FEDERAL GOVERNMENT OF SOMALIA

Ministry of Health and Human Services (MoH)

Improving Health Care Services in Somalia Project (Damal Caafimaad) (P178876)

Environmental and Social Management Plan (ESMP)

Bay Baidoa Regional Hospital – Baidoa South West State, Rehabilitation works

Amended 20 November 2025

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ACRONYMS AND ABBREVIATIONS

CoC	Code of Conduct
E&S	Environmental & Social
EHSG	Environmental, Health and Safety Guidelines
ESF	Environmental and Social Framework
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
ESS	Environmental and Social Standards
FGS	Federal Government of Somalia
FMS	Federal Member State
FRS	Federal Republic of Somalia
GBV	Gender-Based Violence
GIIP	Good International Industry Practices
GRM	Grievance Redress Mechanisms
HCF	Health Care Facility
ICU	Intensive Care Unit
IDA	International Development Association
IDP	Internally Displaced Person
IFC	International Finance Corporation
LMP	Labor Management Procedures
MDR-TB	Multidrug-resistant TB
MoH	Ministry of Health
OHS	Occupational Health and Safety
OPD	Outpatient department
OT	Operational Theatre
PCIU	Project Coordination and Implementation Unit
PPE	Personal Protective Equipment
PSEA	Prevention of Sexual Exploitation and Abuse
PV	Photo voltaic
RCH	Reproduction & Child Heath
SEA	Sexual Exploitation and Abuse
SEP	Stakeholder Engagement Plan
SH	Sexual Harassment
SMP	Security Management Plan
UK	United Kingdom
UNOPS	United Nations Office for Project Services
VCT	Voluntary Counselling and Testing
WB	World Bank
WHO	World Health Organization

EXECUTIVE SUMMARY

The Improving Healthcare Services in Somalia Project (Damal Caafimaad) has been implemented since May 2021 and is planned to end in December 2026. Its Project Development Objective (PDO) is to 'improve the coverage of essential health and nutrition service in project areas and strengthen stewardship capacity of Ministries of Health'. The project seeks to scale up high-impact health services across the population in project target regions and develop the Federal And State Ministry of Health services across the population in project target regions and develop the Federal and State Ministry of Health capacities to act as stewards of the health sector, effectively governing and building core functions that will be able the Government to lead and manage the sector.

One of the health facilities slated to benefit from this activity is the Bay Baidoa Regional Hospital, which is in Baidoa, South West State of Somalia. Currently, Bay Baidoa Regional Hospital is a hospital which operates although some of its infrastructure have high structural safety and integrity concerns hence needs demolition, rehabilitation and reconstruction. This is as per the detailed site and technical assessments conducted by UNOPS. The scope of works to be implemented include:

- Demolitions of paediatric, laboratory and Blood Bank, washroom, meeting area, MSF, storage tent, laundry and store, toilets, maternity toilet, septic tank and boundary wall.
- Renovation of Outpatient department (OPD), Pharmacy and X-Ray;
- Construction of accident and emergency (A&E), operation theatre (OT), Pharmacy, X-Ray, intensive care unit for Operation Theatre and 3 cold storage cabinets in the mortuary.
- External works and relocation of services will include paving of access road, provision of solar water heater, rechallenging of the foul drainage, rehabilitation and resizing of pipe distribution from the high level tank and providing a new external water reticulation, establishing new powerhouse is to accommodate the generators and Low Voltage Power Distribution Board (LVDB) with all necessary accessories and redoing power reticulation from the LVDB to the new feeder pillars, which will supply the various distribution boards within the building blocks.

The proposed rehabilitation of the Baidoa Regional Hospital was originally planned under the Somalia COVID-19 Emergency Vaccination Project (P176956), which is a World Bank-funded initiative designed to support the Government of Somalia in addressing COVID-19 through effective vaccine deployment. However, the Project is currently closing, and the planned rehabilitation is shifted to the Improving Healthcare Services in Somalia Project (Damal Caafimaad). The government, through the Ministry of Health, has, with the support of the United Nations Office for Project Services (UNOPS) opted to invest in the refurbishment of health facilities. With UNOPS technical backstopping, the sub-project will enhance health facilities.

This Environmental and Social Management Plan (ESMP) is prepared as a detailed plan to provide a framework for identifying and managing the anticipated project environmental and social risks and impacts. To make the plan conclusive, robust and scalable it was prepared in consultation with all the relevant stakeholders within the project scope i.e. the local health authorities governed by World Bank procedures. The rehabilitation and construction works have been designed by the UNOPS with input from the local communities and local health authorities governed by detailed technical assessments conducted.

Environmental concerns during the demolition, rehabilitation and reconstruction process include, for instance, dust and air pollution, as the dismantling of structures generates a significant amount of airborne particulate matter. This dust can affect air quality in the surrounding area, impacting patients, nearby residents, and the workforce. To manage this, dust suppression techniques will be employed, such as regularly spraying water over debris and work areas, which helps reduce dust

dispersion. Additionally, barriers will be installed around the demolition site to contain particles, while all workers will be provided with appropriate PPE, including masks and respirators, to protect them from inhaling harmful particulates.

Noise and excessive vibrations from demolition, rehabilitation and reconstruction activities present another significant risk, especially given the proximity of patients and local residents who may be disturbed by the constant sounds of heavy machinery. To mitigate this, demolition, rehabilitation and reconstruction works will be restricted to daytime hours to minimize disruption during resting periods. Noise-dampening equipment will be used whenever possible, and communities nearby will be informed about the nature, duration, and timing of demolition, rehabilitation and reconstruction related noise, helping set clear expectations. Workers will also be provided with ear protection, and a buffer zone will be established around the site to shield the community from the brunt of the noise.

Occupational health and safety risks are a top priority, as demolition, rehabilitation and reconstruction tasks inherently expose workers to hazards such as falling debris, heavy machinery, waste generation and potential exposure to harmful materials. To address these risks, all workers will undergo safety training covering demolition protocols, construction best international practises and emergency response procedures. Workers will be supplied with essential PPE, including hard hats, gloves, steel-toed boots, and safety harnesses for high-risk related tasks. Clear access controls will be set up to prevent unauthorized entry into the work zones, and first-aid facilities will be available onsite for immediate response to any injuries.

Community health and safety is also another area of concern, as residents, the patients' families, the occasional hospital visitors, and staff could be exposed to hazards such as falling debris, dust, noise pollution, water pollution and increased heavy vehicle traffic. To ensure public safety, fencing and prominent warning signs will be installed around the demolition, rehabilitation and reconstruction area. Traffic control measures will be implemented, with designated routes established for demolition and construction vehicles to avoid populated areas. Additionally, community engagement efforts will keep local residents informed of the demolition, rehabilitation and reconstruction timeline, site hazards, and safety protocols in place.

Social impacts, include potential disruptions to hospital functions and community inconvenience due to noise and dust, child labour, SEA-SH among others. The project's Stakeholder Engagement Plan (SEP) will be adopted and implemented in the context of the site to keep the community involved and informed about the new interventions in Bay regional hospital. To facilitate responsive communication, UNOPS will also put in place a grievance redress mechanism (GRM) for the workers, residents and users of the health facility to voice concerns or complaints and receive timely responses. Communicating the benefits of the project and expected timelines will help address community anxieties and foster positive perceptions of the development.

Following the detailed E&S screening of the proposed sub-project, as per process described in the previous project's approved ESMF,[1] the sub-project fits into a 'Moderate Risk' category, as per the levels defined in the ESMF. The project team believes that an Environmental and Social Management Plan (ESMP) would best guide the risk management for the sub-project.

[1] Ministry of Health, Environmental and Social Management Framework, Somalia COVID-19 Emergency Vaccination Project (P176956), March 2022, p.103, accessed at: https://moh.gov.so/so/wp-content/uploads/2023/10/COVID-19-Additional- Financing-ESMF-updated-29-May-clean.pdf

The ESMP lists the project-specific risks and impacts and mitigation measures, lays out institutional arrangements for implementing and monitoring the risk mitigation measures and proposes monitoring indicators for measurement and monitoring of E&S performance. It shows what must be done, by whom, when, and to what standard; and shows who will monitor its implementation and when and what the budget implications for mitigation measures and monitoring activities are. It further includes a description of the Project Grievance Redress Mechanism (GRM), which needs to be applied during the, demolition, rehabilitation, construction period and operational phase, and lists stakeholder consultations that have been conducted in the lead up to the project design.

1. INTRODUCTION

1.1 Project Background

The overall Project will support the delivery of a package of health services to beneficiaries, which includes procurement of health commodities (including medicines), procurement of key equipment including provision of solar power generation and green cooling equipment, and development of policies and mechanisms that would regulate safer disposal of obsolete cold chain equipment, as well as developing capacity of the regional level to manage health service delivery including support for HMIS, and supportive supervision.

In addition, the Damal Caafimaad project aims to respond to the institutional, operational, and technical capacity needs in Somalia's Ministries of Health (MoHs). At the request of the Federal Ministry of Health (FMoH), this project will strengthen the FMoH public financial management capacity (PFM) in fiduciary and contract management in the short, medium and long-term. Short-term activities will be supported during project preparation using WB executed financing, and longer-term activities will help build credible PFM systems in Somalia's MoHs in a consistent and phased approach. The FP initiative expands the EPHS with a dedicated family planning service line, offering short and long contraceptive methods free of charge through private providers.

The Project has four components as described in the sections below:

(i) Component 1: Expanding the coverage of high-impact health and nutrition services in select geographic areas.
(ii) Component 2: Strengthening Government's stewardship to enhance service delivery.
(iii) Component 3: Project Management and Knowledge Management and Learning.
(iv) Component 4: Contingency Emergency Response Component (CERC).
(v) Under AF, new interventions and activities are introduced under Components 1 and 3.

Bay Baidoa Regional Hospital, is situated in Baidoa South West State, The Bay Regional Hospital is challenged by a number of factors including shortages of essential medical supplies, and medications, understand and increased workload on the healthcare professionals, old dilapidated buildings, temporary structures being utilized for critical service delivery, old medical equipment, and shortage of equipment. Hospital Beds: Bay Regional hospital is a 200 Bedded hospital (60 Female, 100 male and 40 children). The hospital currently has 285 health professionals which includes 18 medical doctors, and Nurses, lab technicians, pharmacists, administrative, and other supporting personnel.

The services provided by the hospital include maternity care, outpatient treatment, paediatric Health, nutrition, Surgery, laboratory, Pharmacy, emergency medicine. The Hospital Compound covers more than 17,500 square meters of land. It is in the South-Western part of Baidoa City around 2 kms from the airport. It can be accessed by road transportation as it is located by the side of the main road.

The proposed sub-project for the demolition, rehabilitation and reconstruction of Bay regional Hospital in Baidoa, South West State of Somalia includes:

- Demolitions of paediatric, laboratory and Blood Bank, washroom, meeting area, MSF, storage tent, laundry and store, toilets, maternity toilet, septic tank and boundary wall.
- Renovation of Outpatient department (OPD), Pharmacy and X-Ray;
- Construction of accident and emergency (A&E), operation theatre (OT), Pharmacy, X-Ray, intensive care unit for Operation Theatre and 3 cold storage cabinets in the

mortuary.

- External works and relocation of services will include paving of access road, provision of solar water heater, rechallenging of the foul drainage, rehabilitation and resizing of pipe distribution from the high level tank and providing a new external water reticulation, establishing new powerhouse is to accommodate the generators and Low Voltage Power Distribution Board (LVDB) with all necessary accessories and redoing power reticulation from the LVDB to the new feeder pillars, which will supply the various distribution boards within the building blocks.

The sub-project team has undertaken an Environmental and Social (E&S) screening of the sub-project, as per the process described in the Annex I (Environmental and Social Screening Template) of the previous Project Environmental and Social Management Framework (ESMF)[2]. The screening resulted in classifying the sub- project as a moderate risk category project as per the levels defined in the ESMF. E&S Screening findings recommended preparation of the Environmental and Social Management Plan (ESMP) as its adequate in managing the anticipated adverse negative environmental and social impacts and risks related to the sub- project.

1.2 Purpose of The Environmental and Social Management Plan (ESMP)

This ESMP provides a detailed plan in identifying, assessment and managing the anticipated negative environmental and social risks related to the sub-project during demolition, rehabilitation, construction and operation phase for Bay Baidoaregional Hospital. This ESMP provides a consolidated summary of all the Environmental and Social (E&S) commitments relevant during demolition, renovation, construction and operation phase. E&S Commitments and standards to be adhered to include but not limited to Occupational Health & Safety (OHS) standards, Local labour laws, international labour standards, site specific E&S assessments and zero tolerance to Sexual exploitation and abuse (SEA). The measures focus on environmental aspects such as emissions and environmental contamination and social aspects such as communication with local stakeholders and safety of workers and communities. The ESMP lists the sub-project-specific risks and impacts, and mitigation measures, lays out the institutional arrangements of the implementation and monitoring of the mitigation measures, and proposes monitoring indicators for measurement and monitoring of E&S performance.

The objective of this ESMP is to provide management strategies and actions to mitigate adverse risks and impacts in consistence with national institution, legal and policy frameworks, relevant WB Environmental and Social Standards (ESSs) and the IFC Environmental, Health and Safety Guidelines (EHSGs) for both general and healthcare facilities, as well as Good International Industry Practices (GIIP), such as technical guidance by the World Health Organization (WHO).

1.3 ESMP Approach and Methodology

Environmental and Social Management Plan was prepared based on World Bank Environmental and social standards (ESS), global international best practices and the project environmental and social commitment plan (ESCP). It included a community- led participatory approach and high-level stakeholders' engagement approaches.

The approach involved identifying the scope of work (demolition, renovation and reconstruction component) which clearly stipulates the nature and magnitude of anticipated environmental and social risk and impacts. The risks were determined during environmental and social screening process. Before the screening process, a desk study review was done where grey literature and other World Bank environmental and social standards (ESSs) were reviewed by the UNOPS technical unit dealing with the environmental and social safeguards. All the adverse negative risks and impacts anticipated during project components demolition, renovations and re/ construction were clearly and adequately mapped out without forgetting the anticipated positive impacts associated with sub project. Risk mitigation hierarchy was adopted as a standard operating procedures (SOP) in manging the risks and impacts anticipated.

All the anticipated negative risks were either avoided, reduced, mitigated or offset/compensated for the residual impact. The ESMP template (one of the thematic areas) was prepared which includes anticipated impacts, mitigation measures, responsible party to deal with the risk incurred, the occurring frequency of the risk and the budget amount to offset the impacts.

Many stakeholders including the local communities and the local health workers were involved in a high-level stakeholder engagement process as best international practice of increasing project acceptability, project transparency and project ownership. The contractor will be expected to comply with all the set standards, and the mitigation measures provided as the bare minimum.

2. Policy and Legal Framework

A summary of the national policies, laws and the World Environment and Social Standards is highlighted below.

2. 1. NATIONAL FRAMEWORK

2.1.1. The Provisional Constitution of the Federal Republic of Somalia

Article 10 – Human Dignity: Human dignity is the basis for all human rights. It is inviolable and must be protected by all. The State power must not be exercised in a manner that violates human dignity.

Article 11 – Equality: All citizens, regardless of sex, religion, social or economic status, political opinion, clan, disability, occupation, birth or dialect shall have equal rights and duties before the law. The State must not discriminate against any person on the basis of age, race, color, tribe, ethnicity, culture, dialect, gender, birth, disability, religion, political opinion, occupation, or wealth. Thus, all laws, or political and administrative actions that are designed to achieve full equality for individuals or groups who are disadvantaged, or have suffered from discrimination in the past, shall be deemed to be not discriminatory.

Article 24 – Labor Relations: Every person has the right to fair labor relations. All workers, particularly women, have a special right of protection from sexual abuse, segregation and discrimination in the workplace. And, every labor law and practice shall comply with gender equality in the workplace.

Article 31 – Language and Culture: The state shall promote the positive traditions and cultural practices, whilst striving to eliminate customs and emerging practices, which negatively impact the unity, civilization and wellbeing of the Somali society. And, the state shall promote the cultural practices and local dialects of minorities.

Article 32 – Right of Access to Information: Every person has the right of access to information held by the state, and the right of access to any information that is held by another person which is required for the exercise or protection of any other just right.

Article 111J – The Office of the Ombudsman: The office is protected against interference from any other person or entity. As such, independence, integrity and effective service delivery are also maintained. The Ombudsman shall: (i) Investigate complaints against government workers regarding: allegations/ outright violations concerning basic rights and freedom, abuse of power, unfair behavior, mercilessness, lack of clemency, indiscipline or disrespect, corruptive act, illegal behavior, or those that could lead to mischief or injustice; (ii) Investigate complaints in relation to the activities of the Public Service Commission and other administrative institutions of the government, including defense and police forces that could lead to unequal services, unfair recruitment, or administration; (iii) Take appropriate steps to rectify or change items mentioned in earlier clauses through a fair, and appropriate process of consultations and sacrifices among the people concerned; (iv) Report on the complaints and issues raised and submit to the head of the offender; (v) Forward cases to the Attorney General and bring them before a court, as appropriate.

Article 111H – National Security Commission: A National Security Commission shall be

established to study and develop an integrated security framework to address present and future needs of Somalia. It shall present proposals to ensure that human security is prioritized and incorporated into such a framework, through which the public may provide oversight and monitor security related expenditure and seek redress from abuses by security personnel.

Article 45 (—Environment‖) states that the government shall give priority to the protection, conservation, and preservation of the environment against anything that may cause harm to natural biodiversity and the ecosystem. Furthermore, all people have a duty to safeguards and enhance the environment and participate in the development, execution, management, conservation and protection of the natural resources and the environment. The FGS and the governments of the FMS affected by environmental damage shall take urgent measures to clean up hazardous waste dumped on the land or in the waters of the FGS; take necessary measures to reverse desertification, deforestation and environmental degradation, and to conserve the environment and prevent activities that damage the natural resources and the environment of the nation, among other measures.

Article 115 (—Civil service‖) outlines civil service values and protection of their rights.

2.1.2 Relevant National Policies

Somalia 's National Environmental Policy was approved by Cabinet, on February 13, 2020 the stated goal of environmental policy is to improve the health and quality of life of the Somali people. The Federal Government has drafted, or is in the process of drafting, the following policy, legal and regulatory frameworks: National Environmental Protection and Management Act 2024; Draft National Environmental and Social Impact Assessment Regulations; Draft National Ozone Layer Protection Regulation; Draft National Forest Management Policy; and Draft National Charcoal Policy. All of these have some relevance, in one way or another, for the Somalia COVID-19 Additional Financing Project.

Somalia National Gender Policy (2016) includes strategies to eradicate harmful traditional practices such as female genital mutilation/cutting (FGM/C) and child marriage and to improve services for the management of GBV/SEAH cases.

2.1.3 Environmental Protection and Management Act, 2024:

The act guarantees the right to a clean, safe and healthy environment, provides requirements for waste management including hazardous wastes. The act requires the application of the polluter pay and precautionary principle in environment management. The Baidoa regional hospital construction project is required to adhere to all the relevant requirements prescribed by the act.

2.1.4 Environmental and Social Impact Assessment and Audit Regulations (ESIA) 2024

Part III, regulations 13, 16 and 17, guides public participation, collection and incorporation of views from the general public.

The project's approved ESMF lists applicable local laws and regulations including corrective measures to overcome gaps and responsibilities (*please see ESMF[3] for more details*). Given that the project is financed by the World Bank, the environmental and social risks likely to be encountered during the sub-projects implementation will be managed using the World Bank's

Environmental and Social Framework (ESF) and in particular the six Environmental and Social Standards (ESS) that apply to the project and which are as follows:

ESS1 – Assessment and Management of Environmental and Social Risks and Impacts: This standard is fundamental for all project activities, requiring, where necessary, ESMPs to manage potential risks. For the Baidoa Regional Hospital demolition, ESS1 necessitates an ESMP specifically addressing issues like dust, waste management, and community health and safety during demolition and construction.

ESS2 – Labour and Working Conditions: This standard ensures safe and fair labour practices, including working conditions, worker health and safety, and grievance redress mechanisms for workers. The demolition and construction work and operation at the Hospital require strict adherence to ESS2 to protect workers from hazards like heavy equipment use.

ESS3 – Resource Efficiency and Pollution Prevention and Management: ESS3 is relevant to managing pollution and ensuring resource efficiency. For the Hospital site, it applies to managing dust, noise, and waste during demolition, ensuring minimal environmental impact, and applying best practices in resource usage during reconstruction and operational.

ESS4 – Community Health and Safety: Focused on protecting the health and safety of nearby communities, ESS4 is critical for the Baidoa sub-project to mitigate potential risks from dust, debris, noise, and hazardous material exposure. Measures include fencing, safety signage, controlled traffic access, and communication with residents about safety precautions.

ESS8 – Cultural Heritage. ESS8 seeks to protect cultural heritage. This project may trigger chance finds during construction works.

ESS10 – Stakeholder Engagement and Information Disclosure: ESS10 emphasizes the need for ongoing community engagement and information dissemination. For the Baidoa Hospital project, this involves informing stakeholders about demolition timelines, risks, and benefits and establishing a grievance mechanism to address concerns.

3. BIOPHYSICAL AND SOCIO-ECONOMIC ENVIRONMENT

This section describes the overall baseline condition of Bay BaidoaRegional Hospital, in regard to the biological and physical environment, as well as the socio-economic and cultural background of the sub-project area. The target location is the Bay Baidoa regional Hospital and its periphery in Baidoa south west state in Somalia. The biophysical environment of the district is in principle similar to the other districts generally in Somalia, with minor variations. However, it is largely an urban environment with an already build up area of the hospital facility.

3.1 Proposed Sub-Project Location

Baidoa or Baydhabo, as is locally known is the capital of the Bay region, a strategic town in south-central Somalia situated approximately 250 kilometres west of Mogadishu and 240 km southeast of the Ethiopian border along $30^0$6'48.06" N, $43^0$39'06.93" E at approximately 440m above sea level. It is traditionally inhabited by the Digil and Mirifle clans also called Rahanweyn.

The town is divided into four quarters: Isha, Berdaale, Horseed, and Hawl Wadaag. Each quarter is further divided into six sections, each consisting of two subsections, and the smallest subsection represents 50-350 households. Figure 1 below shows the location of Baidoa District I Somalia.

Figure 1 Location of Bay Baidoa

The construction works will be undertaken at the location of the current hospital. Figure 2 and Figure 3 below shows the location of the proposed sub-project site.

