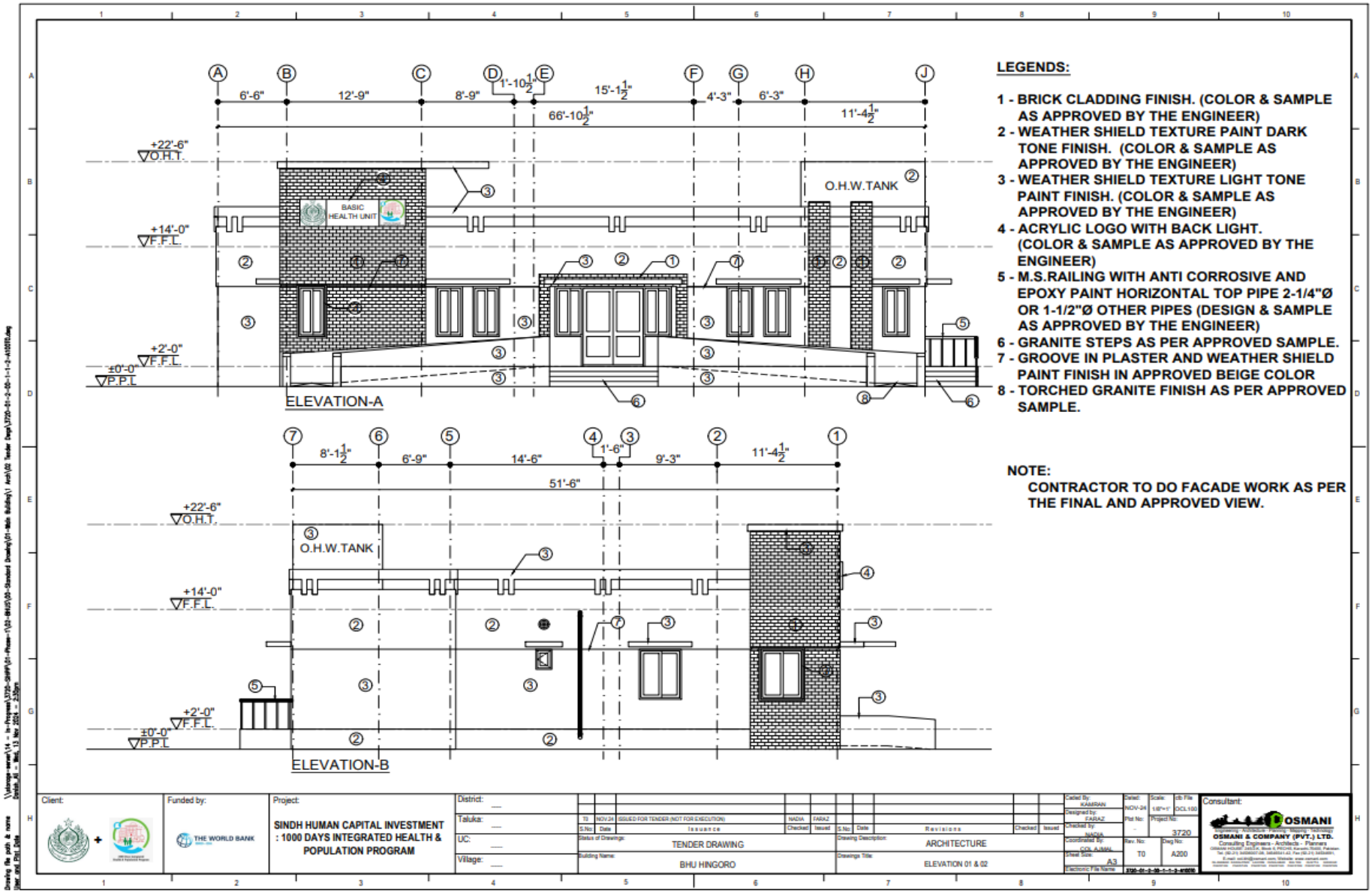
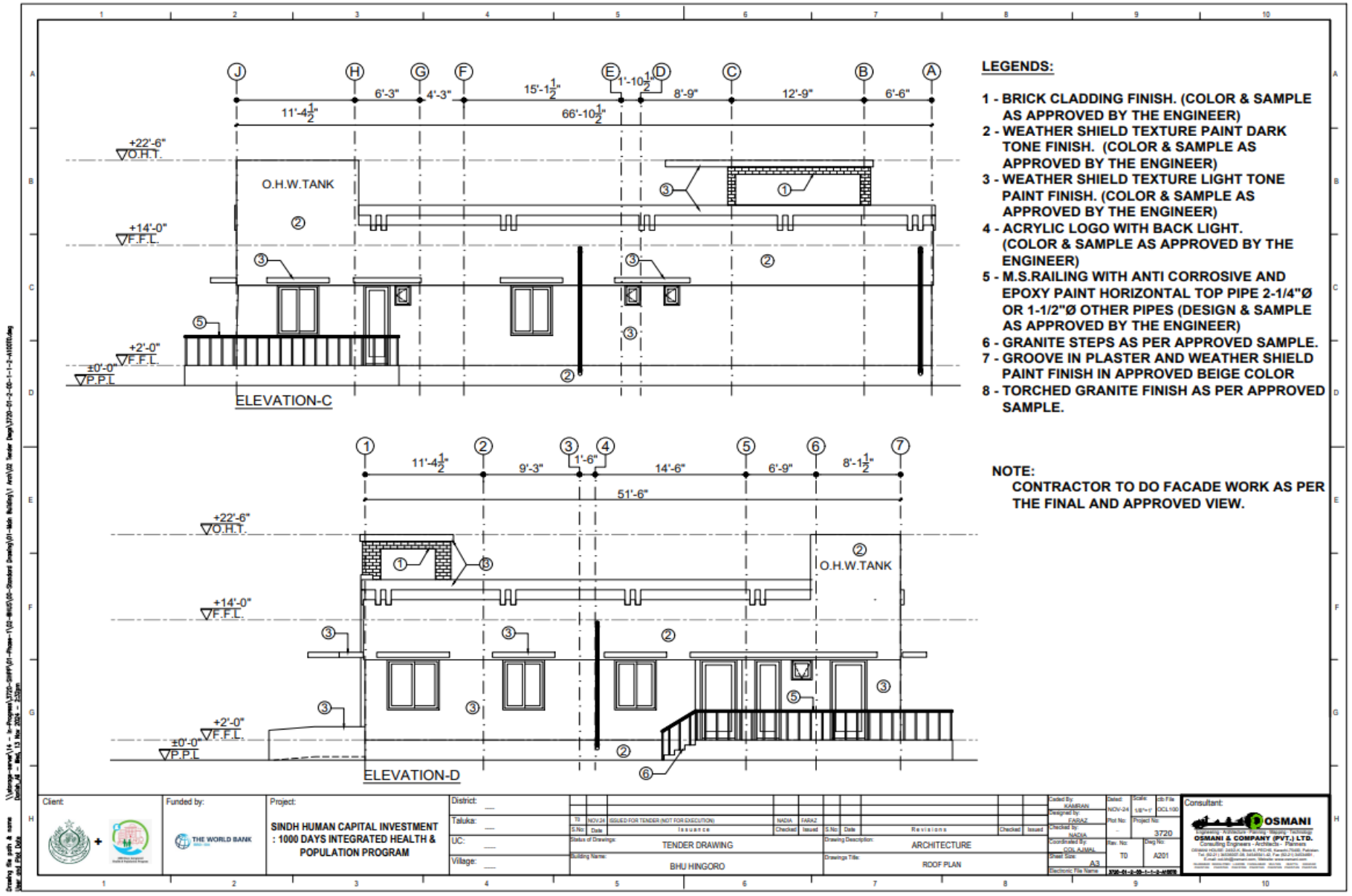
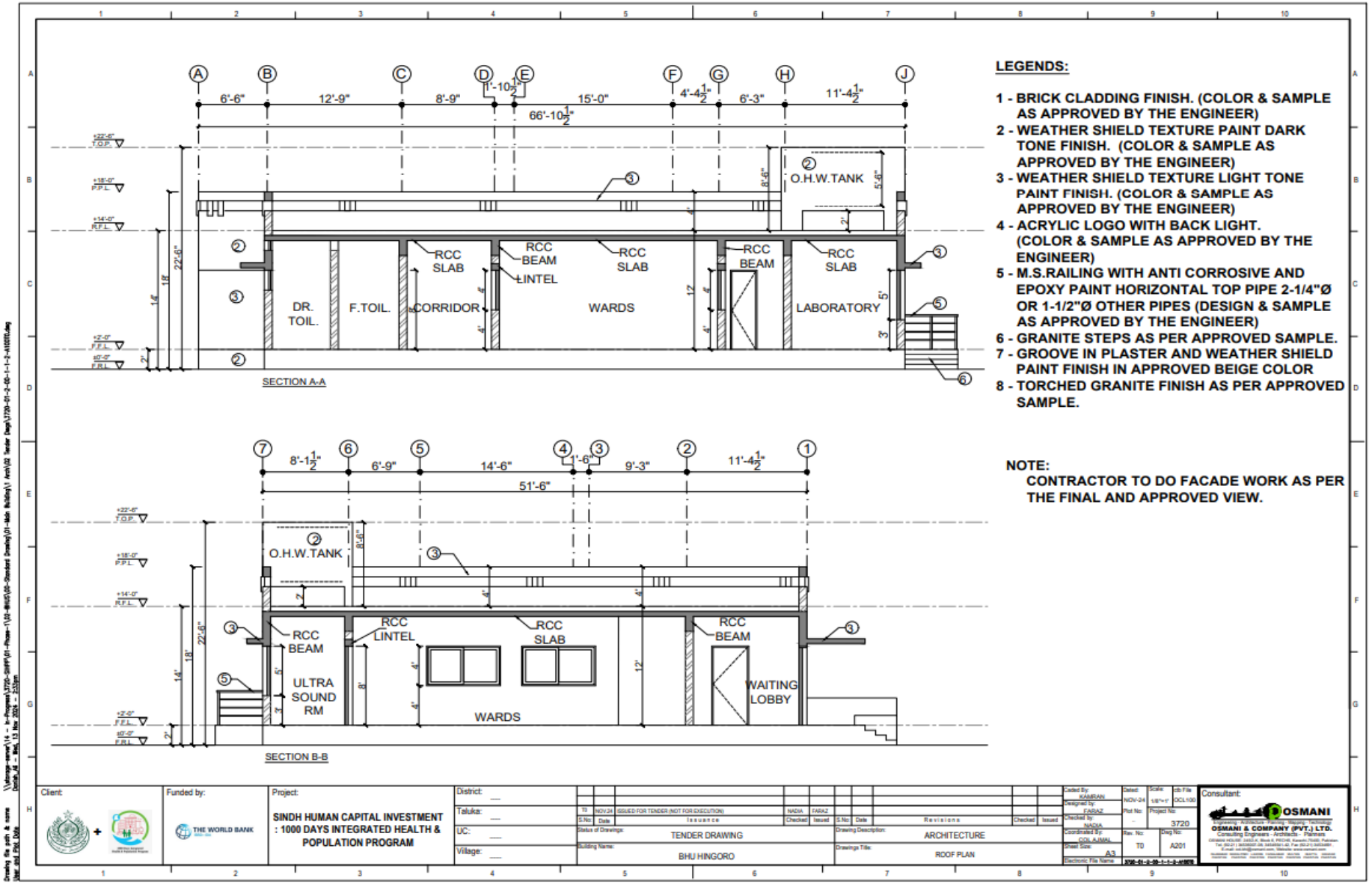
Consulting Engineers - Architects - Planners


