ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT

FOR

THE REHABILITATION OF YEROBAWOL HEALTHCARE FACILITY

GAMBIA – ADDITIONAL FUNDING FOR THE VULNERABLE YOUTH AND WOMEN SUPPORT PROJECT (AF-VYWOSP)

Prepared by

Dr. MUHAMMED LAMIN SANYANG

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Acronym/Abbreviation	
AfDB	Africa Development Bank
ESIA	Environmental and Social Impact Assessment
NEA	National Environment Agency
EMP	Environmental Management Plan
ESMP	Environmental and Social Management Plan
LGA	Local Government Area
URR	Upper River Region
GHGs	Green House Gases
NDP	National Development Plan
PIU	Project Implementing Unit
E&S	Environmental and Social
NSPS	National Social Protection Secretariat
NGOs	Non-Government Organizations
GBV	Gender Based Violence
SEA	Sexual Exploitation and Abuse
SH	Sexual Harassment
CoC	Code of Conduct
VAC	Violence against children
PPE	Personal Protective Equipment
NEMA	National Environment Management Act

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EXECUTIVE SUMMARY

i. Overview of the project

The Vulnerable Youth and Women Support Project is funded by the African Development Bank (AfDB) with counterpart funding from the Government of The Gambia. The project responds to some of the most pressing priorities for both the Bank and the country, including youth employment, skills development, gender equality, and access to quality health infrastructures. The main development challenges the project will address is the low level of human development in the country, in particular high poverty rates, low access to basic social services, and high youth and women unemployment and underemployment rates.

The project has three (3) components with sub-components, and **Component 2** of the project is "**support for better and inclusive access to basic social services".** These basic social services include health care facilities. Hence, a portion of the grant was allocated for the renovation of Yerobawol Health Care Facility in Upper River Region.

The project is anticipated to have positive impacts on the health and livelihood of the local communities and beyond, as well as attract numerous other developments and opportunities. On the other hand, the project might pose adverse negative impacts and thus there is the need to conduct an Environmental and Social Impact Assessment (ESIA) study. Therefore, the Gambian Government through the National Social Protection Secretariat contracted a Consultant to develop this ESIA report as an environmental & social management tool and to fulfill statutory requirement of the donor organization (AfDB) and the NEA.

The overall objective of conducting this ESIA is to identify, assess and evaluate the potential environmental and socioeconomic impacts of the renovation/rehabilitation of Yerobawol health facility and develop mitigation measures that can be adopted to reduce or eliminate adverse effects as well as maximize the potential benefits of the project intervention activities.

The following are specific objective of the ESIA study:

- To identify project activities that have the potential to negatively impact the environment.
- To map negative environmental and social areas of concern in the renovation/rehabilitation of the Yerobawol health facilities.
- Develop mitigation measures and an Environmental Management Plan (EMP).
- Identify positive practices and innovations to promote a clean environment and reduce environmental degradation.
- Identify the risks, constraints and opportunities linked to the environment in which the project will operate.

This ESIA study focused on the rehabilitation of the Yerobawol Health Center in the Upper River Region (URR). Yerobawol Health Care Center is a minor health care located in the district of Wulli within the Local Government Area (LGA) of Basse.

The key activities undertaken includes (but not limited to):

a. Conduct field visits to the selected health facilities to observe the existing environment, assess the proposed development and identify potential impacts.

b. Consultations with relevant stakeholders using suitable data collection methods such as focus group discussions, key informant interview etc.

c. Prepare ESMP and BWMP report for the renovation/construction of the selected facilities.

ii. Alternatives to the project

This section provides the identified alternatives considered and are discussed in further details:

Alternative 1: "No-Action" Alternative

If the "No Action" Alternative is opted, then all the existing challenges such as poor healthcare services, unmotivated healthcare workers and long waiting hours will persist or might even worsened. Furthermore, the socio-economic improvements associated with the implementation of the project will all cease to take place.

Alternative 2: Alternative 2: Renovation of existing structures
This alternative is the structural and technical restoration, or modernization of one or several structures or even an entire existing structure. It can focus on maintenance or resolving flaws. Renovation includes replacing anything broken with a new one, adding new items, or fixing loose or outdated structures. It could be a minor or major upgrade.
This alternative seems to be a suitable option because it does not require complete demolition of the existing structures or building new structures, rather the renovation activities mainly involve repairs, replacements, repainting and redecoration.

Alternative 3: Building completely new structures on other areas within the facility premises

This alternative has both positive and negative environmental and social impacts, but its adverse impacts will be worse than the impacts associated with the renovation of the facility. The advantage of this option is that the current services at the health facility will not be interrupted.

Alternative 4: Building new structures in place of existing ones

The primary challenge in selecting this alternative is there will be total haul of services at the healthcare facility which has extreme consequences. Furthermore, this option will pose more severe negative environmental and social impacts than the initial two alternatives.

Alternative 2, the renovation of existing structures was the option preferred by the project over the other three alternatives. This alternative was evaluated to be the most cost effective, helps to improve the condition of the facility without halting the healthcare services, if the renovation works are well planned and done in phases. Where necessary, expansion of the existing structures will be implemented.

Catchment Area

Yero Bawol minor health centre is situated within Yero Bawol village and covers 46 communities, with a catchment area population of about 25,552. It is the key health facility within the district and has 16 primary health care villages covered by 3 community health nurses residing within those three key villages.

iii. Institutional and legal framework for implementation of the project

❖ *Legal framework*

Beneath are some selected national policies and legal framework that are relevant to the project.

Table 1: ***Legal framework***

Policy	**Relevance to the Project**
National Policy for the Advancement of Gambian Women and Girls (1999-2009)	Relevant to this Project since the focus of the project is on vulnerable youth and women.
National Youth Policy (2009–2018)	Successful project implementation will provide ease access to social services such as health care services to the youth
Gambia Environment Action Plan, GEAP (2009-2018)	Provides guidance in general environmental planning and natural resources management.
Forestry Policy (2010-19)	Sixty-six gazetted forest parks are located in various parts of the country, some of which are in the project intervention region (URR).
Gambia National Gender & Women Empowerment Policy (2010–2020)	Women will be consulted during the stakeholder consultation, and they are expected to be the largest beneficiaries.
The National Health Policy, 2012-2020	Relevant to this Project since dust, noise and other health risks can be associated with the project activities. Successful implementation of the policy measures will result in reducing morbidity and mortality of major diseases; reduce health risks and exposures associated with negative environmental consequences.

National Healthcare Waste Management Policy (2012-2020)	This policy will guide the development of the biomedical waste plan in this ESIA.
The National Biodiversity Strategy and Action Plan (NBSAP), 2015	The biodiversity within the premises of the site for the regional hospital construction may be impacted.
National Climate Change Policy (2016 – 2025)	Some of the proposed project activities might result in the emission of greenhouse gases (GHGs) which contributed to climate change and hence, this Policy is promoting low emission activities.
National Strategic Environmental Assessment Policy (2017- 2021)	Applies when developing policies, plans or programs in all sectors, including health
National Development Plan (Yiriwa)(2023-2027)	The NDP (Yiriwa) has seven (7) strategic priorities with pillar IV gear towards increasing quality, accessible and affordable health care services delivered for all
The Gambia National Gender Policy 2010- 2020	Successful implementation of the Project will enhance women participation and facilitate gender equity and equality at policy, program and project levels in all institutions and levels across all sectors of The Gambian society

- ***Institutional framework***

  - project implementation unit (PIU)

The National Social Protection Secretariat (NSPS) is the executor of this Project in The Gambia coordinates and monitors the Project ESMP implementation. NSPS has set up a project management unit and recruited E&S specialists to monitor the implementation of the ESMP generated by this ESIA. In addition, the following institutions have significant roles in the implementation of the ESMP.

1) National Environment Agency (NEA)

2) Ministry of Environment, Climate Change and Natural Resources
3) Ministry of Health
4) Ministry of Lands and Regional Governance & Religious Affairs
5) Governors Office (URR)
6) National Social Protection Secretariat (NSPS)
7) Women's Bureau
8) Department of Social Welfare
9) Department of Labor
10) Health center manager (Officer -in-charge)
11) NGOs and civil society

iv. Environmental Baseline Information

The environmental baseline describes the environmental conditions prevailing before the commencement of the proposed project and those environmental aspects that may be directly or indirectly impacted during the renovation of the selected health facilities. Hence, primary data collection using devices, physical observation and study of the proposed project sites as well as consultation with facility staff were the dominant strategies used for investigating the environmental baseline of the proposed project area.

Generally, the natural environment of the Gambia does not change significantly across the respective regions and administrative boundaries over the years. Thus, this section will not focus on general climatic conditions. Secondly, since the assessment is site specific, only the existing physical, biological and socio-economic environmental conditions will be considered.

Climate: The Gambia is found within the Sahel region and thus exhibits a typical Sudano-Sahelian form of climate. It is characterized by an extended dry season stretching from October up to early June, and a brief rainy season from mid-June to mid or sometimes late October.

Rainfall: The annual average rainfall spans between 337mm observed in 1968 to 1340.9mm in 1958, while average temperatures vary from 18 to 33°C. The analysis of rainfall patterns covering the thirty-year climatic period (1991 to 2020), exhibits a significant rise in average rainfall amount (114mm) when tallied with the 1971 to 1990 averages. However, annual rainfall averages at stations in the project intervention areas have shown a marked increase

Relative humidity: Relative humidity falls within 68% in the coastal area and the inland is about 41% during the dry season. However, during the wet season, relative humidity goes beyond 70% throughout the country.

Temperature: The maximum temperatures for the project areas have been observed to rise significantly especially in the last two decades. The ground temperature at the time of the site visit was at 37.3 ºC.

Wind direction: At the project intervention region, the wind direction during the dry season is dominantly eastwards and towards the west and southwest in the wet season

Air quality: The results of the air sample collected at the health center unveiled that the particulate matters (PM2.5 and PM10) were found to be within the accepted National and WHO air quality index standards. It is important to note that PM2.5 was found to be moderately healthy and thus, great care needs to be taken during the renovation activities not to aggravate the situation which might pose severe public health concern.

Noise level: The noise level recorded at the intervention site was 50.4 dB, which is considered healthy. Even though the site is on a highway, but few vehicles commute that route. Secondly the site is not close to any noise generating source such as residential houses.

Water Quality: All the physico-chemical, chemical and microbiological parameters tested are within the recommended guideline values set by World Health Organisation apart from the low pH values which is a natural phenomenon in the Gambian groundwater quality. Therefore, the water is of good quality and consequently fit for consumption, irrigation as well as other domestic purposes based on WHO's guideline values. Furthermore, the water characterization results also shows that the color and odor of the water sample is normal with no suspended solids.

Flora and Fauna : The health center has diverse species of biodiversity ranging from both flora and fauna species. As per the respondents, the biodiversity within the facility plays a key role in providing a microclimate within the facility in terms of shade, cool air, and minimizing the extreme temperatures and heat. There are a lot of flora, fauna, and avifauna species, and these are *Malaina, Cashew, Acacia, Mango, Banana, Cassava, Birds, sheep, Monkey, bush pigs, Donkeys, snake, and squirrel.*

Socioeconomic Environment

Demography : Wulli West a district under Basse LGA has a youthful population with high dependency ratio, the findings show that at least 52.8 per cent of the population were female and 47.2 were male.

Household sizes in The Gambia differ significantly by LGA. Banjul has the smallest average size at 4.6, while the project intervention region (Basse) has much larger sizes of 12.6. The national average household size is 8.0. Basse LGA has a total household of 20,614.

The project intervention region is one of the most densely populated regions with 126 persons per square kilometer. Between 2013 and 2024, the population density of the region has increased by 9.6%.

This sub-section also covers education, health, social amenities, sanitation, agriculture and remittance among others in the socioeconomic environment discussed in the report.

v. Consultations and Stakeholder Engagement

Public consultation through perception survey was conducted at the health care facility to establish the levels of understanding and appreciation of the selected health facility users and service providers to identify the current and potential interventions impacts on lives and livelihood as well as on the environment. Some of the key findings of the consultation are as follows:

- ♣ Almost half of the respondents (47%) described the services at the facility as being fair while 4% described them as being poor.
- ♣ Almost half of the overall respondents (49%) stated poor healthcare services as a constraint. The other respondents stated unmotivated healthcare workers (25%), long waiting hours (13%), high rate of mortality (11%) as the constraints they faced.
- ♣ 76% of the overall respondents believed both out-patient and in-patient care will be affected.
- ♣ Over 50% of the respondents stated that the renovation of the health facility will reduce congestion at service points and improve the quality of healthcare services.
- ♣ Overall, 59% of the respondents believe the renovation will negatively affect the availability of some services in the health centre, while 50% stated it will increase congestion at the facility and only 18% believe it will lead to longer waiting time at the facility.
- ♣ 67% of the overall respondents suggested early communication while 53% suggested the renovation to be done in phases.
- ♣ Dust pollution is the top potential negative health safety and environmental impact that may be associated with the project mentioned by 84% of the overall respondents.
- ♣ The majority of the respondents believed the project will have an overall positive impact on their livelihood

vi. Major and moderate impacts

The main potential impacts associated with the project activities during the pre-renovation, renovation and operation phase of the project are:

- Air pollution
- Water pollution
- Waste generation
- Public health
- Occupational health and safety
- In-migration of workforce
- Gender-based Violence, Sexual Exploitation and Abuse, Violence Against Children

The summary of the identified potential impacts and the proposed mitigation measures are highlighted in the table below.

Phase/Activities	IMPACTS	Scope of negative impacts (low, medium, high)	MEASURES
<u>Pre-renovation and renovation phase</u> • Excavation and digging activities, • Site clearing and removal of vegetation, • Movement of machinery and vehicles, • Transportation of construction raw materials (I.e. sand, gravel etc)	Air pollution (dust and gaseous emissions)	Medium	• Minimize cleared vegetation areas to those that are needed to be used. • Area should be dampened within suitable intervals (4 – 6 hours) to prevent a dust nuisance and this frequency should be increased during hotter days. • Cover or wet construction materials such as sand, gravel to prevent dust pollution. • Where unavoidable, construction workers working in dusty areas should be provided and fitted with dust mask (N95 respirators) • Vehicles carrying earth materials should be covered. • Facility users and service providers should wear face mask. • Movement of facility users should be restricted, and visitors controlled during the renovation activities • Proper housekeeping to cleanse dust particles that settled on the medical equipment and in wards/labs/offices. <u>Gases emissions</u>

Phase/Activities	IMPACTS	Scope of negative impacts (low, medium, high)	MEASURES
			• Ensure that all vehicles involved in the transport of construction material and staff, and machinery used in construction is properly maintained and services. • Reduce the idling of vehicles that may occur and thus reduce the gaseous emission from vehicles in the area. • Reduce vehicle speed within the facility. • Promote the use of fuel-efficient vehicles with the proper emission standards and more eco-friendly fuel type.
<u>Pre-renovation and renovation phase</u> • Civil works • Recruitment and presence of workers • Waste generation • Consumption of resources (water, energy etc)	Water Pollution	Medium	• Environmentally sound management of renovation activities especially during the rainy season to avoid water pollution. • The contractor must ensure that construction and mitigation measures comply with the ESMP-Contractor • Collection of waste oil for recycling • Avoid placing spoil on drainage paths. • In the event of a spill on water bodies, the contractor in charge of the work shall immediately notify the person responsible for the environmental monitoring of the work and take measures to stop the leak, contain the product and recover it. • Appropriate solid and liquid waste storage to limit the risk of pollution.

Phase/Activities	IMPACTS	Scope of negative impacts (low, medium, high)	MEASURES
• Repair of equipment and machinery			
Waste generated from workers campsite, presence of workers on sites, disposal of waste on site, construction waste, domestic waste, biomedical or healthcare waste	Waste Generation	Medium	• Preparation of (biomedical) waste management plan following the waste hierarchy and ensure proper implementation, supported by staff training. • Adequate skips and bins should be strategically placed within the campsite and construction site. • The skips and bins at the renovation and operation phase should be adequately designed and covered to prevent access by vermin and minimize odor. • Waste segregation in different bins should be practiced and ensure that workers adhere to the practice. • The skips and bins at both the renovation and operation phase should be emptied regularly to prevent overfilling. • Disposal of the contents of the skips and bins should be done at an approved disposal site or incinerated where suitable.

Phase/Activities	IMPACTS	Scope of negative impacts (low, medium, high)	MEASURES
			• Reuse waste plastic materials (deform bottle containers) as feedstock for plastic product production. • Organic waste generated can be composted and use as manure. • Appropriate storage, handling and management of clinical waste. • Workers handling biomedical waste should be in proper PPEs.
Activities that impact air and water quality; presence of asbestos	Public Health	Medium	• Ensure the mitigation for the impact on air and water quality as well as waste generation are implemented. This will reduce the impact on public health negligent. • Safe removal of asbestos in accordance with the Asbestos Abatement and Removal Action Plan (*See mitigation of air quality, water quality and waste generation above*)
• All civil works, • Material transportation and handling,		Medium	• Staff or workers should be given adequate training on occupational health and safety issues during the renovation and operation phase. • Induction training should be held for new workers on Health and Safety. • The workforce should conduct daily toolbox meetings.

Phase/Activities	IMPACTS	Scope of negative impacts (low, medium, high)	MEASURES
• working conditions, • workers' behaviour	Occupational Health and Safety		• The contractor should hire a Qualified Environment Health and Safety (EHS) officer. • The project proponent should develop a Health and Safety Management System if there is none. • Personnel Protective Equipment (PPE) should be provided to workers and ensure that they use them accordingly. • There should be onsite first aid kits and arrangement for a local nurse and/or public health office to regularly monitor the activities of the workers onsite. • Provide adequate working conditions for the workforce, including adequate toilets, clean water, rest and meal areas, lighting (for camps), and waste disposal facilities. • Regularly maintain working equipment • Limit the speed of machines and trucks involved in the work. • Securing the areas for maneuvering the machines • Train workers in best practices and emergency procedures before civil work begins.

Phase/Activities	IMPACTS	Scope of negative impacts (low, medium, high)	MEASURES
			• Conduct a Risk Analysis for all activities during the renovation phase and propose mitigation measures. • There should be a workers' grievance mechanism establish and known to all workers. • Incident report system should be in place.
• Recruitment, • All works onsite • Presence of workers	In-migration of workforce	Medium	• The project should develop a labor management procedure (LMP) • Recruit local labor for unskilled jobs as a priority to ensure local ownership of the project. • Organize the work of unskilled employees in a task-oriented manner. • Post the internal rules of the work site. • Include provisions in the site code of conduct to deter employees from abusing the trust of food vendors/stallholders (those provisions will explain what behavior is not acceptable- including SEA/SH and what sanctions will be applicable in case of misconduct) • Training for all staff in acceptable behaviour with respect to community interactions.

Phase/Activities	IMPACTS	Scope of negative impacts (low, medium, high)	MEASURES
			• Take gender into account (give a quota to women employed) and extensively sensitize and raise awareness of all workers on issues related to SEA/SH • Sensitize the personnel of project site on the respect of the habits and customs of the populations. • Establish a conflict prevention and management mechanism. • Respect the labor code regarding the recruitment of labor. • Ensure all workers on site sign the protocols, as well as get sensitized and their awareness raised on challenging issues such as HIV-AIDS, COVID-19 protocols, STIs, etc. • Ensure continuity of consultation and participation of the beneficiary communities throughout the project (with women consulted in small, separate groups facilitated by a woman). • Establish and publicize grievance procedure
Presence of workers	Gender-based violence (GBV), Sexual exploitation and abuse (SEA),	Medium	• Ensure that code of conducts (CoC) are developed and signed by all personnel and workers and that they attend regular training on SEA/SH, content of CoC and sanctions. • Action Plan for Implementing ESHS and OHS Standards, and Preventing Gender Based Violence (GBV) and Violence Against Children (VAC) must be rigorously

Phase/Activities	IMPACTS	Scope of negative impacts (low, medium, high)	MEASURES
	Violence against Children (VAC)		applied and monitored for compliance. These Codes will also be included in the Contractors ESMP. • Ensure that SEA/SH Action Plan is developed and implemented prior to the physical start of civil works. • Develop and implement a complaint/grievance mechanism (GM) sensitive to GBV, SEA/SH, VAC, and other forms of discrimination with accessible entry points to submit complaints, referral to GBV service providers and confidential, survivor-centered procedures for verification and managing of complaints. • Conduct regular awareness raising campaigns about the project and the risks of GBV, SEA/SH, VAC with workers and community members (and with women in separate groups with a woman facilitator) • Include provisions in the site's internal regulations to discourage employees from abusing the trust of food vendors/stallholders, and the use of GBV, SEA/SH, VAC • Report and sanction all forms of GBV related to the project activities. • Formally prohibit child labor

Phase/Activities	IMPACTS	Scope of negative impacts (low, medium, high)	MEASURES
			• Monitor changes in the status of women and the potential impacts of the project on them by conducting regular focus groups consultations with women in a sample of villages (in small groups facilitated by a woman).

Environmental and social management plan (ESMP):

The overarching objective of ESMP is to: (1) ensure that all mitigation measures prescribed in the ESIA document for eliminating, minimizing, and enhancing the project adverse and beneficial impacts are fully implemented; and (2) provide part of the basis and standards needed for overall planning, monitoring, auditing, and review of environmental and socio-economic performance throughout the project activities. The ESMP guidelines for implementation of the mitigation measures are presented in the Table below.

ESMP Guidelines for Mitigation Measures Implementation

Activities	**Impacts**	**Indicators**	**Means of verification**	**Timelines** (preparation, construction, exploitation, Closing phases)	**Responsible for**			**Cost of implementation (US$)**
					Execution	**Monitoring**	**Aftercare**	
○ Site clearing and preparation. ○ Civil during renovation. ○ Removal of vegetation ○ Movement of machinery and vehicles	Air Quality	• Systematic watering of site and spoil (at least twice a day in the dry season) • Number of covered trucks • Up-to-date maintenance booklet for machinery • Waste tracking form • Number of cases where speed limits were exceeded • Percentage of staff wearing the correct PPE	Report of air sample analysis	Renovation and operation phase	Project contractor	PIU, NEA ESIA Working Group	Health Facility Management	2,000

Activities	**Impacts**	**Indicators**	**Means of verification**	**Timelines** (preparation, construction, exploitation, Closing phases)	**Responsible for**			**Cost of implementation (US$)**
					Execution	**Monitoring**	**Aftercare**	
○ Use of sanitary facilities by staff ○ Run-off water ○ Oil spill ○ Solid waste and effluent discharge	Water Quality	• Level of compliance of discharges (pH, COD, BOD, SS, coliforms, etc.) with the applicable water quality standard • Systematic pre-employment medical check-up during recruitment • Existence of an HSE manual and its implementation • Existence of an approved and implemented waste	Reports of water sample analysis	Renovation and operation phase	Project contractor	PIU, NEA ESIA Working Group, Department of Water Resources Regional Officer	Health Facility Management	2,000

○ Presence of workers on site ○ Onsite civil work/floor concrete ○ Painting and coating ○ Disposal of construction / renovation waste ○ Domestic and sanitary waste generated by workers ○ Biomedical waste	Waste generation	• Existence of an approved and implemented WMP • Existence of an approved and implemented Biomédical Waste MP • Waste tracking slip • Existence of labelled bins for waste collection • Existence of clean-up kit on site • Effectiveness of the waste recovery and treatment contract	Records on waste management Complaint registry Complaint Management Committee Report	Renovation and operation phase	Project contractor	PIU, NEA ESIA Working Group, Regional Health Directorate	Health Facility Management	4,000
○ All civil works ○ Material transportation and handling	Occupational Health and Safety (increased	• Existence of a Workforce Management Plan • Number of awareness campaigns conducted among the population • Number of accident cases involving site activities	Periodic Reports on work related accidents, injuries, near	Renovation and operation phase	Project contractor	PIU, NEA ESIA Working Group, Regional Health	Health Facility Management	4,000

○ Working conditions ○ Workers' behaviour	accident potential)	• Number of workers equipped with PPE • Number of workers made aware of safety measures • Level of compliance with health and safety requirements of the labor code • Level of compliance of collective protection equipment with project risks • Effectiveness of the implementation of mitigation measures • Number of training and awareness sessions on occupational health and safety • Existence of first aid kits at work sites • Effectiveness of posting of safety instructions • Existence of an HSE officer on site	misses and illnesses. Complaint registry Complaint Management Committee Report			Directorate		
○ Recruitment, All works onsite. ○ Presence of workers	In-migration (Risk of conflicts related to the	• Number of local community workers recruited • Number of skilled workers from the community recruited by the project • Conflict prevention and management committee established and functioning	Record of employees hired	Renovation and operation phase	Project contractor	PIU, NEA ESIA Working Group, Regional Health	Health Facility Management	8,000

Activities	**Impacts**	**Indicators**	**Means of verification**	**Timelines** (preparation, construction, exploitation, Closing phases)	**Responsible for**			**Cost of implementation (US$)**
					Execution	**Monitoring**	**Aftercare**	
	use of labor)	• Number of workers with PPE • Level of compliance with the requirements of the labor code in terms of health and safety at work • Number of workers who have benefited from capacity building				Directorate		

○ Interaction of workforce with community members	Gender-based violence (GBV), Sexual exploitation and abuse (SEA), Violence against Children (VAC)	• Existence of a complaint management mechanism that is sensitive to GBV, SEA, SH • Number of people sensitized on GBV (disaggregated by sex) • Number of awareness sessions for staff on SEA/SH and the content of the code of conduct • Number of awareness raising campaign for communities in GBV/SEA/SH/VAC • Number of complaints received and treated • Percentage of SEA/SH related complaints that had been referred to GBV service providers for assistance • Percentage of all staff and workers who signed the code of conduct	GBV, SEA, SH Complaint report Report on GBV/SEA/SH sensitization complaints received by the complaint management committees complaint received from the police station	Renovation and operation phase	Project contractor	PIU, NEA ESIA Working Group, Civil Society	Health Facility Management	10,000

The programmes recommended for managing the potential impacts of the proposed project include:

a) Air quality management programme

b) Water quality management programme

c) Waste management programme

d) Occupational Health and Safety management programme

e) GBV, SEA and SH Prevention Programme

f) Socio-cultural management programme

The implementation of the ESMP is also linked to a series of comprehensive management plans. Management and mitigation measures should follow legislative requirements. Where no legal guidance is provided, industry and/or international good practices should be applied as far as is practicable.