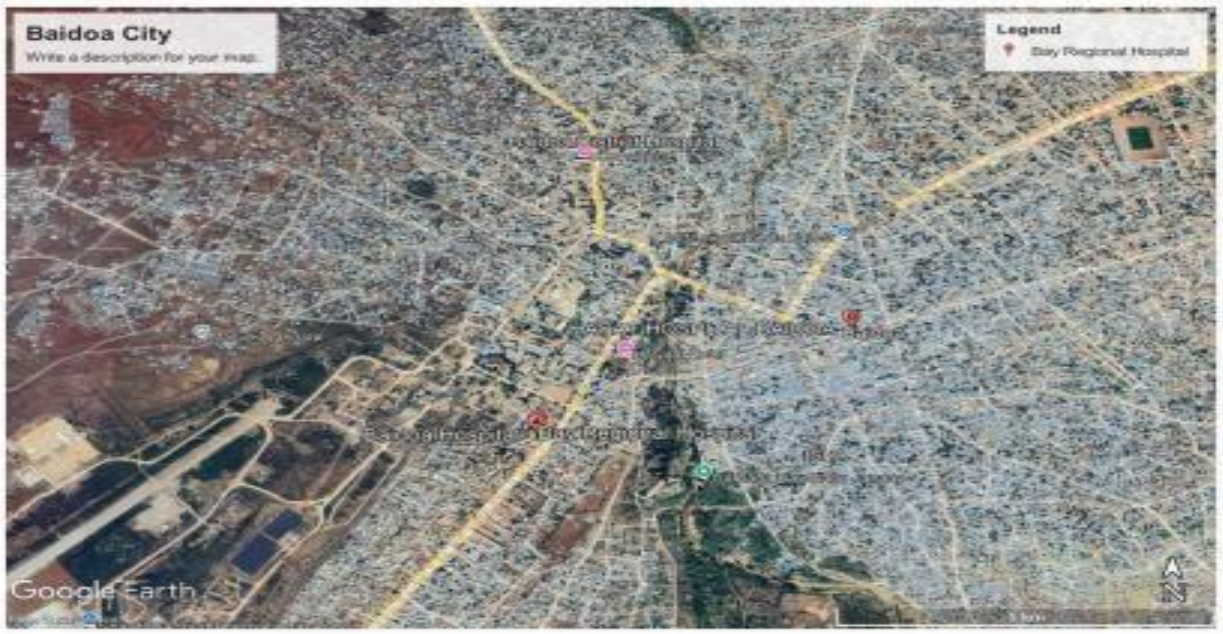

Figure 2 Location of Bay Baidoa Hospital (Source: Google Earth-2021)

Figure 3 Location of Bay Baidoa Regional Hospital Source: Bay regional hospital Baidoa topo survey report

3.2 Biophysical

Environment Topography

The geographical coordinates of Baidoa are 3.114 deg latitude, 43.650 deg longitude, and 1,447 ft elevation. The topography within 2 miles of Baidoa contains only modest variations in elevation, with a maximum elevation change of 318 feet and an average elevation above sea level of 1,430 feet. Within 10 miles contains only modest variations in elevation (689 feet). Within 50 miles contains significant variations in elevation (1,959 feet).

The area within 2 miles of Baidoa is covered by shrubs (45%), sparse vegetation (35%), and artificial surfaces (12%), within 10 miles by shrubs (65%) and cropland (29%), and within 50 miles by shrubs (75%)
and cropland (16%).

Geology and Soil

Geology is conventionally divided into two areas.

Precambrian metamorphic rocks are made up of migmatites and granites, their intrusions underlie about two-thirds of the area and are referred to as the "Basement Complex". The remainder consists of Jurassic marine sediments and their weathered products and is known as the “Limestone Plateau." Sedimentary rocks such as limestones, sandstones, and gypsiferous limestones are present, as well as an extensive, wide system of coastal dunes.[2]

Some late Tertiary fluvio-lagunal deposits occur on the Lower Juba plain and part of the southern Shabelle, consisting of clay, sandy clay, sand, silt, and gravel. Recent fluvial deposits are common alongside the two major rivers, the Juba and Shabelle, consisting of sand, gravel, clay, and sandy clay. A wide coastal dune system occurs along the coast.[3]

Baidoa, located in southwestern Somalia, is part of the Bay region and has geology typical of many areas in the Horn of Africa. The area's geological features are primarily shaped by its position within the East African Rift System and the broader structural influences of the African Plate.[4]

Sedimentary Basins: Baidoa is situated within sedimentary basins that formed due to the rifting of the African plate. These basins have been filled with continental sediments, such as sandstones, siltstones, and clays, often of Mesozoic to Cenozoic age.

Precambrian Basement: Underlying much of the Bay region is Precambrian crystalline basement rock. This is composed of ancient metamorphic and igneous rocks that are common

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[2] Ministry of Mineral and water resources, Water Development Agency. Comprehensive Groundwater Development project 104 volume II accessed at https://pdf.usaid.gov/pdf_docs/pdbaw032.

[3] Soil Survey of the Juba and Shabelle Riverine areas in Southern Somalia accessed at https://www.faoswalim.org/resources/site_files/L-08%20Soil%20Survey%20of%20the%20Juba%20and%20Shabelle.pdf

[4] A 3D geological model of the horn of Africa: Ne insights for hydrogeological simulations of deep groundwater systems accessed at https://www.sciencedirect.com/science/article/pii/S2214581822001793

across East Africa, forming the foundation beneath the more recent sedimentary layers.

Karst Systems: The region may have karst systems, where soluble rocks like limestone or gypsum can be eroded to form underground drainage systems. This could influence local water availability and the formation of underground aquifers.

Climate

Located at an elevation of 442.77 meters above sea level, Baidoa has a Subtropical steppe climate (Classification: BSh). The district's yearly temperature is 28.18ºC and it is 0.27% higher than Somalia's averages. Baidoa typically receives about 90.53 millimetres of precipitation and has 127.42 rainy days (34.91% of the time) annually.[5]

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Nov	Oct	Dec	Year
Record high °C (°F)	37.53 (99.55)	38.54 (101.37)	39.55 (103.19)	38.54 (101.37)	35.5 (95.9)	34.48 (94.06)	32.45 (90.41)	33.47 (92.25)	35.5 (95.9)	35.5 (95.9)	34.48 (94.06)	36.51 (97.72)	39.55 (103.19)
Average high °C (°F)	34.77 (94.59)	35.97 (96.75)	36.08 (96.94)	33.36 (92.05)	31.26 (88.27)	30.0 (86.0)	29.1 (84.38)	30.02 (86.04)	31.5 (88.7)	31.34 (88.41)	31.38 (88.48)	33.41 (92.14)	32.34 (90.21)
Daily mean °C (°F)	29.5 (85.1)	30.49 (86.88)	31.03 (87.85)	29.5 (85.1)	27.64 (81.75)	26.45 (79.61)	25.81 (78.46)	26.36 (79.45)	27.48 (81.46)	27.62 (81.72)	27.6 (81.68)	28.77 (83.79)	28.18 (82.72)
Average low °C (°F)	21.84 (71.31)	22.51 (72.52)	23.61 (74.5)	23.89 (75.0)	22.49 (72.48)	21.32 (70.38)	21.13 (70.03)	21.33 (70.39)	21.83 (71.29)	22.46 (72.43)	22.02 (71.64)	21.8 (71.24)	22.18 (71.92)
Record low °C (°F)	18.26 (64.87)	19.27 (66.69)	19.27 (66.69)	21.3 (70.34)	20.28 (68.5)	19.27 (66.69)	18.26 (64.87)	19.27 (66.69)	19.27 (66.69)	19.27 (66.69)	18.26 (64.87)	19.27 (66.69)	18.26 (64.87)
Average precipitation mm (inches)	2.08 (0.08)	3.19 (0.13)	55.9 (2.2)	258.07 (10.16)	170.62 (6.72)	42.39 (1.67)	31.17 (1.23)	33.47 (1.32)	31.04 (1.22)	245.22 (9.65)	186.45 (7.34)	26.79 (1.05)	90.54 (3.56)
Average precipitation days (≥ 1.0 mm)	0.56	0.92	5.53	20.56	21.02	10.23	8.11	9.69	4.89	23.6	18.16	4.15	10.62
Average relative humidity (%)	45.6	46.28	52.34	67.31	76.29	73.11	68.99	66.56	63.91	71.83	72.28	54.84	63.28
Mean monthly sunshine hours	11.74	11.7	11.5	11.57	12.01	11.08	9.49	9.93	11.72	9.97	10.58	11.59	11.08

Figure 4 below shows the climate for Baidoa.

In view of the above climate data provided it is suggested construction should be undertaken during the time when the weather and rainfall is suitable and conducive to reduce adverse impacts on to the environment and local communities.

[5] Baidoa, Bay, Somalia Climate accessed at https://weatherandclimate.com/somalia/bay/baidoa

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Nov	Oct	Dec	Year
Record high °C (°F)	37.53 (99.55)	38.54 (101.37)	39.55 (103.19)	38.54 (101.37)	35.5 (95.9)	34.48 (94.06)	32.45 (90.41)	33.47 (92.25)	35.5 (95.9)	35.5 (95.9)	34.48 (94.06)	36.51 (97.72)	39.55 (103.19)
Average high °C (°F)	34.77 (94.59)	35.97 (96.75)	36.08 (96.94)	33.36 (92.05)	31.26 (88.27)	30.0 (86.0)	29.1 (84.38)	30.02 (86.04)	31.5 (88.7)	31.34 (88.41)	31.38 (88.48)	33.41 (92.14)	32.34 (90.21)
Daily mean °C (°F)	29.5 (85.1)	30.49 (86.88)	31.03 (87.85)	29.5 (85.1)	27.64 (81.75)	26.45 (79.61)	25.81 (78.46)	26.36 (79.45)	27.48 (81.46)	27.62 (81.72)	27.6 (81.68)	28.77 (83.79)	28.18 (82.72)
Average low °C (°F)	21.84 (71.31)	22.51 (72.52)	23.61 (74.5)	23.89 (75.0)	22.49 (72.48)	21.32 (70.38)	21.13 (70.03)	21.33 (70.39)	21.83 (71.29)	22.46 (72.43)	22.02 (71.64)	21.8 (71.24)	22.18 (71.92)
Record low °C (°F)	18.26 (64.87)	19.27 (66.69)	19.27 (66.69)	21.3 (70.34)	20.28 (68.5)	19.27 (66.69)	18.26 (64.87)	19.27 (66.69)	19.27 (66.69)	19.27 (66.69)	18.26 (64.87)	19.27 (66.69)	18.26 (64.87)
Average precipitation mm (inches)	2.08 (0.08)	3.19 (0.13)	55.9 (2.2)	258.07 (10.16)	170.62 (6.72)	42.39 (1.67)	31.17 (1.23)	33.47 (1.32)	31.04 (1.22)	245.22 (9.65)	186.45 (7.34)	26.79 (1.05)	90.54 (3.56)
Average precipitation days (≥ 1.0 mm)	0.56	0.92	5.53	20.56	21.02	10.23	8.11	9.69	4.89	23.6	18.16	4.15	10.62
Average relative humidity (%)	45.6	46.28	52.34	67.31	76.29	73.11	68.99	66.56	63.91	71.83	72.28	54.84	63.28
Mean monthly sunshine hours	11.74	11.7	11.5	11.57	12.01	11.08	9.49	9.93	11.72	9.97	10.58	11.59	11.08

Figure 4 Weather Chart for Baidoa South West State

Average Temperatures in Baidoa

The hot season lasts for 1.9 months, from February 2 to March 31, with an average daily high temperature above 97°F. The hottest month of the year in Baidoa is March, with an average high of 99°F and low of 71°F.[6]

The cool season lasts for 3.7 months, from April 24 to August 13, with an average daily high temperature below 90°F. The coldest month of the year in Baidoa is July, with an average low of 67°F and high of 89°F.[7]

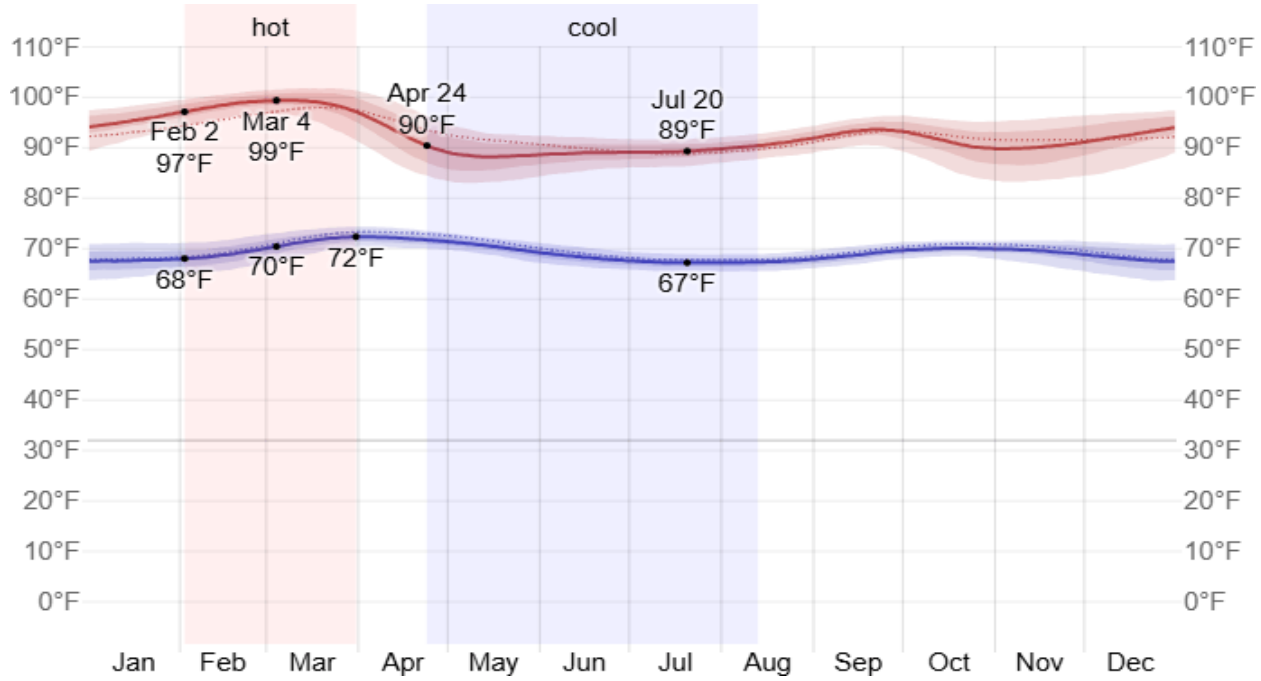


Figure 5 Monthly average high and low temperatures for Baidoa State

Rainfall intensity

Rainfall in Baidoa is seasonal, with two distinct rainy periods.

Gu Season (April to June): The long rains occur during this period, with April and May receiving the highest amount of rain. The rains are often intense but may vary significantly from year to year. The average rainfall in this period is between 150mm and 250mm.[8]

[6] Climate and Average weather year round in Baidoa accessed at https://weatherspark.com/y/102624/Average-Weather-in-Baidoa- Somalia-Year-Round#google_vignette

[7] Ibid

[8] Red cross climate center Somalia Country- level climate fact sheet accessed at https://www.climatecentre.org/wp- content/uploads/RCCC-ICRC-Country-profiles-Somalia.pdf

Deyr Season (October to December): The short rains occur in these months, though they are typically lighter than the Gu rains. Average rainfall during Deyr ranges from 100mm to 200mm.

The dry periods between the rainy seasons include Jilaal (December to March): This is the harshest dry season, marked by extreme heat and little to no rainfall. During these months, the area may receive less than 20mm. The dry periods between the rainy seasons include Jilaal (December to March): This is the harshest dry season, marked by extreme heat and little to no rainfall. During these months, the area may receive less than 20mm.[9]

Hagaa (July to September): A cooler, but still dry period, with windier conditions. This is another dry period, with very minimal rainfall, typically below 30 mm for the entire duration. Total annual rainfall typically ranges from 300 mm to 500mm, which is relatively low. However, rainfall can be unpredictable and vary greatly from year to year.[10]

The wind speed in Baidoa is moderate, ranging from 5 to 15km/h throughout the year. Wind speeds tend to increase during the dry seasons, driven by pressure differences and temperature contrasts.[11]

Jilaal Season (December to March): Winds during this period are stronger, often ranging from 10 to 15km/h. These winds are typically dry and contribute to lowering humidity, increasing evaporation, and exacerbating water scarcity.

Hagaa Season (June to September): During this cooler dry season, wind speeds can reach up to 12 km/h, with gusts occasionally higher, particularly in open areas where vegetation is sparse.

Gu and Deyr Seasons (Rainy Seasons): Wind speeds are generally lower during the rainy seasons, averaging around 5 to 10 km/h (3 to 6 mph). However, gusts can increase temporarily during rainstorms or convective weather events. The prevailing wind direction in Baidoa is from the north-northeast during the dry seasons (Jilaal and Hagaa) and shifts slightly during the rainy seasons due to changes in regional weather patterns.

Precipitation

A *wet day* is one with at least *0.04 inches* of liquid or liquid-equivalent precipitation. The chance of wet days in Baidoa varies very significantly throughout the year.

The *wetter season* lasts *7.6 months*, from *March 30* to *November 17*, with a greater than *27%* chance of a given day being a wet day. The month with the most wet days in Baidoa is *April*, with an average of *13.9 days* with at least *0.04 inches* of precipitation.

The *drier season* lasts *4.4 months*, from *November 17* to *March 30*. The month with the fewest wet days in Baidoa is *January*, with an average of *0.6 days* with at least *0.04 inches* of precipitation.

Among wet days, we distinguish between those that experience *rain alone*, *snow alone*, or a

[9] Ibid

[10] Ibid

[11] Baidoa Climate, Climate and average weather year round in Baidoa accessed at https://weatherspark.com/y/102624/Average-Weather- in-Baidoa-Somalia-Year-Round#google_vignette

mixture of the two. The month with the most days of *rain alone* in Baidoa is *April*, with an average of *13.9 days*. Based on this categorization, the most common form of precipitation throughout the year is *rain alone*, with a peak probability of *53%* on *April 23*.

Daily Chance of Precipitation in Baidoa

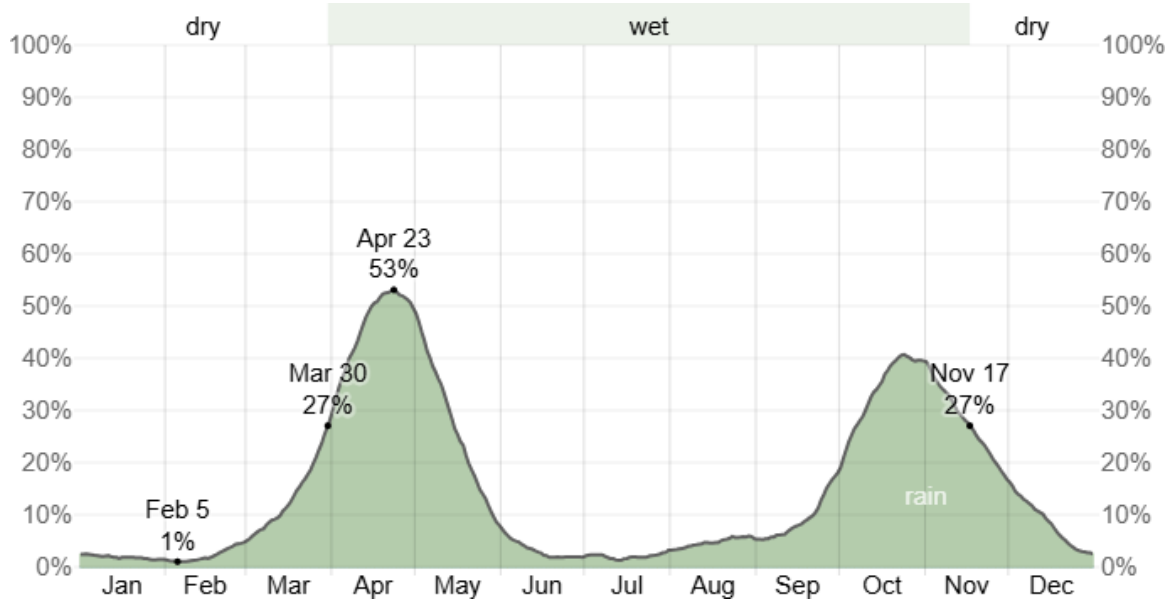


Figure 6 Daily chance of precipitation for Baidoa State

Humidity

Humidity levels in Baidoa vary seasonally, with higher humidity during the rainy seasons and lower levels during the dry months. During the Gu season (April to June) and Deyr season (October to December), average humidity ranges from 60% to 80%, particularly during and shortly after rainfall events.[12]

During the Jilaal (December to March) and Hagaa (June to September) dry seasons, humidity drops significantly, ranging from 20% to 40%, especially in the afternoons when temperatures peak. The lowest Humidity is recorded during Jilaal when dry, hot winds prevail.

Wind

The wind speed in Baidoa is moderate, ranging from 5 to 15km/h throughout the year. Wind speeds tend to increase during the dry seasons, driven by pressure differences and temperature contrasts.

Jilaal Season (December to March): Winds during this period are stronger, often ranging from 10 to 15km/h. These winds are typically dry and contribute to lowering humidity, increasing evaporation, and exacerbating water scarcity.

Hagaa Season (June to September): During this cooler dry season, wind speeds can reach up to 12

[12] Baidoa climate & monthly temperature overview- Somalia accessed at https://whatstheweather.net/baidoa-climate-monthly- temperature-overview-somalia/

km/h, with gusts occasionally higher, particularly in open areas where vegetation is sparse.

Gu and Deyr Seasons (Rainy Seasons): Wind speeds are generally lower during the rainy seasons, averaging around 5 to 10 km/h (3 to 6 mph). However, gusts can increase temporarily during rainstorms or convective weather events. The prevailing wind direction in Baidoa is from the north-northeast during the dry seasons (Jilaal and Hagaa) and shifts slightly during the rainy seasons due to changes in regional weather patterns.

Water Resources and Hydrology

Major sources of water in the South-Central region are boreholes and shallow wells. Most of the boreholes are deep and saline while the shallow wells are susceptible to contamination since they are not well protected. The two main rivers Shabelle and Juba flow through the region and are the main source of water for public use and irrigation. As such groundwater forms an essential source of water in most parts of Somalia and is accessed through boreholes, shallow wells and temporary springs.[13]

3.3Socio-Economic

Environment Population

According to the most recent population survey from 2014, the Bay region has a population of 792,182, with an urban population of 90,462, rural population f 463,330, nomadic population of 195,986 and IDPs 39,820. The urban population is thereby divided into 51.6 percent men and 48.4 percent women.[14] It is an ethnically and culturally diverse town, with many local residents originating from other parts of the country.

Additionally, Baidoa is the heartland of Maay, an Afro-Asiatic language principally spoken by the Digil and Mirifle (Rahanweyn) clans in the southern regions of Somalia. Its speech area extends from the southwestern border with Ethiopia to a region close to the coastal strip between Mogadishu and Kismayo. Maay is not mutually comprehensible with Standard Somali, and it differs considerably in sentence structure and phonology. However, Maay speakers often use Standard Somali as a lingua franca, which is learned via mass communications, internal migration and urbanization.

Livelihood and employment

Baidoa economy is an agro-pastoral based, common livestock including goats and camels, whilst the main agricultural produce being sorghum. Pre-civil war Bay state is the home to the largest

[13] Kismayo and Baidoa water and sanitation project accessed at https://www.afdb.org/sites/default/files/esmp-summary-kismayo-and- baidoa-urban-water-supply-project_latest.pdf#:~:text=The%20two%20main%20rivers%20Shabelle%20and%20Juba%20flow, accessed%20through%20boreholes% 2C%20shallow%20wells%20and%20temporary%20springs.

[14] 17UN Habitat, Baidoa Urban Profile, Working Paper and Spatial Analysis for Urban Planning and Durable Solutions for Displacement Crises, June 2020, accessed at: https://unhabitat.org/sites/default/files/2020/07/baidoa_urban_profile_2020.pdf

camel population in Somalia, with above 1.3 million camels. Post independence, Baidoa attracts many international projects such as the Bay Agricultural Development Project due to strategic factors associated with it.