A B C D E F G H J
6'-6" 12'-9" 8'-9" 1'-10½" 15'-1½" 4'-3" 6'-3" 11'-4½"
66'-10½"
+22'-6" O.H.T.
+14'-0" F.F.L.
+2'-0" F.F.L.
±0'-0" P.P.L
BASIC HEALTH UNIT
O.H.W.TANK
ELEVATION-A
7 6 5 4 3 2 1
8'-1½" 6'-9" 14'-6" 1'-6" 9'-3" 11'-4½"
51'-6"
+22'-6" O.H.T.
O.H.W.TANK
+14'-0" F.F.L.
+2'-0" F.F.L.
±0'-0" P.P.L
ELEVATION-B
LEGENDS:
1 - BRICK CLADDING FINISH. (COLOR & SAMPLE AS APPROVED BY THE ENGINEER)
2 - WEATHER SHIELD TEXTURE PAINT DARK TONE FINISH. (COLOR & SAMPLE AS APPROVED BY THE ENGINEER)
3 - WEATHER SHIELD TEXTURE LIGHT TONE PAINT FINISH. (COLOR & SAMPLE AS APPROVED BY THE ENGINEER)
4 - ACRYLIC LOGO WITH BACK LIGHT. (COLOR & SAMPLE AS APPROVED BY THE ENGINEER)
5 - M.S.RAILING WITH ANTI CORROSIVE AND EPOXY PAINT HORIZONTAL TOP PIPE 2-1/4"Ø OR 1-1/2"Ø OTHER PIPES (DESIGN & SAMPLE AS APPROVED BY THE ENGINEER)
6 - GRANITE STEPS AS PER APPROVED SAMPLE.
7 - GROOVE IN PLASTER AND WEATHER SHIELD PAINT FINISH IN APPROVED BEIGE COLOR
8 - TORCHED GRANITE FINISH AS PER APPROVED SAMPLE.
NOTE:
CONTRACTOR TO DO FACADE WORK AS PER THE FINAL AND APPROVED VIEW.
Client:
Funded by:
THE WORLD BANK
Project:
SINDH HUMAN CAPITAL INVESTMENT : 1000 DAYS INTEGRATED HEALTH & POPULATION PROGRAM
District:
Taluka:
UC:
Village:
TENDER DRAWING
BHU HINGORO
ARCHITECTURE
ELEVATION 01 & 02
Consultant:
OSMANI & COMPANY (PVT.) LTD.
Consulting Engineers - Architects - Planners