The monitoring will be undertaken to ensure that the proposed mitigation measures for negative impacts are implemented. For this reason, it is important that environmental and social monitoring be included in the project planning.

The essential objectives are:

- ✓ To measure the level of completion (success or failure) of implementation of mitigation measures.
- ✓ Identifying unpredicted impacts; and
- ✓ Facilitate integration of environmental and social management in the project implementation interventions.

Monitoring the implementation of mitigation measures and proponent commitments are essential in sustainable implementation of proposed undertaking. The monitoring plan for the ecological and socio-economic components of the proposed project is provided beneath.

Monitoring Plan

Potential Impact	Indicator Parameter	Monitoring method and location	Timeline/Frequency	Responsibility	Cost for Annual Monitoring (US$)
Air Pollution	Dust Pollution and Gaseous emissions	Use of Air-sampling instrument/ Point measurements at the project sites	Quarterly	ESIA – Working Group (WG); Project Environmental Officer; Consultant	4,000
Water Pollution	Temp., pH, Turbidity, Nutrients (sulphate, nitrate, etc.), Heavy metals, BOD	Sample collection (and analysis) from water sources (of closest surface waterbody or borehole)	Quarterly	ESIA – Working Group (WG); Project Environmental Officer; Consultant	4,000
Social life impact/Socio-cultural conflict	Cultural conflicts, norms, social vices, project-perception of community leaders, hospitality of indigenous	Continuous effort of Consultations (at all levels); review of implementation of Community Development Agreement in the host community	Quarterly	ESIA – Working Group (WG); Project Environmental Officer; Consultant	10,000
Health Impact	Common/prevalent diseases in the host communities	Use of questionnaires within the host communities as well as collection of health statistics from clinic and hospitals within the area	Annual Environmental and Social Performance Audit	ESIA – Working Group (WG); Project Environmental Officer; Consultant	3,000

Hazard-exposure to workforce	Frequent illness of workforce, workplace accident, medical fitness	Observation, interviews, and the use of Job-Hazard-Analysis report	Biannually	ESIA – Working Group (WG); Project Environmental Officer; Consultant	4,000
GBV, SEA/SH	Report of GBV, SEA/SH cases	Investigation of reported cases, interview with affected and non-affected victims	Quarterly	ESIA – Working Group (WG); Project Environmental Officer; Consultant	10,000
TOTAL					**35,000**

The proposed budget for implementation of the ESMP is $US 154,000 including capacity building for relevant stakeholders as indicated in Table below.

Summary of the costs of the environmental and social activities of the Yerobawol health center rehabilitation project

N°	Designation	Cost (US$)	Responsibility
1.	Mitigation measures	30,000	Contractor
2.	Environmental and Social Monitoring Programe	35,000	PIU/NEA/RHD
3.	Environmental and Social after care Program	10,000	PIU/NEA/RHD
4.	Biomedical waste management plan	10,000	RHD/NEA
5.	Capacity-building measures	40,000	PIU/NEA/RHD
6.	Complaints Management Mechanism (PMM)	5,000	Local community/PIU
7.	Annual audits	10,000	PIU/Consultant
	Total	140,000	
	Unexpected (10 %)	14,000	
	Overall cost	**154,000**	

In conclusion, the potential adverse impacts associated with the proposed project are possible to mitigate successfully. It is therefore recommended that:

The proposed development should be allowed to proceed if the project proponent is fully committed to implementing the proposed mitigation measures and ESMP. An environmental audit is recommended upon the completion of construction works to verify the implementation of the proposed mitigation measures. Any unforeseen project impacts shall be identified and addressed through annual environmental audits.

It is already recommended that the project should establish a Grievance Redress Mechanism to handle and resolve potential grievances and complaints from project affected persons.

RÉSUMÉ EXÉCUTIF

i. Aperçu du projet

Le **Projet de Soutien aux Jeunes Vulnérables et aux Femmes** est financé par la **Banque Africaine de Développement (BAD)** avec un financement complémentaire du **Gouvernement de la Gambie**. Ce projet répond à certaines des priorités les plus urgentes de la Banque et du pays, notamment l'emploi des jeunes, le développement des compétences, l'égalité des genres et l'accès à des infrastructures de santé de qualité. Les principaux défis de développement que le projet vise à relever sont le faible niveau de développement humain dans le pays, notamment les taux de pauvreté élevés, l'accès limité aux services sociaux de base, ainsi que le chômage et le sous-emploi élevés des jeunes et des femmes.

Le projet comprend trois (3) composantes avec des sous-composantes, et la **Composante 2** du projet est intitulée : *« Soutien pour un meilleur accès inclusif aux services sociaux de base »*. Ces services incluent notamment les établissements de soins de santé. Ainsi, une partie du financement a été allouée à la **rénovation du Centre de Santé de Yerobawol** dans la région de la Haute Rivière (Upper River Region).

Le projet devrait avoir des effets positifs sur la santé et les moyens de subsistance des communautés locales et au-delà, tout en attirant de nombreux autres développements et opportunités. D'un autre côté, le projet pourrait aussi entraîner des impacts négatifs, d'où la nécessité de réaliser une **Étude d'Impact Environnemental et Social (EIES)**. Par conséquent, le **Gouvernement gambien**, à travers le **Secrétariat National à la Protection Sociale**, a engagé un **consultant** pour élaborer ce rapport d'EIES en tant qu'outil de gestion environnementale et sociale, et pour répondre aux exigences réglementaires de l'organisation donatrice (BAD) ainsi qu'à celles de l'**Agence Nationale de l'Environnement (NEA)**.

L'objectif global de cette EIES est d'identifier, d'évaluer et d'analyser les impacts environnementaux et socioéconomiques potentiels liés à la **rénovation/réhabilitation du centre de santé de Yerobawol**, et de développer des **mesures d'atténuation** qui pourraient être mises en œuvre afin de réduire ou d'éliminer les effets négatifs, tout en maximisant les bénéfices potentiels des activités du projet.

Les objectifs spécifiques de l'étude EIES sont les suivants :

- Identifier les activités du projet susceptibles d'avoir des effets négatifs sur l'environnement.
- Cartographier les zones de préoccupations environnementales et sociales dans le cadre de la rénovation/réhabilitation des installations de santé de Yerobawol.
- Développer des mesures d'atténuation et un **Plan de Gestion Environnementale (PGE)**.
- Identifier les bonnes pratiques et innovations favorables à un environnement propre et à la réduction de la dégradation environnementale.

- Identifier les risques, les contraintes et les opportunités liés à l'environnement dans lequel le projet sera mis en œuvre.

Cette étude EIES est axée sur la **réhabilitation du Centre de Santé de Yerobawol** dans la **région de la Haute Rivière (URR)**. Ce centre est un établissement de santé secondaire situé dans le district de **Wulli**, au sein de la zone d'administration locale (LGA) de **Basse**.

Les principales activités réalisées comprennent (sans s'y limiter) :
a. Effectuer des **visites de terrain** sur les sites de santé sélectionnés pour observer l'environnement existant, évaluer le développement proposé et identifier les impacts potentiels.
b. Mener des **consultations** avec les parties prenantes concernées à l'aide de méthodes de collecte de données appropriées telles que des discussions de groupe (focus group), des entretiens avec des informateurs clés, etc.
c. Préparer le **Plan de Gestion Environnementale et Sociale (PGES)** et le **Plan de Gestion des Déchets de Chantier (PGDC)** pour la rénovation/construction des installations sélectionnées.

ii. Alternatives au projet

Cette section présente les alternatives identifiées qui ont été examinées plus en détail :

Alternative 1 : L'option « Ne rien faire »
Si cette alternative est retenue, tous les problèmes existants tels que la mauvaise qualité des soins de santé, la démotivation du personnel médical et les longues heures d'attente persisteront ou pourraient même s'aggraver. En outre, les progrès socio-économiques liés à la mise en œuvre du projet ne se réaliseront pas.

Alternative 2 : Construire de nouvelles structures dans d'autres zones à l'intérieur de l'enceinte du centre
Cette alternative présente à la fois des avantages et des inconvénients sur les plans environnemental et social. Cependant, ses impacts négatifs seraient plus graves que ceux liés à la simple rénovation de l'installation. L'avantage principal est que les services actuels ne seraient pas interrompus.

Alternative 3 : Construire de nouvelles structures à la place des structures existantes
Le principal inconvénient de cette option est que cela entraînerait une **interruption totale des services** au centre de santé, ce qui aurait de graves conséquences. De plus, cette option engendrerait des impacts environnementaux et sociaux encore plus sévères que les deux alternatives précédentes.

Zone de couverture

Le **Centre de santé secondaire de Yerobawol** est situé dans le **village de Yerobawol** et dessert **46 communautés**, avec une population de zone de couverture d'environ **25 552 habitants**. C'est l'établissement de santé clé dans ce district et il couvre **16 villages de soins de santé primaires**, assistés par **trois infirmiers communautaires** résidant dans trois villages principaux.

iii. Cadre institutionnel et juridique pour la mise en œuvre du projet

Cadre juridique

Voici quelques politiques nationales et cadres juridiques sélectionnés pertinents pour le projet :

(La suite du cadre juridique n'a pas été fournie dans votre extrait – je peux le traduire dès que vous l'ajoutez).

Tableau 1 : Cadre juridique

Politique	Pertinence pour le projet
Politique nationale pour la promotion des femmes et des filles gambiennes (1999-2009)	Pertinente pour ce projet, car celui-ci cible principalement les jeunes et les femmes vulnérables.
Politique nationale de la jeunesse (2009–2018)	La mise en œuvre réussie du projet facilitera l'accès des jeunes aux services sociaux tels que les soins de santé.
Plan d'action environnemental de la Gambie, GEAP (2009-2018)	Fournit des orientations en matière de planification environnementale générale et de gestion des ressources naturelles.
Politique forestière (2010-2019)	Soixante-six parcs forestiers classés sont répartis dans différentes régions du pays, dont certaines se trouvent dans la région d'intervention du projet (URR).
Politique nationale sur le genre et l'autonomisation des femmes (2010–2020)	Les femmes seront consultées lors des réunions avec les parties prenantes, et elles devraient être les principales bénéficiaires du projet.
Politique nationale de la santé, 2012–2020	Pertinente pour ce projet, car la poussière, le bruit et d'autres risques sanitaires peuvent être associés aux activités du projet. La mise en œuvre réussie des mesures politiques contribuera à réduire la morbidité et la mortalité liées aux principales maladies, ainsi que les risques sanitaires associés aux impacts environnementaux négatifs.
Politique nationale de gestion des déchets de soins de santé (2012–2020)	Cette politique servira de guide pour l'élaboration du plan de gestion des déchets biomédicaux dans cette EIES.

Politique	Pertinence pour le projet
Stratégie et plan d'action nationaux pour la biodiversité (NBSAP), 2015	La biodiversité présente sur le site de construction de l'hôpital régional pourrait être affectée.
Politique nationale sur les changements climatiques (2016–2025)	Certaines activités proposées dans le cadre du projet pourraient entraîner l'émission de gaz à effet de serre (GES), contribuant au changement climatique. Cette politique promeut donc des activités à faibles émissions.
Politique nationale d'évaluation environnementale stratégique (2017–2021)	S'applique lors de l'élaboration de politiques, de plans ou de programmes dans tous les secteurs, y compris celui de la santé.
Plan national de développement (Yiriwa) (2023–2027)	Le PND (Yiriwa) comporte sept (7) priorités stratégiques, dont le pilier IV vise à accroître la qualité, l'accessibilité et l'abordabilité des services de santé pour tous.
Politique nationale sur le genre de la Gambie (2010–2020)	La mise en œuvre réussie du projet favorisera la participation des femmes et facilitera l'équité et l'égalité des genres au niveau des politiques, des programmes et des projets dans toutes les institutions et à tous les niveaux de la société gambienne.

Cadre institutionnel:

Unité de mise en œuvre du projet (PIU)

Le **Secrétariat National à la Protection Sociale (NSPS)** est l'organisme d'exécution de ce projet en Gambie. Il est chargé de coordonner et de surveiller la mise en œuvre du Plan de Gestion Environnementale et Sociale (PGES) du projet. Le NSPS a mis en place une unité de gestion du projet et recruté des spécialistes en environnement et en aspects sociaux pour suivre la mise en œuvre du PGES élaboré à partir de cette EIES.

En outre, les institutions suivantes jouent un rôle important dans la mise en œuvre du PGES :

1. **Agence Nationale pour l'Environnement (NEA)**
2. **Ministère de l'Environnement, du Changement Climatique et des Ressources Naturelles**
3. **Ministère de la Santé**

4. **Ministère des Terres, de la Gouvernance Régionale et des Affaires Religieuses**
5. **Bureau du Gouverneur (URR)**
6. **Secrétariat National à la Protection Sociale (NSPS)**
7. **Bureau des Femmes (Women's Bureau)**
8. **Département de l'Aide Sociale**
9. **Département du Travail**
10. **Responsable du Centre de Santé (Chef de poste)**
11. **ONG et société civile**

iv. Informations environnementales de base

Cette section décrit les conditions environnementales existantes avant le début du projet proposé, ainsi que les aspects susceptibles d'être directement ou indirectement affectés durant la rénovation des établissements de santé concernés.

Les données ont été collectées principalement par des **observations physiques**, des **visites de terrain**, l'utilisation d'**instruments de mesure** et des **consultations avec le personnel** de l'établissement.

Climat

La Gambie est située dans la région sahélienne et présente un climat de type **soudano-sahélien**, caractérisé par une **longue saison sèche** (octobre à début juin) et une **courte saison des pluies** (mi-juin à mi-octobre ou parfois fin octobre).

Précipitations

Les précipitations annuelles varient entre **337 mm (1968)** et **1 340,9 mm (1958)**. Les températures moyennes oscillent entre **18 °C et 33 °C**. Une augmentation significative de la moyenne des précipitations (+114 mm) a été enregistrée entre 1991–2020 par rapport à 1971–1990. Les stations situées dans les zones du projet montrent une **augmentation nette** des précipitations.

Humidité relative

Pendant la saison sèche, elle est d'environ **68 %** sur la côte et **41 %** à l'intérieur du pays. Pendant la saison des pluies, l'humidité dépasse les **70 %** dans tout le pays.

Température

Les températures maximales ont considérablement augmenté ces deux dernières décennies. La **température du sol** mesurée lors de la visite du site était de **37,3 °C**.

Direction du vent

En saison sèche : vents dominants **vers l'est**,
En saison des pluies : vents dominants **vers l'ouest et sud-ouest**.

Qualité de l'air

Les échantillons d'air ont montré que les niveaux de **particules fines (PM2.5 et PM10)** étaient **conformes aux normes nationales et de l'OMS**. Cependant, les PM2.5 étaient à un niveau **modérément préoccupant**, nécessitant une attention particulière pendant les travaux de rénovation.

Niveau de bruit

Le **niveau de bruit enregistré** sur le site est de **50,4 dB**, considéré comme **acceptable**. Malgré la proximité d'une route, peu de véhicules y circulent, et le site est éloigné des sources de bruit résidentiel.

Qualité de l'eau

Les tests physico-chimiques, chimiques et microbiologiques sont conformes aux **normes de l'OMS**, à l'exception du **pH légèrement bas**, phénomène naturel dans les nappes phréatiques gambiennes. L'eau est donc **potable** et adaptée à l'irrigation ainsi qu'à d'autres usages domestiques. L'eau testée n'avait **aucune couleur ni odeur anormale**, ni particules en suspension.

Flore et faune

Le centre de santé abrite une **biodiversité variée** (faune et flore). Les espèces contribuent à créer un **microclimat naturel** bénéfique (ombrage, fraîcheur, régulation thermique). On y trouve des **espèces végétales** telles que : *Malaina, Acajou, Acacia, Mangue, Banane, Manioc*, et des **espèces animales** telles que : *oiseaux, moutons, singes, cochons sauvages, ânes, serpents et écureuils*.

Environnement socioéconomique

Démographie

Le **district de Wulli West** (LGA de Basse) a une **population jeune** avec un **taux de dépendance élevé** : **52,8 % de femmes** contre **47,2 % d'hommes**.
Les **tailles moyennes des ménages** varient selon les régions. À Banjul : **4,6 personnes**, alors que dans la zone d'intervention (Basse), elles atteignent **12,6 personnes**. Moyenne nationale : **8 personnes par ménage**.
Le **nombre total de ménages** dans la région de Basse est de **20 614**.
La **densité de population** dans la région du projet est élevée, avec **126 personnes/km²**, et a **augmenté de 9,6 %** entre 2013 et 2024.

Le rapport couvre également : **éducation, santé, équipements sociaux, assainissement, agriculture, envois de fonds**.

v. Consultations et engagement des parties prenantes

Une **consultation publique** a été menée sous forme d'enquête de perception au sein du centre de santé pour évaluer la compréhension, les attentes et les préoccupations des usagers et des prestataires. Voici les résultats clés :

- **47 %** des répondants trouvent les services du centre **moyens**, **4 %** les jugent **médiocres**.
- **49 %** considèrent que les **mauvais services** sont un problème majeur ; **25 %** dénoncent le **manque de motivation du personnel**, **13 %** les **longues attentes**, **11 %** le **taux de mortalité élevé**.
- **76 %** estiment que **les soins ambulatoires et hospitaliers** seront affectés.
- Plus de **50 %** pensent que la rénovation **réduira la congestion** et **améliorera la qualité des soins**.
- **59 %** estiment que la rénovation **réduira la disponibilité de certains services**, **50 %** s'attendent à **plus de congestion**, **18 %** à **des temps d'attente plus longs**.
- **67 %** demandent une **communication anticipée**, **53 %** préfèrent une **rénovation en plusieurs phases**.
- **84 %** identifient la **pollution de poussière** comme le **principal risque** environnemental et sanitaire du projet.
- La majorité pense que le projet aura un **impact globalement positif** sur leurs **moyens de subsistance**.

vi. Impacts majeurs et modérés

Les **principaux impacts potentiels** liés aux activités du projet (avant, pendant et après rénovation) incluent :

- **Pollution de l'air**
- **Pollution de l'eau**
- **Production de déchets**
- **Santé publique**
- **Santé et sécurité au travail**
- **Migration de main-d'œuvre**
- **Violences basées sur le genre, exploitation et abus sexuels, violences contre les enfants**

Phase/Activités | Impacts | Portée des impacts négatifs (faible, moyen, élevé) | Mesures

Phase de pré-rénovation et de rénovation

- Excavation et creusement,
- Défrichage et enlèvement de la végétation,
- Mouvement de machinerie et de véhicules,
- Transport des matériaux de construction (sable, gravier, etc.)

Pollution de l'air (poussière et émissions gazeuses)

Portée des impacts : Moyen

Mesures :
• Minimiser les zones de végétation dégagées à celles nécessaires à l'utilisation.
• Humidifier la zone de manière appropriée à intervalles réguliers (4-6 heures) pour éviter une nuisance de poussière, cette fréquence devant être augmentée pendant les journées plus chaudes.
• Couvrir ou humidifier les matériaux de construction comme le sable et le gravier pour prévenir la pollution par la poussière.
• Lorsque cela est inévitable, fournir aux travailleurs des masques anti-poussière (masques N95).
• Les véhicules transportant des matériaux doivent être couverts.
• Les utilisateurs de l'établissement et les prestataires de services doivent porter un masque facial.
• Restreindre les déplacements des utilisateurs de l'établissement et contrôler les visiteurs pendant les travaux de rénovation.
• Assurer un bon entretien pour nettoyer les particules de poussière qui se déposent sur les équipements médicaux et dans les chambres/laboratoires/bureaux.

Émissions de gaz
• S'assurer que tous les véhicules impliqués dans le transport des matériaux de construction et du personnel, ainsi que les machines utilisées dans la construction, sont correctement entretenus et servis.
• Réduire le temps de ralenti des véhicules pour réduire les émissions gazeuses dans la zone.
• Réduire la vitesse des véhicules dans l'enceinte de l'établissement.
• Promouvoir l'utilisation de véhicules économes en carburant, respectant les normes d'émission et utilisant des carburants plus écologiques.

Phase de pré-rénovation et de rénovation

- Travaux de génie civil
- Recrutement et présence de travailleurs
- Génération de déchets

- Consommation de ressources (eau, énergie, etc.)
- Réparation des équipements et de la machinerie

Pollution de l'eau

Portée des impacts : Moyen

Mesures :
• Gestion écologique des activités de rénovation, en particulier pendant la saison des pluies, pour éviter la pollution de l'eau.
• Le contractant doit s'assurer que les mesures de construction et d'atténuation respectent le PGES-Contractant.
• Collecte des huiles usagées pour recyclage.
• Éviter de déposer les déblais sur les voies de drainage.
• En cas de déversement dans les plans d'eau, le contractant responsable des travaux doit immédiatement informer la personne chargée du suivi environnemental et prendre des mesures pour stopper la fuite, contenir le produit et le récupérer.
• Stockage approprié des déchets solides et liquides pour limiter le risque de pollution.

Génération de déchets provenant du campement des travailleurs, présence de travailleurs sur le site, élimination des déchets sur le site, déchets de construction, déchets domestiques, déchets biomédicaux ou de soins de santé

Portée des impacts : Moyen

Mesures :
• Préparation d'un plan de gestion des déchets (biomédicaux) suivant la hiérarchie des déchets et assurer sa mise en œuvre avec formation du personnel.
• Des bennes et des conteneurs adéquats doivent être placés stratégiquement dans le campement et sur le site de construction.
• Les bennes et conteneurs à la phase de rénovation et d'exploitation doivent être bien conçus et couverts pour empêcher l'accès aux nuisibles et minimiser les odeurs.
• La séparation des déchets dans différents bacs doit être pratiquée et les travailleurs doivent s'y conformer.
• Les bennes et conteneurs des phases de rénovation et d'exploitation doivent être vidés régulièrement pour éviter le débordement.
• Les déchets doivent être éliminés dans un site de traitement agréé ou incinérés si nécessaire.
• Réutilisation des matériaux plastiques (bouteilles déformées) pour la production de produits en plastique.
• Les déchets organiques générés peuvent être compostés et utilisés comme engrais.
• Stockage, manipulation et gestion appropriée des déchets cliniques.
• Les travailleurs manipulant des déchets biomédicaux doivent porter des EPI appropriés.

Qualité de l'air et de l'eau, présence d'amiante

Impact sur la santé publique
Portée des impacts : Moyen

Mesures :
• Assurer la mise en œuvre des mesures d'atténuation pour l'impact sur la qualité de l'air et de l'eau ainsi que la génération de déchets. Cela réduira l'impact sur la santé publique de manière négligée.
• Retrait sûr de l'amiante conformément au Plan d'Action pour l'Abattage et le Retrait de l'Amiante (Voir atténuation de la qualité de l'air, qualité de l'eau et génération de déchets ci-dessus).

Tous les travaux civils, transport des matériaux et gestion, conditions de travail, comportement des travailleurs

Santé et sécurité au travail
Portée des impacts : Moyen

Mesures :
• Les travailleurs doivent recevoir une formation adéquate sur les questions de santé et de sécurité au travail pendant la phase de rénovation et d'exploitation.
• Des séances d'induction doivent être organisées pour les nouveaux travailleurs sur la santé et la sécurité.
• La main-d'œuvre doit tenir des réunions quotidiennes de boîte à outils.
• Le contractant doit engager un responsable qualifié de la santé, de la sécurité et de l'environnement (SSE).
• Le promoteur du projet doit développer un système de gestion de la santé et de la sécurité s'il n'en existe pas.
• Des équipements de protection individuelle (EPI) doivent être fournis aux travailleurs et il faut veiller à ce qu'ils les utilisent correctement.
• Il doit y avoir des trousses de premiers secours sur le site et un arrangement pour un infirmier local et/ou un bureau de santé publique pour surveiller régulièrement les activités des travailleurs sur le site.
• Fournir des conditions de travail adéquates pour la main-d'œuvre, y compris des toilettes adéquates, de l'eau propre, des espaces de repos et de repas, un éclairage (pour les camps) et des installations de gestion des déchets.
• Maintenir régulièrement l'équipement de travail.
• Limiter la vitesse des machines et des camions impliqués dans les travaux.
• Sécuriser les zones de manœuvre des machines.
• Former les travailleurs aux meilleures pratiques et aux procédures d'urgence avant le début des travaux civils.
• Effectuer une analyse des risques pour toutes les activités pendant la phase de rénovation

et proposer des mesures d'atténuation.
• Un mécanisme de gestion des plaintes des travailleurs doit être mis en place et connu de tous les travailleurs.
• Un système de rapport d'incidents doit être en place.