Gender-based Violence (GBV): Somalia is a patriarchal society with firmly entrenched gender roles that often subjugate women and girls. GBV is pervasive, particularly female genital mutilation/cutting (FGM/C), early marriage and psychological abuse. GBV is a major risk especially for women and girls in Somalia and Baidoa is not an exception.

Infrastructure

Baidoa is a highly urbanizing city with a large influx of internally displaced persons (IDPs), and suffers from inflation, instability, a fairly new system of government, and lack of essential services.[18]Baidoa infrastructure which is already limited is facing challenges due to a number of factors including conflict, drought and flooding as well as large influx of internally displaced people. Air transportation in Baidoa is served by the Baidoa Airport. Sitting at an elevation of 1,520 feet (463 m), it has a 9843 × 131 ft (3000 × 40 m) asphalt runway. The airport has fuel services, a terminal building, storage container, on-site warehouse, and radio towers.

Solid waste disposal

Solid waste management is a rising concern that has engulfed all metropolitan centres across Somalia, owing to the country's volatile past, particularly in the previous quarter century, as per the proposed sub project site Bay regional hospital in Baidoa has an already established medical waste management infrastructure that's the incinerator. To manage the waste from demolition, rehabilitation and reconstruction activities an existing waste management plan will be updated.

Health Services

While there has been positive progress in Somalia's health sector, the Southwest State of Somalia still faces enormous challenges especially in the delivery of better health services as envisaged in the 'Somali Compact' and the 'New Deal Initiative'. The sector is particularly challenged by, among others, shortage of professional staff to provide better healthcare services.

Education

Baidoa has a large secondary school, from which around 580 pupils graduated per year in 2008. As of 2012, several other high schools were in development. Tertiary education in the city is served by the University of Southern Somalia. After a considerable planning stage, the institution was established in 2007 by a group of Somali scholars and intellectuals. Inaugural classes began the following year, in August 2008. University representatives concurrently announced plans to develop four colleges: The College of Science, Agriculture, and Engineering, the College of Social Science, the College of Education, the College of Health and Environmental Sciences, and the College of Jurisprudence. Additionally, an Institute of Social Research is being developed. Plans are also in the works to construct a new campus in an area around 15 km north of Baidoa, as well as two new branches in two other principal cities in the Bay region.

Telecommunications

There is no telecommunications infrastructure on site but there is mobile phone network available in

the area.

Storm water drainage

There are no elaborate storm water drainage structures within the sub project area. This has resulted to area flooding. Storm water and rain water harvesting infrastructure have been proposed in the new interventions.

Access to Water and Electricity:

The sub project Bay Regional Hospital in Baidoa is supplied by a private water provider (Warjinay Water Company) where the water is stored and distributed within the hospital facilities. The existing borehole has contaminated water hence cannot serve the needs of the hospital. The hospital also lacks salty water desalination systems hence soft water to be used for critical units is bought from outside the hospital. During dry season the hospital experiences erratic water shortages. The water is supplied around the facilities using the pipes which are in bad state as per the time of assessment.

There hospital is connected the grid-city power (BECO) supply where the monthly power bills amount to US$ 10,000. Existing power reticulation is haphazardly done, resulting in tangled cables (spaghetti cables - Safety Hazard). The power supply is centralized, with Boards and Gensets in different locations, combining grid and genset power, with the following genset sizes:88 kVA genset: Used at night for 13 hours, 110 kVA genset: used during the daytime for 11 hours and unconnected 65 kVA genset, which serves as a backup. The hospitalalso has solar PV where its inverters and batteries are not functioning. The Autoclave (5kVA) at the hospital is directly powered from the Generator room.

Land use and economy

Rearing livestock is the cornerstone of the economy in Baidoa and the Bay Region at large, vitally sustaining livelihoods and driving economic growth. For example, in rural communities, camels, sheep, and goats are raised not only for their meat but also for their milk and other by-products that contribute to the local economy.

Additionally, the practice of rearing livestock has deep cultural significance, often forming an integral part of traditional ceremonies and rituals.

4. PROJECT DESCRIPTION

4.1 Bay Regional Hospital

The Bay Regional Hospital (Baidoa Hospital) is located in Baidoa town, South West State, Somalia. The hospital was established in 1936 during the Italian colonial administration. It is a public health institution which provides 24/7 health care service to residents of the state's three regions as well as the neighbouring region of Gedo in Jubaland.

The hospital services have been improving since 2007 following the support of the Italian non-governmental organization Cooperazione Internazionale (COOPI), which was followed by support by other organizations such as the International Committee of the Red Cross (ICRC) and MSF-Holland. The support from the international organizations allowed the hospital to rebuild and grow. This includes the provision of medical supplies, salaries and new buildings. The hospital premises were expanded with two new buildings for obstetric and paediatric departments, as well as a waste disposal centre that helps reduce environmental pollution by the support of MSF.

The services provided by the hospital include maternity care, outpatient treatment, paediatric Health, nutrition, Surgery, laboratory, Pharmacy, emergency medicine. The Hospital compound covers more than 17,500 square meters of land. It is in the South-Western part of Baidoa City around 2 kms from the airport. It can be accessed by road transportation as it is located by the side of the main road. The hospital has evolved significantly, playing a crucial role in reducing the need for medical travel to Mogadishu. Currently managed by the South West State administration with international aid support, the hospital comprises eight departments, including surgery, maternity care, paediatric health, nutrition, outpatient treatment, and a laboratory. Renovations and interventions over the years have sustained its operations for 85 years.

The catchment population for Bay Regional Hospital is estimated to be more than 3 million People across the Bay and neighbouring regions, including the city of Baidoa, as well as parts of the neighbouring regions of Gedo and Bakool. The Bay Regional Hospital is challenged by a number of factors including shortages of essential medical supplies, and medications, understand and increased workload on the healthcare professionals, old dilapidated buildings, temporary structures being utilized for critical service delivery, old medical equipment, and shortage of equipment. Hospital Beds: Bay Regional hospital is a 200 Bedded hospital (60 Female, 100 male and 40 children). The hospital currently has 285 health professionals which includes 18 medical doctors, and Nurses, lab technicians, pharmacists, administrative, and other supporting personnel. [20]

The geographical location can be visualized through the Google Earth image provided in the survey map as shown in Figure 7below.

The land under which the facility is domiciled belongs to the Department of Medical Services, Ministry of Health and Human Services. All works will be undertaken on the existing hospital site and its premises and there will be no land acquisition or resettlement impacts. A perimeter wall currently defines the land boundaries which is also earmarked for demolition.

Figure 7 Location of the Bay Regional Hospital Baidoa site

The site has at least 39 No. facilities providing health care services as shown in Table 1 Facilities providing health care services on the site.

Table 1 Facilities providing health care services on the site

1 Paediatric ward 2 Surgical wards 2a, 2b Waiting area and sterilization room 3 Pharmacy and Store 4 ICU and regained Lab 5 HR and Maternity IPD 6 DMC and Guardhouse 7 Adult Emergency 8 Global one stop centre 9 Neonatal and PostNatal Ward 10 Temporary Structure 11 Mosque 12 Paediatric Emergency 13 Meeting room	14 Toilet and waiting area 15 Lab and reception 16 Toilet and Elevated water tank 17 Paediatric ICU for malnutrition 18 Transition phases, SC infant, cold room and store 19 Isolation (male nutrition) 20 Phase I Isolation 21 Infant ward and milk distribution unit 22 Paediatric GI ward 23 Old Kitchen 23 Paediatric General Ward, ICU and Isolation	24 MSF Pharmacy and Store 25 Oxygen Plant 26 Incineration Room 27,28,29 Generator room (Temporary Shade) 30 Solar Panel Room 31 Water Room 32 Shade 33 Child Play area 34 Elevated Water Tank 35 MSF Store 36 Washing area, office and Store 37 MSF Store 38 Toilet 39 Mortuary

Figure 8 General Paediatric Ward

Figure 9 View of the existing building

The regional hospital serves residents from three state regions and the neighboring Gedo region, which is part of Jubaland. The hospital's central location underscores its importance as a provider of 24/7 free healthcare services. The proposed site composes the Emergency, Blood Bank, Laboratory, X-ray, and ICU Departments each one of them hosts one of the various existing structures. The hospital structures are in unorganized construction facilities situation and exposed to hazards. The recent floods have damaged some structures including the boundary wall, drainage, and sewage systems, rendering certain areas unusable for hospital purposes. The hospital currently benefits from well-functioning water and electricity utilities connected to the facilities generators and the Power grid (BECO). The proposed sites for improvement seamlessly integrate into these existing grids, where the new power house will be established with the low voltage power distribution board with its accessories to increase power supply and its efficiency. The hospital's sewage system is not satisfactory condition, as dilapidated and non-functional septic tanks will be decommissioned with a proposal to set up new septic tanks and soak pits.

The structural layout of Bay regional Hospital in Baidoa exhibits a lack of organization in its original design. Although the main building remains in good condition, subsequent constructions over the years lacked proper planning, resulting in a congested environment with no available space. This congestion, coupled with haphazard additions, restricts the possibility of incorporating new departments. Key challenges revolve around the disorganized layout of the hospital, with densely packed structures impeding accessibility. These structural constraints hinder the ease of movement for both patients and service providers, posing a significant challenge to the overall functionality of the hospital. Addressing these challenges is paramount for enhancing the hospital's efficiency and ensuring a conducive environment for healthcare delivery.[21]

UNOPS conducted detailed structural integrity assessments on 39 structural components of the hospital and find some under the risk of collapse while others were found to be structurally safe as

per the structural assessments report.[22]Additionally electromechanical assessments were conducted and found that there is need for the expansion and relocation of the solar system, drainage system problem, supply of new and higher capacity generator and changing the tube light fittings and CFL lights to energy saving led lamps.[23]

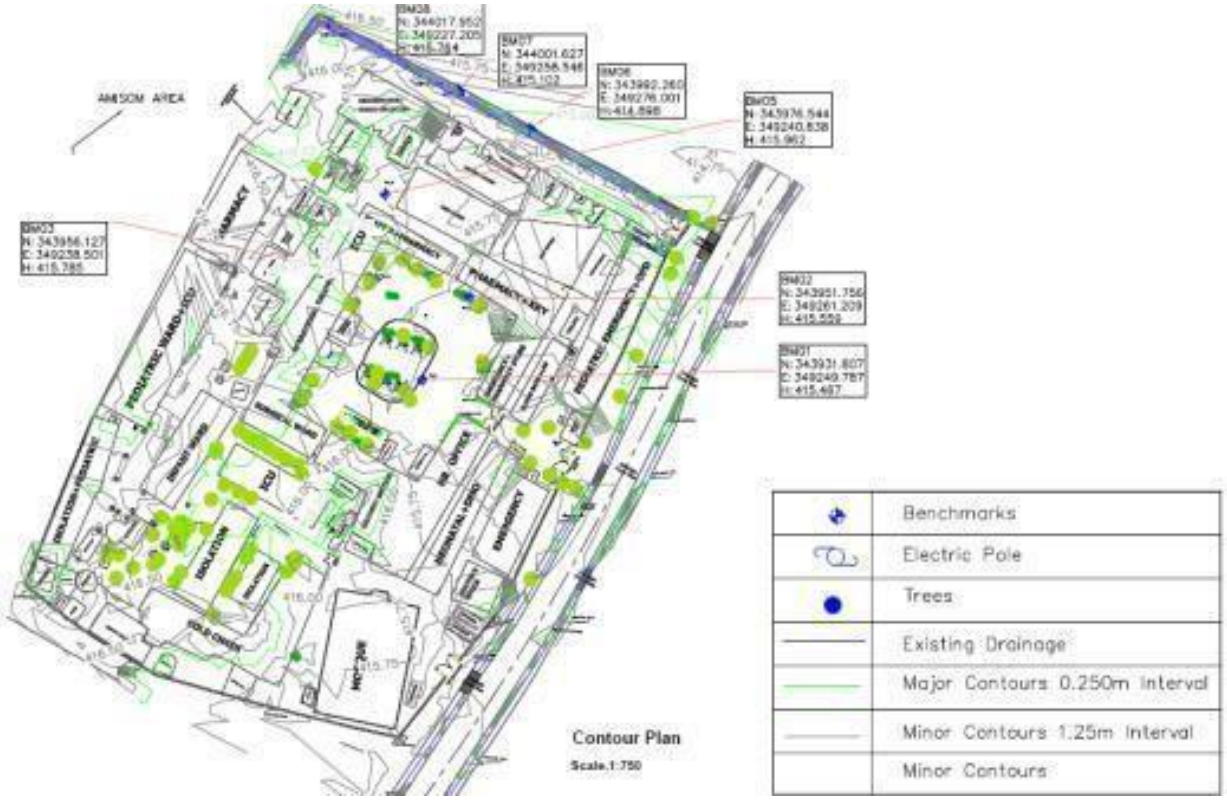


Figure 10 Layout plan of the Facilities at Bay Regional Hospital in Baidoa

4.2 Proposed Facilities

The proposed scope of works under phase 1 will include

- Demolitions of paediatric, laboratory and Blood Bank, washroom, meeting area, storage tent, laundry and store, toilets, maternity toilet, septic tank and boundary wall.
- Renovation of Outpatient department (OPD), Pharmacy and X-Ray;
- Construction of accident and emergency (A&E), operation theatre (OT), Pharmacy, X-Ray, intensive care unit for Operation Theatre and 3 cold storage cabinets in the mortuary.
- External works and relocation of services will include paving of access road, provision of solar water heater, rechallenging of the foul drainage, rehabilitation and resizing of pipe distribution from the high level tank and providing a new external water reticulation, establishing new powerhouse is to accommodate the generators and Low Voltage Power Distribution Board (LVDB) with all necessary accessories and redoing power reticulation from the LVDB to the new feeder pillars, which will supply the various distribution boards within the building blocks.

No land and resettlement impacts are anticipated because the proposed site is on land that has an

existing health care facility. The land is owned by the Department of Medical Services, Ministry of Health and Human Services. Community consultations have further shown that there are also no encroachments on the land. The site is secured and has four accesseswith a perimeter wall along the land boundaries earmarked for demolition. Furthermore, the project will engage local personnel for manual removal of non-structural elements such as interior walls, doors, windows, to manually collect and segregate small debris, to operate water spray systems to suppress and for safety inspection and enforcement and other labour requirements. These local labourers will be recruited from within the local community and therefore there will be no need for the establishment of a workers' campsite. The engineers and supervisors will likely be from the city and not require accommodation. There will be a site office within the designated project area but there will not be any need for a workers' camp.

4.3Applicable Design Standards and Codes of Practice

The design adopted the following codes, standards and guides. The references are used in a complementary manner. Where requirements of two or more codes or standards are found to conflict, the more stringent of them is adopted for the purpose of this project.

Architectural Standards and Codes

- International Health Facilities Guidelines - Version 6th May 2016
- NHS Standards Volumes 1-10(2014)
- UNOPS Design Planning Manual for Buildings
- Eurocode 1-8 and relevant annexes
- Relevant Code of Practice (CP)

Structural Standards and Codes

- UNOPS Design Planning Manual for Buildings,
- EN 1990 2002 Eurocode - Basis of structural design
- EN 1991-1-1 Eurocode 1: Actions on structures – Part 1-1: General actions - Densities, self-weight, imposed loads for buildings
- EN 1991-1-4:2005 Eurocode 1: Actions on structures Part 1-4: General actions -Wind actions
- EN 1992-1-1 2004 Eurocode 2: Design of concrete structures (EN 1992) Part 1-1: General rules, and rules for buildings
- EN 1993-1-1 2005 Eurocode 3: Design of steel structures (EN 1993) Part 1-1: General rules, and rules for buildings
- BS 5268-2: 1996 Structural use of timber — Part 2: 1996 Code of practice for permissible stress design, materials and workmanship
- EN 1996-1-1:2005 Eurocode 6: Design of masonry structures — Part 1-1 General rules for reinforced and unreinforced masonry structures
- EN 1992-1-1 2004 Eurocode 2: Design of concrete structures (EN 1992) Part 3: Liquid and containing structures
- Manual for Design of Reinforced Concrete Structures to Eurocode 2 by IstructE/ICE
- Earthquake Risk in Africa: Modified Mercalli Scale, 2007” by UNOCHA
- Other relevant references.

Mechanical Standards and Codes

- UNOPS Design Planning Manual for Buildings
- Regulations of the Government of Somalia
- Chartered Institute of Building Services Engineers (CIBSE) Design Guides
- NFPA 10: Standards for Portable Fire Extinguishers
- NFPA 14: Standards for Hose Systems
- 2013 ASHRAE Pocket Guide for Air Conditioning, Heating, Ventilation and Refrigeration
- ASHRAE 62.1: Ventilation for Acceptable Indoor Air Quality

- HVAC Engineers Handbook
- HVCA DW 172 & DW 144
- ASHRAE 170-2017: Ventilation of Health Care Facilities

Electrical Standards and Codes

- UNOPS Design Planning Manual for Buildings
- Relevant IEC Standards
- The National Fire Protection Association (NFPA) - Fire Safety
- EN BS7671- IET Wiring Regulations British Standards for Electrical Installations.
- IEEE Photovoltaic Standards 2004 Eurocode 2: Design of concrete structures (EN 1992) Part 1-1: General rules, and rules for buildings
- EN 12464-1:2021 - Lighting of workplace

4.4Design Functions

The design functions of the new building to be constructed after demolition of outdated structures with low structural integrity will encompass Accidents & Emergency, Operating Theatre(OT), Intensive Care Unit for OT, X-ray, Pharmacy. Any functions not listed below will be provided within the current existing facility e.g. functions such as health care for army will be transferred to the already exist health facility within the hospital compound.[24]

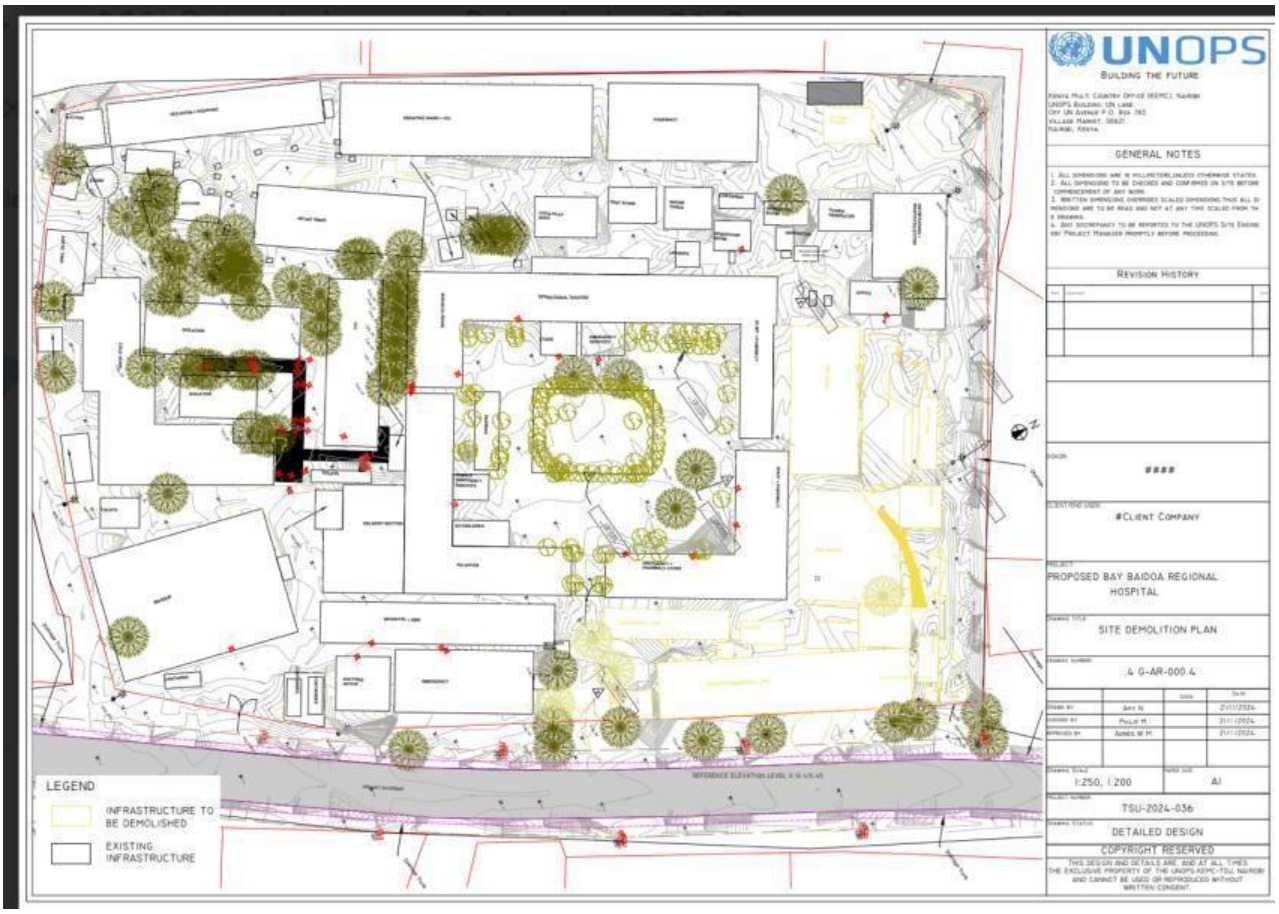


Figure 11 Site demolition plan

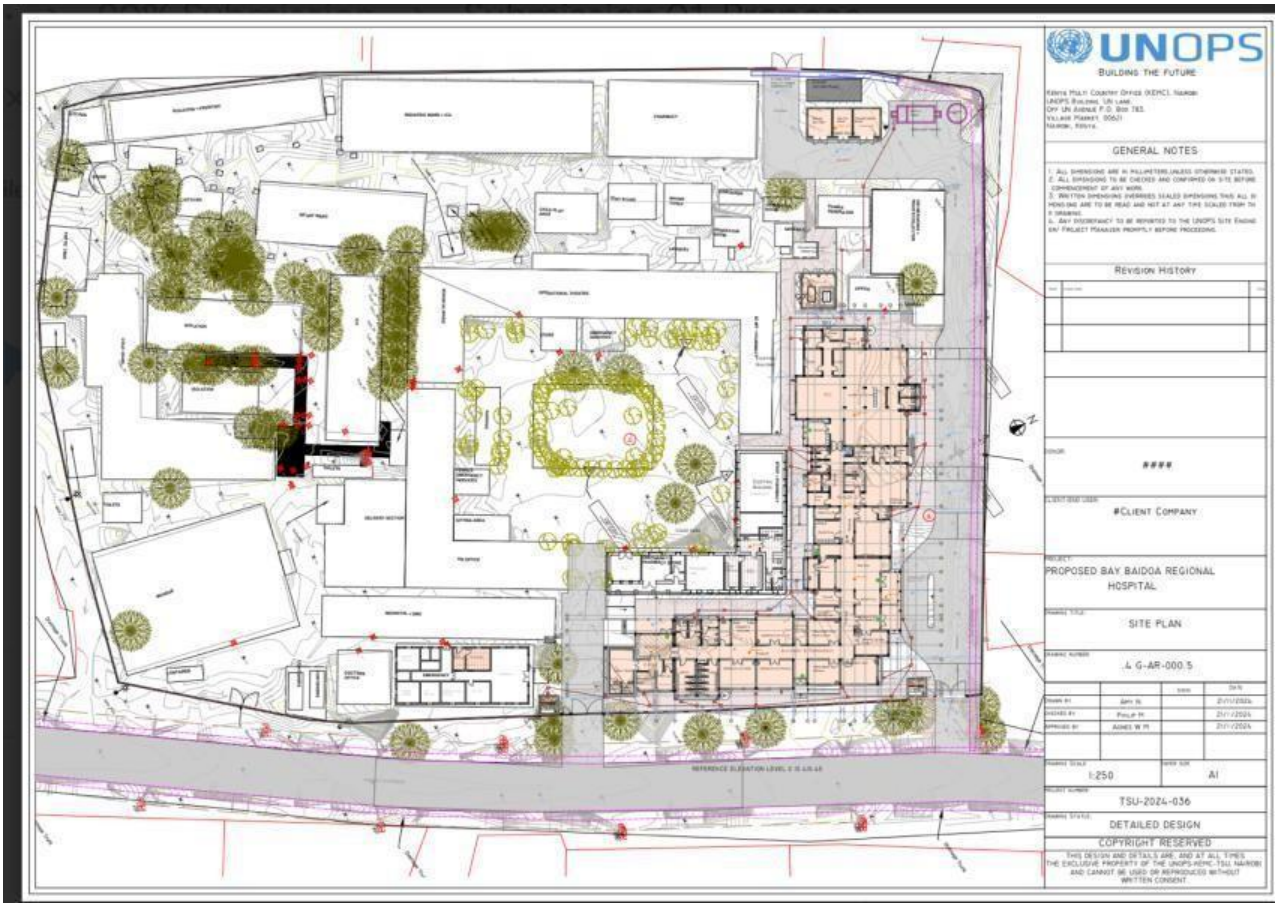


Figure 12 Site plan

The following spaces and facilities as shown in Table 2are provided within the newly constructed building