ELEVATION-C
O.H.W.TANK
+22'-6" O.H.T.
+14'-0" F.F.L.
+2'-0" F.F.L.
±0'-0" P.P.L
11'-4½"
6'-3"
4'-3"
15'-1½"
1'-10½"
8'-9"
12'-9"
6'-6"
66'-10½"
ELEVATION-D
O.H.W.TANK
+22'-6" O.H.T.
+14'-0" F.F.L.
+2'-0" F.F.L.
±0'-0" P.P.L
11'-4½"
9'-3"
1'-6"
14'-6"
6'-9"
8'-1½"
51'-6"
LEGENDS:
1 - BRICK CLADDING FINISH. (COLOR & SAMPLE AS APPROVED BY THE ENGINEER)
2 - WEATHER SHIELD TEXTURE PAINT DARK TONE FINISH. (COLOR & SAMPLE AS APPROVED BY THE ENGINEER)
3 - WEATHER SHIELD TEXTURE LIGHT TONE PAINT FINISH. (COLOR & SAMPLE AS APPROVED BY THE ENGINEER)
4 - ACRYLIC LOGO WITH BACK LIGHT. (COLOR & SAMPLE AS APPROVED BY THE ENGINEER)
5 - M.S.RAILING WITH ANTI CORROSIVE AND EPOXY PAINT HORIZONTAL TOP PIPE 2-1/4"Ø OR 1-1/2"Ø OTHER PIPES (DESIGN & SAMPLE AS APPROVED BY THE ENGINEER)
6 - GRANITE STEPS AS PER APPROVED SAMPLE.
7 - GROOVE IN PLASTER AND WEATHER SHIELD PAINT FINISH IN APPROVED BEIGE COLOR
8 - TORCHED GRANITE FINISH AS PER APPROVED SAMPLE.
NOTE:
CONTRACTOR TO DO FACADE WORK AS PER THE FINAL AND APPROVED VIEW.
Client:
Funded by:
THE WORLD BANK
Project:
SINDH HUMAN CAPITAL INVESTMENT : 1000 DAYS INTEGRATED HEALTH & POPULATION PROGRAM
District:
Taluka:
UC:
Village:
Issuance
Revisions
Status of Drawing: TENDER DRAWING
Building Name: BHU HINGORO
Drawing Description: ARCHITECTURE
Drawings Title: ROOF PLAN
Sheet Size: A3
Rev. No: T0
Dwg No: A201
Project No: 3720
Consultant:
OSMANI & COMPANY (PVT.) LTD.
Consulting Engineers - Architects - Planners