Recrutement, tous les travaux sur site, présence de travailleurs

Migration de la main-d'œuvre
Portée des impacts : Moyen

Mesures :
• Le projet doit élaborer une procédure de gestion du travail (PML).
• Recruter des travailleurs locaux pour les emplois non qualifiés en priorité afin d'assurer l'appropriation locale du projet.
• Organiser le travail des employés non qualifiés de manière axée sur des tâches.
• Afficher les règles internes du site de travail.
• Inclure des dispositions dans le code de conduite du site pour dissuader les employés d'abuser de la confiance des fournisseurs de nourriture/étals (ces dispositions expliqueront les comportements inacceptables, y compris SEA/SH, et les sanctions qui s'appliqueront en cas de mauvaise conduite).
• Former tout le personnel sur les comportements acceptables en ce qui concerne les interactions avec la communauté.
• Prendre en compte le genre (attribuer un quota pour les femmes employées) et sensibiliser largement tous les travailleurs aux problèmes liés à SEA/SH.
• Sensibiliser le personnel du site aux coutumes et habitudes des populations.
• Établir un mécanisme de prévention et de gestion des conflits.
• Respecter le code du travail en ce qui concerne le recrutement de la main-d'œuvre.
• S'assurer que tous les travailleurs sur site signent les protocoles, qu'ils soient sensibilisés et que leur prise de conscience soit élevée sur des questions difficiles telles que le VIH/SIDA, les protocoles COVID-19, les IST, etc.
• Assurer la continuité de la consultation et de la participation des communautés bénéficiaires tout au long du projet (avec les femmes consultées en petits groupes distincts animés par une femme).
• Établir et rendre public une procédure de règlement des plaintes.

Présence de travailleurs

Violence basée sur le genre (VBG), exploitation et abus sexuels (SEA), violence contre les enfants (VAC)
Portée des impacts : Moyen

Mesures :
• S'assurer que des codes de conduite (CoC) sont élaborés et signés par tout le personnel et les travailleurs, et qu'ils suivent une formation régulière sur SEA/SH, le contenu du CoC et

les sanctions.
• Le plan d'action pour la mise en œuvre des normes ESHS et OHS et la prévention de la violence fondée sur le genre (VBG) et de la violence contre les enfants (VAC) doit être rigoureusement appliqué et suivi pour assurer la conformité. Ces codes seront également inclus dans le PGES du contractant.
• S'assurer qu'un plan d'action SEA/SH est élaboré et mis en œuvre avant le début physique des travaux civils.
• Élaborer et mettre en œuvre un mécanisme de plainte/soumission de griefs sensible à la VBG, SEA/SH, VAC, et autres formes de discrimination avec des points d'entrée accessibles pour soumettre des plaintes, une orientation vers les prestataires de services de VBG et des procédures confidentielles et centrées sur la victime pour vérifier et gérer les plaintes.
• Organiser des campagnes de sensibilisation régulières sur le projet et les risques liés à la VBG, SEA/SH, VAC auprès des travailleurs et des membres de la communauté (et avec des femmes dans des groupes séparés avec une animatrice).
• Inclure des dispositions dans le règlement intérieur du site pour dissuader les employés d'abuser de la confiance des fournisseurs de nourriture/étals, ainsi que l'utilisation de la VBG, SEA/SH, VAC.
• Signaler et sanctionner toutes les formes de VBG liées aux activités du projet.
• Interdire formellement le travail des enfants.
• Surveiller les changements dans le statut des femmes et les impacts potentiels du projet sur elles en organisant régulièrement des consultations de groupes de discussion avec des femmes dans un échantillon de villages (en petits groupes animés par une femme).

Plan de Gestion Environnementale et Sociale (PGES) :

L'objectif principal du PGES est de :

1. S'assurer que toutes les mesures d'atténuation prescrites dans le rapport d'Évaluation d'Impact Environnemental et Social (EIES) pour éliminer, minimiser et optimiser les impacts négatifs et positifs du projet soient pleinement mises en œuvre ;

2. Fournir une base et des normes nécessaires à la planification, au suivi, à l'audit et à l'évaluation des performances environnementales et socio-économiques tout au long des activités du projet.

Les lignes directrices du PGES pour la mise en œuvre des mesures d'atténuation sont présentées dans le tableau ci-dessous.

Lignes directrices du PGES pour la mise en œuvre des mesures d'atténuation

Activités	**Impacts**	**Indicateurs**	**Moyens de vérification**	**Calendrier *(préparation, construction, exploitation, clôture)***	**Responsable de**	**Coût de mise en œuvre (US $)**
- Défrichage et préparation du site - Travaux de génie civil pendant la rénovation - Enlèvement de la végétation - Mouvement des engins et véhicules	**Qualité de l'air**	• Arrosage systématique du site et des déblais (au moins deux fois par jour en saison sèche) • Nombre de camions bâchés • Carnets d'entretien des engins à jour • Formulaire de suivi des déchets • Nombre de cas de dépassement de la vitesse autorisée • Pourcentage du personnel portant les EPI appropriés	Rapport d'analyse d'échantillons d'air	Phase de rénovation et d'exploitation	Entrepreneur du projet Unité de mise en œuvre (PIU), Groupe de travail EIES de la NEA Gestion de l'établissement de santé	**2 000**
- Utilisation des installations sanitaires par le personnel - Ruissellement d'eaux usées	**Qualité de l'eau**	• Niveau de conformité des rejets (pH, DCO, DBO, MES, coliformes, etc.) aux normes en vigueur • Examens médicaux systématiques à l'embauche • Existence et	Rapports d'analyse d'échantillons d'eau	Phase de rénovation et d'exploitation	Entrepreneur du projet PIU, Groupe EIES de la NEA Direction régionale des	**2 000**

Activités	**Impacts**	**Indicateurs**	**Moyens de vérification**	**Calendrier *(préparation, construction, exploitation, clôture)***	**Responsable de**	**Coût de mise en œuvre (US $)**
- Déversements d'huile - Rejets de déchets solides et liquides		application d'un manuel HSE • Existence d'un plan de gestion des déchets approuvé et mis en œuvre			ressources en eau Gestion de l'établissement de santé	
- Présence des ouvriers sur site - Travaux de bétonnage / finition des sols - Peinture et revêtements - Évacuation des déchets - Déchets domestiques et sanitaires générés - Déchets biomédicaux	**Production de déchets**	• Existence d'un plan de gestion des déchets (PGD) validé et mis en œuvre • Existence d'un plan de gestion des déchets biomédicaux validé • Bordereaux de suivi des déchets • Existence de bacs de collecte étiquetés • Kit de nettoyage disponible sur site • Contrat de traitement et valorisation des déchets effectif	Registres de gestion des déchets Registre des plaintes Rapport du Comité de gestion des plaintes	Phase de rénovation et d'exploitation	Entrepreneur du projet PIU, Groupe EIES de la NEA Direction régionale de la santé Gestion de l'établissement de santé	**4 000**
- Tous les travaux de génie civil - Transport et	**Santé et sécurité au travail** *(risque accru d'accidents)*	• Existence d'un plan de gestion de la main-d'œuvre • Nombre de campagnes de	Rapports périodiques sur les accidents, incidents,	Phase de rénovation et d'exploitation	Entrepreneur du projet PIU, Groupe	**4 000**

Activités	**Impacts**	**Indicateurs**	**Moyens de vérification**	**Calendrier *(préparation, construction, exploitation, clôture)***	**Responsable de**	**Coût de mise en œuvre (US $)**
manutention des matériaux - Conditions de travail - Comportement des travailleurs		sensibilisation menées • Nombre de cas d'accidents liés au site • Nombre de travailleurs équipés d'EPI • Nombre de travailleurs sensibilisés aux mesures de sécurité • Niveau de conformité aux exigences du Code du travail en santé et sécurité • Conformité des équipements de protection collective • Efficacité de la mise en œuvre des mesures d'atténuation • Nombre de formations/sensibilisations sur la SST • Existence de trousses de premiers secours sur site • Affichage effectif des consignes de sécurité	quasi-accidents et maladies liées au travail Registre des plaintes Rapport du Comité de gestion des plaintes		EIES de la NEA Direction régionale de la santé Gestion de l'établissement de santé	

Activités	**Impacts**	**Indicateurs**	**Moyens de vérification**	**Calendrier *(préparation, construction, exploitation, clôture)***	**Responsable de**	**Coût de mise en œuvre (US $)**
		• Présence d'un agent HSE sur site				
- Recrutement - Tous les travaux sur site - Présence des ouvriers	**Migration de main-d'œuvre** *(risque de conflits liés à l'emploi)*	• Nombre de travailleurs issus des communautés locales recrutés • Nombre d'ouvriers qualifiés locaux recrutés • Comité de prévention et gestion des conflits établi et fonctionnel • Nombre de travailleurs équipés d'EPI • Conformité aux exigences du Code du travail • Nombre de travailleurs ayant bénéficié d'un renforcement de capacités	Registre des employés recrutés	Phase de rénovation et d'exploitation	Entrepreneur du projet PIU, Groupe EIES de la NEA Direction régionale de la santé Gestion de l'établissement de santé	**8 000**
- Interactions entre les ouvriers et les membres de la	**Violence basée sur le genre (VBG), Exploitation et abus sexuels (EAS),**	• Existence d'un mécanisme de gestion des plaintes sensible à la VBG/EAS/SH • Nombre de personnes sensibilisées (ventilé par sexe)	Rapports sur les plaintes VBG/EAS/SH Rapports de sensibilisation Plaintes	Phase de rénovation et d'exploitation	Entrepreneur du projet PIU, Groupe EIES de la NEA Société civile	**10 000**

Activités	**Impacts**	**Indicateurs**	**Moyens de vérification**	**Calendrier *(préparation, construction, exploitation, clôture)***	**Responsable de**	**Coût de mise en œuvre (US $)**
communauté	**Violence à l'égard des enfants (VAE)**	• Nombre de séances de sensibilisation du personnel sur le contenu du code de conduite • Nombre de campagnes communautaires de sensibilisation sur la VBG/EAS/VAE • Nombre de plaintes reçues et traitées • Pourcentage de plaintes relatives à la VBG/EAS référées aux prestataires de services • Pourcentage du personnel ayant signé le code de conduite	enregistrées par les comités de gestion Plaintes reçues au poste de police		Gestion de l'établissement de santé	

Les programmes recommandés pour la gestion des impacts potentiels du projet proposé comprennent :

a) Programme de gestion de la qualité de l'air
b) Programme de gestion de la qualité de l'eau
c) Programme de gestion des déchets
d) Programme de gestion de la santé et de la sécurité au travail
e) Programme de prévention de la VBG, de l'EAS et du harcèlement sexuel
f) Programme de gestion socio-culturelle

La mise en œuvre du PGES est également liée à une série de plans de gestion complets. Les mesures de gestion et d'atténuation doivent respecter les exigences législatives. En l'absence de dispositions légales spécifiques, les bonnes pratiques industrielles et/ou internationales doivent être appliquées dans la mesure du possible.

Un suivi sera entrepris pour s'assurer que les mesures d'atténuation proposées pour les impacts négatifs sont effectivement mises en œuvre. Pour cette raison, il est essentiel que le suivi environnemental et social soit intégré à la planification du projet.

Les objectifs essentiels sont les suivants :

✓ Mesurer le niveau de réalisation (succès ou échec) de la mise en œuvre des mesures d'atténuation ;

✓ Identifier les impacts non anticipés ;

✓ Faciliter l'intégration de la gestion environnementale et sociale dans les interventions de mise en œuvre du projet.

Le suivi de la mise en œuvre des mesures d'atténuation et des engagements du promoteur est essentiel à une mise en œuvre durable de l'entreprise proposée. Le plan de suivi des composantes écologiques et socio-économiques du projet proposé est présenté ci-dessous.

Plan de Suivi

Impact potentiel	**Paramètre de l'indicateur**	**Méthode de suivi et emplacement**	**Calendrier / Fréquence**	**Responsabilité**	**Coût pour le suivi annuel (US$)**
Pollution de l'air	Pollution par la poussière et émissions gazeuses	Utilisation d'un instrument d'échantillonnage de l'air / Mesures ponctuelles sur les sites du projet	Trimestriel	Groupe de travail ESIA (GT) ; Responsable environnemental du projet ; Consultant	4 000
Pollution de l'eau	Température, pH, Turbidité, Nutriments (sulfates,	Collecte d'échantillons (et analyse) des sources d'eau	Trimestriel	Groupe de travail ESIA (GT) ; Responsable	4 000

Impact potentiel	Paramètre de l'indicateur	Méthode de suivi et emplacement	Calendrier / Fréquence	Responsabilité	Coût pour le suivi annuel (US$)
	nitrates, etc.), Métaux lourds, DBO	(du plan d'eau de surface le plus proche ou du forage)		environnemental du projet ; Consultant	
Impact sur la vie sociale / Conflit socio-culturel	Conflits culturels, normes, vices sociaux, perception du projet par les leaders communautaires, hospitalité des indigènes	Effort continu de consultations (à tous les niveaux) ; revue de la mise en œuvre de l'accord de développement communautaire dans la communauté d'accueil	Trimestriel	Groupe de travail ESIA (GT) ; Responsable environnemental du projet ; Consultant	10 000
Impact sur la santé	Maladies courantes / prévalentes dans les communautés hôtes	Utilisation de questionnaires dans les communautés hôtes ainsi que collecte des statistiques sanitaires dans les cliniques et hôpitaux de la région	Audit annuel de la performance environnementale et sociale	Groupe de travail ESIA (GT) ; Responsable environnemental du projet ; Consultant	3 000
Exposition aux risques pour la main-d'œuvre	Maladies fréquentes de la main-d'œuvre, accidents de travail, aptitude médicale	Observation, entretiens, et utilisation du rapport d'analyse des risques professionnels	Semestriel	Groupe de travail ESIA (GT) ; Responsable environnementa	4 000

Impact potentiel	Paramètre de l'indicateur	Méthode de suivi et emplacement	Calendrier / Fréquence	Responsabilité	Coût pour le suivi annuel (US$)
				l du projet ; Consultant	
VBG, EAS/SH	Rapport des cas de VBG, EAS/SH	Enquête sur les cas signalés, entretien avec les victimes affectées et non affectées	Trimestriel	Groupe de travail ESIA (GT) ; Responsable environnementa l du projet ; Consultant	10 000

TOTAL | US$ 35 000 |

Résumé des coûts des activités environnementales et sociales du projet de réhabilitation du centre de santé de Yerobawol

Le budget proposé pour la mise en œuvre du PGES est de **154 000 USD**, y compris le renforcement des capacités des parties prenantes concernées, comme indiqué dans le tableau ci-dessous.

Résumé des coûts des activités environnementales et sociales du projet de réhabilitation du centre de santé de Yerobawol

N°	Désignation	Coût (US$)	Responsabilité
1.	Mesures d'atténuation	30 000	Entrepreneur
2.	Programme de suivi environnemental et social	35 000	PIU/NEA/RHD
3.	Programme de soins après l'achèvement environnemental et social	10 000	PIU/NEA/RHD

N°	Désignation	Coût (US$)	Responsabilité
4.	Plan de gestion des déchets biomédicaux	10 000	RHD/NEA
5.	Mesures de renforcement des capacités	40 000	PIU/NEA/RHD
6.	Mécanisme de gestion des plaintes (PMM)	5 000	Communauté locale/PIU
7.	Audits annuels	10 000	PIU/Consultant

Conclusion

Les impacts négatifs potentiels associés au projet proposé peuvent être atténués avec succès. Il est donc recommandé que :

Le développement proposé devrait pouvoir se poursuivre si le promoteur du projet s'engage pleinement à mettre en œuvre les mesures d'atténuation proposées et le PGES. Un audit environnemental est recommandé à l'achèvement des travaux de construction pour vérifier la mise en œuvre des mesures d'atténuation proposées. Tout impact imprévu du projet devra être identifié et traité lors des audits environnementaux annuels.

Il est également recommandé que le projet mette en place un mécanisme de recours pour gérer et résoudre les plaintes et les griefs des personnes affectées par le projet.

1. INTRODUCTION

1.1. Background

For the Government of The Gambia to improve use and access to quality health services in the country, funds were provided by the African Development Bank in support of the Vulnerable Youth and Women Support Project with counterpart funding from the Government. The project responds to some of the most pressing priorities for both the Bank and the country, including youth employment, skills development, gender equality, and access to quality health infrastructures. The project is needed to reduce the level of vulnerability among the Gambian population, that has been exacerbated by the COVID-19 pandemic. The pandemic has highlighted the weaknesses of the health system but also the social protection system that failed to protect thousands of individuals from the negative social and economic impacts of the pandemic.

The main development challenges the project will address is the low level of human development in the country, in particular high poverty rates, low access to basic social services, and high youth and women unemployment and underemployment rates. More than 48 percent of the population (around 1,215,000 people) is poor and 20.8 percent, about 520,000 Gambians live in extreme poverty. Lack of decent jobs and rewarding livelihoods, the result but also the consequences of inadequate access to social basic services, such as education, health and social protection, contribute highly to fuel widespread poverty. The project interventions aim to provide vulnerable groups, in particular out-of-school youth and women, with market-oriented skills and access to a range of services (financial and non-financial, basic social services) to tackle the multidimensional aspect of poverty and vulnerability. Basically, if poor and vulnerable women and youth in rural areas have required skills in agricultural value chain and have access to quality basic social services, then there will be an increase in their productivity, in household income, in the use of quality health and education thereby reduce poverty and improve inclusive growth.

The project has three (3) components with sub-components, and **Component 2** of the project is "**support for better and inclusive access to basic social services".** These basic social services includes health care facilities. Hence, a portion of the grant was allocated for the renovation of Yerobawol Health Center, Upper River Region.

The development is anticipated to have positive impacts on the health and livelihood of the local community and beyond, as well as attract numerous other developments and opportunities. On the other hand, the project might pose adverse negative impacts and thus there is the need to conduct an Environmental and Social Impact Assessment (ESIA) study. Therefore, the Gambian Government through the National Social Protection Secretariat contracted a consultant to develop this ESIA report as an environmental & social management tool and to fulfill statutory requirement of the donor organization (AfDB) and the National Environment Agency (NEA).

1.2. Objective of ESIA/ESMP

The overall objective of this ESIA is to identify, assess and evaluate the potential environmental and socioeconomic impacts of the renovation/rehabilitation of Yerobawol health facilities and develop mitigation measures that can be adopted to reduce or eliminate

adverse effects as well as maximize the potential benefits of the project intervention activities. The assessment and management plan are key component in developing a sustainable intervention that has minimal environmental and social impact.

The following are specific objective of the ESIA study:

- To identify project activities that have the potential to negatively impact the environment.
- To map negative environmental and social areas of concern in the renovation/rehabilitation of the Yerobawol health facilities.
- Develop mitigation measures and an Environmental Management Plan (EMP).
- Identify positive practices and innovations to promote a clean environment and reduce environmental degradation.
- Identify the risks, constraints and opportunities linked to the environment in which the project will operate.

1.3. Rationale for ESIA for the Project

The National Environment Management Act (NEMA, 1994) provides the legal basis for environment protection and preservation thereby ensuring that efforts put into planning and management are made to bear fruit. Part V of NEMA specifically provides for Environmental Impact Assessment. Suffice it to say that any project that has and/or is deemed to have an impact on the environment, such a project should undergo the EIA procedure such that potential impacts are identified and adequate mitigation actions developed.

The EIA Guidelines and EIA Procedures detail out the processes that one needs to undertake to ensure that project proponents comply with the procedure. The EIA Regulations 2014, which clearly explains the provisions of the Act as well as the procedure and guidelines, outlined steps needed to be followed in terms of scoping, screening, actual impact study, reviews and monitoring. The same law also provides for environmental audits, which is a tool for determining how effective identified mitigation actions have performed and what are the new impacts created which were hitherto unknown.

This project is classified as category B based on the classification of the National Environmental Agency (NEA). This categorization corresponds to category 2 of the Bank's Integrated Safeguards System (ISS: NP No5). The project needs to prepare Environmental and Social Safeguards Instruments from the National Safeguards systems and the Bank's ISS requirements. Thus, the rehabilitation of health facilities requires environmental and social impact studies for the facility to be rehabilitated.

Development of an Environment and Social `Impact Assessment (ESIA) report and submission of a report thereof is one of the essential national and donor's E&S requirements, which the NEA and the Bank rely on to determine if the project is in a better position to ensure that their proposed developments do not create significant negative impacts on human/animal health and the environment.

1.4. Scope of ESIA/ESMP

This ESIA study focused on the renovation/rehabilitation of the Yerobawol Health Center in the Upper River Region (CRR). Yerobawol Health Care Center is a minor health care located in the district of Wulli within the Local Government Area (LGA) of Basse (see Figure 1.1).

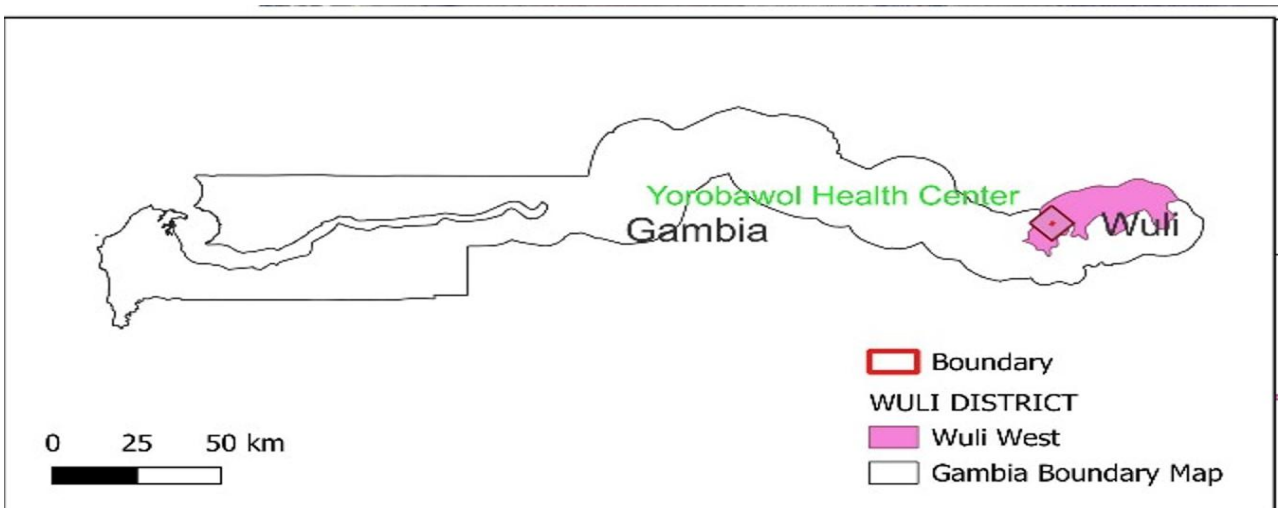


Figure 1.1: Location of Yerobawol Minor Health Center

The key renovation activities to be undertaken at the Yerobawol Minor Health Care Center are (but not limited to):

1) Delimitation of the site (around the building)
2) Preparatory work (scaffolding, mobilization of personnel, site base, site supply)
3) Dismantling of equipment and storage
4) Dismantling of roof and framework
5) Dismantling of installations (electricity, plumbing etc.)
6) Management of rubble and site waste
7) Landscaping the grounds,
8) Excavation and foundation works
9) Masonry, concrete works and related activities
10) Electrical, plumbing and carpentry works (including roofing etc).

Some of the primary tasks carried out during the ESIA study of the site includes but not limited to:

a) Conduct field visits to the Yerobawol health facilities to observe the existing environment (flora and fauna), assess the current status of the facilities on site and collect primary data on air, noise and water quality to identify potential impacts.

b) Consultations with relevant stakeholders using suitable data collection methods such as focus group discussions, key informant interview etc.

c) Prepare ESIA and ESMP report for the renovation/rehabilitation of the facilities.

1.5. Description of alternatives considered

This section provides the identified alternatives considered and are discussed in further details below:

- Alternative 1: "No-Action" Alternative
- Alternative 2: Renovation of existing structures
- Alternative 3: Building completely new structures on other areas within the facility premises
- Alternative 4: Building new structures in place of existing ones

Alternative 2, the renovation of existing structures was the option preferred by the project over the other three alternatives. This alternative was evaluated to be the most cost effective, helps to improve the condition of the facility without halting the healthcare services, if the renovation works are well planned and done in phases. Where necessary, expansion of the existing structures will be implemented.

1.5.1. Alternative 1: "No-Action"

The No Action Alternative assumes that no improvements will be made in Yerobawol health facility and that existing conditions will remain. This alternative is often used to compare the costs and benefits of implementing proposed improvements versus the alternative of continuing to use the existing facility.

If the "No Action" Alternative is opted, then all the existing challenges such as poor healthcare services, unmotivated healthcare workers and long waiting hours will persist or might even worsened. Furthermore, the socio-economic improvements associated with the implementation of the project will all cease to take place. On the Contrary, the "No Action" Alternative will automatically ease the worry of all the potential negative impacts connected to the proposed renovation activities.

1.5.2. Alternative 2: Renovation of existing structures

This alternative is the structural and technical restoration, or modernization of one or several structures or even an entire existing structure. It can focus on maintenance or resolving flaws. Renovation includes replacing anything broken with a new one, adding new items, or fixing loose or outdated structures. It could be a minor or major upgrade. This alternative seems to be a suitable option because it does not require complete demolition of the existing structures or building new structures, rather the renovation activities mainly involve repairs, replacements, repainting and redecoration.