Table 2 Spaces and facilities provided within the newly constructed building

Accidents & Emergency • Ambulance drop-off • Entrance lobby & waiting • Reception & incident reporting • Triage • Cleaning & Sluice • Assessment & Treatment bays for Male, • Female and Paediatrics (2 beds each) • Observation for Male, Femaleand Pediatrics (3 beds each) • Plaster room • Utilities room • Emergency Department Chair Office • Laboratory (blood/chemical lab) - renovation of the	**Operation Theatre (OT)** • Entrance & reception/records • Preparation & anaesthesia (3 beds) • Operation area (1) • Recovery/transfer(4beds) • Staff changing room • Scrubbing, gowning & gloving • Equipment Prep room • Sluice, dirty utility & disposal hold • Sterilization • Storage (equipment & materials) • Office & rest area (procedure discussion room) • Janitors **ICU - OT (10 BED)**

current X-ray. • Equipment & supplies store • Accessible toilets	• Entrance lobby & reception • Nursing station, resuscitation & imaging

• Shared public toilets • Blood bank(renovation of current ED)	• Bedspace (10) • Staff changing room • Sluice, dirty utility & disposal hold • Sterilization • Storage • Janitors • Accessible toilets (2)

Laboratory • Reception & waiting • Office • Toilets • Phlebotomy • Specimen processing • Chemical and biological lab • Sterilisation & wash-up • Cold room • Dirty utility & disposal hold • Supplies & equipment	**X-Ray** • Entrance, waiting & records • Preparation • Dark room • X-ray room • Operator changing & office **Pharmacy** • Medical store • Preparation area • Dispensing **Staff resting area of 20 m^2**

Figure 13 3D view of concept design Bay Baidoa regional hospital

4.5Project Activities

Design Phase: The design phase included the following activities:

- Technical assessments i.e. the site assessments, structural integrity assessments, geotechnical studies, surveying, environmental and social impact assessments.
- Preparation of technical assessment reports to inform the design review process and tender documents.
- Stakeholder mapping and Engagement
- Design of a layout plan
- Detailed Design (architectural, civil, structural, mechanical & electrical) of Bay regional hospital in Baidoa.

Demolition Phase

- Installation of temporary site offices, toilets and space for stores for the workers.
- Provision of water and electricity within the site for the duration of the contract.
- Approval of method statement of the works.
- Clearing up of the site.
- Demolition of the existing buildings (old, dilapidated buildings) at the site.
- Disposal of the material from the demolition to the disposal site.
- Levelling the ground in preparation for the new construction.

Construction of Facilities

- Excavation works for a new foundation.
- Backfilling.
- Foundation works for the stone strip foundation.
- Structural works (strip reinforced concrete foundations; ground beams and slab on grade; reinforced concrete columns and walls; reinforced concrete solid slabs)
- External walling
- Doors, windows and grills; complete with all accessories
- Rainwater collection system
- Soil, waste and vent pipe for drainage
- Electrical and low current system
- Site structural components related to the external works, including kitchen, laundry and cssd block; water tank and pumps room block; generator block; maintenance block; waste disposal block; guards room block; internal roads and paving; and storm water drainage channels
- Centralized medical gasses system
- Ventilation and air conditions
- Firefighting system
- Cabling works.
- Testing and commissioning.

Outdated structural departments with structural integrity issues will be demolished to pave way for renovation and space for set up on state-of-the-art health facility. The basic material requirements to undertake the renovation and construction of the hospital Unit are building sand, stone aggregates, Solar PV, cement, concrete blocks, plumbing accessories etc. Labor management requirements and risk mitigation measures listed below also apply for this process. For building sand and aggregate, the contractor shall have the responsibility to source for a legal site where

sand can be extracted from and this shall be approved by the engineer prior to engagement, in consultation with the local authority and any other relevant government institutions. The rest of the material can easily be sourced from block making sites. Plumbing materials shall be procured locally unless this proves a challenge; the material can be sourced from other towns. Procuring locally materials is although highly recommended as it will spur the economic growth of the project area while also reducing the carbon footprint related to the project implementation.

Operational Phase: The operational phase activities will include:

- Training of the health workers in the management of generated clinical and other waste and recycling opportunities.
- Establishment of Standard Operating Procedures for the hospital, including emergency response procedures.
- Ensuring adherence to OHS standards for the workers
- Operation of the hospital in compliance with the Infection Control and Medical Waste Management Plan (see Project ESMF).
- Management of community exposure to health problems arising from ineffective infection control and inadequate healthcare waste management.

No land and resettlement impacts are anticipated because the proposed site is on public land and has an existing health care facility and the excavation pit is located on a designated site. Community consultations have further shown that there are also no encroachments on the land.

Decommissioning phase

This report does not address the decommission phase of the project, it is envisioned that the hospital will undergo further expansion due to the high population it serves and need for more services. An environment and social management plan shall be prepared for any reason it is found necessary to decommission the hospital.

5. ENVIRONMENTAL AND SOCIAL RISKS AND IMPACTS

5.1 Positive Impacts Related to the Sub Project:

The health sector has been overstretched due to the population growth rate that is exponential as a result population influx in towns, increased climate sensitive diseases, and the demand for well-equipped medical facilities by patients. This has led to increased mortality rates among the expectant mothers and those suffering from chronic illness and other climate sensitive diseases. Renovation and reconstruction of new state of art health facility (Bay Regional Hospital) in Baidoa southwest state in Somalia will greatly impact the local community increasing access to health care. Anticipated positive will include but not limited to:

- Rehabilitation and reconstruction of the health facility will Increase access to quality health care for the community lead to improved community health.
- The project will spur economic growth as a result of local sourcing of materials and patient influx in the hospital for treatment.
- Water quantity will be enhanced as rainwater harvesting systems have been incorporated in new hospital designs
- The project will also improve living standards of the local community as a result of local sourcing of labour: semi-skilled, unskilled and skilled where possible.
- Water quantity and quality in the hospital will increase and improve respectively due to installation of water harvesting systems and desalination of water for the hospital consumption.
- Landscaping and greening around the constructed building will assist sequestrate carbon from the atmosphere while improving the aesthetic area of the hospital.
- Project technical team working closely with the community skilled practitioner will result to knowledge transfer increasing the technical capacity of the community members for future engagements.
- Storm water will be managed as the area has been flooding; introduction of storm water infrastructure will greatly reduce flood related risks.

5.2 Negative Impacts Related to the Sub Project:

Any project to be implemented if not critically assessed and analysed on the potential environmental and social risks and impacts associated with it, can have adverse impacts both on the environment and the local community in sub-project area. The activities associated with the demolition, rehabilitation and construction of the main hospital building and the auxiliary buildings will likely generate adverse site-specific risks and impacts, including:

Design Phase:

- Inadequate consultation and stakeholder engagement.
- Exclusion of vulnerable and marginalized groups during stakeholders' engagement
- Lack of access to functional and anonymous based GRM

Demolition Phase:

- Management and disposal of material generated from demolition activities,
- Management of rubble (solid waste) from the existing buildings,
- Soil and Groundwater contamination during demolition
- Increased level of dust, noise and vibration from moving of construction vehicles and machinery,

- Increased level of air pollution through operation of heavy equipment and vehicles for construction,
- Fall of material or bricks
- Generation of construction waste
- Security for project operations including the protection of project workers and beneficiaries,
- Labor influx and associated risks such as GBV/SEAH,
- Risks associated with labor and workers conditions, e.g., child labor or forced labor,
- Occupational health and safety of workers, including risk of slips and trips; working at height; working in confined spaces; work with electrical equipment; working in hot environment
- Transport/road hazards
- Challenges in access to beneficiaries for meaningful stakeholder and community engagements as well as grievance redress and monitoring,
- Disruption in healthcare services for the current and potential patients.
- Traffic risks during demolition.

Construction Phase

- Sourcing of materials, an activity which may degrade the surrounding environment,
- Use of existing borrow pits which may further deteriorate the surrounding environment,
- Increased level of dust, noise and vibration from moving of construction vehicles and machinery,
- Increased level of air pollution through operation of heavy equipment and vehicles for construction,
- Fall of material or bricks,
- Generation of construction waste,
- Security for project operations including the protection of project workers and beneficiaries,
- Labor influx and associated risks such as GBV/SEAH,
- Risks associated with labor rights and management, e.g., child labor or forced labor,
- Occupational health and safety of workers, including risk of slips and trips; working at height; working in confined spaces; work with electrical equipment; working in hot environment,
- Transport/road hazards,
- Challenges in access to beneficiaries for meaningful stakeholder and community engagements as well as grievance redress and monitoring,
- Disruption in healthcare services for the current and potential patients,
- Traffic risks during construction,
- Potential impacts to patients and health care workers who will be using the existing facility,
- Stormwater (build stormwater discharge system),
- Hot climate: narrow windows to reduce solar radiation with double glazed aluminium profiles),
- Security for project operations including the protection of project-affected persons.
- GBV and SEAH cases.

Operational Phase:

- Community health and safety risk: water and sanitation safety, life and fire safety, protection from infec- tious disease.
- Potential impacts to patients and health care workers who will be using the existing facility

- Waste management
- Medical wastes, wastewater and air emissions leading to contamination of the environment and the work- ers,
- Risk of infection among health professionals,
- Risk of infection to the handlers
- Physical hazards (for example, handling of sharps),
- Electrical and explosive hazards,
- Fire,
- Ergonomic hazard; OHS hazards related to healthcare and non-healthcare daily operations,
- Radioactive hazard,
- Poor sanitation conditions at the facility leading to discomfort and poor aesthetic values
- Community health and safety: carriage of healthcare waste through public streets can be a risk in case of an accident or mare spill of health care waste.
- Lack of access for vulnerable groups, including women, disabled, minorities
- Exclusion from ongoing consultations of vulnerable groups
- Risks of GBV/SEA, including for vulnerable groups

Decommissioning Phase:

Decommissioning of the hospital is not planned, and there is potential for future expansion. If decommissioning becomes necessary, an Environment and Social Management Plan will be prepared.

6. RISKS AND IMPACTS AND MITIGATION MEASURES

The Table 3 below lays down a phase out framework by identifying the specific adverse environmental and social risks and impacts anticipated of the sub-project and the respective mitigation measures required to reduce or eliminate the associated risks and impacts. This matrix forms the core of the ESMP, as it clearly maps out the anticipated social and environmental impacts, provides robust mitigation measures, the party to address the risk the timeframe of implementation, the monitoring indicator as well as the cost for compensation/ offsetting the residual impacts.

Table 3 ESMP Table

WB ESS	E&S Risks and Impacts	Mitigation Measures	Responsibility	Budget for mitigation (in USD)	Monitoring Indicator	Monitoring Frequency
Demolitions and Construction Phase						
ESS1 Assessment and management of Environmental and social risk and impacts						
	Risk of poor implementation of the mitigation measures and adherence to the set standards and procedures	Enhance capacity of all implementers on E&S risk assessment and mitigation measures through training sessions. Provide capacity building opportunities to the E&S teams working on the subprojects on understanding and implementing assessment and management requirements of the WB's ESF and WBG's EHSGs. Provide H&S training to the to the construction workforce (including subcontractors, temporary workers, and drivers). Raise awareness of workers regarding the implementation of the ESMP tailored to the project scope, through toolbox talks and	UNOPS/Contractor monitoring: PCIU	500 USD for logistics	# of awareness sessions provided to workers # of training sessions provided to project team	Before the beginning of construction activity PCIU budget

		other platforms.				
	ESS 2: Labour and Working Conditions					
	Demolition and Construction Phase					
	Risk of insecurity affecting project workers	PCIU to provide actions according to the Project Security Management Framework and UNOPS adopt actions and cascade them to contractors. Contractors to implement security risk management mitigation measures according to the SMF.	UNOPS/ Contractor Monitoring: PCIU	Costs for security risk implementation as part of contractor budget	# Security Risk Assessments updated # records of SMPs # records of security incidents	Prior to commencement of activity and during construction activities PCIU Budget UNOPS budget

WB ESS	E&S Risks and Impacts	Mitigation Measures	Responsibility	Budget for mitigation (in USD)	Monitoring Indicator	Monitoring Frequency
		Contractor to implement security risk mitigation measures as per SMP				
	Labor and working conditions are not in compliance with WB and Somali legislation	Implement and monitor the LMP and ensure each employee has a contract or defined terms of engagement. Listing of all staff and titles, new hires and departure. Site visited and review of records, major findings, and actions taken by contractor, engineer, or others, including authorities—to include date, inspector or auditor name	Implementation by Contractors Monitoring by PMT/PCIU/ civil engineer	Included in contractor staff costs Cost of monitoring is included in the project/ operational cost.	Availability of register Availability of logbook showing site visited and actions taken Incidents reports	Monthly Incidents to be reported within 48 hours Cost of monitoring is included in the project/ operational cost.

	OHS risks, including impacts of dust, noise, vibration, ergonomics, extreme temperatures, struck by objects, slips and trips, working at height, working in confined spaces	Dust: Watering the soil to dampen the surface to be used to reduce dust Wear PPE (including safety glasses and gloves and dust masks). Use dust suppression techniques, such as water spraying on demolition sites and debris. Use dust barriers or screens around the site to contain airborne particles. Ensure all workers wear appropriate personal protective equipment (PPE), like masks and respirators. Noise: Provide hearing protection where necessary (when sound level over 8 hours reaches 85 dB(A)) Use of acoustic insulating materials, isolation of noise source, and other engineering controls No noise from machine breakers if used during evening hours. Vibration:	UNOPS/Contractor PCIU E&S specialist to monitor adherence to requirements	Included in Contractor budget	Frequency of watering and number of dust masks provided to staff and being used# of sensitization workshops on use of PPEs # of temporary shelters available # of training for industrial vehicle operators conducted # of rest and stretching breaks per work day # of OHS related incidents % of workers with appropriate PPE # of health and safety work plans # of site speed limit signs at construction site	Monthly reports Incident and accidents to be reported within 48 hours

WB ESS	E&S Risks and Impacts	Mitigation Measures	Responsibility	Budget for mitigation (in USD)	Monitoring Indicator	Monitoring Frequency
		Control vibration through choice of equipment, installation of vibration dampening pads or devices, and limiting the duration of exposure. Heat: Provide temporary shelters to protect against the elements during working activities or for use as rest areas. Monitor weather forecast for outdoor work Adjust work and rest periods according to temperature Use of mechanical assists to eliminate or reduce exertions required to lift materials, hold tools and work objects Implement quality control and maintenance programs that reduce unnecessary forces and exertions Confined spaces/excavations: Safe access and egress into the excavation area, for			Records of rest and stretching break Records of heath awareness sessions Signage for designated and restricted waste drop zone # of temporary fall protection measures Records of safety harness with lanyards provided Record of emergency preparedness and response plans Records o PPE provided and reports on usage Training records Health and safety plan records Record of method statement provided to UNOPS # records of	

		example a sufficiently long & secured ladder. Daily and weekly inspections to be carried out as per excavation permit and daily checklist Fencing to be erected around the excavations area, external site fencing with visible signage to be installed to prevent unauthorised entry Ensure materials are located/ unloaded in designated locations and not adjacent to excavation edges			trainings for industrial vehicle operators conducted # and duration of rest and stretching breaks per work day # of OHS related incidents % of workers with appropriate PPE	

WB ESS	E&S Risks and Impacts	Mitigation Measures	Responsibility	Budget for mitigation (in USD)	Monitoring Indicator	Monitoring Frequency
		Workers/operatives to use appropriate PPE Ergonomics Incorporate rest and stretching breaks into work processes and conduct job rotation Struck by objects Use designated and restricted waste drop or discharge zone Conduct sawing, cutting, grinding with proper guards and anchoring Provide appropriate PPE, including safety glasses with side shields, face shields, hard hats and safety shoes Working at height Use of temporary fall protection measures Training and use of personal fall arrest systems Use of safety harness with land yards General: Preparation and implementation of an Emergency Preparedness			Records of health and safety work plans #of site speed limit signs at construction site Records of rest and stretching breaks Records of heath awareness and education sessions Signage for designated and restricted waste drop zone # of temporary fall protection measures Records of safety harness with lanyards provided Record of emergency preparedness and response plans Records o PPE provided and reports on usage	

		Plan and emergency alert systems Provision of adequate PPE (safety harness, gloves, safety glasses, hard hat, safety boots, dust mask, safety vests) Regular training for workers on workplace safety Preparation of health and safety plan Contractor shall provide UNOPS with method statements for the			Training records Health and safety plan records Record of method statement provided to UNOPS	

WB ESS	E&S Risks and Impacts	Mitigation Measures	Responsibility	Budget for mitigation (in USD)	Monitoring Indicator	Monitoring Frequency
		works to be implemented in a safe manner.				
	Risk of labor influx increases social ills and SEA/SH cases	All workers to sign CoCs. Dedicated reporting channel for victims through Project GRM Ensure the project maximize the use of local youth from the community. Provide GBV and GRM awareness training to workers	UNOPS/Contractor Monitoring: PCIU	Incl in contractor staff costs / PCIU costs	% of workers that signed COCs # of training sessions provided	At commencement of project activity and throughout the project cycle. UNOPS/Contractor budget
	Discrimination against women and vulnerable groups in employment	Contractor to develop recruitment and retention policies that enable fair working conditions and women's safe and equitable participation. Contractor to track the vulnerable persons engaged in the project. Comply with LMP	UNOPS/Contractor Monitoring PCIU	Included in staff costs	Record of contractor's recruitment and retention policy policy in place # of vulnerable groups engaged in the sub- project	At start of project Quarterly Staff time

	Delayed payment or underpayment of workers, leading to complaints and conflict	Ensure provision of timely and equitable payment system Ensure provision of an effective workers' GRM Ensure information on workers' GRM is provided	Contractor	Included in contractor staff costs	Records of recruitment and retention policies available # of women and vulnerable groups employed in comparison to the total number of people employed in the activity	Monthly UNOPs staff time
	Child and forced labor resulting in employing of underage children and human trafficking	Implementation of GRM to ensure their voices / complaints are heard Contractor to maintain staff records, ID copies Minimum age for workers to be set at 18 years Regular monitoring inspections	UNOPS/Contractor Monitoring :PCIU	Included in contractor staff costs	# of workers' grievances filed # of GRM cases filed Record of all workers IDs and contract or consent to work. Number of workers' grievances filed and/orof GRM cases	Throughout project implementation UNOPS staff time

WB ESS	E&S Risks and Impacts	Mitigation Measures	Responsibility	Budget for mitigation (in USD)	Monitoring Indicator	Monitoring Frequency
					filed, resolved or pending Records of cases of child and forced labor reported	
	Risk of SEA/SH among workers	All workers to sign CoC. Dedicated reporting channel for victims through Project GRM Provide gender segregated closet toilets for workers Provide GBV and GBV responsive channels awareness training to workers	Contractor / PCIU	Includedin the budget of PCIU and contractor	% of workers that signed COCs # of training sessions provided	Monthly PCIU budget
	Hot climate	Continuous supply of drinking water to project workers Contractor to ensure construction works is done mostly during colder periods	contractor	Incl. budget for contractor	# of times construction workers are provided with water Time of the day when construction works is done	

	Lack of proper information disclosure and workers grievance redress mechanism	Ensure information is disclosed as per the SEP and all adequately informed of all the relevant information. Ensure there is known GRM system in place and workers are notified about it.	Contractor and PIU		# of information disclosed in the notification area. Presence of the workers GRM GRM channels sensitization	Quarterly
Operational Phase						
	Risk of medical wastes, wastewater and air emissions leading to contamination of the environment and the workers	Strengthen IPC and waste management protocols. Ensure waste is segregated at point of generation to the extent possible for easy handling Ensure the segregated waste is appropriately packaged in colored containers using standard clinical waste color codes for respective	Bay Regional Hospital administration Monitoring: MoH/PMT	Incl. budget of hospital	# of labelled secure bags for generated medical waste # of wastewater and air emissions analytical results available	Quarterly MoH budget

WB ESS	E&S Risks and Impacts	Mitigation Measures	Responsibility	Budget for mitigation (in USD)	Monitoring Indicator	Monitoring Frequency
		waste type, and stored for final disposal consistent with the WHO standards[25] Sensitisation of workers on sustainable medical waste management practices Rigorously segregate waste so that no PVC (IVs, etc.) waste is incinerated and instead directed to the appropriate waste bag for appropriate disposal. Regular training for HC workers on medical waste segregation. Implementation of ICMWMP (See Project ESMF)				

	Risks of physical hazards (for example, handling of sharps); Electrical and explosive hazards; Fire; Chemical use OHS hazards related to healthcare and non- healthcare daily operations Radioactive hazard	Ensure a local risk assessment (identification of risks at work) is conducted for each process step, that is, from sample collection to disease isolation to identify specific hazards and for each identified risk, appropriate risk control measures must be defined. Provide safety training in the management of hazards identified other than those related to sample handling Provide review of Infectious Preventive Control training for the health care facility staff, including Health Care Workers charged with the responsibility to handle and dispose of the medical waste Ensure conducting regular fire drills. All fire and life safety measures follow applicable good practice standards such as those under ESS4, and the IFC EHSG for Fire Prevention and Life Safety (see Annex 6)	Bay Regional Hospital administration Monitoring: MoH/PMT	Incl. budget of Hospital	# Local risks assessment conducted every year and specific hazards identified for each and way forward # of regular safety training provided # of reviews of training provided # of fire drills conducted # of OHS incident reports	Monthly Budget of MoH

[25] https://www.who.int/publications-detail-redirect/9789241548564

WB ESS	E&S Risks and Impacts	Mitigation Measures	Responsibility	Budget for mitigation (in USD)	Monitoring Indicator	Monitoring Frequency
	Risk of infection among health professionals	Ensure appropriate training on Infection Prevention and Control for healthcare workers and other staff. WHO prescribed protocols for personal protection of healthcare professionals is to be enforced at all times Ensure training in Health care waste management systems, which enable health care waste to be managed responsibly, without harming the community or the environment.	Bay Regional Hospital administration Monitoring: MoH/PMT	Incl. budget of Hospital	# of training sessions held and workers who has been trained # of protocols available at location	At start of the clinical operations MoH budget
	Risk of GBV/SEAH among workers	All workers to sign CoCs (see Annex 3). Dedicated reporting channel for survivors through Project GRM Provide GBV awareness training to workers	Bay Regional Hospital administration	Incl. budget of Hospital	% of signed COCs GBV/SEAH road map generated # of training sessions provided	Monthly MoH budget
	OHS risks for hospital workers	Provision of adequate PPE Regular training for workers on workplace safety, Preparation and implementation of health and	Bay Regional Hospital administration	Incl. budget of Hospital	# of training sessions provided # of health and safety plans available	Monthly MoH budget

		safety plan				
ESS 3: Resource Efficiency and Pollution Prevention and Management						
Demolition and Construction Phase						
	Lack of management and disposal of material generated from Rehabilitation activities, including rubble / waste management	Contractor to provide Waste Management Plan for site. Reuse and recycling of the waste generated should be prioritized. Ensure disposal of generated solid waste at designated and authorized disposal site in consistence with the local and international requirements	Contractor Monitoring: UNOPS/PCIU	Incl in contractor budget	Records of amount of solid waste re-used, recycled, disposed, where and when Records of waste tracing sheets from the premises to the disposal sites	Quarterly UNOPS budget

WB ESS	E&S Risks and Impacts	Mitigation Measures	Responsibility	Budget for mitigation (in USD)	Monitoring Indicator	Monitoring Frequency
		(see WBG General EHS Guidelines)[1], such as: Institute good housekeeping and operating practices - including inventory Control to reduce the amount of waste Institute procurement measures that recognize opportunities to return usable materials Implement stringent waste segregation to prevent mixing hazardous and non-hazardous wastes Identify potentially recyclable materials Disposal at permitted facilities specially designed to receive waste Provide on-site or off-site transportation of waste to prevent or minimise spills, releases and exposure to employees and public Ensure mechanisms exist for community to bring forth any			Grievances filed related to Waste management plans Report on implementation of the waste management	

		complaints/feedback concerning the waste disposal by the contractor – Project GRM Carry out disposal of solid waste in a manner that does not negatively affect the drinking water sources, the existing waste management system in the area, local routes, and general aesthetic value of the area.				