SECTION A-A
SECTION B-B
O.H.W.TANK
DR. TOIL.
F.TOIL.
CORRIDOR
WARDS
LABORATORY
ULTRA SOUND RM
WAITING LOBBY
RCC SLAB
RCC BEAM
RCC LINTEL
LEGENDS:
1 - BRICK CLADDING FINISH. (COLOR & SAMPLE AS APPROVED BY THE ENGINEER)
2 - WEATHER SHIELD TEXTURE PAINT DARK TONE FINISH. (COLOR & SAMPLE AS APPROVED BY THE ENGINEER)
3 - WEATHER SHIELD TEXTURE LIGHT TONE PAINT FINISH. (COLOR & SAMPLE AS APPROVED BY THE ENGINEER)
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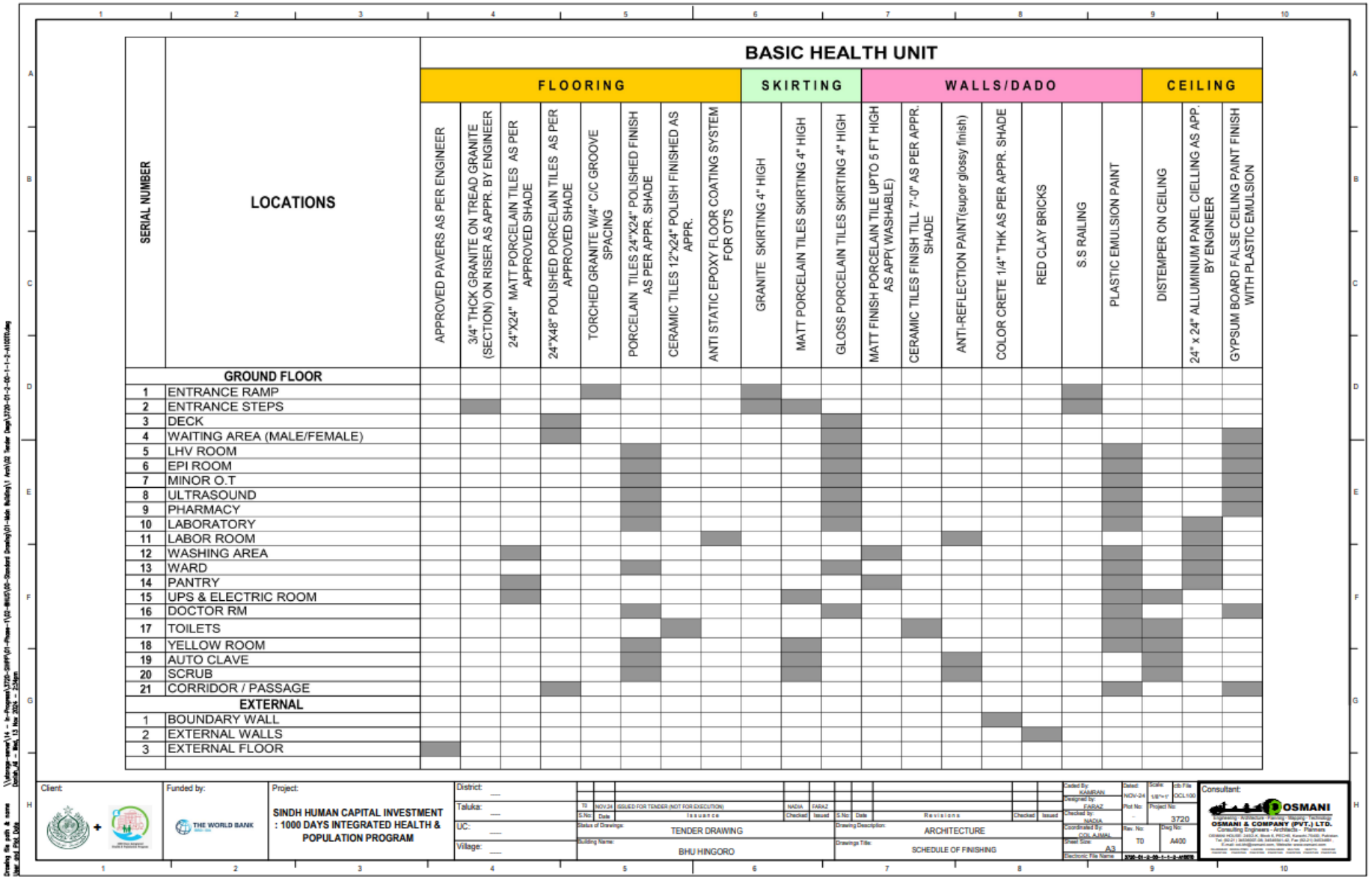
NOTE:
CONTRACTOR TO DO FACADE WORK AS PER THE FINAL AND APPROVED VIEW.
Client:
Funded by:
THE WORLD BANK
Project:
SINDH HUMAN CAPITAL INVESTMENT : 1000 DAYS INTEGRATED HEALTH & POPULATION PROGRAM
District:
Taluka:
UC:
Village:
Status of Drawings: TENDER DRAWING
Building Name: BHU HINGORO
Drawing Description: ARCHITECTURE
Drawing Title: ROOF PLAN
Consultant:
OSMANI & COMPANY (PVT.) LTD.
Consulting Engineers - Architects - Planners