Renovation of existing structures addresses some of the current existing challenges due to the poor condition of the structures, which negatively affects healthcare service delivery. The renovation of the identified structures will improve the healthcare facilities, boost staff morals, increase the confidence of patients on the services delivered. In addition, the renovation option reduce E&S impacts compared to the next two alternatives.

1.5.3. Alternative 3: Build completely new structures within the facility premises

The second alternative identified is the construction of completely new structures instead of renovating or rehabilitating the existing ones. The available empty space within the facility can be utilized for the construction of new structures. However, this alternative has both positive and negative environmental and social impacts as presented in Table 1.

Table 1.1: Impacts of alternative 2 – Building completely new structures on other areas within the facility premises

Alternative 2	
Positive Impact	Negative Impact
• Continuation of existing services to facility users • New and standard structures • Provision of better healthcare services • Enough structures to accommodate different services • Avoid the impacts associated with demolition and renovation	• Quite expensive • Not enough space to construct all the new structures required • Require removal of vegetation during clearing of the area • Causes air, water and soil quality pollution • Increase social problems in terms of the presence of workforce in the community

1.5.4. Alternative 4: Building new structures in place of existing ones

Since the structures in the facility are dilapidated, the other alternative to renovation of existing structures is to completely demolish the current structures and build new structures in the place of the existing ones. The primary challenge in selecting this alternative is there will be total haul of services at the healthcare facility which has extreme consequences. Furthermore, this option will pose more severe negative environmental and social impacts than the initial two alternatives.

Table 1.2: Analysis of Alternatives

Option/ Method of Deployment	Potential Environmental, Social, Technological and Economic Implications		Preferred Option
Zero scenario alternatives			
Allowing the project	**Advantages** 1. Improve access to quality health services 2. Promote public health and wellbeing 3. Minimize referrals to major health centers 4. Conducive health facility	**Disadvantages** 1. The anticipated adverse environmental and social impacts will be a reality	**Allowing the implementation of the project is the option most preferred**
Not allowing the project.	**Advantages** **1.** The anticipated adverse environmental and social impacts will be avoided	**Disadvantages** 1. All the positive impacts associated with the implementation of the project will not be realized.	
Location and layout alternatives			
Build within the existing premises	**Advantages** 1. No extra cost to be incurred in buying land **2.** No grievances due to dispossession	**Disadvantages** - Potential constriction of available space	**Build on site option preferred**
Build on a different site	**Advantages** - May lead to a wider space available	**Disadvantages** 1. Cost implication for a new land 2. Potential grievances arising from dispossession	
	Advantages	**Disadvantages**	
Construction			
1. Cement blocks	1. Materials available 2. Will promote business 3. Relatively manageable	1. Pollution effect of cement 2. Retains heat and is generally hot at night 3. Environmental degradation due to the extraction of sand	**Cement blocks it is easier to make and readily available**
4. Burnt bricks	1. Promotion of local skills 2. Employment opportunities	1. Will lead to environmental degradation 2. Risk of fire outbreaks 3. More labor intensive and time-consuming	

		4. Emission into the atmosphere due to burning	
Construction Workforce			
Hiring local workers from host community	**Advantages** 1. **Cost Savings** – Reduces expenses related to worker relocation, travel, and accommodations. 2. **Faster Project Completion** – Local workers are readily available, minimizing delays in hiring and mobilization. 3. **Better Understanding of Local Conditions** – Local workers are familiar with the area's climate, terrain, and regulations, leading to improved efficiency. 4. **Supports the Local Economy** – Provides job opportunities, boosts household incomes, and stimulates economic growth in the community. 5. **Enhances Community Relations** – Hiring locally fosters goodwill and minimizes resistance from local communities. 6. **Loyal and Motivated Workforce** – Local workers tend to have a stronger commitment to the project as it benefits their own community. 7. **Reduces Language and Cultural Barriers** – Effective communication and teamwork are easier when workers share a common language and cultural background.	**Disadvantages** 1. **Limited Skilled Workforce** – The local labor pool may lack specialized skills or experience required for certain construction tasks. **2. Higher Wage Expectations** – In some areas, local workers may demand higher wages compared to hiring migrant or outsourced labor. 3. **Labor Shortages** – If the local workforce is small, finding enough workers to meet project demands can be challenging. 5. **Potential for Lower Productivity** – If workers lack proper training or experience, productivity may be lower compared to skilled migrant workers. 6. **Resistance to Long Hours or Tough Conditions** – Some local workers may prefer standard work hours and be unwilling to work overtime or in harsh environments. 7. **Lack of Workforce Diversity** – Relying solely on local workers may limit exposure to different construction techniques, innovations, or work ethics from diverse labor pools.	**Hybrid of the two options preferred**

Hiring migrant workers from other communities, regions or countries	1. **Availability of Skilled Labor** – Migrant workers often bring specialized skills and experience that may not be available in the local workforce. 2. **Cost-Effective Workforce** – In many cases, migrant workers are willing to work for competitive wages, reducing overall labor costs. 3. **Higher Productivity** – Many migrant workers have prior experience in construction and are accustomed to working in demanding conditions, leading to greater efficiency. 4. **Flexibility in Work Hours** – Migrant workers are often more willing to work overtime, weekends, or long hours to meet project deadlines. 5. **Fills Labor Shortages** – When local labor is scarce, hiring migrant workers ensures that construction projects continue without delays. 6. **Workforce Diversity** – Migrant workers bring different skills, work techniques, and perspectives, which can enhance efficiency and innovation in construction projects. 7. **Reduces Dependence on Local Workforce** – In	1. **Language and Communication Barriers** – Migrant workers may not speak the local language fluently, leading to misunderstandings and safety risks. 2. **Cultural Differences –** Differences in work ethics, customs, and practices may lead to workplace conflicts or misunderstandings. 3. **Job Insecurity and High Turnover** – Migrant workers may move frequently for better opportunities, leading to workforce instability and the need for continuous hiring and training. 4. **Local Community Resistance** – Hiring migrant workers instead of locals can cause tensions within the community, leading to negative public perception or opposition. 5. **Potential for Exploitation or Abuse** – Some employers may exploit migrant workers with low wages or poor working conditions, leading to ethical and legal concerns. 6. **Accommodation and Welfare Costs** – Employers may need to provide housing, transportation, and other welfare support, increasing operational costs. 7. **Dependence on External Workforce** – Over-reliance on migrant workers may reduce opportunities for	

	areas with a limited local labor supply, hiring migrants ensures that construction projects proceed smoothly.	local employment and skill development. 8. **Risk of Unfair Labor Practices** – Differences in labor rights and protections for migrant workers can lead to disputes, strikes, or legal issues.	
Water supply			
Reliance on existing water supply	- Will enable no disruption of the water supply system - Will require no cost implications	- The demand will be too much for the existing system to support	**Both options preferred**
Improvement of the existing capacity with the pumping system and overhead tank	- Will enhance the existing capacity - Will ensure that adequate water is available for other needs	- Will incur significant cost implication	
Energy supply			
Solar	**Advantages** - Environmentally friendly - Does not incur extra costs besides the initial - The local environmental conditions support it	**Disadvantages** - Not enough power will be generated to serve all the needs - Risk of theft	**Solar is the preferred option, but it is highly recommended to connect to the national grid to enable the powering of the appliances.**
Generator	- Does not incur high start-up costs, depending on the type and power needed	- Noise and vibration impacts - Emission from the generator exhaust, especially as it ages - Frequent buying of fuel to power the generator may not be sustainable	
Grid	- Ensures that all the Center`s appliances are functional	- Frequent buying of cash power will have significant cost implications. - Instability of electricity supply	
Timing and duration of construction works			
Construction during the dry season	**Advantages** - Heavy machinery and trucks can easily access the	**Disadvantages** - Dust emission due to the use of heavy vehicles, excavations, etc	**The preferred option is to construct during the dry**

	construction site to deliver the materials.		**season but work to be scheduled to avoid dust, noise and vibration impacting healthcare services**
Construction during the rainy season	- Dust emission will be minimal due to wet conditions	- Certain areas with muddy soils will be inaccessible. - Unpredictable working hours or disruption of works due to rains.	

2. PROJECT DESCRIPTION

2.1. Project overview

The objective of the project is to improve the incomes and productivity of the most vulnerable youth and women, specifically out-of-school youth and women in rural areas, the National Social Protection Secretariat is developing a project proposal with the following objectives:

- Create jobs and livelihood opportunities for vulnerable women and out-of-school youth in rural areas and increase their productivity and hence their incomes through skills development and financial and non-financial support.
- Improve their use and access to better and inclusive basic social services (education, health, nutrition, social protection).

The project will adopt a holistic approach to tackling the multidimensional aspects of vulnerability and poverty. The project will also contribute to reducing gender inequalities by providing better economic and social prospects for young girls and women and reducing social expectations of male youth as household providers.

The project will also contribute to resilience in the country by tackling some of the key drivers of fragility. The Gambia Fragility Assessment identified low human development, including youth unemployment, poverty and inequalities, and poor access to health and social protection services, as a driver of fragility and a potentially destabilizing factor for the world as The Gambia is an important contributor to irregular migrants to Europe.

The project has three main components but component two of the project ("**Support for better and inclusive access to basic social services")** is the primary focus of this consultancy assignment. One of the sub-components is on Improving access to quality healthcare and nutrition infrastructure. This component will increase the impact of the existing project that is focused on financing the rehabilitation and equipping of two healthcare centers (Kuntaur and Fatoto).

The Additional Finance (AF) -VYWOSP will support the rehabilitation and equipping of four additional health facilities (Yerobawol, Foday Kunda, Brimaka and Chamen Health Centers) to improve equitable access to health services including response to GBV and FGM/C. In addition, it is expected to improve the capacity of the health system to detect and therefore respond to disease outbreaks by strengthening the surveillance system. It has the following sub-components.

Sub-component 2.1: Rehabilitation and equipment of four additional health facilities to provide high quality health services including for sexual and reproduction health. This will

contribute to improvements in the capacity of the health system to respond to GBV and reduce out of pocket expenditure on health.

Sub-component 2.2: Capacity building and technical assistance to the Ministry of Health by the World Health Organization (WHO) to strengthen the health system to deliver improved health outcomes. This includes support to develop a national health investment plan that identifies and prioritizes investable opportunities in the health sector for both government and its partners. In addition, the funding will support the appraisal and preparation of well-structured bankable projects to be financed by partners including the African Development Bank, Islamic Development Bank, the European Investment Bank and other partners, mobilizing additional resources for the health sector The World Health Organization will build the capacity of the Ministry of Health to improve the quality of their health infrastructure to WHO global standards, promote policy reforms that strengthen pandemic preparedness and promote private health entrepreneurship to create jobs and support skills development in the health sector.

2.2. The state of health services in The Gambia[1]

The Gambia has a three-tier system for the delivery of public health services (see Figure 2.1). Despite the high priority given to basic health care services in the national strategies, budgetary allocations are skewed towards tertiary health care provision and core activities through the central level. Only 20% is allocated to basic health services (Public Expenditure Review 2020).

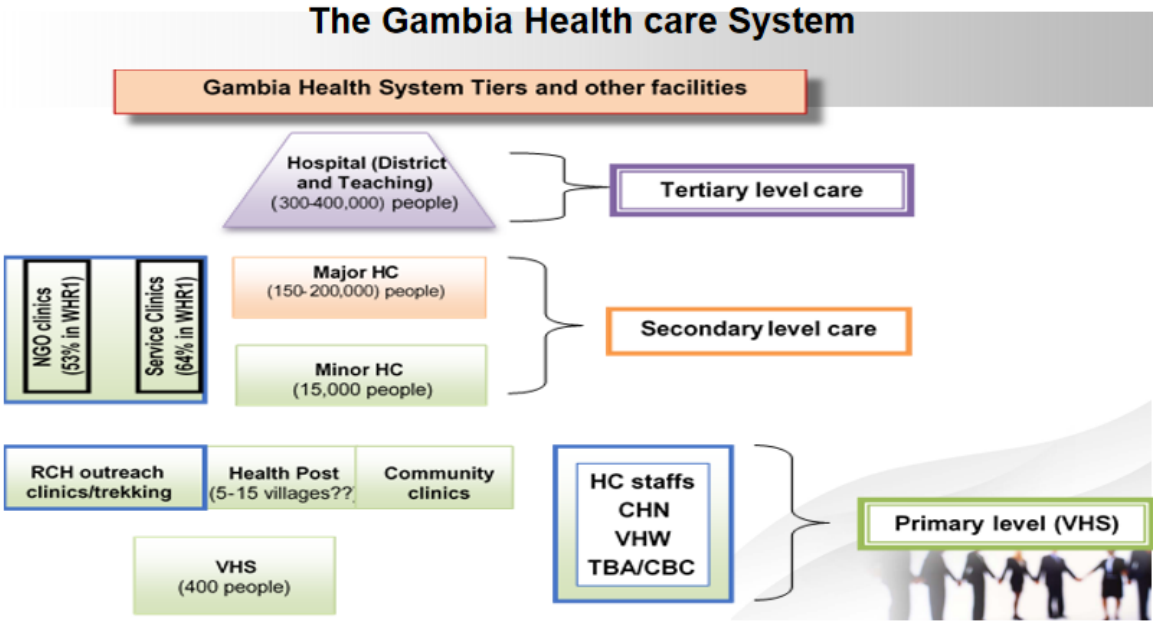


Figure 2.1: Health Care System in The Gambia

At the central level, the Ministry of Health (MoH) is responsible for setting health policies, regulations, research and mobilizing resources. The regional level comprises of seven Regional

[1] This section was extracted from the recently validated Health Policy 2023

Health Directorates (RHDs) that are responsible for implementing the policies and programs of the MoH and act as Regional Health Directorates. The RHDs oversee the provision of health care delivery and provide stewardship for primary and secondary levels of care in the peripheral health facilities within their regions. However, inadequate decentralization at the regional level currently hinders the regional health directorates' ability to fulfill this coordination role.

At the primary level, health care is delivered through the village health services by village health workers who provide promotive and preventive health care. As part of efforts to revitalize and implement the concept of Primary Health Care in the country, the PHC unit under the ministry witnessed a significant increase of PHC key villages from 722 to 942. In addition, the ministry has provided 80 community ambulances serving cluster of villages located at hard-to-react areas to facilitate patient early referral from communities to referral centers. However, despite the above-mentioned milestones, PHC coverage in rural areas is still low, with an average coverage of 40% nationally.

Secondary care is provided through major health centers, which deliver up to 70 percent of the Essential health care package, including emergency obstetric and neonatal care. Yerobawol health center is one of the minor health centers, under the secondary healthcare level.

Tertiary health care centers consist of the hospitals (District and General), including the teaching hospital, which is the highest level of the referral system. Some of the hospitals are semi-autonomous and are not supervised by RHDs but are responsible for providing them with patient usage data. Figure 2.2 presents the various types of health facilities in The Gambia.

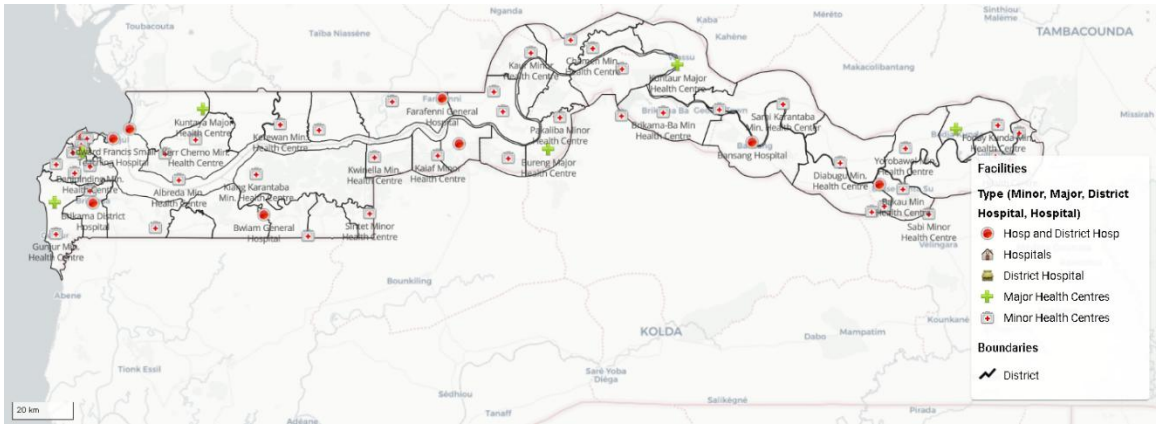


Figure 2.2: Map of Health Facilities in the Gambia

Coordination across the health sector, including government, civil society, and donors, is still a challenge for The Gambia. Even though a lot of improvement have been made, the Health Service Assessment Report (2019) indicated that most coordination takes place at the program or activity level, rather than across health programs within the MOH. There is no standing cross-program coordination mechanism within MOH and private health sectors/NGOs. As a result, regulation of the private sector and NGOs health care providers remains a challenge.

The coordination and regulation of personnel equally pose a challenge as professional councils do not have adequate capacity to fulfill their regulatory roles. Though legislation provides the

statutory authority for regulation and licensing, however these councils do not have adequate technical and financial resources to enforce regulations on health providers and that some health providers are often unaware of the relevant regulations for their profession. However, MOH has put a mechanism in place to license all the private and NGO health facilities and their personnel.

2.3. The Identified health facility for renovation under the project

The National Social Protection Secretariat (NSPS) in consultation with the Ministry of Health selected Yerobawol Health Facility to be renovated under the Vulnerable Women and Youth Project. Table 2.1 shows the number of health workers per cadre.

Table 2.1. Number of health workers per cadre at Yerobawol health center

Public Health Officers	Nurses And Midwifes	Lab Assistants	Pharmacy Assistants	Supports Staffs	Security Officers
4	7	1	1	9	2

This health Installation comprises of Twelve (12) different components namely: Staff quarters (7 quarters), Public toilets (2 blocks), Laboratory, Health Care & Drug Store block, Art room, Youths Friendly Center, Waiting Shed, Public Laundry, Security Post, Generator Room, Mortuary, Mosque, and the Main Building (Maternity ward, Male & Female Ward, Labour Ward, Public Health Office and Outpatient department). However, some parts of the facility infrastructure are falling apart due to lack of maintenance. There are structures also built purely for solid waste management with the facility.

Figure 2.3: Google Map of Yerobawol Health Care Facility

The facility is an old facility that was constructed decades ago. Some of the current structures within the facility are not in good shape, and it is risky to work in such environments. The plumbing system and wiring are poor, which is increasing the vulnerability of the staff and

patients within the facility to disasters that result in loss of lives. The nature of the facility right now does not motivate workers, which is why the facility has insufficient human resources, such as medical workers.

A joint team from the Ministry of Transport Works and Infrastructure, Ministry of Health and National Social Protection Agency (NSPA), conducted a detailed assessment in December 2024 and January 2025. This assessment study listed down the existing conditions of the various structure and recommended the possible renovation activities to be done, Table 2.2 presents the various structures at the facility and the current conditions of these structures as well as the recommended works to be done.

Table 2.2: Existing structures, their current conditions and the recommended works to be done

Structure	**Existing Conditions**	**Recommended works**
♣ Staff quarters (7 quarters) ♣ Public toilets (2 blocks) ♣ Laboratory ♣ Health Care & Drug Store block ♣ Art room ♣ Youths Friendly Center ♣ Waiting Shed ♣ Public Laundry ♣ Security Post ♣ Generator Room ♣ Mortuary ♣ Mosque ♣ Main Building ✓ Maternity ward ✓ Male & Female Ward ✓ Labour Ward ✓ Public Health Office ✓ Outpatient department)	♣ Minor leakages are common as spotted on the ceiling and major leakage on the buildings of the blocks which requires that roofing sheet to be replaced and roof structures ♣ Major electrical fault on the cables as well as appliances ♣ Minor hairline and major cracks on walls ♣ Changing of plumbing fittings in wards and toilets ♣ Painting of the facility ♣ Leakage marks on ceiling ♣ Replacement/changing of doors and windows ♣ Broken floor tiles	a) Removed and replaced with new roofing sheets and roofing structures b) Repaired and replaced all electrical faults on the cables as well as appliances c) Repaired all hairline and major cracks on walls d) Repaired and replace with new plumbing fittings in wards and toilets e) Repaint the whole facility f) Remove and replaced with new ceiling g) Remove and replaced with new doors and windows h) Provide new floor tiles where needed

		i) Expand the labour ward by creating delivery room for each patient with complete privacy. j) Renovate the maternity, male and female ward to accommodates more patients. k) Expand the waiting shed to accommodate immunization and weekly child health. l) Renovate the existing staff quarters blocks and construct new indoor toilets. Provide fencing on some of quarters. m) Demolished the partition wall in the youth friendly center. This will create more space. n) Expand the security post by providing indoor toilet and shower. o) Upgrade the mortuary block to fit for purpose. p) Demolished and construct a new mosque

		q) Remove and replace a new main gate. r) Provides additional power supply using solar panels. s) Provides additional water and solar street lights. t) Renovate the existing public health and laboratory block.

2.4. Primary beneficiaries of the Project

Yero Bawol minor health centre is situated within Yero Bawol village and covers 46 communities, with a catchment area population of about 25,552. It is the key health facility within the district and has 16 primary health care villages covered by 3 community health nurses residing within those three key villages.

3. Methodology

This methodology chapter of the ESIA Inception report provides the detail approach undertaken to carry out the ESIA for this project. The chapter covers the methodology adopted for this assessment from desk literature review stage to the final stage of the ESIA report compilation.

The ESIA report will inform the project team, AfDB, NEA and all relevant stakeholders of the significant environmental and social impacts that may occur due to the Project and the measures identified to mitigate against those significant impacts. This assessment will be completed in consultation with the relevant stakeholders.

The assessment will be implemented using a mixed method approach to data collection using both quantitative and qualitative approaches. Therefore, both primary and secondary data collection will be used to collect the data required for the assessment.

3.1. Data Collection

Data collection is a key component of any impact assessment. Two forms of data will be used for the assessment: secondary data to be collected through desk review and primary data to be collected through survey, FGDs, KIIs, and site visits. Both sources of data will be crucial for gathering information for the assessment.

3.1.1. Secondary Data Collection

Desk review: Relevant project documents will be carefully reviewed to develop an in-depth knowledge and understanding of the project. Some of these vital documents include the Project Proposal, Baseline report (if any), project sites, similar projects in the country, among others to be provided by the project implementation team.

The following legal documents will also be reviewed:

- National Policies and Regulations
- National Legislations
- Relevant AfDB Environmental and Social Operational Safeguards (1 – 10)
- Relevant International Instruments /Conventions
- As part of the secondary information gathering to identify existing environmental conditions, proposed developments at the selected facilities and predicting potential impacts, consultative meetings will be organized with key actors of the project. Results from this exercise will inform the primary data collection.

3.1.2. Primary Data Collection:

The primary data collection entails two main activities with sub-activities as follows:

Baseline Study

Physical Environmental Baseline – This activity entails collecting primary data on air quality, water quality and temperature for the two intervention sites.

Biological Environmental Baseline – The team will conduct a field visit to identify the various flora and fauna types and diversity including the ecosystem around the two health facilities.

Socio-economic – Demography, Social amenities, and related information of social significance will be collected during the baseline field visits to the two intervention sites. The following socio-economic data will be collected during the baseline data collection; Land use; land tenure; population; economic activities; access to health; water and sanitation; education and literacy etc.

Furthermore, to gather primary data from stakeholders on project environment and socio-economic impacts, the following data collection activities will be carried out: Survey; Expert Discussion; Focus Group Discussion (FGDs); and Key Informant Interviews (KIIs). The survey will target health service users (patients) and health personnel or providers. Both service users and providers will be targeted in the two facilities where the renovation works will take place. The purpose of the survey is to gauge the perception of beneficiaries on the environmental and social impacts of the project.

The population of the study is all health care users and personnel that will be impacted by the project. The catchment area data received on the facility benefiting shows that the health facility covered by the project have a catchment area of 25,552 people. Hence, this consists of service users that are likely to be affected (either directly or indirectly) by the project activities.

Table 3.1: Catchment Area Population of Facilities

S/N	Facility	Region	Population
2	Yero Bawol Health Center (Sandu)	URR	25,552
	Total (N)		**25,552**

Source:

To determine the sample size for the perception survey, the Krejcie and Morgan (1970) sampling size determination formular was used, given below:

$$s = \frac{X^2\rho(1-\rho)}{d^2(N-1) + X^2\rho(1-\rho)}$$

Using this formula and with the values for d, X, and p maintained at values proposed by the authors (0.05, 3.814, and 0.5, respectively) a representative sample size for the survey was 86 respondents for Yero Bawol Health Center. To select respondents for the survey, a multi-stage sampling design was adopted where in the first stage respondents are grouped into stratum based on communities where the health facility is located using the Probability Proportionate to Size (PPS) allocation method. In the second stage, the respondents were selected from each stratum using convenient sample at the project facility.

Data on the population of staff of the health facility project site was obtained from the Ministry of Health. Using the sample size determination criteria given above with the restriction that d=1 (due to less variability in the respondent type), a sample size of respondents were calculated for this category.

Qualitative data collection targeedt the following category of respondents: Regional Health Directorate; Officer in-charge; Alkalos of project sites; VDC Chairman; Women head; Youth head ; Doctor; Nurse; Public health officers; Community health nurses; Area Councils & Governors. Furthermore, expert consultations were held with individuals from the following institutions: Regional NEA Officers; Directorate of Health Services; MoTWI; MECCNAR; and NSPS. Overall, the target is to do 7 KIIs and 3 Focus Group Discussions .