WB ESS	E&S Risks and Impacts	Mitigation Measures	Responsibility	Budget for mitigation (in USD)	Monitoring Indicator	Monitoring Frequency
	Poor sanitation facilities and sanitation conditions at work site	Provide proper water closet toilet facilities at work sites. Do not allow water to run out in toilets. Maintain all toilets in clean and sanitary condition. Do not allow site workers to defecate in the open spaces on the site or in its vicinity. Add the use of sanitation arrangements in toolbox talks	Contractor Monitoring: UNOPS/PCIU	Included in the Budget of contractor	# of water closet toilet facilities available % of toilets leaking # of toilets are well maintained # of toolbox talks with Sanitary arrangements	Monthly UNOPS budget

	Risk of pollution on surface water and groundwater sources From waste generated during demolition and construction phases	Through accurate estimation of the sizes and quantities of materials required, order materials in the sizes and quantities they will be needed, rather than cutting them to size, or having large quantities of residual materials. Ensure that construction materials left over at the end of construction will be used in other projects rather than being disposed of. Ensure that damaged or wasted construction materials will be recovered for refurbishing and use in other projects Donate recyclable/reusable or residual materials to local community groups, institutions and individual local s or home owners. Dispose waste more responsibly by dumping at designated dumping sites or landfills only. Waste collection bins to be provided at designated points on site.	Contractor Monitoring: UNOPS/PCIU	Incl. in contractor staff costs	Volume of construction materials left over at the end Volume of waste at construction site is disposed of appropriately # of waste bins available at construction sites # of waste related complaints	Throughout project implementation UNOPS budget

WB ESS	E&S Risks and Impacts	Mitigation Measures	Responsibility	Budget for mitigation (in USD)	Monitoring Indicator	Monitoring Frequency
		Ensure segregated waste is handled/disposed by the licenced waste service providers. Prepare and implement sustainable waste management plan. Prepare and implement an emergency awareness and response plan				
	Air quality impacts from construction machinery and material transport	Install emission control devices, such as diesel particulate filters or oxidation catalysts on older machinery Ensure equipment or vehicle is properly maintained to operate efficiently and emit fewer pollutants	UNOPS/Contractor	Incl. in contractor budget	Availability of emission control device Record of maintenance is available	Throughout construction phase
	Risk of water consumption	Manage water consumption, including through - On-site water recycling - Rainwater harvesting	UNOPS/Contractor	Incl. in contractor budget	Availability of water recycling Availability of inspection record	Throughout construction phase

		Conduct regular inspections to identify and fix leaks in pipes, hoses and tanks.				
	Prevention of spills during refuelling	Apply spill containment trays Inspect and maintain fuel hose and connection to prevent leaks.	UNOPS/Contractor	Incl. in contractor budget	Availability of containment trays Availability of inspection record	Throughout construction phase
	Hazardous material storage and disposal	Empty paints cans store in closed drums or isolated area from soil and water at	UNOPS/Contractor	Incl. in contractor budget	Availability of material safety data sheets in areas	Throughout construction phase

WB ESS	E&S Risks and Impacts	Mitigation Measures	Responsibility	Budget for mitigation (in USD)	Monitoring Indicator	Monitoring Frequency
		Contractor store, then handle as recycled metal scrap. Store any chemicals and hazardous waste at designated areas, insulated from the ground Ensure trained personnel handle hazardous chemicals and wastes.			where chemicals are used or stored Availability of eye wash stations Training records on handling of hazardous chemicals	
Operational Phase						
	Stormwater	Build stormwater discharge system	Contractor Monitoring: UNOPS	Contractor budget	Availability of stormwater discharge system	During construction phase UNOPS budget
	Hot Climate	Build narrow windows to reduce solar radiation with double glazed aluminium profiles	Contractor Monitoring: UNOPS	Contractor budget	Availability of narrow windows	During construction phase UNOPS budget

	Increase in medical waste due to increased hospital operations	Sensitization of health workers on proper and sustainable medical waste management process. Ensure all medical waste are handled by licensed medical waste practitioners Ensure waste is properly disposed after incineration to avoid the medical ash getting into ground water sources and surface water sources. Fix scrubbers and other pollutant prevention strategies on chimneys at waste incineration point to avoid air pollution and subsequent water and soil pollution Implementation of Medical Waste Management Plan (See Annex 6)	Bay Regional Hospital administration	Included in the budget of Hospital	# of sensitization workshops conducted sustainable medical waste management plans in place. Type and the licensing status of the service providers Final disposal points of the incinerated waste.	Throughout the operation stage of the facility Budget of MoH

WB ESS	E&S Risks and Impacts	Mitigation Measures	Responsibility	Budget for mitigation (in USD)	Monitoring Indicator	Monitoring Frequency
	Increased solid waste due to increased No. of patients using the facility	Ensure colour coded waste segregation bins and placed strategically within the hospital's vicinity Use of posters within the health facilities on proper way of solid waste disposal Implementation of ICMWMP (See Project ESMF)	Bay Regional Hospital administration	Included in the budget of Hospital	# of colour coded waste receptacles placed within the health facility or its vicinity # No of posters on sustainable waste management strategically placed.	Throughout the operation stage of the facility Budget of MoH
ESS 4: Community Health and Safety						
Construction Phase						
	Increased GBV/SEAH cases and risks of sexual exploitation and abuse or sexual harassment, such as requests for sexual favors by project workers	GBV awareness sessions for community members GBV awareness sessions for workers Engage a dedicated service provider to support oversight and management of these risks Workers to sign COC Provide continuous awareness on GRM for SEA/SH channels to all workers Implement the SEA/SH action plan.	UNOPS/Contractor Monitoring: PCIU	Included in PCIU staff and travel costs	Records of GBV awareness sessions to staff and the community members % of workers that have signed CoC # of GBV-related incidents reported	Monthly

	Spread of communicable diseases (Sexually Transmitted Diseases SIIs, HIV/AIDS, etc..) between workers and the community	Periodic community and workers awareness sessions on communicable diseases including HIV/AIDS Provide hand washing stations for workers Provide mosquito nets for workers	Contractors / PCIU / UNOPS Monitoring: UNOPS	Included in PCIU staff costs and contractor budget	# of community sensitization % of workers that have signed CoC # of related complaints filed in GRM	Monthly UNOPS budget

WB ESS	E&S Risks and Impacts	Mitigation Measures	Responsibility	Budget for mitigation (in USD)	Monitoring Indicator	Monitoring Frequency
	Exposure of community members to physical hazards on project sites.	Undertake safety precautions to address safety hazards for the nearby community, Sensitize the local community and inform them about construction risks and the restricted access to the site Restrict access to construction site through signage Remove hazardous conditions on site that cannot be controlled effectively with site access restrictions, such as covering openings to small, confined spaces, ensuring means of escape for larger openings Lock storage of hazardous material	Contractor Monitoring; UNOPS	Included in Contractor budget	Number of sensitization sessions for the communities # of signage available around construction site % of small openings that have been covered % of larger openings that have an escape opening Number of locked storage facilities for hazardous materials	Throughout activity UNOPS budget

	Increased level of dust, noise and vibration from moving of construction vehicles and machinery	High level maintenance of the project vehicles and equipment as per the manufactures specifications to reduce air, water and soil pollution. Selecting equipment with lower sound power levels Installing suitable mufflers on engine exhausts and compressor components equipment casing Planning activities in consultation with local communities so that activities with the greatest potential to generate noise are planned during periods of the day that will result in least disturbance. Spray work area with water to avoid dust	Contractor Monitoring: UNOPS	Included in Contractor budget	% of vehicles adhering to maintenance schedule % of engine exhausts with mufflers installed % of activities implemented during the days Signage for no hooting	Throughout the project cycle UNOPS budget

WB ESS	E&S Risks and Impacts	Mitigation Measures	Responsibility	Budget for mitigation (in USD)	Monitoring Indicator	Monitoring Frequency
		Install no hooting sign and ensure it is enforced				
	Disruption in health services for current and future patients	Ensure alternative and accessible health centres are mapped and communicated and patients transferred particularly patients in critical units	Bay Regional Hospital administration Monitoring; PCIU	Included in MoH budget	# of GRM cases filed in relation to site closure	Throughout activity PCIU staff time
	Potential impacts to patients and health care workers who will be using the existing facility	Put in place an effective GRM Provide signage and fencing to guard access between the demolition site and the remaining hospital site	Contractor Monitoring: UNOPS/PCIU	Included in contractor budget	# of GRM cases filed # of safety signages installed	Throughout activity UNOPS budget

	Transport/road hazards and traffic risks during construction	Prepare implement a traffic management plan Training and licensing of industrial vehicle operators in the safe operation of specialized vehicles. Ensure drivers undergo medical surveillance. Establish rights of way, site speed limits, vehicle inspection requirements, operating rules and procedures. CoC signing by drivers and operators. Ensure drivers undergo medical surveillance. Establish rights of way, site speed limits, vehicle inspection requirements, operating rules and procedures. Ensure the vehicle are in good and serviceable conditions. Avoid traffic in the night or when and where there are no sufficient lights.	Contractor Monitoring: UNOPS/PCIU	Included in contractor budget	% of industrial vehicle operators with license % of drivers and equipment operators who have signed the CoC % of vehicle operators who have undergone medical surveillance Traffic signage installed Record of traffic management plans Grievances related to traffic and vehicle operations	Monthly UNOPS budget

WB ESS	E&S Risks and Impacts	Mitigation Measures	Responsibility	Budget for mitigation (in USD)	Monitoring Indicator	Monitoring Frequency
		Ensure there are visible traffic signs in and around the construction site.				
Operational Phase						
	Risk of poor sanitation conditions at the HCF leading to discomfort and poor aesthetic values	Provide cleaning staff with adequate cleaning equipment, materials and disinfectant. Provide adequate facilities to disinfect the cleaning equipment and dispose of the used consumables in a safe manner; Review general cleaning systems, training cleaning staff on appropriate cleaning procedures and appropriate frequency in high use or high-risk areas. Train cleaners in proper hygiene (including handwashing) prior to, during and after conducting cleaning activities; how to safely use PPE (where required); in waste control (including for used PPE and cleaning materials)	Regional Hospital Administration	Incl. budget of Hospital	# of cleaning equipment available % of cleaners trained	Monthly MoH Budget

	Communities' exposure to health problems arising from ineffective infection control and inadequate health care waste management \xx	Implement MWMP	MoH and HCF administration	running costs of HCF	See MWMP	Monthly
ESS 8: Cultural Heritage						
Construction phase						
	Risk of Chance Finds	Implement Chance Find procedures (see Annex 4)	Contractor UNOPS monitoring	Contractor budget	Report on chance find procedures implementation	Monthly UNOPS budget

WB ESS	E&S Risks and Impacts	Mitigation Measures	Responsibility	Budget for mitigation (in USD)	Monitoring Indicator	Monitoring Frequency
					Number of occasions Chance find procedures are implemented	
ESS 10: Stakeholder Engagement and Information Disclosure						
Construction phase						
	Challenges in access to beneficiaries for meaningful stakeholder and community engagements as well as grievance redress and monitoring	Implementation and monitoring of GRM Implementation of Project SEP on stakeholders engagement especially those the vulnerable and those living around the hospital vicinity.	UNOPS Monitoring PCIU/PMT	UNOPS GRM costs	% of complaints filed and addressed Number of site-specific incident logs	Monthly UNOPS budget
	Risks of lack of information on access to GRM leads to lack of accountability	Awareness raising on GRM and all the available channels	UNOPS PCIU/PMT	PCIU and UNOPS budget for GRM	# of awareness sessions on GRM	Quarterly UNOPS budget
	Lack of information disclosure leads to lack of transparency and suspicions of mismanagement of	Conduct in- depth community engagement, providing information on the sub project Implement SEP on information disclosure	UNOPS Monitoring PCIU/PMT	UNOPS	# of community engagement sessions held	throughout construction activity

	the sub project					

5. IMPLEMENTATION ARRANGEMENTS

7.1 Responsibilities

The overall responsibility for the works sits with the Federal Ministry of Health (MoH) as the main recipient and implementer of the project. The work is overseen by the Project Coordination and Implementation Unit (PCIU) embedded within the Project's institutional structures. The PCIU is contracting UNOPS as a sub-implementer for the rehabilitation and reconstruction of 6 hospitals, including Bay Baidoa Regional Hospital.

UNOPS has designed the works under the previous project and is preparing the bidding documents for a contractor to be recruited to perform the works. UNOPS will oversee the works and the compliance with the ESMP-specific E&S mitigation measures. The construction companies will implement the project including all Environmental and Social (E&S) mitigation measures defined in this ESMP.

For Bay Baidoa Regional Hospital Rehabilitation works, one contractor will be hired.

Below under Table 4is the list of Government institutions involved in the implementation, with their respective roles and interests.

Table 4 Institutional Partners responsibilities

MoH	The MoH through the PCIU is responsible for the overall implementation of the Project. Specifically the PCIU Environmental and Social Team are responsible for the E&S risk mitigation of the project and are responsible for monitoring the implementation of this ESMP.
Hospital Administration	The Hospital Administration has agreed to the design of the Rehabilitation works and will support the Rehabilitation.
UNOPS	UNOPS Engineers and E&S safeguard team have prepared the design for the works and this ESMP. They will oversee the implementation of the works by the contractor.
Contractor	The contractor will implement the construction works at Baidoa Hospital based on the agreed design and this ESMP, including all E&S responsibilities listed through an E&S Specialist.

7.2 Contractor

The contractor is responsible for complying with requirements for all field activities covered by this ESMP, the contractor is also responsible to ensure that all its sub-contractors follow the ESMP and other ESF instruments that apply to this sub project. The contractor will have contractual clauses specifying compliance with the mitigation measures listed in the ESMP and in the WBG EHS Guidelines, in addition to national requirements and to indicate measures taken in cases of non-compliance. The contractor is also responsible for the actions of any

sub-contractors they may engage. Sub-contractors also have to comply with all E&S standards as laid out in this ESMP. Contractor's responsibilities include:

- Ensure that all operations comply with the ESS and mitigation measures laid out in this ESMP, for which the contractor is responsible.
- Ensure that the control measures provided for in the ESMP are both understood and implemented by site personnel.
- Comply with accident and incident reporting as laid out in the ESMF. All severe incidents must be reported to UNOPS/PCIU within 48 hours of occurrence.
- Set up plans for action to be taken in the event of spills or leakages of hazardous materials, and other environmental emergencies.
- Monitor the ESMP implementation, against the monitoring indicators laid out in the ESMP Table.
- Participate in Community Consultative Meetings.
- Identify additional significant matters pertaining to environmental and social compliance.
- Liaise with UNOPS on the need for corrective action in the event of unexpected environmental or social problems emerging during operations.
- Communicate with all staff regarding E&S compliance requirements and other matters of im- portance.
- Identify additional environmental mitigation or corrective measures that are deemed to be neces- sary during project implementation.
- Prepare reports on all aspects of E&S compliance.
- Maintain lists of all workers, including their age and gender.
- Maintain a workers' grievance mechanism.
- Prepare and maintain an OHS Plan and provide training to all workers on OHS Plan.
- Ensure signing of code of conduct by every worker, including issues of Sexual Harassment, Gen- der-Based Violence (GBV) and Sexual Exploitation and Abuse.
- Implement the Security Management Plan.
- The contractor is obliged to implement this ESMP with all risk mitigation measures assigned to it.

E&S or Environmental Health and Safety (EHS) Specialist: The contractor will deploy an E&S or EHS Specialist to ensure operationalization of this ESMP, including monitoring, supervision and reporting on mitigation measures. The key tasks of the Specialist is to;

- Ensure PPEs for workers are available and workers are trained on their use
- Provide OHS training to all workers, based on the OHS Plan
- Ensure health and safety of all workers and visitors at the construction site
- In case of a non-compliance with the technical team on E&S aspects, stop the works to ensure safety and compliance.
- Maintain records of accidents and incidents and ensure appropriate reporting of incidents to UNOPS
- Ensure sustainable waste management procedures are followed closely.
- Ensure the health and safety of the community is not compromised during works implementation.
- Ensure availability of water and sanitation facilities for all workers at site and at the campsite

- Conduct toolbox talks for workers
- Train all workers in the CoC and ensure that CoC is signed by every worker
- Liaise closely with the UNOPS and the PCIU on training workers on GBV issues, as well as community awareness on GBV
- Maintain workers' lists indicating age, gender and vulnerability aspect (persons living with disabilities, etc)
- Maintain records of Workers' GRM

6. REPORTING ON ESMP COMPLIANCE

UNOPS will prepare periodic monitoring reports, including inputs from the contractor on the status of implementation of this ESMP. The reports will be submitted to the PCIU for its review and feedback. Details of these reports and their content are given in the Table 5below. A template for E&S Monitoring report is included in Annex 2.

Table 5 ESMP Monitoring and Compliance Reports

#	Title of the Report	Contents of the Report	Frequency of Report Preparation	Report to be prepared by
1	ESHS Monitoring Report to UNOPS	Compliance status of the Project with the E&S mitigation and monitoring measures. The report should cover: Environmental incidents; Health and safety incidents, child and forced labor; Health and safety supervision; Usage of PPEs by workers; Highlights of inspection; Training conducted, and workers participated; Worker's grievances.	Monthly	Contractor
2	ESMP Monitoring Report to PCIU	Compliance status of overall Project with ESMP requirements	Quarterly	UNOPS
3	Incident Reports to PCIU	Incident investigation reports for all major incidents covering details of the incident, root cause analysis, and corrective actions taken to address the future recurrence of this event	Initial investigation report for severe incidents within 24 hours. Detailed Investigation Report within ten days	UNOPS
	Trainings and capacity building	Workers training on the OHS, workers' GRM, SEAH and GBV issues, emergency preparedness and drills	Monthly	UNOPS
	Stakeholder and communit	Stakeholder and community engagement activities conducted over the report period and the GRM awareness campaign and initiatives	Monthly	UNOPS

	y engagement	undertaken		
4.	Incidents reports from PCIU to WB	Incident investigation reports for all major incidents covering details of the incident, root cause analysis, and actions taken to address the future recurrence of this event	Initial investigation report for severe incidents within 24 hours. Detailed Investigation Report within 10 days	PCIU

7. CAPACITY BUILDING AND TRAINING

The implementation of this ESMP is highly dependent on the capacity and awareness of the contractors' staff, the surrounding community and the concerned stakeholders. Training workshops are required to increase the awareness of all individuals concerned with the Project and to train and follow up with the workers who are specifically involved in the site operation.

On-site workers should receive appropriate training to undertake the duties of implementing the necessary mitigation measures. The training workshops should be undertaken prior to commencement of construction activities and as capacity building exercise throughout the project demolition, rehabilitation and construction phase. The recipients of the training are all workers engaged. The trainings are to be included in the budget of the contractor. The only trainings to be provided by the UNOPS include GBV/SEA/SH prevention. One initial training on mitigation measures will be provided to the contractor.

The training for the workers should cover at least the following issues:

- Occupational and public health and safety.
- Mitigation measures to be applied.
- GBV/SEA/SH prevention and response
- Accidents and emergency plans
- Roll-out of GRM among workers and communities
- Appropriate segregation, transportation, final disposal of solid waste.
- COC

The E&S induction training for the contractors is currently scheduled for 18 December 2025.

This will be achieved through the implementation of small workshops in the induction phase for the workers. During the construction phase, refresher trainings will be held.

Next to the training of workers, communities at the site will receive awareness raising sessions should cover at least the following topics:

- Heighten awareness of environmental and social risks and impacts and mitigation measures including trainings on (not exhaustive):
- GRM
- GBV prevention
- HIV and STI’s awareness and other communicable diseases.
- Road traffic safety

The Project team will further sensitize the Hospital leadership on the requirements for a Hospital Workers’ Grievance Redress Mechanism (GRM) to be implemented during the operational phase.

8. STAKEHOLDER CONSULTATIONS

The preparation of this ESMP and design process of the sub-project was highly dependent on stakeholder consultations, conducted as per the Stakeholder Engagement Plan (SEP).

Once the rehabilitation of the Bay Regional Hospital was decided on, follow-on site visits and stakeholder engagements at the community level including with vulnerable groups, and with Hospital staff, leadership and authorities were undertake in December 2023.

The hospital administration has identified a significant challenge in the lack of preparedness for emergency response. This deficiency is attributed to the limited capacity of the hospital, hindering its ability to effectively address unforeseen medical emergencies. The absence of a comprehensive emergency response plan poses a critical risk to the hospital's ability to manage crisis situations efficiently. Furthermore, the hospital lacks a structured approach to handle outbreaks, mass casualties, and climate-related crises or emergencies. The absence of specific protocols and resources for these scenarios poses a serious threat to the hospital's ability to safeguard public health during unprecedented events. The hospital further faces a challenge in lacking a standard operating theater in various departments, hampering the smooth conduct of critical medical procedures. Furthermore, the absence of a well-equipped Intensive Care Unit (ICU) raises concerns about the hospital's ability to provide advanced care for patients in critical conditions.