BASIC HEALTH UNIT

SERIAL NUMBER	LOCATIONS	FLOORING								SKIRTING			WALLS/DADO						CEILING		
		APPROVED PAVERS AS PER ENGINEER	3/4" THCK GRANITE ON TREAD GRANITE (SECTION) ON RISER AS APPR. BY ENGINEER	24"X24" MATT PORCELAIN TILES AS PER APPROVED SHADE	24"X48" POLISHED PORCELAIN TILES AS PER APPROVED SHADE	TORCHED GRANITE W/4" C/C GROOVE SPACING	PORCELAIN TILES 24"X24" POLISHED FINISH AS PER APPR. SHADE	CERAMIC TILES 12"X24" POLISH FINISHED AS APPR.	ANTI STATIC EPOXY FLOOR COATING SYSTEM FOR OT'S	GRANITE SKIRTING 4" HIGH	MATT PORCELAIN TILES SKIRTING 4" HIGH	GLOSS PORCELAIN TILES SKIRTING 4" HIGH	MATT FINISH PORCELAIN TILE UPTO 5 FT HIGH AS APP(WASHABLE)	CERAMIC TILES FINISH TILL 7'-0" AS PER APPR. SHADE	ANTI-REFLECTION PAINT(super glossy finish)	COLOR CRETE 1/4" THK AS PER APPR. SHADE	RED CLAY BRICKS	S.S RAILING	PLASTIC EMULSION PAINT	DISTEMPER ON CEILING	24" x 24" ALLUMINIUM PANEL CIELLING AS APP. BY ENGINEER	GYPSUM BOARD FALSE CEILING PAINT FINISH WITH PLASTIC EMULSION
	GROUND FLOOR																				
1	ENTRANCE RAMP					■				■							■				
2	ENTRANCE STEPS		■							■	■						■				
3	DECK				■							■									
4	WAITING AREA (MALE/FEMALE)				■							■									■
5	LHV ROOM						■					■						■			■
6	EPI ROOM						■					■						■			■
7	MINOR O.T						■					■						■			■
8	ULTRASOUND						■					■						■			■
9	PHARMACY						■					■						■			■
10	LABORATORY						■					■						■		■	
11	LABOR ROOM								■						■					■	
12	WASHING AREA			■									■					■		■	
13	WARD						■					■						■		■	
14	PANTRY			■									■					■		■	
15	UPS & ELECTRIC ROOM			■							■							■	■		
16	DOCTOR RM						■					■						■			■
17	TOILETS							■						■				■	■		
18	YELLOW ROOM						■				■							■	■		
19	AUTO CLAVE						■				■				■				■		
20	SCRUB						■				■				■				■		
21	CORRIDOR / PASSAGE				■													■			■
	EXTERNAL																				
1	BOUNDARY WALL															■					
2	EXTERNAL WALLS																■				
3	EXTERNAL FLOOR	■																			

Client:

Funded by: THE WORLD BANK

Project: SINDH HUMAN CAPITAL INVESTMENT : 1000 DAYS INTEGRATED HEALTH & POPULATION PROGRAM

District: ___
Taluka: ___
UC: ___
Village: ___

S.No	Date	Issuance	Checked	Issued
T0	NOV-24	ISSUED FOR TENDER (NOT FOR EXECUTION)	NADIA	FARAZ

S.No	Date	Revisions	Checked	Issued

Status of Drawings: TENDER DRAWING
Building Name: BHU HINGORO
Drawing Description: ARCHITECTURE
Drawings Title: SCHEDULE OF FINISHING