Table 3.2: Target Group for each Data Collection Type

#	Data Collection Type	Target Group
1.	Perception Survey	1. Users (patients) 2. Providers (doctors, public health & nurses)
2.	FGD	1. Mixed group (male and female) 2. Female only 3. Youth only
3.	KII (community level)	1. Regional Health Directorate 2. Officer in-charge of the health center 3. Alkalo 4. VDC Chairman 5. Women head 6. Youth head 7. NEA Regional Officer
4.	KII Institutional level (Expert Discussion/Institutional Consultation)	1. NEA 2. MECCNAR 3. MoH 4. NSPS 5. MoTWI

Source: Based on mapping of key stakeholders by consultant

Data Collection Tools

For elicitation of information from respondents regarding the project activities and their environmental and social impacts, three main tools will be developed and used: a questionnaire for quantitative survey and FGD and KII guides for qualitative data collection. The tools developed by the consultant team for the primary data collection (questionnaires, FGD and KII guides) is attached as an annex to this report for review by the project team to ensure that they are fit for purpose. The survey tools (i.e., questionnaires) were developed using the Survey

Solution Designer App and any changes suggested by the client will be easily integrated in the tool, which is available online.

The survey questionnaire is organized into four main sections: Socio-demographic characteristics of respondents; awareness about the project; perception on environmental impacts of project activities; perception on social impacts of project activities. Both environmental and social impacts will be assessed via the African Development Bank (AfDB) Environment and Social safeguard. The qualitative tools will also be developed to collect similar type of information from the targeted participants.

Recruitment, Training, and Pre-testing of Tools

Before the start of data collection, qualified and experienced data collectors will be recruited and trained on administration of the relevant tools. For the survey, 5 experienced data collectors (including 1 supervisor) will be hired for 3 days; each enumerator will be required to complete 10 interviews per day. The enumerators will be divided into teams of two and all the teams will be supervised by one supervisor. The consultant team will conduct the FGDs and in the selected location, which is expected to last also for 3 days as well as the KIIs concurrently. A day training and a day pretesting of tools will be conducted. The training will focus on reviewing tools with data collectors and introducing them to the study methodology and on mock interviews with the data collection tool and pre-test of the instruments. Pretesting will be done with respondents that are similar to those targeted and shall be done in the urban area where the training will be conducted. After pre-test, a debriefing session will be held with data collectors to collect issues identified during the exercise, which shall be corrected before the actual data collection

Fieldwork

Once the tools are pilot-tested and corrected, the deployment of data collectors for the various data collection exercises outlined above will follow. The survey data collection will be done using the Survey Solution CAPI tool, which shall be used for the overall management of survey. The administration of survey questionnaires will be done using the tool's interviewer App via tablets. The interviews will be in-person in the location of the target respondents. Mobilization of participants for FGD will be done and for each FGDs, 8 to 10 participants will be mobilized. FGDs will be audio recorded using an audio voice recorder, and at end of the exercise all audios will be transcribed into English, which will be analysed using a qualitative data analysis tool like Atlas.ti. KIIs will be administered using the guide developed. The moderators of the KII will employ the note taking approach using the guide developed. Furthermore, three experts' groups will be identified and interviewed by the consultant team using a semi-structured interview tool. Interviews with experts will be in-person, and where that is not possible, virtual meetings through zoom or other platforms will be done with sessions recorded.

In addition, the consultant team is to conduct observation visits to the two selected sites to gather information on the environmental baseline, status of the health facilities etc.

The consultant team shall be responsible for all logistic arrangements for the data collection and analysis such as recruitment of data collectors and their payment, conduct of training, hiring of vehicles, and deployment of survey team.

3.2. Assessment of Environmental Impacts

To identify and assess potential impacts associated with or resulting from Project activities, the ESIA team will use data collected from the field consultations, professional judgment, and desktop analysis to identify potential impacts and their interactions. The significance of potential impacts that may result from the proposed Project will be determined to assist in preparing recommendations for the proposed Project evaluation.

3.2.1. Impact Identification

The description of the planned project activities will help in identifying the environmental aspects of the proposed project. These identified environmental aspects will be matched with the existing baseline description of the project environment which will be employed to generate a checklist of potential and related impacts of the proposed project. Project impacts will be identified through the understanding of the interaction between the planned project activities and the prevailing environment at the project site. Expert knowledge and stakeholder consultation will also play a significant role in the process of impact identification.

3.2.2. Impact Characterization and Evaluation

The potential impacts identified from the proposed activities of the project will be further characterized to have an in-depth understanding of the nature of the identified potential project impacts. The characterization will be based on the nature, characteristics and duration of the different project activities on the physiochemical and biological component of the environment as well as the socio-economic, cultural, human health and safety.

Project impact on the environment occurs when the existing environment interacts with the various project activities which may lead to changes in the environment as shown in Equation 1.

[Environment] + [Project] = {Changed Environment}
Equation 1

The evaluation of the impacts, which consists of assessing as precisely as possible the consequences for the biophysical and socioeconomic environment elements considered of these different modifications. This will be done by means of a characterization tool that makes it possible to evaluate the importance of foreseeable impacts according to the criteria of intensity, extent, and duration. The integration of these criteria (Intensity, Extent, Duration and Reversibility) in an evaluation grid will make it possible, for each identified impact, to qualify its importance, which can be major, medium, or minor.

Table 3.3: Impact Significance Rubric

Criteria	Level of appreciation
Intensity	Major or High
	Moderate
	Minor or low
Scope	National
	Regional
	Local
Duration	Permanent
	Temporary
	Momentary
Importance	Major
	Moderate
	Minor or Low
Reversibility	Reversibility
	Irreversibility

Source: CHEMAS Consulting Group, August-September 2021

The criteria to be used for this assessment are the nature of the interaction, the intensity or magnitude of the impact, the extent or scope of the impact, the duration of the impact, the significance of the impact, and the reversibility of the impact as explained below:

- The nature of the impact indicates whether the impact is negative or positive
- the intensity or magnitude expresses the degree of disturbance of the socioeconomic and biophysical environment; it is a function of the vulnerability of the component studied; three classes are considered (strong, medium, and weak)
- the extent gives an idea of the spatial coverage of the impact; three classes are also distinguished here (local, regional, and national)
- the duration of the impact indicates the manifestation of the impact in time; two classes were distinguished for the duration (momentary, temporary, and permanent)

- the importance of the impact corresponds to the extent of the modifications that affect the affected environmental and social components; it is a function of the duration, its spatial coverage, and its intensity; three levels of disturbance are distinguished (High, Medium, and Low):
    - ***High****: when the impact alters the quality or permanently restricts the use of the affected feature,*
    - ***Medium****: when the impact somewhat compromises the use, integrity, and quality of the affected element,*
    - ***Low****: When the impact does not perceptibly alter the quality or use of the affected element.*

- the reversibility of the impact provides information on whether the impact is reversible (can still be corrected or lessened) or irreversible (incorrigible, permanent damage). Two classes have been distinguished for reversibility (reversible and irreversible).

3.3. Mitigation measures

In developing mitigation measures, the first focus is on measures that will prevent or minimize impacts through the design and management of the Project rather than on reinstatement and compensation measures. A 'hierarchy' of mitigation measures for planned activities and unplanned events is outlined below:

1) Avoid at Source; Reduce at Source: avoiding or reducing at source through the design of the Project (e.g. avoiding by sitting or re-routing activity away from sensitive areas or reducing by restricting the working area or changing the time of the activity);
2) Abate on Site: add something to the design to abate the impact (e.g. pollution control equipment);
3) Abate at Receptor: if an impact cannot be abated on-site then control measures can be implemented off-site (e.g. traffic measures)
4) Repair or Remedy: some impacts involve unavoidable damage to a resource (e.g. material storage areas) and these impacts require repair, restoration and reinstatement measures.
5) Compensate in Kind; Compensate through Other Means where other mitigation approaches are not possible or fully effective, then compensation for loss, damage and disturbance might be appropriate (e.g. financial compensation for degrading agricultural land and impacting crop yields). It is emphasized that compensation to individuals with residual impacts to livelihood or quality of life will generally be non-financial and will have a focus on restoring livelihoods.

6) Control: this aims to prevent an incident happening or reduce the risk of it happening to as low as reasonably practicable (ALARP) through reducing the likelihood of the event (e.g. preventative maintenance regimes, traffic calming and speed limits, community road safety awareness training);

7) Reducing the consequence (e.g. Bunds to contain hazardous substance spills); and a combination of both of these;

8) Recovery/Remediation: this includes contingency plans and response, e.g. Emergency Response Plans and Procedures.

Table 3.4: Summary of impacts

Impact Assessment Summary					
Project activities					
Types of impacts					
Criteria	Intensity	Scope	Duration	Importance	Reversibility
Without mitigation					
Mitigation Measures/ Improvement	• Mitigation Measure 1 • Mitigation Measure 2				
With mitigation					

Source: CHEMAS Consulting Group

3.4. Environnemental and Social Management Plan

After the assessment and evaluation of all the significant environmental and social impacts, a management plan was formulated to effectively implement the recommended enhancement and mitigation measures. Various management plans and programmes were proposed to tackle each of the significant impacts that may emanate from project activities. Furthermore, the monitoring plan for the implementation of the ESMP was also developed by preparing indicator parameters for the proposed measures and highlighting the monitoring method and frequency as well as authorities responsible for the execution of the monitoring plan. A budget was developed for the implementation of the ESMP and monitoring plan.

In summary, the ESMP was prepared to set out: (i) actions to implement mitigation measures; (ii) a monitoring and reporting program, based on agreed performance indicators; (iii) emergency response procedures; (iv) institutional and organizational arrangements; (v) capacity development and training; (vi) implementation schedule; and (vii) cost estimates.

Table 3.5: The ESMP matrix is presented as above

Activities	Impacts	Indicators	Means of verification	Timelines (preparation, construction, exploitation, Closing phases)	Responsible for			Cost of implementation (US$)
					Execution	Monitoring	Aftercare	

3.5. Complaint and Grievance Mechanism

A generic compliant and grievance mechanism was developed following the basic principles for a good grievance redress mechanism. It considers the general principles of complaint management as well as the specificities resulting from the consultation of the stakeholders of this project and the specificities of the health centers concerned.

3.6. Health Care waste management Plan

The terms of reference refer to the preparation of a biomedical waste management plan. In The Gambia this plan is called *Health Care waste management Plan*.

During the operation phase of the rehabilitated health care facility, the generation of health care waste is anticipated and thus, a management plan should be prepared for the proper collection, storage, transportation, treatment and disposal of these health care waste. The Ministry of Health has a Health Care Waste Management plan and Policy (HCWMP). Therefore, a generic Health Care Waste Management Plan will be prepared in this ESMP in accordance with the National HCWMP.

3.7. Preparation and Submission of ESIA/ESMP report

Each section of the report were compiled and edited by the specialists for that section from the team members. However, the overall reporting and compilation of the independent chapters was done by the lead consultant for onwards submission to the NSSP team.

4. Policy, Legal and institutional framework

This chapter provides the various national and international policies, legal and institutional frameworks, and the AfDB Environmental and Social Operational Standards (OS) policies that are relevant to the development and implementation of this ESIA and its ESMP. The relationships and relevance of these instruments to the project are highlighted below:

4.1. Relevant National Policies

Table 4.1 indicates the relevant national policies (*listed in order of date adopted*) that are relevant and guided the development and implementation of the Project.

Table 4.1: Summary of Relevant National Policies

Policy	Description	Relevance to the Project
National Policy for the Advancement of Gambian Women and Girls (1999-2009)	Policy provides a legitimate point of reference for addressing gender inequalities at all levels of government and all stakeholders	Relevant to this Project since the focus of the project is on vulnerable youth and women.
National Youth Policy (2009–2018)	Policy aims to mainstream youth issues into the advancement of all sectors	Successful project implementation will provide ease access to social services such as health care services to the youth
Gambia Environment Action Plan, GEAP (2009-2018)	Integrated environment and natural resources management	Provides guidance in general environmental planning and natural resources management.
Forestry Policy (2010-19)	Promotes state and community forest development and management	Sixty-six gazetted forest parks are located in various parts of the country, some of which are in the project intervention region (URR).
Gambia National Gender & Women Empowerment Policy (2010–2020)	To mainstream gender in national and sectoral planning and programming to ensure equity and equality	Women will be consulted during the stakeholder consultation, and they are expected to be the largest beneficiaries.

The National Health Policy, 2012-2020	Protects public, especially women and most vulnerable groups, and environmental health including nuisance and other risks associated with this Project	Relevant to this Project since dust, noise and other health risks can be associated with the project activities. Successful implementation of the policy measures will result in reducing morbidity and mortality of major diseases; reduce health risks and exposures associated with negative environmental consequences.
National Healthcare Waste Management Policy (2012-2020)	Provides guidance on proper management of health care waste, in order to safeguard the patient, health care provider, community and the environment.	This policy will guide the development of the biomedical waste plan in this ESIA.
The National Biodiversity Strategy and Action Plan (NBSAP), 2015	The NBSAP recognizes the conservation and sustainable use of biodiversity	The biodiversity within the premises of the site for the regional hospital construction may be impacted.
National Climate Change Policy (2016 – 2025)	Policy provides the framework for managing climate risks, building institutions, capacities, and opportunities for climate-resilient development	Some of the proposed project activities might result in the emission of greenhouse gases (GHGs) which contributed to climate change and hence, this Policy is promoting low emission activities.
National Strategic Environmental Assessment Policy (2017- 2021)	Aims to ensure environmental sustainability	Applies when developing policies, plans or programs in all sectors, including health
National Development Plan (Yiriwa)(2023-2027)	Policy provide framework for sustainable development in the country including sustainable smart agriculture	The NDP (Yiriwa) has seven (7) strategic priorities with pillar IV gear towards increasing quality, accessible and affordable health care services delivered for all

The Gambia National Gender Policy 2010- 2020	The overall goal of this policy is to achieve gender equity and women empowerment as an integral part of the national development process through enhancing participation of women and men, girls and boys for sustainable and equitable development and poverty reduction	Successful implementation of the Project will enhance women participation and facilitate gender equity and equality at policy, program and project levels in all institutions and levels across all sectors of The Gambian society

4.2. The National Legal Framework

The legal framework that will guide the Project's implementation are indicated in Table 4.2 below, listed in order of date enacted.

Table 4.2: The Summary of National Legal Framework Relevant to the Project

Title of Legislation or Regulations	Description	Relevance to the Project
Public Health Act, 1990	Health including abatement of nuisances and any condition that may be injurious to health. Protects public and environmental.	Relevant to Project since dust, noise, and other health risks can be associated with the Project.
Physical Planning and Development Control Act, 1991	Ensures developments in The Gambia are in line with land use planning and construction standards.	The renovation/rehabilitation activities shall be in line with national land use and planning rules.
National Environment Management Act, 1994	Principal legislation in environmental management; Part V of Act provides for certain projects listed under Schedule A to be considered for ESIA.	This Project falls under Schedule A which requires an ESIA to manage environmental and social risks and impacts.
Hazardous chemicals and pesticide control and management Act 1994	Act provides framework for the manufacture, importation and use of hazardous chemicals and pesticides	Relevant in this Project in view of the potential hazardous biomedical and pharmaceutical waste generated at the facilities.

Environmental Quality Standards Regulations 1999	Regulations declare standards set out in Schedule 1 in respect of ambient air, saline waters, surface fresh waters and groundwater.	Project implementation has potential to generate dust, and to pollute surface fresh waters as are found along some of the project corridors.
Environmental Discharge (Permitting) Regulations 2001	Regulations require that a permit is obtained for most discharges of potentially polluting liquids into or onto the ground (i.e., to groundwater) or into surface waters (such as rivers or streams).	Project implementation has potential to discharge potentially polluting liquids into surface water bodies as may be found with the project's Area of Influence (AoL)
Local Government Act, 2002	Act makes provisions for decentralized administrative structures including devolution of functions, powers, and duties to local authorities	Implementation of the Project will require the participation of decentralized institutions including the Offices of the Governors of URR, as well as their respective Technical Advisory Committees (TACs).
Biodiversity and Wildlife Act, 2003	Provides for the protection of biodiversity and the establishment of protected areas	The project does not affect any of the protected areas in URR. However, there is needed to always keep the provisions in this Act in view.
The Children's Act 2005	Act sets out the rights and responsibilities of children and provides for their care, protection, and maintenance	Rights of children impacted by the project need to be protected by prohibiting violence against children and child labor and will be enforced through monitoring of code of conduct of workers during renovation phase of the project.
Mines and quarries Act, 2005	Act makes provision for prospecting for minerals, for carrying out mining and quarrying operations including gravel, sand, and for connected matters	The proposed renovation activities which will involve use of sand and gravel aggregates mined in designed areas or with the permission of authorities.

Labor Act (2023)	Provides the legal framework for administration of labor, recruitment and hiring of labor, and protection of wages	The project will abide by the minimum age for hiring (18 years old). Contractors will be required to verify age and keep a record. Forced labor is expressly prohibited and will be clearly posted on the worksite and how workers can grieve if worker's rights are violated. The rights of the workers, OHS, workers' contracts, vacation, hours, holidays, regulatory schedules, etc. will be included in contracts and workers will receive training on working conditions, worker's rights, etc.
Anti-littering Regulations, 2007 (*Currently under review)*	Addresses waste management and pollution issues in relation to environmental health and hygiene	The project must ensure that all waste produced during all phases is well managed.
The Women's Act 2010	Aims to advance women's rights to land and natural resources in order to promote their economic and social empowerment	Relevant to this project in view of potential positive impacts on women; there is need to avoid gender-based violence (GBV) and sexual exploitation and abuse/sexual harassment (SEA/SH)
Environmental Impact Assessment Regulations, 2014 (*Currently under review)*	The ESIA Regulations elaborate on the requirements for ESIA procedure, environmental impact statements, approval, environmental monitoring, etc.	The Regulations provide more details for the ESIA of this project and implementation of its ESMP.
The Forest Act, 2018	Provides framework for implementation of Forestry Policy, and framework for the reservation and management of forests.	To adhere to this Act, endangered plant species that are found in the selected health facilities must be spared during the construction activities.

Sexual Offences Act, 2013	Updates the law and procedures regarding the trial of rape, sexual offences, and related matters	This Act is relevant to the Project due to the need for protection of vulnerable persons within the Project sites against sexual offences, which is defined in the Act

4.3. Relevant International and Regional Conventions and Agreements

The most important of these international conventions and agreements to which the Gambia is a Party that is relevant in this Project are as indicated in **Table 4.3** below.

Table 4.3: Summary of Relevant Regional and International Conventions Signed/Ratified by The Gambia

Agreement/Convention	Objective	Relevance to the Project Activities
United Nations Convention on Biological Diversity (CBD), Ratified in 1994	The CBD promotes not only the protection of flora and fauna, but linkage with humans and dependence on such biodiversity for food, medicine, shelter etc.	The project activities are not expected to severely affect the existing biodiversity in the sites. However, vegetation clearing for mining gravel at the quarries may lead to destruction of vegetation and the stripping of soil (use of quarry for renovation work).
Convention to Combat Desertification (CCD), Ratified in 1996	Protection of forests to avoid desertification	The project activities may lead to the trimming of tree branches and minimal vegetation removal.
United Nations Framework Convention on Climate Change (UNFCCC), Ratified in 1996	Relates to sustainable sourcing	The loss of trees and vegetation will mean loss of "green cover" and loss of carbon capture footprint

Convention on the Eights of Persons with Disabilities (CRPD) 2006, Ratified in 2013	The Convention intends to protect the rights and dignity of people with disabilities; to promote, protect, and ensure the full enjoyment of human rights by people with disabilities	Persons with disabilities could potentially be impacted negatively by the project activities at the health facilities
Convention on Migratory Species (CMS Convention), Singed in 1994	Also known as the Bonn Convention, aims to conserve terrestrial, aquatic, and avian migratory species throughout their range	The presence of trees on the proposed site serve as habitat for birds and other animals, thus the disturbance from the renovation activities might cause them to migrate elsewhere.
UN convention on the rights of the child (CRC)(1989)	The rights in the treaty include the right to education, the right to play, the right to health and the right to respect for privacy and family life	The project could potentially affect the right to health of the child through the generation of dust, and air pollution, poor waste management, and spread of malaria due to stagnant water in quarry pits
Convention concerning the Prohibition and Immediate Action for the Elimination of the Worst Forms of Child Labor (ILO 182) and Minimum Age Convention (ILO 138), Ratified in 2001 and 2000, respectively)	The Convention asserts that children must be protected by States from treatment or activities which can be very harmful for their physical and mental health through child labor.	No child (14 years or younger) will be hired for employment for civil works in accordance with these Conventions and national law.

4.4. Institutional Framework

The institutional framework relevant to the implementation of this Project is as indicated in **Table 4.4.**

Table 4.4: The institutional framework relevant to project.

Institutions	Specific Responsibilities	Interests and roles in this Project implementation	Level of intervention
National Environment Agency (NEA)	The NEA enforces the NEMA,1994 and ESIA Regulations 2014	○ Evaluation of the ESIA report ○ Grant Environmental Approval for the Project ○ Disclosure and publication of the ESIA, ○ Issuance and renewal of environmental certificates/permits ○ Monitoring the environmental aspects of the ESMP implementation	All phases of the Project from planning and design to the renovation and operation
Ministry of Environment, Climate Change and Natural Resources	Oversees the NEA and implementation of environmental laws and policies of The Gambia	Policy guidance oversees the Department of Forestry and Department of Parks and Wildlife Management that are key to this Project	All phases of the Project from planning and design to the renovation and operation
Governor's Office (URR)	Oversee the Regional Technical Advisory Committee (TAC) for URR	The TACs will support the implementation and monitoring processes at regional levels	Pre- renovation and renovation phases
Ministry of Health	Responsible for overall formulation and direction of the national health agenda, planning and health infrastructural development	○ Provides guidance on transmissible diseases to consider during sensitization ○ promotes safe and healthy environments at projects sites ○ responding to accidents	Pre- renovation, renovation, and operation phases
Women's Bureau	Under the Ministry of Women, Children and Social Welfare, the Women's Bureau	○ Ensures the rights women affected by the Project are protected	Pre- renovation, renovation, and operation phases

	specifically promotes gender equity and women's empowerment in The Gambia.	○ Participates in sensitization on gender issues.	
Department of Social Welfare	This department protects and promotes the rights of vulnerable people such as children, women and the disabled.	Supports and guides the process during related grievances and participates in sensitization on GBV, SEA/SH, VAC etc.	Pre- renovation, renovation, and operation phases
Department of Labor	Enforces employment laws and combats child labor	Protection of employee rights; Protection against child labor; Response to complaints and reports such as accidents, abuse, and discrimination at work	Pre- renovation, renovation, and operation phases
Health center managers/ Headmasters	Responsible for the day-to-day operation of the healthcare facilities	Oversight responsible of all the activities carried out during the rehabilitation in consultation with the NSPS, Regional Health Directorate and Contractor.	All phases of the project
Construction companies in charge of the rehabilitation works	In charge of the implementation of the rehabilitation work in accordance with the signed contract.	Execute the project as designed and agreed, keeping in view the environmental and social safeguards	Pre- renovation, and renovation,
NGOs and civil society	These voluntary groups or organizations are determined to protect the rights of the community and promote awareness creation.	Support the community to ensure that the right thing is done in terms of project implementation as well as advocate for zero incidents, no environmental degradation and social disorder.	All phases of the project

4.5. The African Development Bank's Environmental and Social Operational Safeguards (OS)

The AfDB's Environmental and Social Operational Safeguards (OS) is to be applied to all investment projects. The AfDB's E&S OS re-enforces the vision of the Bank to pursue

sustainable development and poverty reduction. It also sets out the policy of the Bank to support borrowers in developing and implementing environmentally and socially sustainable projects as well as building capacity to assess and manage environmental and social impacts and risks associated with the implementation and operation of projects. The AfDB, as part of the new OSs, the borrowers must comply with the relevant OSs for projects to be sustainable, non-discriminatory, transparent, participatory, environmentally and socially accountable, and conform to good international practices. There are ten (10) Environmental and Social Operational Safeguards (OS) under the new AfDB Environmental and Social Policy that all projects/investments that Bank Financing supports must conform to.