Bay Regional Hospital also has no well-equipped diagnostic facilities, impeding its ability to conduct thorough and timely medical examinations. Additionally, the absence of a dedicated blood room further compromises the hospital's capacity to handle blood-related procedures and emergencies. The hospital administration acknowledges the scarcity of specialist doctors, posing a substantial challenge to delivering specialized medical care. The lack of expertise in critical areas may adversely affect the quality and scope of healthcare services provided by the hospital.

A notable challenge that was highlighted i is the poor infrastructure within the hospital. Several crucial sections of the hospital are housed in temporary buildings, and the recent heavy rain and floods have adversely affected these structures. This underscores the vulnerability of the hospital's physical infrastructure to environmental factors, posing risks to both staff and patients.

The hospital administration underscored the successful resolution of a historical problem concerning medical waste treatment. Since 2021, the hospital has effectively addressed medical waste issues after the installation of a standard incinerator by Médecins Sans Frontières (MSF). Staff members were duly trained to manage the incinerator, resulting in the elimination of medical waste problems. Consequently, the hospital currently does not face medical waste issues. However, clarity is needed concerning the *management of non-hazardous waste, particularly domestic waste w*ithin the hospital premises. Bay Regional Hospital has a double chamber incinerator for medical waste, installed by MSF in 2021. The incinerator has a capacity of 50 kg/hr. and is generally operated for 5 hours per day. It includes various collection pits, such as organic pits for human remains and food remains, a glass pit, a sharp pit, and an ash pit. Since its installation in 2021, the ash pit has been dislodged once.

The recent heavy rains and floods resulted in some *septic tanks*reaching full capacity due to inadequate drain- age systems. This not only affected certain sections of the hospital but also posed potential environmental and health risks to the local community and downstream villages. The improper drainage system exacer- bated the situation, contributing to the

current flooding of hospital sections and parts of Baidoa town.

Anticipated environmental risks and impacts named by district level stakeholders included issues around vibration and noise pollution through construction works, *i*ncreased water consumption during rehabilita- tion, coupled with improper wastewater discharge, can deplete water resources. High energy consumption during construction and post-rehabilitation phases can contribute to environmental degradation.

Addressing these anticipated environmental challenges through proactive measures and strict adherence to best practices is vital. It ensures the success of the rehabilitation project while minimizing its negative impact on the environment and the local community.

Local stakeholders at the municipal level confirmed that the hospital is situated on land owned by the hospital itself. Additionally, they mentioned that there is ample space for potential hospital expansion as the area behind the hospital is government-owned and available for such purposes.

However, potential social risks related to the impacts of labor during the construction phase of the Bay Regional Hospital rehabilitation project may include issues such as labor disputes, worker safety concerns, fair labor practices, and the potential disruption of local communities.

Vulnerable groups among the key stakeholders for the hospital include elderly people, IDPs, persons with disabilities, low-income families, and infants and mothers.

Community- level stakeholder, elders and community member said that the current capacity of the hospital is able to respond to 30 to 40 % of our healthcare needs. Further gaps include the lack of transportation from remote areas to the hospital and thy lack of complete secondary and tertiary healthcare services.

Community members generally express a positive inclination towards the rehabilitation of the hospital in their district. They view it as a welcomed initiative that has the potential to address existing gaps in healthcare services, improve accessibility, and enhance the overall well-being of the community.

Members of vulnerable groups expressed concerns of a potential risk of excluding disadvantaged and vulnerable groups from the benefits of the rehabilitation project, particularly in terms of employment opportunities during the construction phase.

Women expressed that during the rehabilitation process, the involvement of labor forces from diverse backgrounds, including external contractors, may pose health and safety risks to the local community. This could include concerns about the introduction of diseases such as HIV and STDs.

Concerns were raised about the terms and conditions of work, including issues related to regular payments, overtime, and time off for the workforce involved in the rehabilitation.

According the information collected from community members, the site the hospital rehabilitation is not expected to impact land ownership, given that the hospital is situated on land owned by the hospital itself.

Figure 14Meeting DG of Bay Hospital

Figure 15Community Level Stakeholders

Figure 16Community Level Stakeholders

Figure 17 Consultations with community members

Figure 18 Consultation with women

On 14 July 2024 further stakeholder consultations were undertaken to agree on the requirements for the Hospital. The meeting included staff of the FMS Ministry of Health, the Hospital Director, and the UNOPS team. Project details were presented to the Ministry.

The new site was agreed to be next to Surgical ward, the pharmacy and Store, ICU and regained Lab and demolishing the temporary emergency paediatric unit, the MSF stores, and the buildings in that area.

Figure 19 Meeting with FMS Ministry of Health and Hospital Director, July 2024

9. GRIEVANCE REDRESS MECHANISMS

One of the key objectives of ESS 10 (Stakeholder Engagement and Information Disclosure) is 'to provide project-affected parties with accessible and inclusive means to raise issues and grievances and allow borrowers to respond and manage such grievances'. This Project GRM facilitates the Project to respond to concerns and grievances of the project-affected parties related to the environmental and social performance of the project. The Project provides mechanisms to receive and facilitate resolutions to such concerns. This section lays out the grievance redressal mechanisms (GRM) for the Project.

The project/PCIU has the responsibility to resolve all issues related to the Project in accordance with the laws of FGS and the World Bank ESSs through a clearly defined GM that outlines its process and is available and accessible to all stakeholders. The entry point for all grievances is the social specialists at the FGS and FMS/BRA levels, who receives grievances by phone, text or email to publicized mobile phone lines and email addresses. The social safeguards specialists will acknowledge, log, forward, follow-up grievance resolution and inform the complainant of the outcome. The complainant has the right to remain anonymous, in which case the identifying details will not be logged. The PCIU senior social specialist will carry out training of FMS/BRA social officers and project officers on complaints handling and reporting.

A Grievance Committee (GC) is established at federal level, consisting of the project coordinator, and relevant staff, with the social safeguards' specialist acting as the secretary to the meeting and taking minutes and follow up the grievance resolution process. The GRM offers different channels to enable a confidential and sensitive approach to GBV-related cases that ensures the safety of survivors and enables survivor- centred care. The GC meets every two months throughout the project implementation period to review non-urgent appeals and the functioning of the GM. Grievances may also be submitted to UNOPS, and workers' grievances to the contractor. Both will aim to handle grievances and solve them or feed the cases into the established Project GRM described here where applicable.

The PCIU and UNOPS conducts public awareness campaigns to inform all communities and staff on the mechanism. A one-pager provides summary details on the GM, while a poster and leaflet are prepared for the project site. Various mediums are used to sensitize the communities on the project GRM including social media and FM radio to reach out to communities at the Project locations, including call-ins with panels including community and government representatives. The GRM details will are also published on the MoH website as well as project sites, indicating a phone number, email address and physical address for further information (see below). The GRM is represented in simple visual formats as well as in Somali dialects, as needed.

The GRM includes an appeals process if the complainant is not satisfied with the proposed resolution of the complaint. Once all possible means to resolve the complaint have been proposed and if the complainant is still not satisfied, then he/she should be advised of his/her right to legal recourse. Anonymous grievances can be raised and addressed.

Uptake channels include:

- Toll-free telephone hotline/Short Message Service (SMS) line;
- E-mail;
- Letter to Grievance Focal Points at local health facilities and vaccination sites;
- Complaint form to be lodged via any of the above channels; and
- Walk-ins may register a complaint on a grievance logbook at healthcare facility or suggestion box at clinic/hospitals.

To avoid the risk of stigmatization, exacerbation of the mental/psychological harm and potential reprisal, the GRM has different channels and protocols to enable a confidential and sensitive approach to GBV/SEAH related cases that ensures the safety of survivors and enables survivor-centred care. Women, girls and other at-risk groups often have less access to information and available services. They are also more likely to receive inaccurate information due to existing unequal power structures and/or create opportunities for exploitation. Specifically, targeted information campaigns, radio and other means of communication modalities will be used. The information shared includes messages on GBV/SEAH risks related to the Project and potential response services.

The Project will identify clear channels for reporting as well develop tools to track complaints related to GBV/SEAH. Where such a case is reported to the GRM, actions taken will ensure confidentiality, safety and survivor-centred care for survivors. Any survivors reporting through the GRM are offered immediate referral to the appropriate service providers based on their preference and with informed consent, such as medical, psychological and legal support, emergency accommodation, and any other necessary services. Project workers will also have the right to lodge complaints related to GBV/SEAH through the GM operator, with any supervisor at any level, with the IP in the case of a subcontractor, or directly with the PCIU (GBV Specialist). All personnel shall be trained appropriately in receiving such cases and in providing appropriate referrals. Only the nature of the complaint (what the complainant says in her/his own words), whether the complainant believes the perpetrator was associated with Project and additional demographic data, such as age and gender, will be collected and reported, with informed consent from the survivor. If the survivor does not wish to file a formal complaint, referral to available services will still be offered. The preference of the survivor will be recorded, and the case will be considered closed. Recorded GBV/SEAH cases should be reported to the World Bank project team within 24 hours.

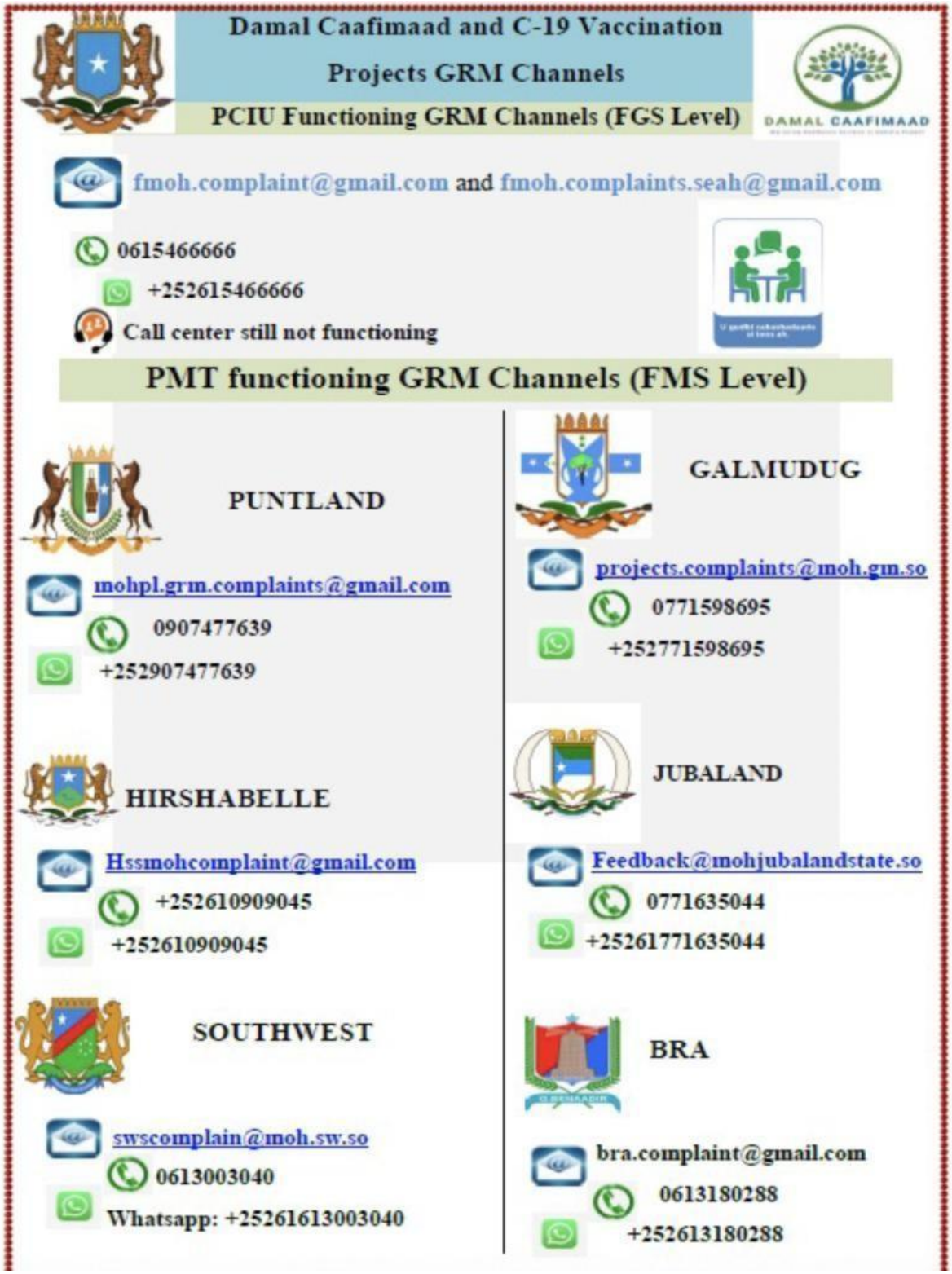


Figure 20 GRM Contacts

10. IMPLEMENTING BUDGET

Table 6 Implementing Budget

	Required Resources	Costs
UNOPS – Monitoring of ESMP		
1.	Human Resources: 1 E&/EHS Specialist (50 percent of time)	UNOPS staff costs
2.	1 Security Specialist (20 percent of time)	UNOPS staff costs
3.	Logistics / Travel	UNOPS travel budget
4.	Training for contractor	500 USD
5.	Community engagement	2,000 USD
Implementation of Risk Mitigation Measures Contractor		
6.	Human Resources 1 EHS Specialist x 4 months	Bidder to assess and estimate
7.	Cost of PPE	Bidder to assess and estimate
8.	Cost of OHS and other mitigation measures and Training	Bidder to assess and estimate
9.	Construction Waste Disposal	Bidder to assess and estimate
10.	Safety Signages	Bidder to assess and estimate
11.	Latrines	Bidder to assess and estimate
12.	Security risk mitigation	Bidder to assess and estimate
13	Community Engagement	Bidder to assess and estimate

Annex 1: Stakeholder Consultations

Figure 21 Stakeholder Engagement Meeting, July 2024

Below are the meeting minutes of the stakeholder meeting in July 2024:

UNOPS

THE WORLD BANK

MEETING MINUTES, 14 July 2024

Project Title	Building Emergency Capacity of Six Hospitals in Somalia	**Meeting Number**	
Meeting Purpose	Design team to meet the stakeholders and to agree on the requirements for Baidoa Hospital		
Meeting Location	Baidoa, UN Compound	**Meeting Date & Time**	14 July 2024 13hr00 – 14hr30
Present	1. Abdi Ali Dogey - Director General - Ministry of Health - South West State (MoHSWS) 2. Adam Abdirahman Ahmed - Policy and Planning Director- MoHSWS 3. Abdirashid Abdulkadir Bujeeti - Public Health Director - MoHSWS 4. Abdifitah Ibrahim Hashi - Bay-Baidoa Referral Hospital- General Director 5. Abdullahi Yusuf Bashir - Bay-Baidoa Referral Hospital Medical Director 6. Solomon Gebremedhin-UNOPS PM 7. Maina David - Quantity Surveyor - UNOPS 8. Mwaura Niogu - Electrical Engineer - UNOPS 9. Phostien Wekesa - Civil Structural Engineer - UNOPS 10. Sarah Kimpaye - Mechanical Engineer - UNOPS 11. Belinda Otieno - Architect - UNOPS		
Distribution	All participants		
Minutes prepared by **Minutes verified by**	Solomon Gebremedhin Solomon Gebremedhin	**Distribution Date**	14 July 2024

1.	**Introductions, Opening remarks and Meeting Overview** The meeting was chaired by Solomon Gebremedhin who commenced by appreciating all in attendance for making time to attend the meeting to resolve the outstanding issues. The chairman warmly welcomed all and expressed his gratitude to the South West Ministry of Health, all the hospital community members and the Hospital Director for their flexibility on the schedule of the meeting which was originally 13 July but had to change to Sunday, 14 July 2024 due to the need of the design team to revisit the site on Saturday. UNOPS PM requested the representatives from the Southwest Ministry of Health and the Baidoa Hospital to actively participate in the discussions so that the detailed design proceeds as per the requirements agreed.	All
2.	**Presentation of the concept (proposal) design** Solomon Gebremedhin provided an overview of the project and detailed the project's scope and the status of the project. He also introduced the design team to the meeting and detailed discussion on the requirements of the hospital, the priorities of the hospital, the location of the site for the priorities, preparatory works that can be done in parallel while the design proceeds were discussed. Following the background briefing of the hospital, Belinda Otieno took the floor to explain the proposed designs for the new sections of the hospital. She provided a detailed walkthrough of the proposed rehabilitation and reconstruction and the proposed phases and the zoning of the existing hospital and future expansions. This includes implementations under phase 1 comprising new Accident and emergency unit, Operation theatre, Intensive Care Unit, renovation of OPD, x-ray room and pharmacy, external works and relocation of external services, and demolition of existing buildings to construct new ones. Arc. Belinda explained that a thorough assessment of the existing hospital structures had been conducted. The findings revealed that several buildings are temporary structures that require replacement and a number of structures require heavy maintenance. She also pointed out that not all buildings would need demolition. Structures in good condition, such as the maternity IPD, adult emergency, neonatal and post natal, isolation for malnutrition will all be preserved and maintained. Furthermore, the external works will be enhanced including checking the capacity of the newly built drainage to mitigate the drainage problem witnessed in July 2023 and to improve aesthetics and functionality. The new ICU will accommodate up to 10 beds and the existing emergency unit building will be repurposed to accommodate blood bank . During the construction phase, the existing temporary buildings for the pediatric emergency, MSF store, meeting room, and the blood bank will be demolished. This expansion aims to significantly improve the hospital's capacity to manage higher patient volumes from referrals effectively. The UNOPS team has acknowledged the community concerns and requests, committing to incorporate them into the hospital design wherever feasible. They have pledged to make every effort to address these needs, reflecting the community's input in the final implementations.	

3.	Following the presentation by Arch. Belinda, the stakeholders requested for reflections and following intense discussion proposed useful recommendations on the priorities. ▪ **Discussions, questions, and feedback** **Summary of key questions and concerns from the community:** 1. Location of new building and demolition of existing buildings: UNOPS to liaise with the hospital and the hospital to undertake preparations to address the concerns related to the demolition of old structures and its impact on hospital operations. The new site was agreed to be next to Surgical ward, the pharmacy and Store, ICU and regained Lab and demolishing the temporary emergency pediatric unit, the MSF stores, and the buildings in that area. 2. ICU department- 10 bed capacity. 3. Patient Privacy Measures-Discussed measures to ensure patient privacy, particularly in bed arrangements and ward designs. 4. It was agreed that the proposed emergency unit shall include: • Accident and Emergency unit - 481m²: ▪ Ambulance drop off ▪ Entrance lobby & waiting ▪ Reception & incident reporting ▪ Triage ▪ Cleaning & Sluice ▪ Assessment & Treatment bays for Male, Female and Pediatrics(2 beds each) ▪ Observation for Male, Female and Pediatrics (3 beds each) ▪ Plaster room ▪ Utilities room ▪ Emergency Department Chair Office ▪ Laboratory(blood/chemical lab) - renovation of the current X-ray. ▪ Equipment & supplies store ▪ Accessible toilets ▪ Shared public toilets ▪ Blood bank(renovation of current ED) ○ Operation theater - 317m² ▪ Entrance & reception/records ▪ Preparation & anesthesia(3 beds) ▪ Operation area(1) ▪ Recovery/transfer(4 beds) ▪ Staff changing room ▪ Scrubbing gowning & gloving ▪ Equipment Prep room ▪ Sluice, dirty utility & disposal hold ▪ Sterilization ▪ Storage(equipment & materials) ▪ Office & rest area(procedure discussion room) ▪ Janitors	

- ICU - OT (10 BED) - 340m²
  - Entrance lobby & reception
  - Nursing station, resuscitation & imaging
  - Bedspace(10)
  - Staff changing room
  - Sluice, dirty utility & disposal hold
  - Sterilization
  - Storage
  - Janitors
  - Accessible toilets(2)
- Laboratory - 120m²
  - Reception & waiting
  - Office
  - Toilets
  - Phlebotomy
  - Specimen processing
  - Chemical and biological lab
  - Sterilisation & wash-up
  - Cold room
  - Dirty utility & disposal hold
  - Supplies & equipment
- X-ray -70m²
  - Entrance, waiting & records
  - Preparation
  - Dark room
  - X-ray room
  - Operator changing & office
- Pharmacy -40m²
  - Medical store
  - Preparation area
  - Dispensing

- MEP Services Rooms (Electrical room + Mechanical & Pumps + Fire Fighting Water tank)
- Parking lots
- Access road

5. Standardisation Across New Sections- Ensure that all new sections of the hospital meet standardisation criteria for healthcare facilities.
6. The site planning exercise took consideration of the existing buildings and infrastructure.
7. Proposal on functional zoning for future expansion.
8. The planning also considered location of services such: Waste management, water and electrical reticulation.
9. Building setbacks provided as per the best international practices but taking into consideration the local practise.

10. Separate access provided to the accident and emergency and the ICU, laboratory and X-ray rooms are accessible from within the Baidoa hospital compound, however, the operation of the accesses will depend on the hospital security
11. The following were agreed in relation to demolition/ rehabilitation of existing structures :

    a) Relocation of blood bank to OPD
    b) Relocation of laboratory to X-ray
    c) Relocation of pediatric emergency to Pharmacy
    d) Relocation of laundry area
    e) MSF office relocation to the new warehouse area
    g) Cold chain relocation/reconstruction depending on availability of budget
    h) Oxygen plant renovation
12. Separation of male and female functions in spaces such as triage & washrooms.
13. Functional reorganisation of spaces according to NHS/International Health Facilities Guidelines
14. Flood control measures. UNOPS to confirm if the newly constructed drainage channel is sufficient through the analysis of existing Meteorological data. MoHSWS and the hospital to provide rainfall data (from the Baidoa airport meteorological station)
15. The hospital and MoH SWS mentioned that there is equipment support being provided in five areas (Emergency, X-ray, ICU, Blood bank, and laboratory). The Hospital will share the list of equipment and specifications and the COVID-19 project will allocate the budget for these equipment shall be allocated for other necessities identified by the project, such as expanding the OT .
16. The Hospital and MoH SWS will provide information on the solar power project including specifications on the solar panels so that the design team utilizes the information in the design.
17. Considerations of flat roof and thicker walls for thermal comfort, cross ventilation to improve thermal comfort, incorporation of sun shading and courtyard space to improve thermal comfort, Terrazzo floor finish for sterility and ease of maintenance.
18. Considerations of aluminum windows & external doors - the environment is highly corrosive to steel.

- **AOB**

Finally, the UNOPS PM and the Hospital Director made a final remark and concluded the discussions and officially closed the meeting.