Drawn By: KAMRAN
Designed by: FARAZ
Checked By: NADIA
Coordinated By: GOLAAMAL
Sheet Size: A3
Electronic File Name: XGE-01-2-20-1-1-2-A1001

Dated: NOV-24
Scale: 1/8"=1'
Job File: OCL100
Plot No: -
Project No: 3720
Rev. No: T0
Drwg No: A400

Consultant: OSMANI & COMPANY (PVT.) LTD.
Consulting Engineers - Architects - Planners

Annexure-E: Architectural View of BHU

Annexure-F: Health Facility Wise Details of Stakeholder Consultations

Sr. No.	District	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.	Hyderabad	1	2	2	1	2	1	2	1	2	1	2	1	1	1
2.		2	1	1	1	1	1	0	1	1	1	0	0	1	0
3.	Tando Mohd Khan	1	1	1	0	2	3	3	0	2	1	0	0	0	1
4.		0	2	2	1	3	2	2	0	3	1	0	0	1	0
5.		0	2	2	0	1	1	2	1	1	1	0	0	1	1
6.		1	1	1	2	3	0	1	2	3	0	0	0	2	0
7.	Sajjawal	1	2	1	1	2	1	2	0	2	0	2	0	2	0
8.		0	2	1	0	2	0	1	2	2	1	0	0	0	1
9.		1	1	2	1	1	0	1	1	1	2	0	0	1	0
10.		1	1	1	0	1	0	2	1	1	0	0	0	1	0
11.		1	2	2	1	3	2	1	2	1	2	0	0	0	1
12.		0	2	1	1	2	1	1	1	2	1	0	0	1	0
13.		1	1	2	0	1	2	1	2	1	1	0	0	1	1
14.		1	1	1	1	3	1	2	1	0	2	0	0	0	1
15.	Tando Allah Yar	2	2	1	1	2	0	1	1	2	2	2	1	2	2
16.		2	3	1	0	0	1	1	1	0	1	0	0	0	1
17.		1	1	0	1	1	2	2	0	1	1	0	0	1	1
18.		2	1	1	0	0	2	1	0	0	1	0	0	0	1
19.	Thatta	2	2	2	1	2	0	1	0	2	1	2	1	0	1
20.		2	0	1	1	1	2	1	2	1	0	0	0	1	0
21.		1	1	1	0	1	1	1	1	2	1	0	0	0	1
22.		1	0	2	1	3	2	1	1	0	1	0	0	1	0
23.		2	1	0	0	2	1	2	2	1	1	0	0	1	1
24.		1	2	1	1	1	1	1	1	1	0	0	0	1	0
25.	Badin	1	2	1	1	3	1	2	2	2	1	3	0	2	1
26.		1	2	1	0	2	0	2	1	2	0	0	0	2	0
27.		2	2	2	1	1	1	1	1	1	1	0	0	1	1
28.		1	2	1	0	3	0	1	1	1	2	0	0	1	2
29.		0	2	1	1	1	1	2	1	3	0	0	0	3	0

30.		2	1	2	0	2	2	1	0	2	2	0	0	2	2
31.		1	2	1	1	0	0	2	0	1	1	0	0	1	1
32.		2	1	2	0	1	0	2	1	2	1	0	0	1	1
33.	**Dadu**	2	2	1	1	2	1	1	2	1	2	2	1	1	0
34.		1	2	2	1	1	0	1	0	2	1	0	0	2	1
35.		1	1	1	0	1	1	1	2	0	2	0	0	0	0
36.		2	2	1	1	3	1	1	1	1	1	0	0	1	1
37.	**Mitiari**	1	2	2	1	2	1	1	2	2	1	2	1	2	1
38.		1	2	1	0	1	0	2	1	1	1	0	0	1	1
39.		2	1	2	1	3	1	2	2	2	1	0	0	2	0
40.	**Jamshoro**	1	1	1	1	2	1	1	1	2	1	3	1	2	1
41.	**Umerkot**	1	2	2	1	1	1	1	0	2	1	2	0	0	0
42.		0	2	2	0	1	1	1	1	2	0	0	0	1	1
43.	**Tharparkar**	1	2	2	2	3	0	1	2	1	1	2	1	1	1
44.		1	1	1	1	1	1	2	0	1	0	0	0	0	0
45.		1	2	2	0	1	1	1	2	3	0	0	0	1	0
46.	**Mirpurkhas**	1	1	2	0	2	1	2	1	2	1	3	2	1	1
47.		0	2	2	1	2	1	2	1	1	1	0	0	1	0
48.		1	1	3	1	1	0	2	2	3	1	0	0	0	1
49.		1	2	3	1	1	1	1	1	1	1	0	0	1	0
50.		0	2	2	0	2	1	2	2	2	0	0	0	1	0
51.		1	1	2	1	1	1	2	1	0	1	0	0	0	1
Total		65	93	86	39	95	51	87	63	87	55	25	9	56	39