Table 4.5: AfDB E&S OS relevant to the renovation of Yerobawol health center

AfDB's E&S OS and their relevance to the current project	Relevance to the project	Key requirement	National Requirements
Environmental and Social Operational Safeguard 1: Assessment and Management of Environmental and Social Risk and Impact	Relevant	The project shall assess, manage, and monitor the E&S risks and impacts of the project throughout the project life cycle so as to meet the requirements of the OSs in a manner and within a time frame acceptable to the Bank. The project shall: a. conduct an ESA of the proposed project, including stakeholder engagement. b. undertake stakeholder engagement and disclose appropriate information in accordance with OS10. c. develop an Environmental and Social Plan (ESMP) and implement all measures and actions set out in the financing agreement including the ESMP; and d. conduct monitoring and reporting on the E&S performance of the project against the OSs.	At national level, every development project should undertake an environmental and social assessment to determine the potential risks and impacts associated with the proposed project activities. The National Environment Management Act (1994) provides the requirement to conduct an ESIA, whereas the Environmental Impact Assessment Regulations, (2014) explains the process and procedures of the ESIA and ESMP from screening to approval and monitoring.
Environmental and Social Operational Safeguard 2: Labour	Relevant	OS2 recognizes the importance of employment creation and income generation in the pursuit of poverty reduction and inclusive economic growth. Borrowers can promote sound worker-management	The labor Act (2023) and Public Health Act (1990) reflects appropriate labor conditions, health and safety that basically protect workers' rights

and Working Conditions		relationships and enhance the development benefits of a project by treating workers in the project fairly and providing safe and healthy working conditions. Respect of workers' rights is one of the keystones for developing a strong and productive workforce.	
Environmental and Social Operational Safeguard 3: Resources Efficiency and Pollution Prevention and Management	Relevant	This Operational Safeguard (OS) recognizes that economic activities often cause air, water, and land pollution, and consume finite resources that may threaten people, ecosystem services, and the environment at the local, regional, and global levels. The current and projected atmospheric concentration of greenhouse gases (GHGs) threatens the welfare of current and future generations. In addition, more efficient and effective resource use, pollution prevention, and GHG emission avoidance, and mitigation technologies and practices have become more accessible and achievable.	The following legal tools explicitly describe the national requirement for pollution prevention and management which the project needs to comply with: • Waste Bill • National Solid Waste Management Strategy • Anti-littering Regulations (2025) • Environmental Quality Management Standards
Environmental and Social Operational Safeguard 4: Community Health, Safety and Security	Relevant	OS4 addresses the health, safety, and security risks to and impacts on project-affected communities and the corresponding responsibility of the Borrower to avoid or minimize them, with particular attention to people who, due to their particular circumstances, may be vulnerable.	During consultations, there is evidence of unavoidable impacts on project-affected communities in terms of health, safety, and security risks, including of risks of GBV/SEA/SH. Accordingly, mitigation measures will be proposed broadly announced and disclosed among local stakeholders, particularly local communities, to raise their awareness.
Environmental and Social Operational Safeguard 5: Land	Not relevant	Environmental and Social Operational Safeguard (OS) 5 recognizes that project-related land acquisition, restrictions on land access or land use,	

Acquisition, Restrictions on Access to Land and Land Use, and Involuntary Resettlement		and loss of property/assets can have adverse impacts on communities and persons.	
Environmental and Social Operational Safeguard 6: Habitat and Biodiversity Conservation, and Sustainable Management of Living Natural Resources	Relevant	This Environmental and Social Operational Safeguard (OS) outlines the requirements for the Borrower to: (i) identify and implement opportunities to conserve and sustainably use biodiversity and natural habitats; and (ii) observe, implement, and respond to requirements for the conservation and sustainable management of priority ecosystem services.	The project will follow the National Biodiversity Strategy and Action Plan (NBSAP), 2015, which provides the framework for the conservation and sustainable use of biodiversity.
Environmental and Social Operational Safeguard 7: Vulnerable Groups	Not relevant	This OS sets out general provisions on the risks to and impacts on cultural heritage from project activities. OS7 sets out additional requirements for cultural heritage in the context of vulnerable groups and HVRM including indigenous peoples. OS6 recognizes the social and cultural values of biodiversity.	
Environmental and Social Operational Safeguard 8: Cultural Heritage	Not relevant	This OS sets out general provisions on the risks to and impacts on cultural heritage from project activities. OS7 sets out additional requirements for cultural heritage in the context of vulnerable groups and HVRM including indigenous peoples. OS6 recognizes the social and cultural values of biodiversity.	
Environmental and Social Operational	Not relevant	Environmental and Social Operational Safeguard 9 (OS9) recognizes that strong domestic capital and f	

Safeguard 9: Financial Intermediaries		financial markets, and access to finance are important for economic development, growth, and poverty reduction. The Bank is committed to supporting sustainable financial sector development and enhancing the role of domestic capital and financial markets. This OS addresses the environmental and social (E&S) requirements associated with intermediated financing through financial and non f inancial institutions	
Environmental and Social Operational Safeguard 10: Stakeholder Engagement and Information Disclosure	Relevant	This Environmental and Social Operational Safeguard (OS) therefore recognizes the importance of open and transparent engagement between the Borrower and project stakeholders as an essential element of good international practice. Effective stakeholder engagement can improve the environmental and social (E&S) sustainability of projects, enhance project acceptance, and make a significant contribution to successful project design and implementation.	The client will engage with and provide sufficient information to stakeholders throughout the project's life cycle and will ensure that vulnerable groups (ex. Women) are engaged in ways allowing for their full participation) separate groups led by a woman). A grievance mechanism will be set up for workers and community members so all concerns can be raised and resolved in a safe and timely manner.

5. DESCRIPTION OF THE INITIAL STATE OF THE ENVIRONMENT

The environmental baseline describes the environmental conditions prevailing before the commencement of the proposed project and those environmental aspects that may be directly or indirectly impacted during the renovation of the selected health facilities. Hence, primary data collection using devices, physical observation and study of the proposed project sites as well as consultation with facility staff were the dominant strategies used for investigating the environmental baseline of the proposed project area.

Generally, the natural environment of the Gambia does not change significantly across the respective regions and administrative boundaries over the years. Thus, this section will not focus on general climatic conditions, hydrology, geology, topography, and the regional biodiversity. Secondly, since the assessment is site specific, only the existing physical, biological and socio-economic environmental conditions will be considered.

5.1. Weather and Climate

The Gambia is found within the Sahel region and thus exhibits a typical Sudano-Sahelian form of climate. It is characterized by an extended dry season stretching from October up to early June, and a brief rainy season from mid-June to mid or sometimes late October. Apparently, the months of May and November are transitional in nature (see Figure 5.1).

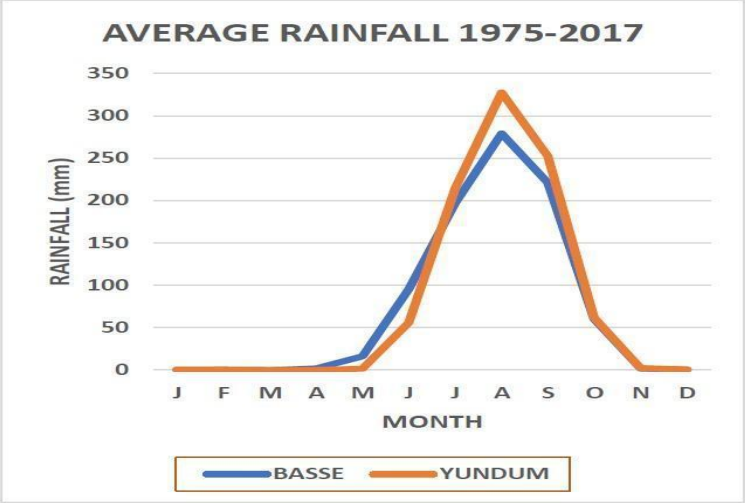


Figure 5.1: Average monthly rainfall from 1975-2017 at Basse and Yundum, (DWR, 2019)

The annual average rainfall spans between 337mm observed in 1968 to 1340.9mm in 1958, while average temperatures vary from 18 to 33°C. Relative humidity falls within 68% in the coastal area and the inland is about 41% during the dry season. However, during the wet season, relative humidity goes beyond 70% throughout the country.

To be precise, the maximum temperatures for the project areas (see Figure 5.5a, b, c, and d below), have been observed to rise significantly especially in the last two decades. These have consequences on the microclimate of the project sites and enhance water resources depletion from evaporation and evapotranspiration.

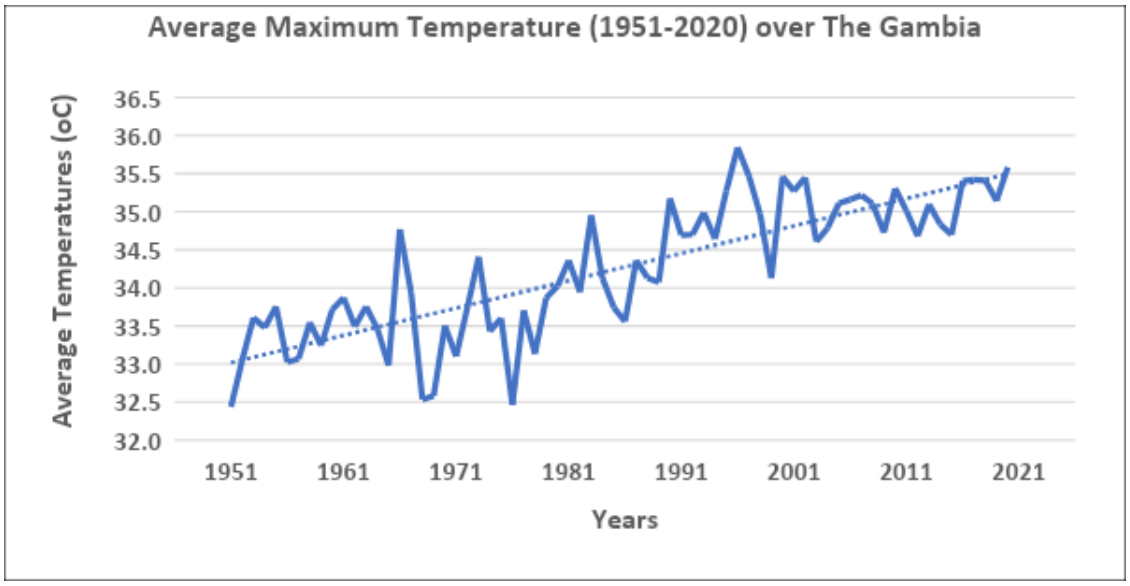


Figure 5.2: Average maximum temperature (1951-2020) over The Gambia (DWR, 2024)

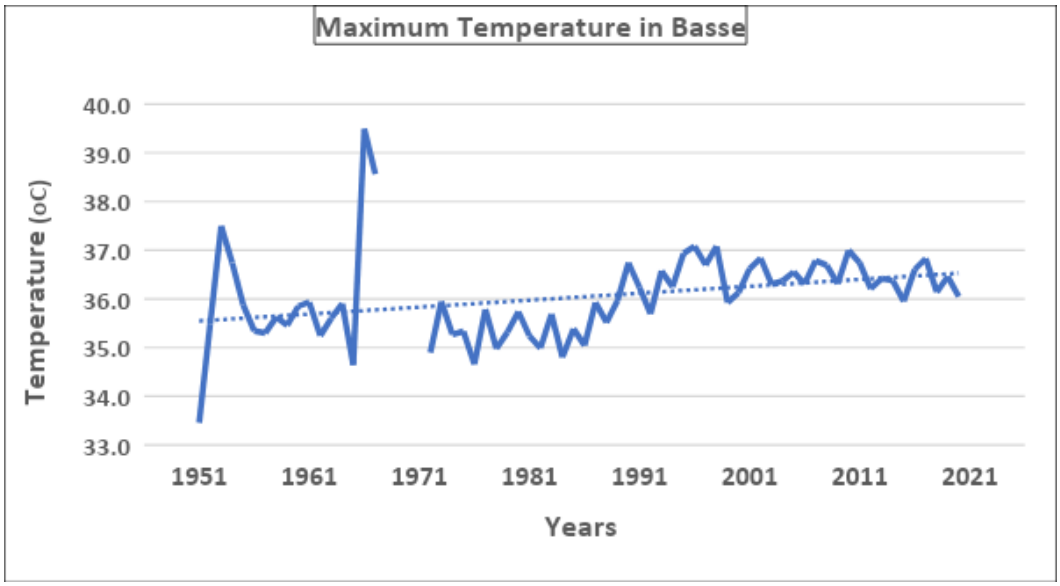


Figure 5.3: Maximum Temperature in Basse from 1975-2020 (DWR, 2024)

5.1.1. Rainfall pattern

The Gambia has consistently witnessed progressive decrease in the rainfall amount in the thirty-year climatic period (1951 to 1990), correlating to an estimated 39% decline over the years (see Figure 5.4). Likewise, shrinking of the length of the wet season coincides

with an increasing surface temperature, resulting in the depletion of the moisture in the atmosphere, thus rendering it drier. Furthermore, analysis covering the thirty-year climatic period (1991 to 2020), exhibits a significant rise in average rainfall amount (114mm) when tallied with the 1971 to 1990 averages.

However, annual rainfall averages at stations in the project intervention areas have shown a marked increase (see Figure 5.4 below). It is explicit that those increases are marked with inter-annual variation. Moreover, records have also shown unpredicted intra-seasonal rainfall patterns with extended dry spells spanning from 10-15 days.

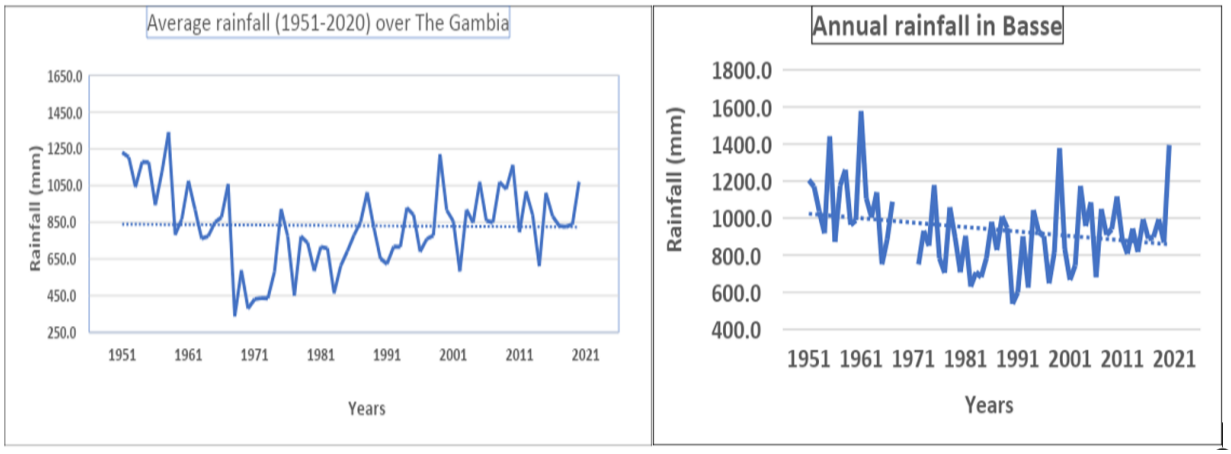


Figure 5.4: Average annual rainfall from 1951-2020 over The Gambia (DWR, 2024)

5.1.2. Temperature

To be precise, the maximum temperatures for the project intervention region (see Figure 5.5 below), have been observed to rise significantly especially in the last two decades. These have consequences on the microclimate of the project sites and enhance water resources depletion from evaporation and evapotranspiration. In fact, URR is known to be the hottest region of the country with average maximum temperatures mostly above 35˚C.

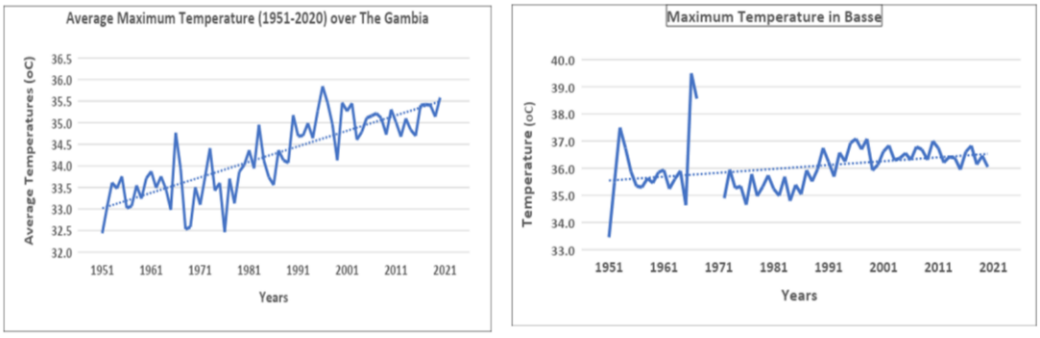


Figure 5.5: Average maximum temperature (1951-2020) over The Gambia (DWR, 2024)

5.1.3. Wind direction

In the Gambia, the northeasterly winds are the most observed wind flow in the dry season, generating mainly cloudless skies filled with dust particles in the air. However, with the interjection of extra-tropical weather systems across the Mediterranean into northwest Africa, at certain times, this flow pattern is deformed giving rise to unseasonal rainfall.

Meanwhile, southwesterly monsoon winds are mostly observed during the wet season, coupled with heat on the continent as result of the northward borne wind (see Figure…), which gives rise to the formation of thundery activities, often associated by heavy winds, torrential rains, and severe lightning flashes.

As for the project intervention region, the wind direction during the dry season is dominantly eastwards and towards the west and southwest in the wet season as shown in Table 5.1.

Table 5.1: Monthly wind direction in Basse from 2013 to 2022 (DWR, 2024)

					BASSE MONTHLY WIND DIRECTION							
YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2013	SE	E	E	SW	W	SW	W	W	S	W	E	E
2014	E	E	N	W	SW	S	W	S	S	W	W	E
2015	E	E	SW	E	SE	N	NW	NE	N	W	SW	E
2016	E	SW	E	E	W	W	W	W	E	W	E	E
2017	E	E	E	E	W	W	SW	W	W	W	E	NE
2018	E	NE	E	W	NW	W	SW	SW	SW	SW	E	E
2019	E	E	E	E	SW	W	SW	SW	SW	SW	E	NE
2019	E	E	E	N	W	W	W	SW	W	SW	E	E
2020	E	NE	NE	W	W	W	W	S	W	E	SE	E
2021	E	E	E	W	W	W	W	W	SW	S	E	NE
2022	E	E	SW	E	SE	N	NW	NE	N	W	SW	E

Figure 5.6: Base monthly wind direction

5.1.4. Air Quality and Noise Level

Data on air quality were collected at the project intervention site for 24 hrs within an interval of 8 hrs between the readings and the calculated results are presented in Table 5.2. The results unveiled that the particulate matters ($PM_{2.5}$ and PM_{10}) were found to be within the accepted National and WHO air quality index standards. It is important to note that $PM_{2.5}$ was found to be moderately healthy and thus, great care needs to be taken during the

renovation activities not to aggravate the situation which might pose severe public health concern.

The noise level recorded at the intervention site was 53.3 dB, which is considered healthy. Even though the site is on a highway, few vehicles commute that route. Secondly the site is not close to any noise generating source such as residential houses.

Table 5.2: Results of air quality and noise level at Yerobawol Health Center

Parameters	Yerobawol health Facility	WHO Air Quality Parameter
PM 2.5 (µg/m3)	24.3	Moderate (12-35.4 µg/m^3)
PM 10 (µg/m3)	44.9	Good (≤54 µg/m^3)
CO2 (ppm)	391.3	Good (≤700 ppm)

During this assessment, a perception survey was conducted among the Yerobawol Healthcare center users (patients) and service providers (staff) on air quality of the site as shown in Figure 5.5. On average 78% of the respondents perceived that the air quality at the facility is clean.

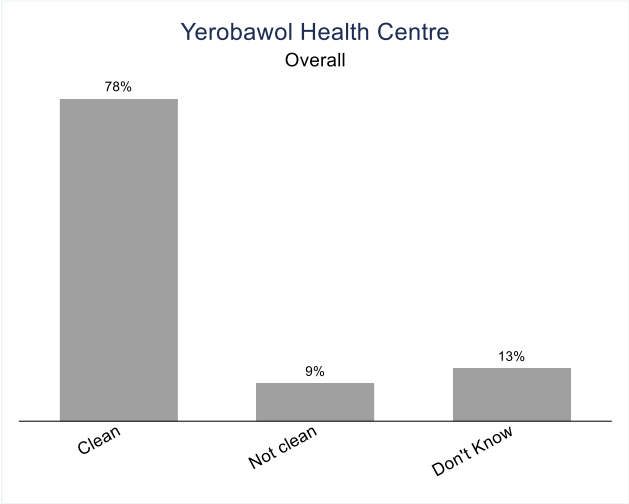


Figure 5.7: Perception on air quality in Yerobawol health care facility

5.1.5. Water quality

Yerobawol Health Center has a borehole erected within the facility which serve as the source of water supply for the entire facility as well as the staff quarters. The water is palatable and of good quality.

Figure 5.8 presents the results of the perception of respondents on water quality at the Yerobawol health care facility. 98 percent of the respondents believed that the water quality at the facility is clean and fit for human consumption.

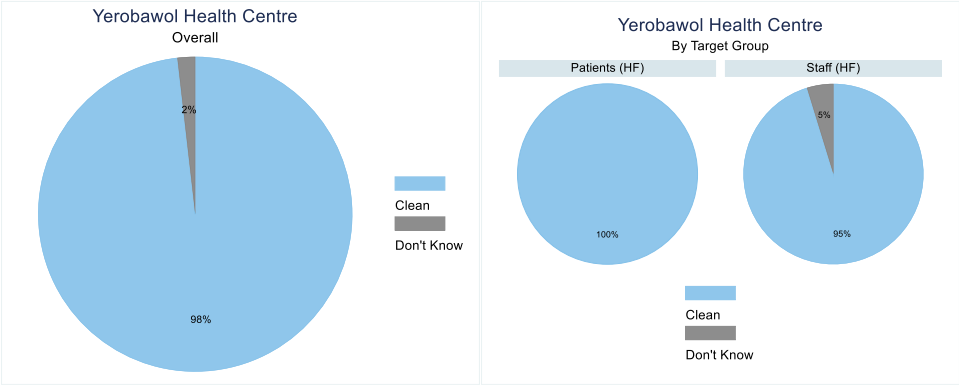


Figure 5.8: Perception on air quality in Yerobawol health care facility

Table 5.3 presents the results of water quality carried out from the proposed project site at Yerobawol Health Center on the 25th February 2025. The samples were physico-chemically, chemically and bacteriologically tested.

Physical parameters tested were pH, electrical conductivity (EC), total dissolved solids (TDS), temperature, salinity, odour, taste colour, suspended solid, turbidity. Chemical parameters tested were Nitrate, Nitrite, Phosphate, Iron, Sodium, Chloride, Alkalinity, Hardness, Calcium, Magnesium, Manganese, Flouride Sulphate, Ammonia. Microbiological analysis results, indicated no coliform bacteria were found in the said sample collected which indicates that the water source is not contaminated.

All the physico-chemical, chemical and microbiological parameters tested are within the recommended guideline values set by World Health Organisation apart from the low pH values which is a natural phenomenon in the Gambian groundwater quality. Therefore, the water is of good quality and consequently fit for consumption, irrigation as well as other domestic purposes based on WHO's guideline values.

The water characterization results also shows that the color and odor of the water sample is normal with no suspended solids.

Table 5.1: Water characterization results from proposed project site

Date of Analysis: 24th to 25th February, 2025		***Weather Conditions:-*** *Sunny*
Parameters	**Borehole**	**WHO Guideline Values**
Temperature (°C)	27.5	**Acceptable**
Turbidity (NTU)	1.22	**<5**
pH	7.36	**6.5 - 8.5**

pH after aeration (A.pH)	7.39	**6.5 - 8.5**
Electrical Conductivity (mS/cm)	35.00	**1300**
Total Dissolved Solids (mg/l)	22.00	**1000**
Salinity (promile)	0.02	**NS**
Colour	Absent	**Absent**
Odour	Absent	**Normal**
Taste	Normal	**Normal**
Residual Chlorine (mg R.Cl2/l)	0	**0.3**
Suspended Solids (mg S.S./l)	1.00	**NS**
Phosphate (mg PO_4^{3-}/l)	0.23	**NS**
Nitrate (mg NO_3^--N/l)	3.1	**10**
Nitrite (mg NO_2^--N/l)	0.001	**0.03**
Total Iron (mg $Fe^{+2/3}$/l)	0.19	**0.3**
Sodium (mg Na^+/l)	0.0	**150**
Chloride (mg Cl^-/l)	3.0	**250**
Alkalinity (mg $CaCO_3$/l)	27.5	**>20**
Free Carbondioxide (mg CO_2/l)	8	**NS**
Hardness (mg $CaCO_3$/l)	19.0	**200**
Calcium (mg Ca^{+2}/l)	5.5	**200**
Magnesium (mg Mg^{+2}/l)	0.7	**150**
Manganese (mg Mn^{+2}/l)	0.01	**0.5**
Fluoride (mg F^-/l)	0.21	**1.5**
Sulphate (mg SO_4^{-2}/l)	0	**250**
Ammonia (mg NH_4^+/l)	0.07	**0.5**
Total Coliform (No./100ml)	0	**nil**
Faecal Coliform (No./100ml)	0	**nil**
Sanitary Survey	Fairly clean surrounding	***Clean, dry with good drainage***

The above water quality results concurred with the perception of respondents during the stakeholder reception survey. All the patients interviewed stated that the quality of water within the Yerobawol health center facility was clean as shown in Figure 5.9.

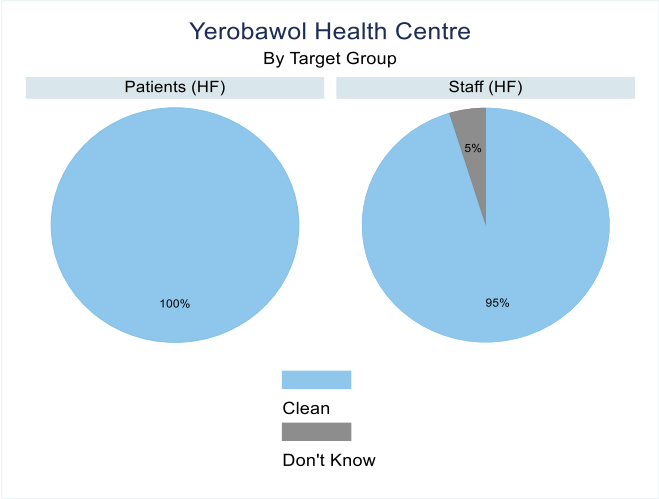


Figure 5.9: Perception of patients and health workers at the Yerobawol HC on water quality

5.1.6. Flora and Fauna

The health center has diverse species of biodiversity ranging from both flora and fauna species. The biodiversity within the facility plays a key role in providing a microclimate within the facility in terms of shade, cool air, and minimizing the extreme temperatures and heat. There are a lot of flora, fauna, and avifauna species, and these are *Malaina, Cashew, Acacia, Mango, Banana (Tomborong), Cassava, Birds, sheep, Monkeys, snakes, and squirrels*. The health facility has trees round its perimeter as live fences as shown in Figure 5.10. The live fence at the site helps in carbon sequestration and support biodiversification by offering shelter and food for birds, insects, and small animals.