Action Points:

#	Action point	Responsible Person	Deadline
1	The minutes of meeting will be shared for comments	UNOPS	Within a week
2	Present the concept layout	UNOPS	completed

3	Finalize the Master Plan for the hospital	UNOPS	Within a month
4	Baidoa Hospital to confirm the final requirements of the hospital	Baidoa Hospital +MoHSWS	Within two weeks
5	The MoHSWS and the Baidoa Hospital to provide the details of the solar power equipment procured by agencies supporting the Hospital	Baidoa Hospital +MoHSWS	Within one month
6	The MoHSWS and the Baidoa Hospital to provide the details of the equipment (including the specifications) being procured by agencies supporting the Hospital	Baidoa Hospital +MoHSWS	Within two weeks
7	Tender document for demolition of existing dilapidated structures where the new facilities will be constructed	UNOPS	Within a month

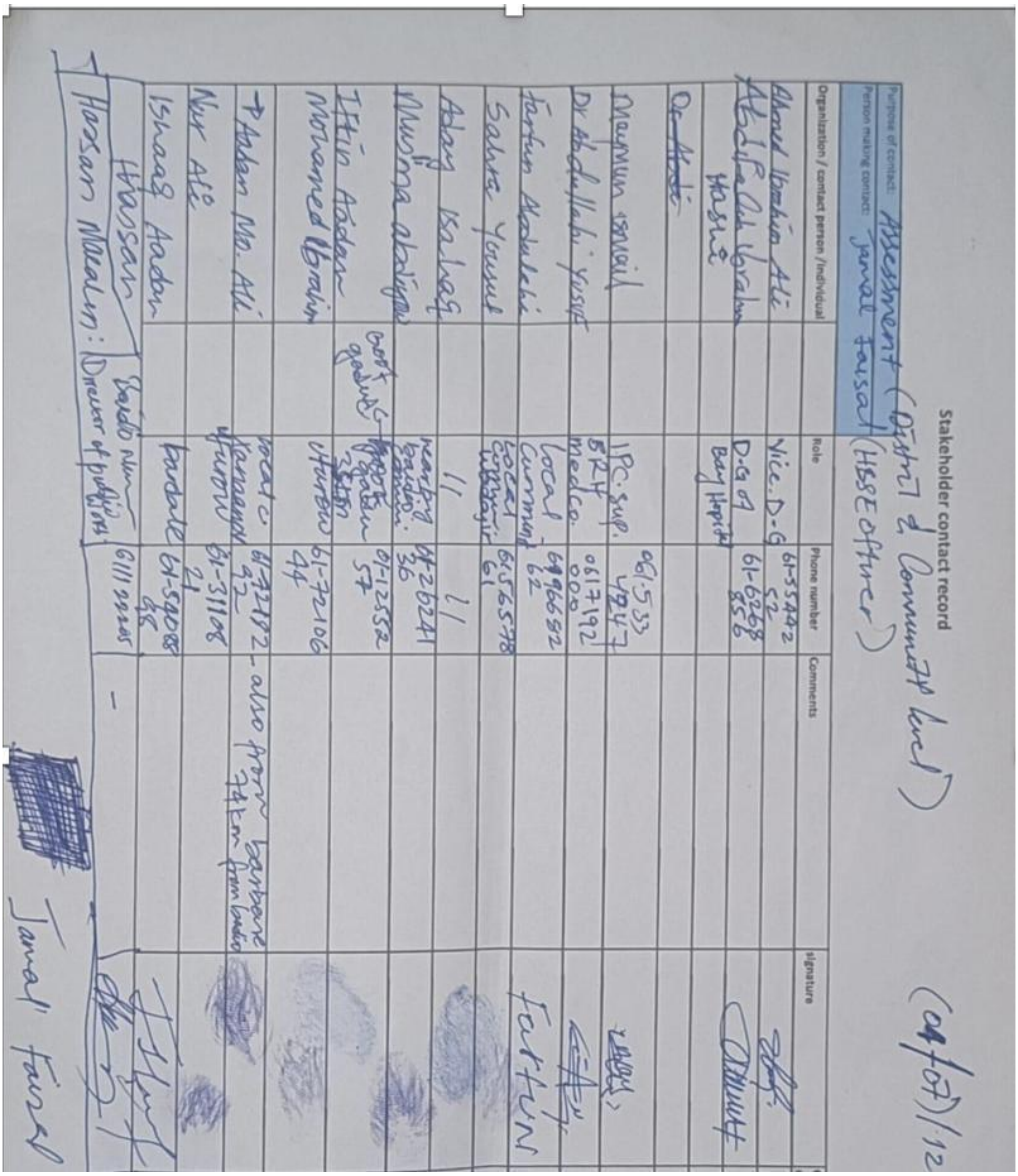
The Meeting concluded at 2:30 p.m.

Meeting and site Visit Photos

Name:	Title	Signature:
1. Abdi Ali Dogey	Director General - Ministry of Health - South West State (MoHSWS)	
2. Adam Abdirahman Ahmed -	Policy and Planning Director- MoHSWS	
3. Abdirashid Abdulkadir Buleeti	Public Health Director - MoHSWS	
4. Abdifitah Ibrahim Hashi -	Bay-Baidoa Referral Hospital- General Director	
5. Abdullahi Yusuf Bashir	Bay-Baidoa Referral Hospital Medical Director	
6. Solomon Gebremedhin	UNOPS PM	
7. Maina David	Quantity Surveyor - UNOPS	
8. Mwaura Ngugu	Electrical Engineer - UNOPS	
9. Phostien Wekesa	Civil Structural Engineer - UNOPS	
10. Sarah Kimpave	Mechanical Engineer - UNOPS	
11. Belinda Tuiu Otieno	Architect - UNOPS	

Figure 22 Meeting Minutes, Stakeholder Meeting, July 2024

The below participants list is from the district and community level meetings in December 2023.



Stakeholder contact record (04/07)/12

Purpose of contact: Assessment (District & Community level)

Person making contact: Jamal Faisal (HSSE officer)

Organization / contact person /individual		Role	Phone number	Comments	signature
Ahmed Ibrahim Ali		Vice. D-G	61-55442 52		[signature]
Abdifatah Ibrahim Hashi		D-G of Bay Hospital	61-6268 856		[signature]
~~Dr Abdi~~					
Maymun Ismail		IPC. sup.	061-533 4247		[signature]
Dr Abdullahi Yusuf		BRH medco.	0617192 000		[signature]
Fartun Abdulahi		local Community	6996682 62		Fartun
Sahra Yusuf		Local Commu. Wadajir	6156578 61		[thumbprint]
Adan Ishaq		//	//		[thumbprint]
Muslima abdiyow		nearby baidoa commu.	61-26241 36		[thumbprint]
Iftin Aadan	Govt gadud	Govt gadud 3 km	61-12552 57		[thumbprint]
Mohamed Ibrahim		Ufurow	61-72106 44		[thumbprint]
→ Aadan Mo. Ali		local Xanaanay	61-72182 92	also from barbare 74km from baidoa	[thumbprint]
Nur Ali		Ufurow	61-31108 21		[thumbprint]
Ishaaq Aadan		bardale	61-54088 98		[signature]
Hassan Hassan Macalin:	Baido Mun Director of public works		6111 22205	—	[signature]

[redacted] Jamal Faisal

Figure 23 Participants list from stakeholder meetings in December 2023

Annex 2: Environmental and Social Monitoring Template

This annex present a template that should be used for the E&S monitoring process by the UNOPS E&S team. This template will be based on the EMSP Table above (Table 4), it will list all the above-mentioned risks and impacts, mitigation measures, indicators, responsibilities, monitoring frequency as per the table above. Prior to the commencement of the works, targets will be added to the indicators, after consultation with the contractors. The findings and observation column will be filled upon reviews, supervision and inspection as well as based on reporting by the contractors. The corrective action column will be filled in when non- compliances have been discovered, and corrective actions have been agreed on jointly with the contractor.

Table 7 Environment and Social monitoring Template

Risks and Impacts	*Mitigation Measures*	*Indicators*	*Responsibility*	*Monitoring Frequency*	*Findings/Observations*	*Corrective Action*

Annex 3: Code of Conduct for Workers

I, _____acknowledge that adhering to environmental, social, health and safety (ESHS) standards, following the project's occupational health and safety (OHS) requirements, and preventing gender- based violence (GBV) and violence against children (VAC) is important. All forms of GBV or VAC are unacceptable in the workplace or when interacting with communities. The organization considers that failure to follow ESHS and OHS standards or to partake in GBV or VAC activities, constitute acts of gross misconduct and are therefore grounds for sanctions, penalties or potential termination of employment. Prosecution of those who commit GBV, or VAC may be pursued if appropriate.

I agree that while working on the project I will:

- Attend and actively partake in training courses related to ESHS, OHS, HIV/AIDS, GBV and VAC as requested by my employer.
- Follow my employers' guidance on prevention of the spread of infectious diseases, including Covid 19;
- Follow my employers' guidance on security and safety, including not causing conflict or exposing myself, other colleagues, stakeholders including community members, project facilities or assets to risks;
- Treat women, children (persons under the age of 18), and men with respect regardless of race, color, language, religion, political or other opinion, national, ethnic or social origin, property, disability, birth or other status.
- Not use language or behavior towards women, children or men that is inappropriate, harassing, abusive, sexually provocative, demeaning or culturally inappropriate.
- Not participate in sexual contact or activity with children (anyone age 18 or under) – including grooming or contact through digital media. Mistaken belief regarding the age of a child is not a defense. Consent from the child is also not a defense or excuse.

Not engage in any form of sexual harassment of a co-worker - for instance, making unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct, of a sexual nature, including subtle acts of such behavior. E.g. Looking somebody up and down; kissing, howling or smacking sounds; hanging around somebody; whistling and catcalls; giving personal gifts; making comments about somebody's sex life etc. Sexual harassment constitutes acts of serious misconduct and are therefore grounds for disciplinary measures, including summary dismissal.

- Not engage in any form of sexual exploitation or abuse – for instance, exchanging money, employment, goods or services for sex or sexual favors, or making promises or favorable treatment dependent on sexual acts – or other forms of humiliating, degrading or exploitative behavior. This includes any project-related assistance due to community members. Sexual exploitation and sexual abuse constitute acts of serious misconduct and are therefore grounds for disciplinary measures, including summary dismissal.
- Not engage in sexual misconduct, use the project resources or funds to exploit community members.
- Report any suspected or actual GBV or VAC by a fellow worker, whether employed by my organization or not or any breaches of this Code of Conduct through the reporting

- mechanism.

The standards set out above are not intended to be an exhaustive list. Other types of sexually exploitive or sexually abusive behaviour may be grounds for administrative action. With regard to children under the age of 18:

- Wherever possible, ensure that another adult is present when working in the proximity of children.
- Not invite unaccompanied children unrelated to my family into my home unless they are at immediate risk of injury or in physical danger.
- Use any computers, mobile phones, or video and digital cameras appropriately, and never to exploit or harass children or to access child pornographic material through any medium (see also "Use of children's images for work-related purposes" below).
- Refrain from physical punishment or discipline of children.
- Refrain from hiring children for domestic or other labor, which is inappropriate given their age or developmental stage, which interferes with their time available for education and recreational activities or places them at significant risk of injury.
- Comply with all relevant local legislation, including labor laws in relation to child labor.
- Use of children's images for work-related purposes
- When photographing or filming a child for work-related purposes, I must:
- Before photographing or filming a child, assess and endeavor to comply with local traditions or restrictions for reproducing personal images.
- Before photographing or filming a child, obtain informed consent from the child and a parent or guardian of the child. As part of this I must explain how the photograph or film will be used.
- Ensure photographs, films, videos and DVDs present children in a dignified and respectful manner and not in a vulnerable or submissive manner. Children should be adequately clothed and not in poses that could be seen as sexually suggestive.
- Ensure images are honest representations of the context and the facts.
- Ensure file labels do not reveal identifying information about a child when sending images electronically.
- Sanctions
    - I understand that if I breach this Individual Code of Conduct, my employer will take disciplinary action, which could include:
    - Informal warning.
    - Formal warning.
    - Additional training.
    - Loss of up to one week's salary.
    - Suspension of employment (without payment of salary), for a minimum period of 1 month up to a maximum of 6 months.
    - Termination of employment; and
    - Report to the police if warranted.

I hereby acknowledge that I have read the foregoing Individual Code of Conduct, agree to comply with the standards contained therein and understand my roles and responsibilities to prevent and respond to ESHS, OHS, GBV and VAC issues. I understand that any action inconsistent with this Individual Code of Conduct or failure to take action mandated by this Individual Code of Conduct may result in disciplinary action and may affect my on-going employment.

Signature: _____ Name_____ Title: _____ Date: _

Annex 4: Chance Find Procedures

This procedure was developed in accordance with the World Bank's ESS8 (to protect cultural heritage from the impacts of project activities and support its preservation, to address cultural heritage as an integral aspect of sustainable development, to promote meaningful consultation with stakeholders regarding cultural heritage. To promote the equitable sharing of benefits from the cultural heritage).

This procedure is included as a standard provision in the implementation of Public Works contracts to ensure the protection of cultural heritage (Archaeological and Historical Sites). All implementers / contractors will be required to observe this procedure as documented hereafter.

Excavation in sites of known archaeological interest should be avoided. Where this is unavoidable, prior discussions must be held with the PCIU and the World Bank in order to undertake pre-construction excavation or assign an archaeologist to log discoveries as construction proceeds. Where historical remains, antiquity or any other object of cultural or archaeological importance are unexpectedly discovered during construction in an area not previously known for its archaeological interest, the following procedures should be applied.

- Stop construction activities;
- Delineate the discovered site area;
- Secure the site to prevent any damage or loss of removable objects. In case of removable antiquities or sensitive remains, a full-time guard should be present until the responsible authority takes over;
- Notify the responsible foreman/archaeologist, who in turn should notify the PIU and the World Bank and local authorities (within less than 24 hours);
- The significance and importance of the findings will be assessed according to various criteria relevant to cultural heritage including aesthetic, historic, scientific or research, social and economic values;
- Decision on how to handle the finding will be reached based on the above assessment and could include changes in the project layout (in case of finding an irrevocable remain of cultural or archaeological importance), conservation, preservation, restoration or salvage;
- Implementation of the decision concerning the management of the finding;
- Construction work can resume only when permission is given from the respective authorities, PIU and World Bank after the decision concerning the safeguard of the heritage is fully executed;

In case of delay incurred in direct relation to archaeological findings not stipulated in the contract (and affecting the overall schedule of works), the contractor may apply for an extension of time. However, the contractor will not be entitled for any kind of compensation or claim other than what is directly related to the execution of the archaeological findings works and protections.

Annex 5: E&S Screening

This E&S screening form was completed in view of the sub-project design.

Subproject Name	Bay Baidoa Regional Hospital
Subproject Location	Baidoa
Subproject Proponent	
Estimated Investment	US$1.87 million
Start/Completion Date	Feb 2025 - Oct 2025

Questions	Answer		ESS relevance	Due diligence / Actions
	Yes	no		
Does the subproject involve civil works including new construction, expansion, upgrading or rehabilitation of healthcare facilities, vaccine cold storage units and/or waste management facilities?	yes		ESS1	ESIA/ESMP, SEP
Does the subproject involve land acquisition and/or restrictions on land use?		No	ESS5	RAP/ARAP, SEP
Does the subproject involve acquisition of assets for quarantine, isolation or medical treatment purposes?		No	ESS5	ESIA/ESMP, SEP
Is the subproject associated with any external waste management facilities such as a sanitary landfill, incinerator, or wastewater treatment plant for healthcare waste disposal?		No	ESS3	ESIA/ESMP, SEP Septic tank on Site
Is there a sound regulatory framework and institutional capacity in place for healthcare facility infection control and healthcare waste management?		No	ESS1	ESIA/ESMP, SEP

Does the subproject have an adequate system in place (capacity, processes and management) to address waste?	Yes			
Does the subproject involve recruitment of workers including direct, contracted, primary supply, and/or community workers?	Yes		ESS2	LMP, SEP
Does the subproject have appropriate OHS procedures in place, and an adequate supply of PPE (where necessary)?	Yes			SEP
Does the subproject have a GRM in place, to which all workers have access, designed to respond quickly and effectively?		No		GRM, ESMP, SEP
Does the subproject involve transboundary transportation (including Potentially infected specimens may be transported from healthcare facilities to testing laboratories, and transboundary) of specimen, samples, infectious and hazardous materials?		No	ESS3	ESIA/ESMP, SEP
Does the subproject involve use of security or military personnel during construction and/or operation of healthcare facilities and related activities?	Yes		ESS4	ESIA/ESMP, SEP, SMP
Is the subproject located within or in the vicinity of any ecologically sensitive areas?		No	ESS6	ESIA/ESMP, SEP
Are there any indigenous groups (meeting specified ESS7 criteria) present in the subproject area and are they likely to be affected by the proposed subproject negatively or positively?		No	ESS7	Indigenous Peoples Plan/other plan reflecting agreed terminology
Is the subproject located within or in the vicinity of any known cultural heritage sites?	Yes		ESS8	ESIA/ESMP, SEP
Does the project area present considerable Gender-Based Violence (GBV) and Sexual Exploitation and Abuse (SEA) risk?	Yes		ESS1	ESIA/ESMP, SEP

Does the subproject carry risk that disadvantaged and vulnerable groups may have unequitable access to project benefits?	Yes		ESS1	ESIA/ESMP, SEP Low risk

Is there any territorial dispute between two or more countries in the subproject and its ancillary aspects and related activities?		No	*OP7.60 Projects in Disputed Areas*	Governments concerned agree
Will the subproject and related activities involve the use or potential pollution of, or be located in international waterways[38]?		No	*OP7.50 Projects on International Waterways*	Notification (or exceptions)

Conclusions:

1. Proposed Environmental and Social Risk Ratings (High, Substantial, Moderate or Low). **- ESMP will be required.**
2. Proposed E&S Management Plans/ Instruments**. - ESMP will be required.**

Annex 6: Emergency Preparedness and Response Plan

During construction, and as the hospital enters its operational phase, an "***Emergency Preparedness and Response Plan"*** (EPRP) is essential to ensure safety, efficiency, and resilience in handling emergencies. This plan focuses on preparedness, response, and recovery measures for Baidoa Hospital's specific context, in alignment with international best practices, ensuring that the hospital is resilient and well-prepared for emergencies, enhancing patient and staff safety while ensuring continuity of healthcare services.

Emergency Risk Assessment

This risk assessment identifies potential hazards based on Baidoa hospital's location, infrastructure, and operational environment.

Overview of Risks, Impact Levels and Mitigation Measures

Risk Category	Potential Hazards	Impact Level	Mitigation Measures
2.1 Natural Disasters	Earthquakes, floods, droughts	High	Seismic reinforcement, flood barriers, emergency water supply
2.2 Fire Hazards	Electrical faults, flammable materials	High	Fire alarms, extinguishers, evacuation routes
2.3 Health Emergencies	Disease outbreaks (cholera, COVID-19, malaria)	High	Infection control, isolation units, vaccination programs
2.4 Security Threats	Armed conflict, terrorism, theft	High	Perimeter security, emergency lockdown procedures
2.5 Technological Failures	Power outages, IT system failure	Medium	Backup generators, redundant IT systems

Emergency Preparedness Measures

Preparedness ensures that Baidoa hospital is equipped to handle emergencies effectively

Overview of Emergency Preparedness Measures for Baidoa Hospital

Preparedness Component	Measures Implemented
3.1 Emergency Response Team (ERT)	Establishes a trained multidisciplinary team for rapid response
3.2 Training & Drills	Conducts regular fire drills, CPR training, and active shooter drills
3.3 Early Warning Systems	Installs alarms for fire, biohazards, and security threats
3.4 Medical Supplies	Maintains emergency stockpiles (medications, PPE, oxygen)

3.5 Evacuation Planning	Develops and posts clear evacuation routes
3.6 Emergency Communication	Implements radio and satellite phone backup communication
3.7 Community Engagement	Engages with local authorities for coordinated response

Emergency Response Protocols

This section outlines actions during emergencies based on the type of incident.

Overview of Emergency Response Protocols for Baidoa Hospital

Emergency Type	Response Steps	Details
4.1 Fire Response	4.1.1 **Alert**	Activate fire alarm and notify the Fire Department.
	4.1.2 **Evacuate**	Follow designated exit routes and use stairwells.
	4.1.3 **Contain**	If safe, use fire extinguishers to control small, manageable fires.
	4.1.4 **Assist**	Help vulnerable patients evacuate safely.
	4.1.5 **Assess & Report**	Document incident(s) and review fire safety measures.
4.2 Disease Outbreak Response	4.2.1 **Detection**	Isolate symptomatic patients and notify public health authorities.
	4.2.2 **Containment**	Implement infection control protocols (PPE, sanitation, restricted access).
	4.2.3 **Treatment**	Provide medical care based on protocols (antivirals, antibiotics, IV fluids).
	4.2.4 **Communication**	Issue public health advisories and coordinate with the Ministry of Health.
	4.2.5 **Recovery**	Conduct decontamination and review hospital's policies.
4.3 Security Threat Response	4.3.1 **Lockdown**	Secure all hospital entrances and limit movement.
	4.3.2 **Alert Authorities**	Notify police/ military for assistance.
	4.3.3 **Patient & Staff Safety**	Move non-essential personnel to safe areas.
	4.3.4 **Incident Management**	Coordinate security response and debrief staff.
	4.3.5 **Post-Incident Review**	Assess security vulnerabilities and improve protocols.

Recovery and Business Continuity

Post-emergency recovery ensures a smooth return to normal hospital operations.

Overview of Post-emergency Recovery Actions for Baidoa Hospital

Recovery Phase	Actions

5.1 Damage Assessment	Identify affected hospital areas and necessary repairs
5.2 Patient Care Continuity	Arrange temporary care facilities if needed
5.3 Staff Support	Provide psychological/ psychosocial first aid for affected personnel
5.4 Infrastructure Restoration	Restore power, water, and medical supplies
5.5 Policy Review	Update emergency protocols based on lessons learned

Summarised Schedule of Coordination with External Agencies

The table below outlines the structured coordination with external emergency response agencies under the Benadir Regional Administration framework, and is intended to ensure efficient emergency response, reduce response time, and enhance Baidoa Hospital's preparedness to handle health crises effectively.

Coordination Schedule for Baidoa Hospital with External Agencies

Agency	Role	Coordination Frequency	Formal Agreement
Regional Health Office	Supervision and outbreak response coordination.	Quarterly & during emergencies	MoU with Ministry of Health
Fire and Rescue Department	Fire safety, emergency evacuation, and fire drills.	Bi-annual training & drills	Emergency Response Protocol
Ambulance Service	Patient transfer and emergency medical support.	As needed & annual review	Service Agreement
Police Force	Security support during emergency responses and hospital safety.	Monthly review meetings	Security Collaboration Agreement
WHO & UN Agencies	Technical support for infection prevention and control.	Annual assessment & emergency responses	UN Coordination Framework
Environmental Health Department	Waste management and environmental health inspections.	Quarterly audits	Compliance MoU

Key Actions:

Annual review of agreements with external agencies to ensure effectiveness.
Joint simulation exercises with emergency responders every six months.
Centralized emergency response hotline to facilitate rapid response.

Emergency Evacuation Plan (EEP) for Baidoa Hospital

Introduction

The Emergency Evacuation Plan (EEP) for the Hospital ensures the safe, rapid, and coordinated evacuation of all individuals in the event of a fire, security threat, natural disaster, or other emergency. This plan aligns with regional risks specific to the Region, including security challenges and limited emergency response capacity.