Annexure-G: District Wise Details of Stakeholder Consultations

S.#	District	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	Hyderabad	3	3	3	2	3	2	2	2	3	2	2	1	0	1
2	Tando Mohd Khan	2	6	6	3	9	6	8	3	9	3	0	0	4	2
3	Sajjawal	6	14	13	6	16	8	12	11	11	10	2	0	7	5
4	Tando Allah Yar	8	11	5	3	6	5	9	5	6	7	2	1	6	7
5	Thatta	9	6	7	4	10	7	7	7	7	4	2	1	4	3
6	Badin	10	14	11	4	13	5	13	7	14	8	3	0	15	8
7	Dadu	8	8	7	3	9	4	6	6	4	7	2	1	4	2
8	Matiari	6	7	6	3	7	3	7	6	6	4	2	1	6	3
9	Jamshoro	5	6	5	3	6	2	6	3	9	3	3	1	3	3
10	Umerkot	1	4	4	1	2	2	2	1	4	1	2	0	1	1
11	Tharparkar	3	5	5	3	5	2	4	4	5	1	2	1	2	1
12	Mirpur Khas	4	9	14	4	9	5	11	8	9	5	3	2	4	3
Total		65	93	86	39	95	51	87	63	87	55	25	9	56	39

Annexure-H: Photographs of Stakeholder Consultations

	
BHU Araro Bhurgri	BHU Jadam Jhangi
	
BHU Ubaidllah Bhurgri	BHU Sikriyari

Annexure-I: Details of Trees

Sr. No	Name of BHUs	Number of Mature Tree	Number of Immature Tree
1.	BHU Norai Sharif	10	1
2.	BHU Khaisana Mori	7	0
3.	BHU Wasi Malook Shah	4	1
4.	BHU plus Saeed Mattoo	5	0
5.	BHU plus Shaikh Bhirkio	11	1
6.	BHU Plus Ghulam Shah Bagrani	6	0
7.	BHU Begna Mori	0	10
8.	BHU Laiq Pur	3	0
9.	BHU Shah Nawaz Laghari	7	0
10.	BHU Syed Qadir Dino Shah	10	0
11.	BHU Ali Muhammad Gugo	5	1
12.	BHU Plus Belo	3	0
13.	BHU JUNGO JABANI	2	0
14.	BHU Raj Sheikh Bachal	2	0
15.	BHU Plus Shadyoon	5	0
16.	BHU Plus Dhingano Bozdar	7	1
17.	BHU Plus Shahnawaz Muhajir	8	1
18.	BHU Plus Jhando Mari	8	0
19.	BHU Noor Muhammad Thaheem	4	10
20.	BHU Dhandhari	3	0
21.	BHU Janghree	5	0
22.	BHU Plus Garho	2	0
23.	BHU Gail Mori	4	0
24.	BHU plus Achar Jakhro	2	0
25.	BHU Abdullah Shah	5	0
26.	BHU Lal Bux Notkani	1	0
27.	BHU Plus wali Muhammad malkani	6	0
28.	BHU Turk Farm	2	0
29.	BHU Yousif Soomro	7	1
30.	BHU Haji Dodo Gishkori	5	0
31.	BHU Plus Ghulam Shah Mori	3	0
32.	BHU Plus Nabi Bux Kamboh	5	0
33.	BHU Pipri	4	0
34.	BHU Chowkandi	2	0
35.	BHU Chorr	2	0
36.	BHU Dhani Bux Bughio	6	0
37.	BHU Bagho Khan Jamali	6	0
38.	BHU Nabi Bux Jamali	4	0
39.	BHU Plus Bhanoth	14	0
40.	BHU plus Lakha	5	0
41.	BHU Araro Bhurgri	4	0

42.	BHU Sawan Rajar	4	0
43.	BHU Jadam Jhangi	1	0
44.	BHU Arokhi	6	0
45.	BHU Bhakuo	6	0
46.	BHU Lal Chand Bunglow	4	0
47.	BHU Sikriyari	2	0
48.	BHU Kangoro	3	0
49.	BHU Karam Ali Leghari	5	0
50.	BHU Ubedullah Bhurgri	6	0
51.	BHU Faqeer Basheer Laghari	2	0
	Sub Total	**243**	**27**
	Total	**270**	

Annexure-J: SOP for Tree Plantation and Handing Over to Facility Management

The risk and significance of the impact on flora from the proposed Project is considered low. Plantation in or around the health facility will improve the ecology and aesthetics of the surroundings. The basic purpose of afforestation/plantation of suitable species in the proposed Project areas is to enhance green cover and improve the overall environment of the area. Afforestation will not only reduce the risk been made but will also increase the carrying capacity of the areas regarding many positive aspects.

Importance of Tree Plantation

- Trees contribute to their environment by providing oxygen, improving air quality, climate amelioration, conserving water, preserving soil, and supporting wildlife;
- Trees control climate by moderating the effects of the sun, rain and wind. Leaves absorb and filter the sun's radiant energy, keeping things cool in summer;
- Trees also preserve warmth by providing a screen from harsh wind;
- Trees also lower the air temperature and reduce the heat intensity of the greenhouse effect by maintaining low levels of carbon dioxide;
- Both above and below ground, trees are essential to the eco-systems in which they reside;
- Trees absorb and store rainwater which reduce runoff and sediment deposit after storms. This helps the ground water supply recharge, prevents the transport of chemicals into streams and prevents flooding; and Trees, shrubs and turf also filter air by removing dust and absorbing other pollutants like carbon monoxide, sulfur dioxide and nitrogen dioxide.