The flora and fauna mentioned in this section are restricted to the ones observed within the health center and its immediate surroundings. It is important to note that the biodiversity and ecosystem services in URR are not expected to be impacted by the activities of the proposed project.

Figure 5.10: Live fence at the Yerobawol HC

5.2. Socioeconomic environment

5.2.1. Demographic

The Gambia had a population of 1.86 million and an annual population growth rate of 3.1 per cent as of 2013, which has increased from 2.7 per cent in 2003. The population is increasing which is exerting significant pressure on the country's economic resources. Wulli West a district under Basse LGA has a youthful population with high dependency ratio, the findings show that at least 52.8 per cent of the population were female and 47.2 were male.

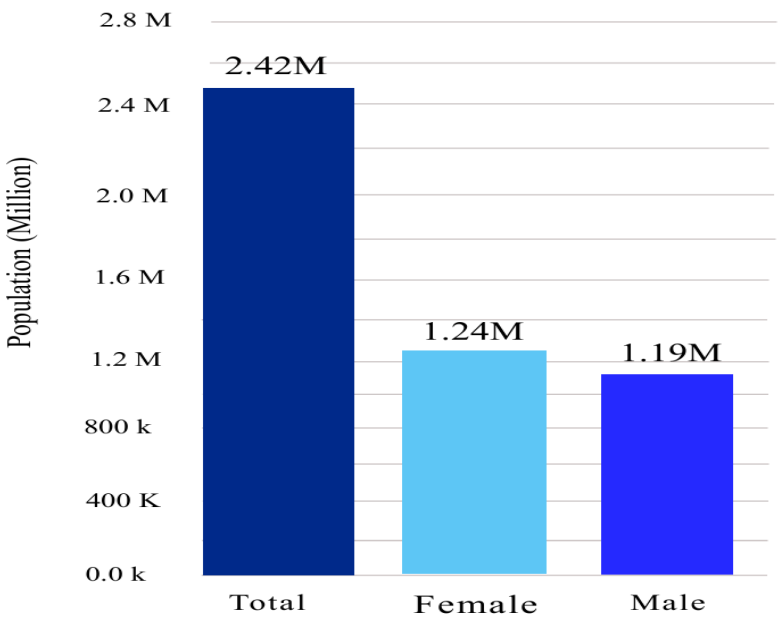


Figure 5.11: Gambia's Population in 2024; Total, Male and Female (GBoS, 2024)

According to the latest census data (2024), the population of the Gambia is 2.42 million with 51% female and 49% male. The project intervention region (URR) is a home to 10.8% of the national population and it has the lowest sex ratio at 91 males per 100 females (91:100). The region has a youthful population with almost half (46.7%) under the age of 15.

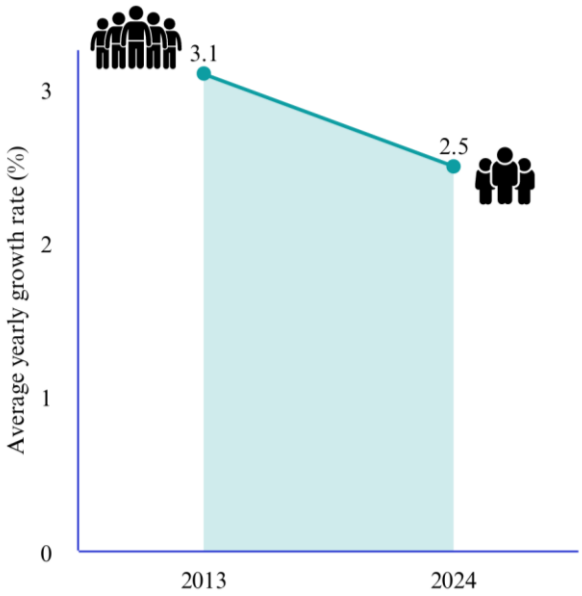


Figure 5.12: Annual Intercensal Population Growth Rates; Gambia 2013-2024 Censuses (GBoS, 2024)

From 2013 to 2024, The Gambia's annual population growth rate is 2.5 per cent as shown in Figure 5.13. This presents a decline in annual growth rate compared to the 2003 and 2013 inter-censal period, which recorded an annual growth rate of 3.1 per cent.

Household sizes in The Gambia differ significantly by LGA. Banjul has the smallest average size at 4.6, while the project intervention region (Basse) has much larger sizes of 12.6. The national average household size is 8.0. Basse LGA has a total household of 20,614.

The project intervention region is one of the most densely populated regions with 126 persons per square kilometer. Between 2013 and 2024, the population density of the region has increased by 9.6%.

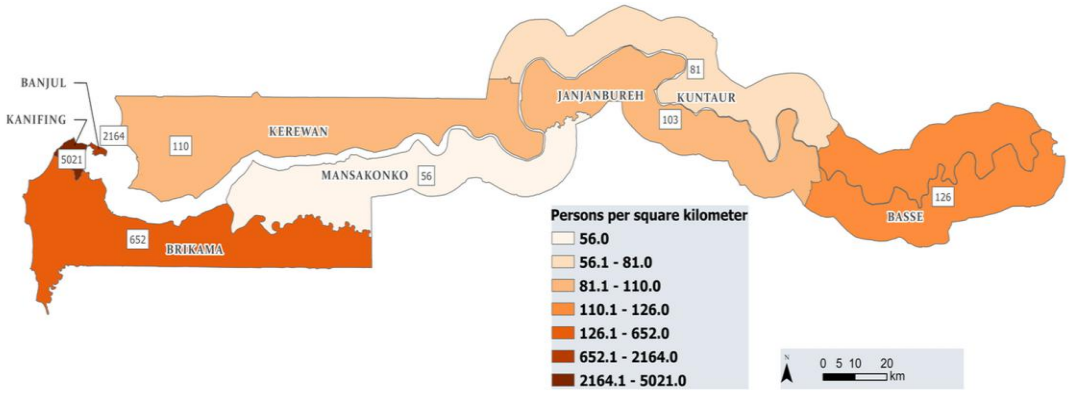


Figure 5.13: 2024 Census Population density map (GBos, 2024)

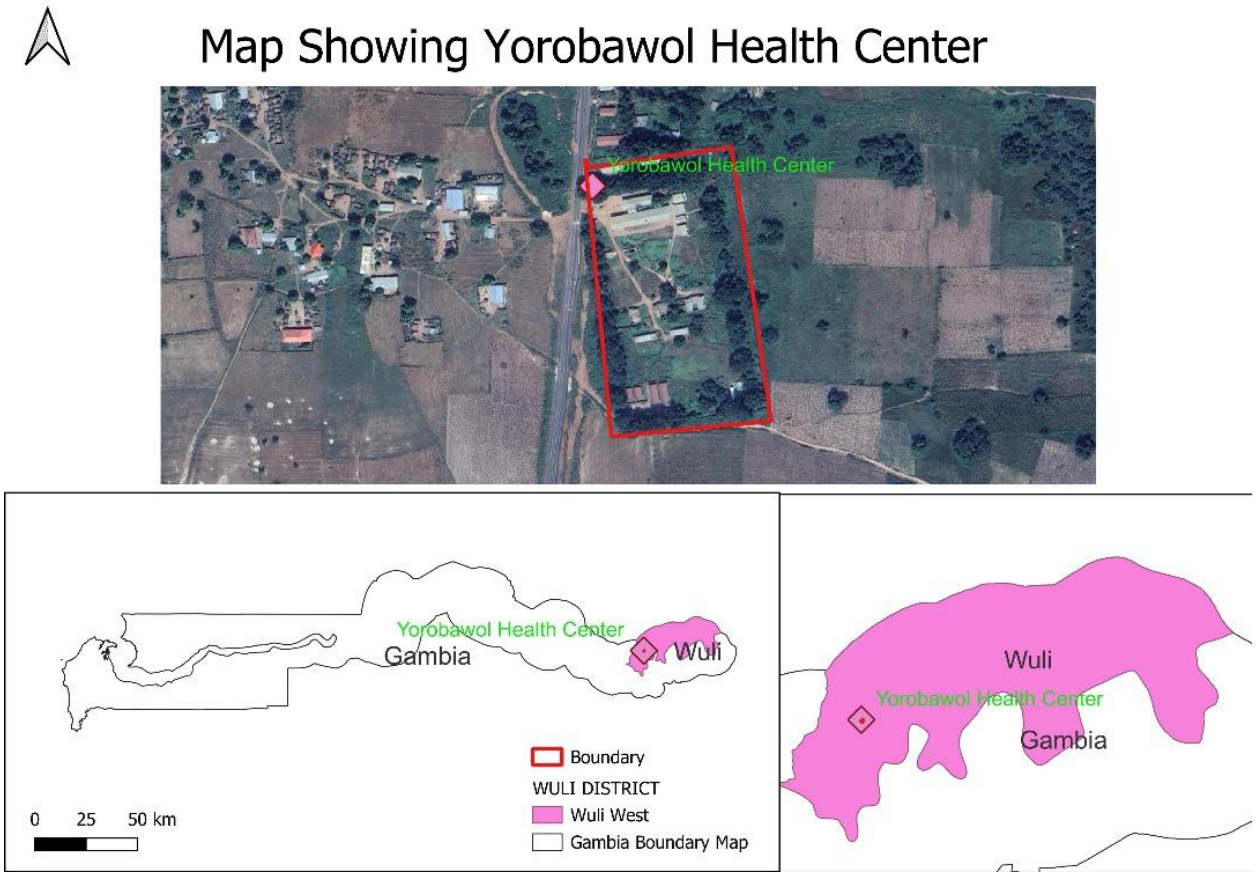


Figure 5.14: Map showing Yerobawol Health Center

Table 5.2: Percentage distribution of Wulli West by sex, IHS 2020

District	Male	Female
Wuli West	47.2	52.8

The data showed that majority of the percentage population of 48.9 percent are in the working age population of 0-14 years, 47.5 percent are between age 15-64 years while 3.5 percent are 65 years and older. Despite the working age group, the dependency ratio is very high in Wulli West which implies that every 100 people in the working population in Wulli West potentially support 110.1 people.

Table 5.3: Percentage distribution of population by broad age group by district, IHS 2020

District	0-14	15-64	65+	Total Dependency Ratio
Wuli West	48.9	47.6	3.5	110.1

5.2.2. Education

Education is critical for enhancing human capabilities and extremely necessary for the development of the individual and a nation. The Gambia Education Sector Policy for 2016-2030 was developed among other things, to promote a broad-based education at the basic level for lifelong learning and training. The policy is based on the principle of non-discrimination and all-inclusive provision of education focusing on gender equity and targeting of the poor and disadvantaged people. There is an increasing recognition that the most important determinant of economic growth is knowledge capital. The government is committed to strengthening policies and programs to achieve equitable access to quality and relevant education for all.

The percentage level of the population at Wulli West indicates that about 23.3 percent aged three years and older were in school at the time of the IHS and 10.8 percent attended school in the past while 69.9 percent never attended school.

Table 5.4: Distribution of population (3+ years) who ever attended school by district, IHS 2020

District	In school	In The Past	Never Attended
Wuli West	23.3	10.8	65.9

The percentage of school attendees was higher among males (24.3%) than females (22.5%) for the population aged three years and older.

Table 5.5: Percentage distribution of population aged 3 years and above who have ever attended school by sex, HIS 2020

	Female			Male		
District	In school	In The Past	Never Attended	In school	In The Past	Never Attended

Wuli West	22.5	9.6	67.9	24.3	12.1	63.6

As per the highest level of education attained, Out of the total population aged three years and above who had education, about 62.7 percent attained primary level education, 14.5 percent reached lower secondary level and 12.3 percent attained early childhood and 7.6 percent reached upper secondary level. Overall, post-senior secondary education levels or tertiary education (diploma and higher) were extremely low in Wulli West with a percentage of 1.5 percent with no vocational technical. The reasons that were attributed to the low participation of children in going to school at Wulli West were as a result of religious factors and age of the children's. it is also known to have many Quran schools which are informally set up to teach the children's about reading the Quran.

Table 5.6: Percentage distribution population aged 3 years and above by highest level of education completed in Wulli West, IHS 2020

District	Early childhood (1-4)	Primary (Grade 1-6)	Lower Secondary (Grade 7-9)	Upper Secondary (Grade 10-12)	Vocational (Technical)	Diploma	Higher
Wuli West	12.3	62.7	14.5	7.6	0.0	1.5	1.5

5.2.3. Health

Accessing a quality healthcare system is crucial for every nation for it influences the ability to enjoy life and participate in daily activities. The Gambia has a high priority on the health of her citizens with a specific aim to promote a skilled and healthy workforce for the country which aimed to focus on reducing maternal and new-born deaths as well reduce the burden of diseases according to its National Development Plan (NDP) 2018-2022. The Government of The Gambia prioritizes the health of the citizenry and specifically focuses attention on reducing maternal and new-born deaths, reducing the burden of diseases, and ensuring that the country has a skilled and healthy workforce. As a priority, the government is committed to achieving Universal Health Coverage (UHC) through the provision of quality and equitable essential health services for all.

Majority of the population reported to have been sick in the two weeks preceding the Survey from Wuli West were 13.4 percent. The type of illness and pattern in morbidity prevalence were reported, whereas abdominal pain was the most common illness experienced by 21.6 percent of those who were reported ill or injured followed by fever with a percentage of 18.9

percent as the second most common. Patterns in morbidity prevalence indicate that those who were sick were reporting cough 16.6 percent.

Table 5.7: Distribution of Population Sick/injured by Main Type of Illness and district, IHS 2020

District	Wulli West
Fever	18.9
Diarrhoea	10.3
Abdominal pain	21.6
Cough	16.6
High blood pressure	1.0
Skin infection	3.6
Swelling	0.6
Headache	4.7
Accident/injury	0.0
Body pain/general body pain/internal pain	7.3
Other	15.5

Figure 5.15 shows the distribution of the population who consulted a healthcare provider either when they were sick or for any other reason such as preventive services or routine check-ups. In the two weeks preceding the Survey, the proportion of the population who consulted health provider due to sickness or injury was 82.8 percent in Wulli West, suggesting high consultations of medical care in the district indicating they are receiving good medical support and guidance from medical personnel as the number of consultation keeps increasing.

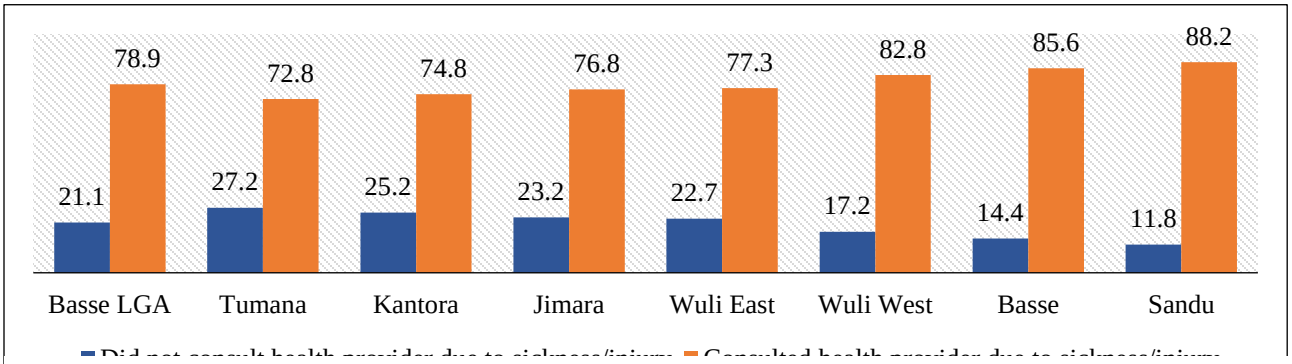


Figure 5.15: Percentage distribution of those who were reported to have consulted a health practitioner, IHS 2020

The type of health care services chosen is based on the patient's preferences, ranging from major health centers, private hospitals, clinics, and pharmacies. The findings show that most of those who were sick sought care from health centers (54.4%) followed by those who sought care from pharmacy or health post (33.6%), only 7.1% of the population visited hospitals for consultation.

This can be determined by how accessible and affordable the health care service is with quality and good communication skills, out-of-pocket cost, courtesy, and administrative burden. An interplay of the availability and affordability of drugs, geographical accessibility to the facility, travel time as well as appropriate opening hours are also important contributors to the choice of care-providing facility.

Table 5.8: Percentage distribution of population who were sick by type of health facility visited in Wulli West, IHS 2020

District	Hospital	Health center	Clinic	Pharmacy Health post	Other
Wuli West	**7.9**	**54.4**	**4.1**	**33.6**	**0.0**

There are many factors that influence a person's use of health-care services, including poverty, waiting time and use of self-medications. The most prominent reason for not seeking health care services in wulli west is the use of self-medication reported by an average of 57.7 percent of respondents. The proportion of the respondents who reported sickness/injury but did not seek care because it was expensive is about 9.0 percent while those who reported that the facilities are too far were 10.8 percent. Small proportion of respondents reported having no faith (2.8%) in healing power of the health care system as the main reason for not seeking care. about 6.8 percent of respondents in reported that medical care facilities were too far with high cost of transportation.

The time it takes to reach health facilities is an indication of the level of access to healthcare services. Achieving equity in access to health care requires creative strategies to address the effect of distance in health care utilization. Studies have also shown that long distance to health facilities is a major risk to child survival and skilled attendance of delivery.

The findings in the table shows that about 43.0 percent of the population in Wulli West who visited a health facility accessed it within an average of 14 minutes. About 25 percent of those who visited a health facility accessed it within 15 to 30 minutes. On average, the data shows 9.6 percent of the population who sought health care accessed it at least an hour.

Table 5.9: Percentage distribution of the population who sought health service by time taken to reach the facility by district, IHS 2020

District	0-14 minutes	15-29 minutes	30-44 minutes	45-59 minutes	60+ minutes
Wuli West	43.0	41.7	5.7	0.0	9.6

In 2013, the maternal mortality in the country was 433 maternal deaths per 100,000 live births. In the same period, child mortality rates were slightly higher. Reducing maternal and child mortality is one of the priorities of the international community, as enunciated in the 2030 Sustainable Development Agenda. The government is committed to strengthening policies and programs to provide quality health service delivery for reduction of maternal, new-born, infant, child morbidity and mortality as evident in the RF-NDP (2023-2027). This priority is to be implemented as in the National Health Sector Strategic Plan (2021-2025) where the government reaffirmed its commitment to improving health services in the country and reducing maternal mortality to improve health status of the population.

Majority of the births in Wulli West occur in health center with a percentage of 89.0 percent of births, 8.7 percent of deliveries happens at home and only 2.3 percent of births occured in hospitals.

Table 5.10: Percentage distribution of births of children aged 0-59 months by place of delivery by district, IHS 2020

District	Hospital	Health Center	Health Clinic	At home	Other
Wuli West	2.3	89.0	0.0	8.7	0.0

Recognizing that institutional deliveries increase the chances of skilled birth attendance and ensures that many of the interventions known to save the lives of women are properly implemented, the government of The Gambia has promoted the presence of a skilled attendant at every delivery in the country.

Skilled health care providers had the larger proportion of births assisted ranging from midwives, nurses, and doctors. Traditional birth attendants also play a very important role in assisting in childbirth. The report shows 88.9 percent of births were assisted by midwives/nurses, while 9.9 percent of births were assisted by community birth companions, and 0.1 percent were assisted by Doctors in Wulli West. About 98.3 percent of children in Wulli West had their immunization vaccination for BCG, Polio, and DPT.

Table 5.11: Percentage distribution of births of children aged 0-59 months by type of assistance during delivery by district, IHS 2020

District	Type of assistance during delivery					
	Doctor	Midwife/nurse	Community birth companion	Self	Don't know	Other
Wuli West	0.1	88.9	9.9	0.6	0.0	0.5

5.2.4. Social Amenities

In determining the general socioeconomic status of the population, access to basic amenities such as drinking water, sanitation, electricity, and drainage is imperative for a decent quality of life. Majority of households are dwelling in their family compounds of about 51.7 percent, about 39.8 percent of households in Wulli West own their accommodations, and only 3.1 percent of households live in rented accommodation. A higher proportion of 76.7 of households hold a proper tax certification.

Table 5.12: Percentage distribution of households by tenure of accommodation by district, IHS 2020

District	Owner occupier	Tenancy - Renting	Dwelling provided rent free	Family Compound	Other
Wuli West	39.8	3.1	5.4	51.7	0.0

Analysis of households' main source of cooking fuel shows that firewood is the predominant energy type for households. 94.2 percent of households in Wulli West reported using firewood as the main cooking fuel, 0.9 percent use charcoal. About 3.8 percent of households reported that they do not cook so the question on main cooking fuel does not apply to them.

Table 5.13: Percentage distribution of households by main type of fuel for cooking by district, IHS 2020

District	Firewood	Charcoal	Gas	Solar power	Does not cook	Other
Wuli West	94.2	0.9	0.3	0.3	3.8	0.5

Given the importance of clean and safe household energy use for human well-being, universal access to clean energy is part of the universal access objective under the UN Secretary General's Sustainable Energy for All initiative. The main source of household' light is battery

powered light used by 51.4 percent of households, 24.8 percent uses solar power whereas 18.7 percent use electricity from NAWEC and 4.4 percent of households use candles.

Table 5.14: Percentage distribution of households by main source of fuel for lighting by district, IHS 2020

District	Electricity (NAWEC)	Electricity (Generator)	Solar power	Kerosine lamp with shade	Other Kerosine lamp	Candles	Battery Powered light	Other
Wuli West	18.7	0.0	24.8	0.3	0.0	4.4	51.4	0.6

Additionally, it is important to identify the type of construction materials for households as building materials. Mud/kirinting are the most commonly used material for the construction of walls in Wulli West with 57.3 of households using it for the construction of their walls and 41.0 percent using cement blocks for their walls.

Proper solid waste disposal is critical for the environment and human health. Improper disposal can contaminate the environment and groundwater sources. In Wulli West, the burning of household waste is the main method of waste disposal by households with 17.0 percent proportion. While 16.3 percent households' uses landfills or bury to dispose of their solid waste.

5.2.5. Water and Sanitation

Access to improved sanitation and adherence to good hygiene practices is vital as it helps in access to safe and improved drinking water sources. Access to water, sanitation, and hygiene has wider socio-economic impacts, particularly for women and girls. Access to water and sanitation are considered very important socio-economic and health indicators, and key determinants of child survival, maternal, and children's health, family wellbeing, and economic productivity.

93.1 percent of households in Wulli West have access to improved water sources. 64.3 percent of households have pipes in their dwellings or compounds, while 27.3 percent use public wells with pumps, and only 6.6 percent of all households use unprotected wells as the main source of drinking water.

Despite this impressive access to improved water sources, it must be realized that for those using "improved sources" other than piped water in dwellings or compounds, water collection and storage could contaminate the household's drinking water and awareness programs must focus on these issues.

Table 5.15: : Distribution of households by improved water source, main source of drinking water by district, IHS 2020

District	Access to improved Water	Piped into dwelling	Public standpipe	Well in yard/public		Well with pump (public)	Packaged water (Bottle/cup)	Other
				Protected	Unprotected			
Wuli West	93.1	0.9	64.3	0.6	6.6	27.3	0.3	0.0

Improved sanitation in households is a key element in environmental health. In addition, an improved sanitary must be exclusively use by household members to meet the 'improved sanitary facility criteria. The lack of availability of sanitary facilities poses major health issues. About 88.8 percent use Pit latrine without slab and 10.8 percent uses pit latrine with slab.

5.2.6. Environment

The adverse effects of climate change are already being felt in The Gambia. Low agricultural productivity and food insecurity, reduced biodiversity and ecosystems and dwindling water resources are some of the areas where climate change is negatively affecting communities. Water availability for livelihood is being threatened because of frequent droughts and changes in rainfall patterns while floods in other areas are destroying homes, crops and sometimes causing death. With these issues of concerns on the environment, the government seeks to promote environmental sustainability, to ensure that the country's environment and natural resources are managed sustainably and conserved. The government is also committed to increasing resilience through strengthening environment and climate change-friendly policies, creating programs to raise awareness at all levels for resilience and sustainable management of natural resources.

Environmental Concerns

In Wulli West, about 34.6 percent of the household heads agreed that the authorities are doing enough to address environmental issues, whereby 27.1 percent of the household heads disagree that the government is doing enough. About 67.0 percent of the households perceived they have clean air within their residential areas while 33.0 percent perceived they do not have access to clean air within their residential areas.

Table 5.16: Percentage distribution of households by the extent to which they agree that the authorities are doing enough to arrest environmental concerns by district, IHS 2020

District	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
Wuli West	16.3	34.6	12.8	27.1	9.3

Forest Destruction:

Deforestation is a major threat to the environment for various reasons. Firstly, forests are very important for carbon dioxide (CO2) sequestration. Without them, CO2 builds up and adds to the global warming being experienced by many countries today. Deforestation also deprives humans of medicinal plants and wildlife in their habitat. There were numerous recommendations provided by the households on the means to combat deforestation and these includes providing alternative source of energy for households, stopping the cutting down of the remaining forest, introducing community forests, enforcing existing laws to promote the environment, checking population growth and introducing community policing.