Objectives

Objectives of the Emergency Evacuation Plan (EEP) for the Hospital

Objective	Description
Safe Evacuation	Ensure all patients, staff, and visitors evacuate quickly and safely.
Minimize Panic	Implement structured procedures to avoid confusion during emergencies.
Assist Vulnerable Groups	Provide priority evacuation for ICU, maternity, and disabled patients.
Coordination with Emergency Services	Ensure seamless interaction with fire, ambulance, and police services.
Regular Drills	Conduct scheduled drills to maintain high preparedness levels.

Evacuation Procedures

Overview of the 4-Step Evacuation Procedure for the Hospital

Step	Action
Step 1: Alert & Notification	Activate alarms and notify emergency services.
Step 2: Staff Response & Coordination	Assign personnel to assist with patient movement.
Step 3: Evacuation & Assembly	Guide evacuees to designated **safe zones** outside the hospital.
Step 4: Headcount & Reporting	Conduct roll calls and report missing individuals.

Evacuation Routes & Exits

Overview of the Proposed Evacuation Routes & Exits for the Hospital

Element	Specification
Exit Signage	Clearly marked, illuminated, and unobstructed.
Stairwell Access	NO elevator use during fire/ power failures. Wide staircases prioritized.
Assembly Points	Pre-designated areas away from the hospital for regrouping.

Evacuation for Special Needs Patients

Overview of the Proposed Evacuation Protocols for Special Needs Patients

Category	Evacuation Plan
Non-Ambulatory (ICU, Disabled)	Use **stretchers and wheelchairs**, assigned evacuation teams.
Critical Care Patients	Immediate transfer with **life support assistance**.
Maternity & Pediatric Patients	Nurses assist **mothers with newborns** for safe relocation.
Visitors & General Staff	Directed to the **nearest exits** by security personnel.

Coordination with External Agencies

Overview of Evacuation Coordination Measures with External Agencies

Agency	Role in Evacuation	Coordination Frequency
Mogadishu Fire & Rescue Service	Fire suppression, rescue operations, hazard control.	Bi-annual training & drills.
Benadir Ambulance Service	Emergency transport for critical patients.	On-demand response.
Mogadishu Police	Security management, crowd control, protection.	Quarterly security drills.
Benadir Regional Health Office	Medical support coordination, outbreak control.	Annual review.

Emergency Drills & Training

Overview of Emergency Drills & Trainings

Activity	Frequency	Responsible Team
Full Evacuation Drill	Twice a year	Emergency Response Team (ERT)
Fire Safety Training	Quarterly	Fire & Rescue Service
Security Threat Response Drill	Every 6 months	Mogadishu Police
Evacuation Route Updates	Annually	Hospital Safety Committee

Emergency Equipment & Communication

Overview of Emergency Equipment and Communication Infrastructure for the Hospital

Equipment	Location	Maintenance Frequency
Fire Extinguishers	Every hospital wing	Monthly inspections
Emergency Lighting	Stairwells, corridors	Quarterly maintenance
First Aid Kits	Nurses' stations, exits	Bi-monthly replenishment
Emergency Call System	All hospital wards	Monthly system test
Evacuation Maps	Posted in hallways	Reviewed annually

Post-Evacuation Procedures

Overview of Post-Evacuation Procedures for the Hospital

Action	Responsibility
Headcount & Accountability	Supervisors confirm all evacuees are accounted for.
Medical Assessments	Emergency medical teams treat injuries.
Incident Report & Review	Management documents events for process improvement.
Debriefing Sessions	Staff feedback gathered to enhance future responses.

Fire Safety Equipment Inspection and Maintenance Schedule

This section outlines minimum requirements for fire extinguishers, fire alarm systems, and associated safety devices. All inspections must be documented in the Fire Safety Logbook and reported to the Safety and Security Officer.

1. Fire Extinguishers

1.1 Monthly Visual Inspection

- Verify extinguishers are present, mounted properly, and unobstructed.
- Check pressure gauge is in the operable range.
- Ensure safety pin and tamper seal are intact.
- Confirm no visible damage, corrosion, leakage, or blocked nozzle.
- Record inspection date, initials, and any noted deficiencies.

1.2 Annual Maintenance (by certified technician)

- Conduct full mechanical inspection and internal condition assessment.
- Weigh extinguishers (if applicable) to verify correct charge.
- Replace tamper seals and clean equipment.
- Repaint or replace damaged labels and operating instructions.
- Perform hydrostatic testing according to manufacturer's schedule (typically every 5 years).

2. Fire Alarm and Detection Systems

2.1 Weekly/Monthly Checks

- Confirm control panel shows normal operation (no trouble signals).
- Test manual call points/alarms on a rotating schedule to avoid disruption.
- Inspect smoke/heat detector locations for dust, obstruction, or damage.

2.2 Quarterly Testing

- Test a representative sample of smoke detectors, heat detectors, and notification devices (sirens, strobes).
- Verify battery backup functionality.

2.3 Annual System Test (by qualified technician)

- Full functional test of all detectors, alarm circuits, annunciator panels, and communication links.
- Clean smoke detectors following manufacturer instructions.
- Document all faults and corrective actions.

3. Emergency Lighting and Exit Signs

Monthly Inspection

- Check lights and signs for proper illumination.
- Ensure batteries or backup power systems are operational.

Annual Test

- Conduct a full 90-minute discharge test of emergency lighting systems.

4. Fire Hose Reels, Hydrants, and Sprinkler Systems (if present)

Monthly

- Confirm equipment is accessible and free of obstruction.
- Check hoses, nozzles, valves, and fittings for visible wear.

Annual (or per manufacturer standard)

- Pressure-test hose reels and hydrants.
- Inspect pumps, tanks, and sprinkler valves.
- Conduct flow tests and verify adequate water pressure.

5. Documentation and Reporting

- All inspections should be recorded using standardized forms.
- Any deficiencies must be reported immediately to the Safety Officer and corrected within agreed timelines.
- Maintain maintenance records for a minimum of 5 years or as required by hospital policy.

Annex 7: Occupational Health and Safety Plan

The purpose of this OHS Plan is to provide guidance for the systematic identification, evaluation, prevention and control of general workplace hazards, specific job hazards, potential hazards and environmental impacts that may arise during the implementation of the hospital rehabilitation. The measures are based on the IFC's Environmental, Health and Safety Guidelines (EHSG).

This plan shall be followed by all workers of the sub-project.

Types of Incidents & Their Reporting: The three categories of Incident are as follows:

Non-Reportable Cases: An incident where the injured person is given medical help and discharged for work without counting any lost time.

Reportable Cases: In this case the injured person is disabled for 48 hours or more and is not able to perform his duty.

Injury Cases: These are covered under the heading of non-reportable cases. In these cases, the incident caused injury to the person, but he/she still continues his duty.

HSE ORGANIZATION

Number of Safety Officers: The contractor must deploy one safety officer. In addition, there must be one safety-steward/safety-supervisor for every 100 workers.

Responsibilities

Site In -Charge of Contractor

- Shall engage qualified safety officer(s) and steward (s) as per clause;
- Shall adhere to the rules and regulations mentioned in this code, practice very strictly in his area of work in consultation with his concerned engineer and the safety coordinator;
- Shall screen all workers for health and competence requirement before engaging for the job and periodically thereafter as required;
- Shall not engage any employee below 18 years of age;
- Shall arrange for all necessary PPEs like safety helmets, belts, full body harness, shoes, face shield, hand gloves etc. before starting the job;
- Shall ensure that no person lifts, carries or move any load which, by reason of its weight, is likely to injure his health or jeopardize his safety;
- Shall ensure that all Tools & Plants (T&Ps) engaged are tested for fitness and have valid certificates from competent person;
- Shall ensure that provisions for the welfare of the employees such as canteen, rest rooms/washing facilities are provided for at the site;
- Shall adhere to the instructions laid down in Operation Control Procedures (OCPs) available with the site management;
- Shall ensure that person working above 2.0 meter should use Safety Harness tied to a lifeline/stable structure;

- Shall ensure that materials are not thrown from height. Cautions to be exercised to prevent fall of material from height;
- Shall report all incidents (Fatal/Major/Minor/Near Miss) to the Site engineer /HSE officer;
- Night work is forbidden;
- Shall ensure that all personnel working under contractor are working safely and do not create any Hazard to self and to others;
- Shall ensure display of adequate signage/posters on OHS;
- Shall ensure conductance of OHS audit, mock drills, medical camps, induction training and training on OHS at site;
- Shall ensure full co-operation during OHS audits;
- Shall ensure submission of look-ahead plan for procurement of HSE equipment's and PPEs as per work schedule;
- Shall ensure good housekeeping;
- Shall ensure adequate valid fire extinguishers are provided at the worksite;
- Shall ensure availability of sufficient number of toilets /restrooms and adequate drinking water at work site and labor colony;
- Shall ensure adequate emergency preparedness;
- Shall be member of site OHS committee and attend all meetings of the committee;
- Temporary fencing should be done for open edges if Hand – railings and Toe-guards are not available.

Health, Safety and Environment Officer of Contractor

- Carry out safety inspection of Work Area, Work Method, workers, Machine & Material, processes and materials and other tools;
- Facilitate inclusion of safety elements into Work Method Statement;
- Highlight the requirements of safety through toolbox talks/ other meetings;
- Help concerned heads of sections to prepare Job Specific instructions for critical jobs;
- Conduct investigation of all incident/dangerous occurrences & recommend appropriate safety measures;
- Advice & co-ordinate for implementation of HSE permit systems;
- Convene HSE meeting & minute the proceeding for circulation & follow-up action;
- Plan procurement of PPE & Safety devices and inspect their healthiness;
- Report to OHS specialist on all matters pertaining to status of safety and promotional program at site level;

- Facilitate administration of First Aid;
- Facilitate screening of workmen and safety induction;
- Conduct fire Drill and facilitate emergency preparedness;
- Design campaigns, competitions & other special emphasis programs to promote safety in the workplace;
- Notify site personnel non-conformance to safety norms observed during site visits / site inspections;
- Recommend to Site In-Charge, immediate discontinuance of work until rectification of such situations warranting immediate action in view of imminent danger to life or property or environment;
- To decline acceptance of such PPE / safety equipment that do not conform to specified requirements;
- Encourage raising Near Miss Report on safety along with, improvement initiatives on safety.

Mobilization of Machinery/Equipment/Tools by Contractor: As a measure to ensure that

machinery, equipment and tools being mobilized to supplier or consultant are fit for purpose and are maintained in safe operating condition and complies with legislative and owner requirement, inspection shall be arranged by in-house competent authority for acceptance as applicable.

Mobilization of Personpower by Contractor

- The Contractor shall arrange induction and regular health check of their employees as per requirement in the Labor Code.
- The Contractor shall take special care of the employees affected with occupational diseases. The employees not meeting the fitness requirement should not be engaged for such a job.
- Ensure that the regulatory requirements of excessive weight limit (to carry/lift/ move weights beyond prescribed limits) for male and female workers are complied with.
- Appropriate accommodation to be arranged for all workers in hygienic condition.

Provision of PPEs: PPEs, in adequate numbers, will be made available at site & their regular use by all concerned will be ensured.

- All the PPEs shall be checked for their quality before issue and the same shall be periodically checked. The users shall be advised to check the PPEs themselves for any defect before putting them on. The defective ones shall be repaired/ replaced.
- The issuing agency shall maintain register for issue and receipt of PPEs.
- The helmets shall have logo or name (abbreviation of agency name permitted) affixed or printed on the front.

Drinking water: Drinking water shall be provided and maintained at suitable places at different elevations. Container should be labeled as “Drinking Water”

Washing Facilities: In every workplace, adequate and suitable facilities for washing shall be provided and maintained. Separate and adequate cleaning facilities shall be provided for the use of male and female workers. Such facilities shall be conveniently accessible and shall be kept in clean and hygienic condition and dully illuminated for night use.

Latrines and Urinals

- Latrines and urinals shall be provided in every workplace.

- They shall be adequately lit and shall be maintained in a clean and sanitary condition at all times, by appointing a designated person.
- Separate facilities shall be provided for the use of male and female worker if any.

Provision of Shelter During Rest: Proper Shed & Shelter shall be provided for rest during break.

Medical Equipment: To be available nearby/at site:

Medical Centre
First Aider
First Aid Box
Health Check Up

HSE Induction Training: All persons entering into the project site shall be given HSE induction training by the HSE officer of Contractor before being assigned to work**.**

In-house induction training subjects shall include but not limited to:

- Briefing of the Project details.

- Safety objectives and targets.
- Site HSE rules.
- Site HSE hazards and aspects.
- First aid facility.
- Emergency Contact No.
- Incident reporting.
- Fire prevention and emergency response.
- Rules to be followed in the camp
- Proper safety wear & gear must be issued to all the workers being registered for the induction (i.e., Shoes/Helmets/Goggles/Leg guard/Apron etc.)
- They must arrive fully dressed in safety wear & gear to attend the induction.
- Anyone failing to conform to this safety wear & gear requirement shall not qualify to attend.
- On completing attending Contractor's in-house HSE induction, each employee shall sign an induction training form to declare that he/she has understood the content and shall abide to follow and comply with safe work practices. They may only then be qualified to be issued with a personal I.D. card, for access to the work site

HSE Toolbox Talk: HSE toolbox talk shall be conducted by frontline foreman/supervisor of Contractor to specific work groups prior to the start of work. The agenda shall consist of the followings:

- Details of the job being intended for immediate execution.
- The relevant hazards and risks involved in executing the job and their control and mitigating measures.
- Specific site conditions to be considered while executing the job like high temperature, humidity, unfavorable weather etc.
- Recent non-compliances observed.
- Appreciation of good work done by any person.
- Any doubt clearing session at the end.
- Tool box talk to be conducted at least once a week for the specific work.

HSE Training During Project Execution

- Other HSE training shall be arranged by Contractor as per the need of the project execution and recommendation of HSE committee of site.
- The topics of the HSE training shall be as follows but not limited to:
    - Hazards identification and risk analysis (HIRA)
    - Work Permit System
    - Incident investigation and reporting
    - Fire fighting
    - First aid
    - Fire-warden training
    - T&Ps fitness and operation
    - Storage, preservation & material handling
    - A matrix shall be maintained to keep an up-to-date record of attendance of training sessions carried out.

HSE Promotion-signage, Posters, Competition, Awards etc

Display of HSE posters and banners: Site shall arrange appropriate posters, banners, slogans in local languages at workplace

Display of HSE signage: Appropriate HSE signage shall be displayed at the work area to aware workmen and passersby about the work going on and dos and don'ts to be followed

Competition on HSE and award: Contractor shall arrange HSE awareness program periodically on different topics including medical awareness for all personnel working at site

Incident Reporting: The Contractor shall submit report of all incidents, fires and property damage etc., not later than 24 hours of the occurrence. The Engineer shall report the same to the OHS Specialist immediately. Such reports shall be furnished in the manner prescribed by the implementer. (Refer to HSE procedure for incident investigation, analysis and reporting for details).

In addition, periodic reports on safety shall also be submitted by the Contractor to the implementer from time to time. Compiled monthly reports of all kinds of incidents, fire and property damage to be submitted to the Specialist as per prescribed formats.

HSE incidents of site shall be reported to the implementer site Management as per Procedure for Incident Investigation and Reporting. Corrective action shall be immediately implemented at the workplace and compliance shall be verified by the implementer's OHS Specialist and until then, work shall be put on hold by the Construction Manager.

Work Permit System: "HSE Procedure for Work Permit System" shall be followed while implementing permit system.

- Permit applicant shall apply for work permit of particular work activity at particular location before starting of the work with Job Hazard Analysis.
- Permit signatory shall check that all the control measures necessary for the activity are in place and issue the permit to the permit holder.
- The permit holder shall implement and maintain all control measures during the period of permit. He will close the permit after completion of the work.
- The closed permit shall be archived in HSE Department of site.

Safety During Work Execution: Respective Operation Control Procedures are to be followed and adhered to and the same would be contractually binding.

Electrical Handling

- Providing an adequate number of 24 V sources and ensuring that no hand lamps are operating at voltage level above 24 Volts.
- Fulfilling safety requirements at all power tapping points.
- High/ Low pressure welders to be identified with separate color clothing. No welders will be deployed without passing appropriate tests and holding valid welding certificates. Approved welding procedure should be displayed at workplace.
- The Contractor shall not use any hand lamp energized by Electric power with supply voltage of more than 24 volts in confined spaces like inside water boxes, turbine casings, condensers etc.
- All portable electric tools used by the Contractor shall have a safe plugging system to source of power and be appropriately earthed. Only electricians licensed by appropriate statutory authority shall be employed by the Contractor to carry out all types of electrical works. Details of earth resources and their test date to be submitted to OHS specialist.
- The Contractor shall use only properly insulated and armored cables which conform to the requirement.
- The implementer reserves the right to replace any unsafe electrical installations, wiring, cabling etc. at the cost of the Contractor.

- All electrical appliances used in the work shall be in good working condition and shall be properly earthed.
- No maintenance work shall be carried out on live equipment.
- The Contractor shall maintain adequate number of qualified electricians to maintain his temporary electrical installations.
- Area wise Electrical safety inspection is to be carried out on monthly basis as per "Electrical Safety Inspection checklist' and the report is to be submitted to the implementer's safety officer
- Adequate precautions shall be taken to prevent danger to electrical equipment. No materials on any of the sites of work shall be so stacked or placed as to cause danger or inconvenience to any person or the public
- The Contractor shall carefully follow the safety requirement of the implementer/ the purchaser with regard to voltages used in critical areas.

Fire Safety

- Providing appropriate firefighting equipment at designated workplace and nominating a fire officer/warden adequately trained for his job.
- Contractor shall provide enough fire protection equipment of the types and numbers at his office, stores, temporary structure in labor colony etc. Such fire protection equipment shall be easy and kept open at all times.
- The fire extinguishers should be properly refilled and kept ready, which should be certified at periodic intervals. The date of change should be marked on the Cylinders.
- All other fire safety measures as laid down in the emergency preparedness and response plan shall be followed.
- Non-compliance with the above requirement under fire protection shall in no way relieve the Contractor of any of his responsibility and liabilities to a fire incident occurring either to his materials or equipment or those of others.
- Emergency contact numbers must be displayed at prominent locations
- Tarpaulin being inflammable should not be used (instead, only non-infusible covering materials shall be used) as protective cover while preheating, welding, stress relieving etc. at site.

Lifting Safety

- It will be the responsibility of the Contractor to ensure safe lifting of the equipment, taking due precaution to avoid any incident and damage to other equipment and personnel.
- All requisite tests and inspection of handling equipment, tools & tackle shall be periodically done by the Contractor by engaging only the Competent Persons as per law.
- Defective equipment or uncertified goods shall be removed from service.
- Any equipment shall be loaded more than its recommended safe working load.

Environmental Control: Environmental damage is a major concern of the principal Contractor and every effort shall be made, to have effective control measures in place to avoid pollution of Air, Water and Land and associated life. Chlorofluorocarbons such as carbon tetrachloride and trichloroethylene shall not be used. Waste disposal shall be done in accordance with the guidelines laid down in the Waste Management Plan. Any chemical, including solvents and paints, required for construction shall be stored in designated bonded areas around the site as per Material Safety Data Sheet (MSDS).

In the event of any spillage, the principle is to recover as much material as possible before it enters drainage system and to take all possible action to prevent spilled materials from running off the site.

The Contractor shall use appropriate MSDS for clean-up technique.

All Contractors shall be responsible for the cleanliness of their own areas.

The Contractors shall ensure that noise levels generated by plant or machinery are as low as reasonably practicable. Where the Contractor anticipates the generation of excessive noise levels from his operations the Contractor shall inform the Construction Manager accordingly so that reasonable and practicable precautions can be taken to protect other persons who may be affected. The Contractor shall carry out periodic air and water quality check and illumination level checking in his area of workplace and take suitable control measure.

Housekeeping: Keeping the work area clean/ free from debris, removed scaffoldings, scraps, insulation/sheeting wastage /cut pieces, temporary structures, packing woods etc. will be in the scope of the Contractor. Such cleanings have to be done by Contractor on a daily basis by an identified group. If such activity is not carried out by Contractor is not satisfied, then the implementer may get it done by other agency and actual cost along with overheads will be deducted from contractor's bill. Such decisions shall be binding on the Contractor.

- Proper housekeeping to be maintained at workplace and the following are to be taken care of on a daily basis.
- All surplus earth and debris are removed/disposed of from the working areas to identified locations.
- Unused/Surplus cables, steel items and steel scrap lying scattered at different places/elevation within the working areas are removed to identified locations.
- All wooden scrap, empty wooden cable drums and other combustible packing materials, shall be removed from the workplace to identified locations. Sufficient waste bins shall be provided at
- Different workplaces for easy collection of scrap/waste. Scrap chute shall be installed to remove scrap from high location.
- Access and egress (staircase, gangways, ladders etc.) path should be free from all scrap and other hindrances.
- Workmen shall be educated through toolbox talk about the importance of housekeeping and encourage not to litter.

- Labor camp area shall be kept clear and materials like pipes, steel, sand, concrete, chips and bricks, etc. shall not be allowed in the camp to obstruct free movement of men and machineries.
- Fabricated steel structures, pipes & piping materials shall be stacked properly.
- No parking of trucks/trolleys, cranes and trailers etc. shall be allowed in the camp, which may obstruct the traffic movement as well as below LT/HT power line.
- Utmost care shall be taken to ensure overall cleanliness and proper upkeep of the working areas

Waste Management: Take suitable measures for waste management and environment related laws/legislation as a part of normal construction activities. Compliance with the legal requirements on storage/ disposal of paint drums (including the empty ones), Lubricant containers, Chemical Containers, and transportation and storage of hazardous chemicals will be strictly maintained.

Inspection on HSE for different activities being carried out at site shall be done to ensure compliance to HSE requirements. The Contractor shall maintain and ensure necessary safety measures as

required for inspection and tests as applicable, to enable inspection agency for performing Inspection. If any test equipment is found not complying with proper safety requirements, then the Inspection Agency may withhold inspection, till such a time the desired safety requirements are met.

HSE PERFORMANCE

- Contractor shall be assessed on a monthly basis for HSE Compliance by Safety In-charge at the site.
- The implementer shall reserve the right to use this assessment for evaluating bidder's capacity for future tenders
- Suitable HSE reward system shall be developed at site level to promote HSE compliance amongst workmen by the Contractor. To decide HSE reward, performance towards HSE shall be evaluated for workers and it shall be awarded regularly in public gathering.
- If safety record of the Contractor in execution of the awarded job is to the satisfaction of safety department of the implementer, issue of an appropriate certificate to recognize the safety performance of the Contractor may be considered by the implementer after completion of the job.

NON-COMPLIANCE: *NONCONFORMITY OF SAFETY RULES AND SAFETY APPLIANCES WILL BE VIEWED SERIOUSLY AND UNOPS HAS THE RIGHT TO IMPOSE PENALTIES ON THE CONTRACTOR FOR EVERY INSTANCE OF VIOLATION NOTICED:*

HSE AUDIT/INSPECTION: Regular HSE Audit/inspection shall be carried out by Contractor as per Site HSE audit calendar. HSE checklist shall be used for carrying out audit/inspection and report shall be submitted to site management.

All non-conformities and observations on HSE identified during internal or external HSE audit shall be disposed of by site in a time bound manner and reported back the implementation status

Corrective action and Preventive action on HSE issues raised by certification body issued by Regional HQs shall be implemented by site and reported to Site management.