Objectives

- To improve the ecology with plantation of native species and quality of air and reduce its pollution;
- To add color to the landscape and enhances the beauty of the environment;
- To uplift the quality of our living environment through active planting, proper maintenance and preservation of trees together with other vegetation;
- To protect and conserve flora and fauna of the proposed Project areas;
- To attract rain which is a positive impact on the proposed Project areas at all; and
- To reduce sedimentation by plantation in the proposed Project areas which will act as protection wall against wind born dust particles.

a) Recommended Species

It is recommended to plant the same specious which will be removed or indigenous species (such as bair, poplar, peach, walnut, phulai, Sheesham, toot, kikar etc.).

b) Plantation Technique

Plantation of different suitable species is to be carried out in the immediate vicinity of the Project area (Basic health unit). The subproject areas can be afforested and vegetation cover can be improved by adopting standard afforestation technique of digging pits. The Project areas are suitable for plantation activities and can be managed thoroughly with care. Planting shall be undertaken immediately after rainy season or initial weeks of spring.

c) Tree Cutting

The implementation of Project will involve cutting of trees. Therefore, the tree plantation will be 1:5 ratio, to improve the ecology and aesthetic of the surroundings, it is recommended to plant the same trees nearby soundings of health facility building.

d) **Tentative Costing:** The tentative costing of tree plantation is mentioned in engineering estimate.

Annexure-K: 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 workings 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-L: 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 provides 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, 3and 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 act 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.

4. Overview of the Security Situation

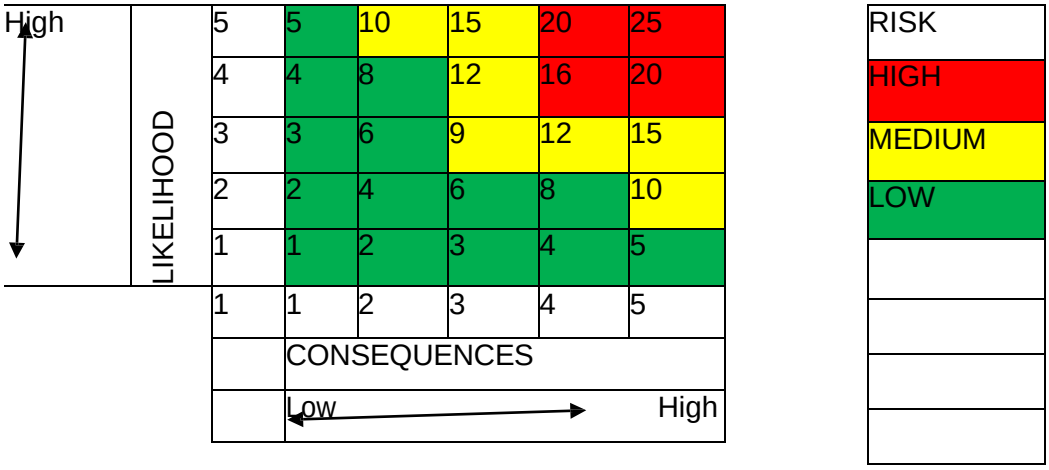
Different security risks exist in the project area and may impact the project. The main security risks within the project area include:

- 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 verses 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



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.
Inter-tribal or communal violence which could pose a threat	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

Risk description	Likelihood	Impact	Severity	Responsibility	Mitigation Action
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).
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.

5. 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)**
No direct threat exists and no incidents have taken place to warrant heightened security measures: Under this level the status remains at GREEN. • 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	**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.** • 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)**
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. • 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	**Project operations continue. Enhanced security controls and operational restrictions required:** • 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: ○ 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**
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: • 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	**Project operations are suspended. Significant increase in security controls and operational restrictions. All movement outside camps ceases.** • 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**
The operation has experienced a direct attack or there is credible evidence of an imminent attack. • 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.	**Suspension of operations and/or activation of total lock down or evacuation plan:** • 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-Q**). • 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 Standards 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.

Annexure-M: 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-N: 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: _____

Sr. No	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:** _____ **Position:** _____	**Extra Note if needed:**

Annexure-O: 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	Fatalities, serious injuries and accidents at work ☐
	Fatalities, serious injuries and accidents affecting local communities and others ☐
	Violations of human rights or accusation of human rights violations, incl. sexual and gender-based violence and harmful child labor ☐
	Conflicts, disputes and disturbances leading to loss of life, violence or the risk of violence☐
	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 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)			

Annexure-P: Template of Contractor's ESMP

Annexure-Q: 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 Standards 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-R: 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 Standards ' 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	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; 6. Prepare emergency response plans for traffic accidents in construction;

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

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: -

a. Conduct construction section by section, and avoid all-line construction that might cause large-scale traffic jams.
b. Set special transportation routes in construction, and conduct traffic diversion.
c. Adjust bus stops or routes based on construction arrangements.
d. 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.
e. Provide access roads for pedestrians and/or set proper safe guardrails and marks as needed.
f. 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
- Traffic diversion and road closures
- Speed limit
- Public notification and community engagement
- Monitoring procedure.

Annexure-S: 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 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.

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.