Table 5.17: Percentage distribution of households by suggested ways to address deforestation by district, IHS 2020

Ways to stop forest destruction	**Wuli West**
Promoting alternative sources of household energy	94.1
Stopping the cutting down of the remaining forests	96.6
Reforestation	95.6
Community forest	79.9
Checking the rate of growth of the human population	40.8
Enforcing laws to protect the forest	94.1
Introducing Community policing	91.9

Disasters have impact on various aspects of households' well-being. Disasters affect households' dwelling units, income generating capacity and productivity at work, assets as well as their health status and education. In the Gambia, both natural and man-made disasters such

as droughts, floods and fire outbreaks are common. The data indicates that, 35.1 percent of households in Wulli West reported that they were affected by disasters in the 12 months preceding the survey. Overall, 68.3 percent affected by windstorm, 43.9 percent rainstorm and 31.3 percent affected by floods were the commonest type of disasters reported by the households. The disaster severity assessment reports that about 46.4 percent of the disasters reported by the households were perceived as very severe by the households affected and only 12.1 percent said the severity was just moderate/mild.

Table 5.18: Percentage distribution of households by type of disasters experienced by district, IHS 2020

District	Affected by any disaster in the last 12 months		Type of disaster						
	Yes	No	Fire	Rainstorm	Drought	Windstorm	Floods	Bush fires	Other
Wuli West	35.1	64.9	2.1	43.9	16.7	68.3	31.3	1.7	5.2

5.2.7. Agriculture

Agriculture plays a very important role in the welfare and livelihood of majority of the population, the sector employs about a third of all employed persons. Groundnut is the main cash crop of the country and majority of households work in subsistence agriculture, especially in rural areas. Majority of households in the Wulli West were engaged in groundnuts production in the 12 months preceding the HIS, about 99.1 percent of households were engaged in groundnuts followed by crop farming with overall of 82.0 percent. Majority of the farming households had ownership to livestock and used crop inputs in the last 12 months preceding the HIS. The application of inorganic fertilizer in their farms was more common than the use of organic manure. This can bring implications to the soil production and productivity capacity coupled with degradation of the environmental quality as some of these chemicals are not environmentally friendly.

Land ownership is a vital part of cultural and social identities, a valuable asset and central to preserving natural resources and building societies that are inclusive, resilient, and sustainable. Land tenure rules define the ways in which property rights to land are allocated, transferred, used, or managed in a particular society. Communal/traditional (family) and through Inheritance are the most type of way to access farmland parcels by tenure system.

5.2.8. Poverty and Inequality

Poverty is a multidimensional phenomenon with monetary and non-monetary aspects. People are said to be poor when they have no opportunities to work, to learn, and to live healthy and fulfilling lives. The Gambia, income is affected by planting and harvest seasons; hence, relying on that indicator might under or overestimate people's living standards. Food purchases account for the largest share of total food consumption of households 55.6 percent in Wulli West, consumption of own produce is on average 33.6 percent. 83.1 percent of the population in Wulli West were found to be living in absolute poverty, more than the national poverty rate of 53.4 percent with an increase in poverty gap due to the extreme poverty rate of the district.

Inequalities as measured by the Gini index were estimated at an average of 0.300 for the Wulli West. Regarding wealth concentration as measured by the Palma Index (that is the ratio of the richest 10 percent of the population's share of consumption/expenditure divided by the poorest 40 percent's share), the top 10 percent of the population has a disproportionate share of consumption expenditure.

5.2.9. Transfer and Remittances

Migration is a household strategy aimed at improving not only the emigrant's prospects but those of their extended family members as well. Inter-households' transfers and remittances play a very important role in the wellbeing of people. Majority of the household heads 68.4 percent in Wulli west reported receiving remittances from household members, the proportion of household heads that reported receiving remittances from any absent household member in the 12 months preceding the IHS was 31.6 percent in Wulli West. International remittances constitute the largest proportion with about 60.3 percent of households reported receiving money transfers from abroad mostly on monthly or occasional basis.

5.2.10. Credit and Saving

Financial inclusion, means that individuals and businesses have access to useful and affordable financial products and services that meet their needs, is critical for reducing poverty and boosting prosperity. Financial access facilitates day-to-day living and helps families and businesses plan for everything from long-term goals to unexpected emergencies. It is important for financial capital accumulation and access to credit from formal financial institutions for small and medium enterprise development. 66.8 percent of households reported having access to credit, Fear of defaulting to pay was reported by 38.4 percent of households and repaying of loan was also a major reason why households in Wulli West do not borrow loans.

However, limited access to formal credit source in wulli west is a challenge thus most of the households access credits through informal sources either from relatives, friends, or neighbors. Majority of the population obtained loans for the purpose of buying consumer goods and agricultural inputs this is followed by loans obtained for starting or expanding.

The IHS enquired from households whether any of their members hold a savings and or 'osusu' accounts. 'Osusu' is a group saving scheme that enables participants to receive substantial amounts of money. 48.0 percent of households in Wulli West reported having a savings and 45.7 percent reported having 'osusu' accounts, whereas 6.6 percent reported having both accounts.

6. Stakeholders Engagement

Public engagement and stakeholder consultation is a paramount pillar in the ESIA process to map the perception of the public and register the viewpoint of various stakeholders regarding the impact of the project. The following three methods of consultation was adopted during this study:

1) Perception survey
2) Focus group discussion with project host communities

3) Relevant stakeholder key informant interview

The objective of the perception survey was to establish the levels of understanding and appreciation of Yerobawol health facility users and service providers to identify the current and potential interventions impacts on lives and livelihood as well as on the environment. In particular, the survey sought to understand people's perception in the following areas:

- People's general knowledge of the project.
- Project activities that have the potential to negatively impact the environment.
- Measures that have been taken to promote and protect social and environmental impact.

The survey used both quantitative and qualitative methodologies. The targeted respondents include facility users (i.e. patients) and service providers (staff). Qualitative methods – semi-structured key informant interviews and focus group discussions (FGDs) – were designed to provide quality baseline information, perspectives and expectations of beneficiaries to corroborate the quantitative data. Thus, the two categories of methods complemented and mutually reinforced each other.

6.1. Perception Survey Findings

6.1.1. Project awareness Level

The awareness level on the renovation activities at Yerobawol Health Centre (Figure X) is low as only 35% of the overall respondents said they knew about it. This is even lower among the patients with only 18% of them knowing about the renovations. Awareness among the staff is a bit higher with 62% of them knowing about it.

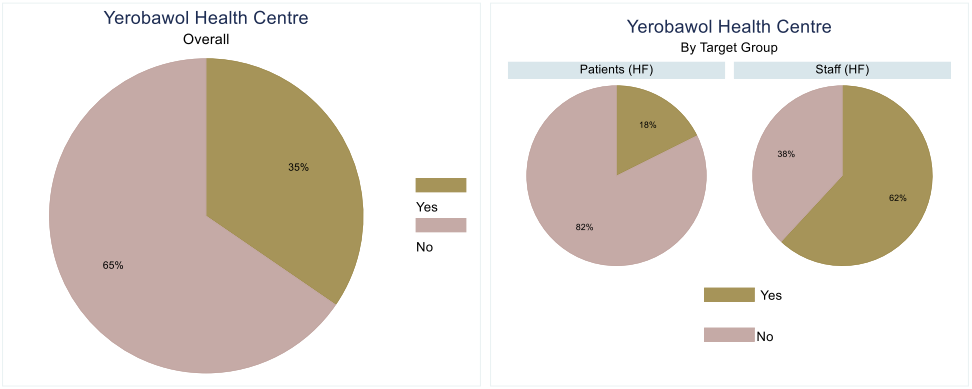


Figure 6.1: Perception on project awareness

6.1.2. Stakeholder engagement satisfaction

When asked about their satisfaction with their and other stakeholders' involvement in the project, 57% of all the respondents stated they were at least satisfied, 24% felt normal about it, and 19% had no idea about it. None of the respondents stated dissatisfaction about their and other stakeholders' involvement. Among the staff, 57% were satisfied of their involvement, while 24% felt normal about it and 19% had no idea on it.

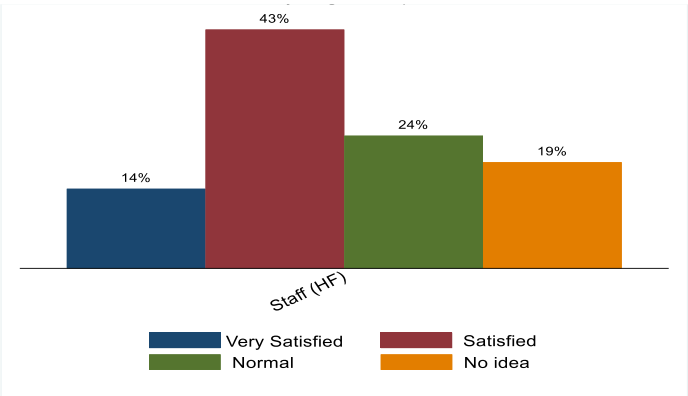


Figure 6.2: Perception on stakeholder engagement

6.1.3. Current healthcare services

As indicated in Figure 6.3, the current health care services at the health centre are said to be very good and good by 4% and 42% of the overall respondents, respectively. Almost half of them (47%) described the services as being fair while 4% described them as being poor and another 4% said they do not know. Among the patients, the perceptions are lower with no one describing the services as being very good. A lower percentage (29%) perceived the services as good while the majority (62%) said they are fair. Only 3% described the services as poor, while 6% said they did not know. In contrast, 10% of the staff described the services as very good, while 62% said they are good. Those who said the services were poor are only 5%, and 24% said they were fair.

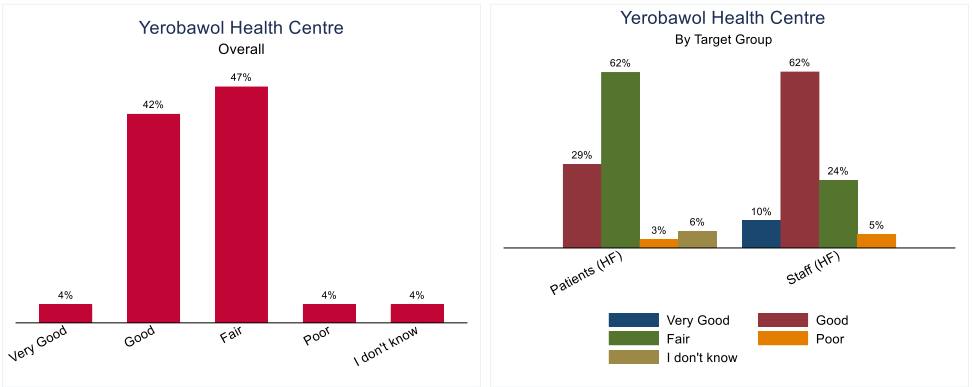


Figure 6.3: Perception of respondents on the current healthcare services

6.1.4. Constraints triggered by poor conditions of the health center

Figure 6.4 indicates the constraints faced by the respondents due to the poor conditions of the health centre. Almost half of the overall respondents (49%) stated poor healthcare services as a constraint. The other respondents stated unmotivated healthcare workers (25%), long waiting hours (13%), high rate of mortality (11%) as the constraints they faced. The remaining 2% mentioned other types of constraints. In comparison, poor healthcare services are mentioned by 62% of the patients and only 29% of the staff. Long waiting hours are mentioned by 9% of the patients and 19% of the staff. Only the patients (18%) stated high mortality rate as a constraint. Unmotivated healthcare workers stated as a constraint by 48% of the staff compared to only 12% of the patients.

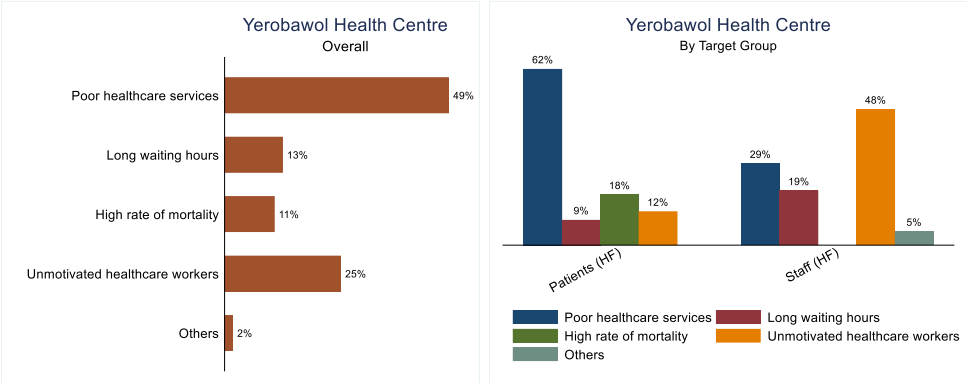


Figure 6.4: Perception of respondents on constraints faced due to poor condition of the HC

6.1.5. Healthcare service mainly impacted

With the renovation likely affecting care at the health centre, 76% of the overall respondents believed both out-patient and in-patient care will be affected, while 13% believe the in-patient care will be affected the most and 11% believe it to be the out-patient care. This quite similar among the patients with 76% believing both in-patient and out-patient care to be affected whereas 15% mentioned only in-patient care to 12% who mentioned only out-patient care. Perception among the staff is also not very much different with 81% of them stating both types of care will be affected, while 10% on each side mentioned in-patient and out-patient care only.

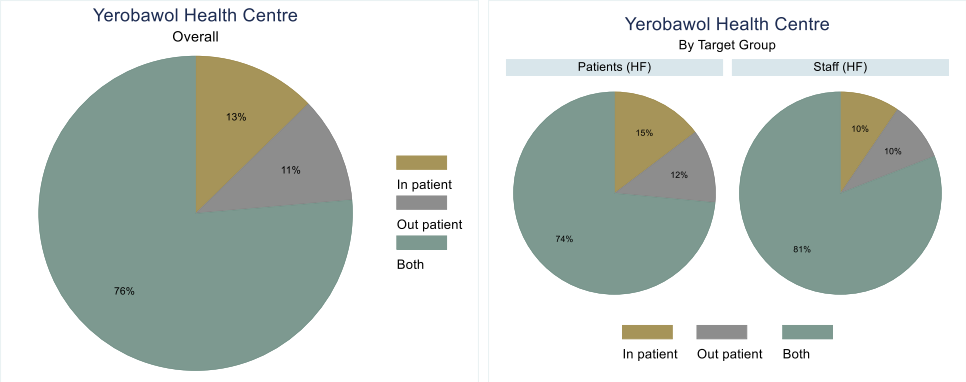
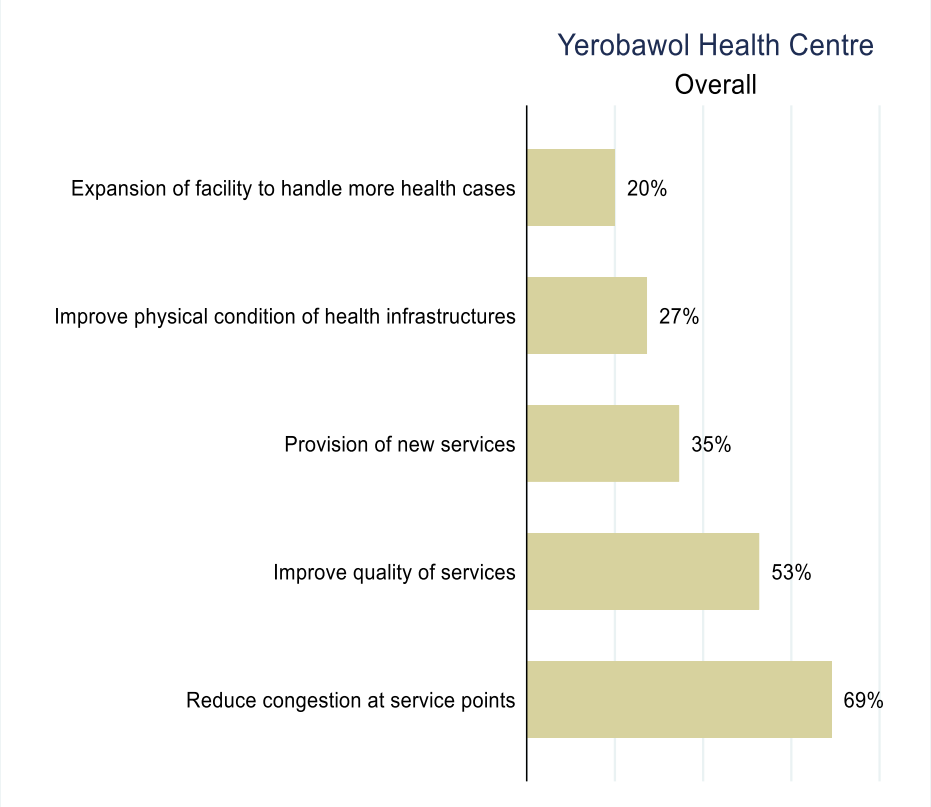


Figure 6.5: Perception of respondents on main healthcare service affected

6.1.6. Potential Positive impacts on health service delivery

The respondents believed the renovation will affect health service delivery in the community in a good way with over 50% of them stating that it will reduce congestion at service points and improve the quality of services. Provision of new services is stated by 35% of the respondents while 27% said it will improve the physical condition of health infrastructures and 20% said it will enable the expansion of the facility to handle more health cases. Higher percentages of the patients 82% and 35%, respectively, mentioned reduced congestion at service points and provision of new services as benefits of the renovation compared to 48% and 33% of the staff. More of the staff have mentioned improved quality of service (71%), improved physical condition of health infrastructures (43%), and expansion of the facility to handle more health cases (33%) compared to the patients (41%, 18%, and 12% respectively).


Yerobawol Health Centre
Overall
Expansion of facility to handle more health cases
20%
Improve physical condition of health infrastructures
27%
Provision of new services
35%
Improve quality of services
53%
Reduce congestion at service points
69%

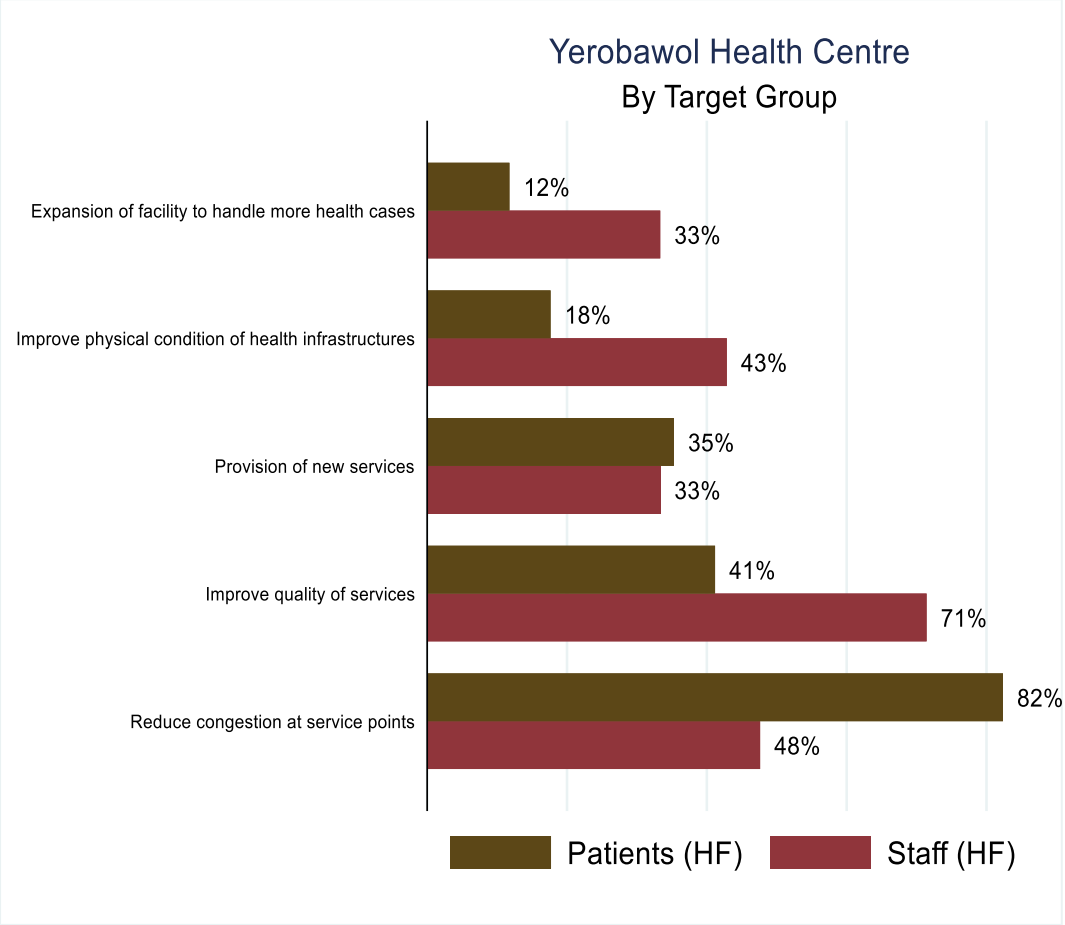


Figure 6.6: Perception of respondents on the potential positive impacts of health service delivery

6.1.7. Potential negative impacts on healthcare service delivery

Overall, 59% of the respondents believe the renovation will negatively affect the availability of some services in the health centre, while 50% stated it will increase congestion at the facility and only 18% believe it will lead to longer waiting time at the facility. At the group level, more of the staff stated unavailability of some services (67%) and long waiting time at the facility (33%) compared to 56% and 12% of the patients, respectively.

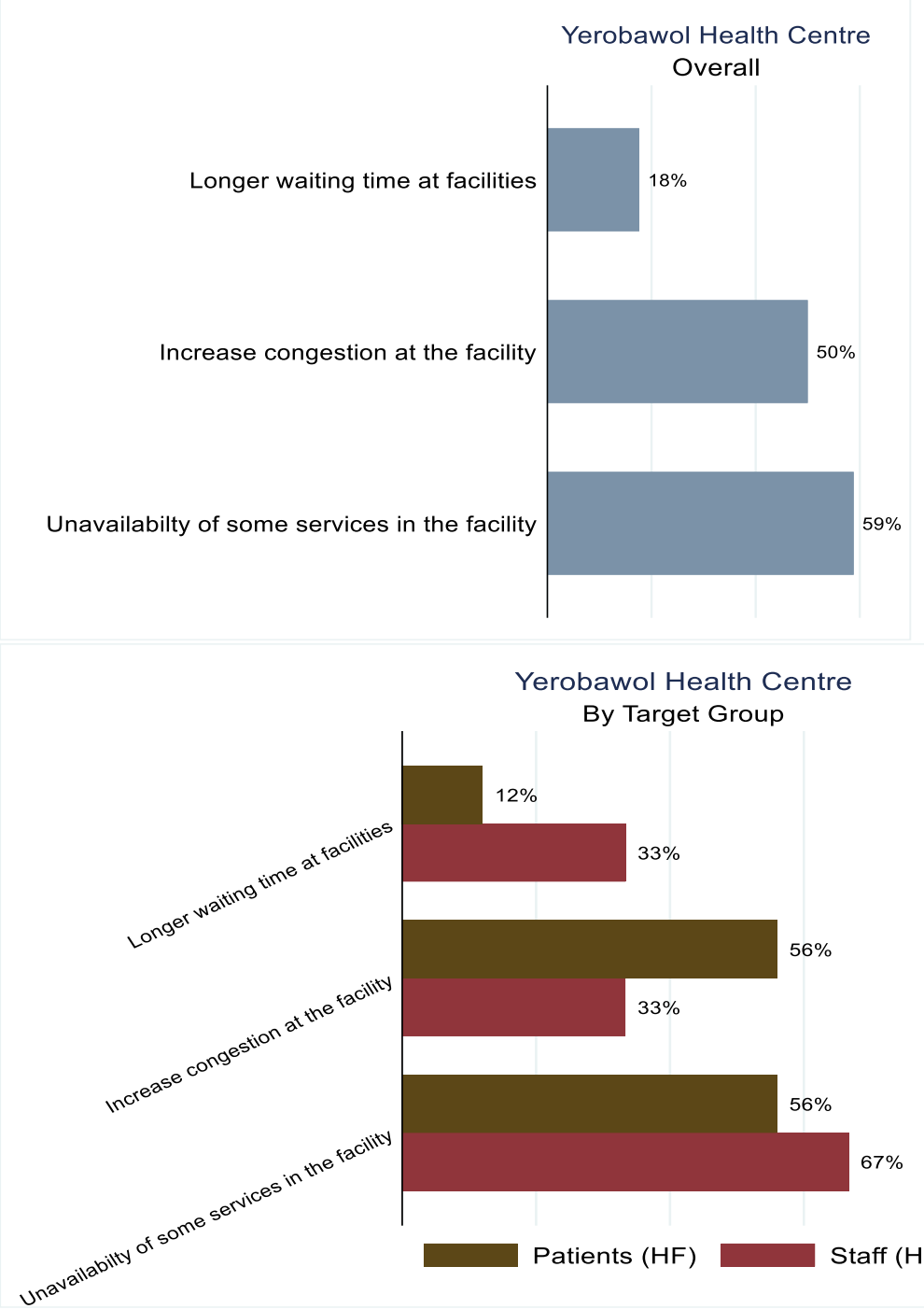
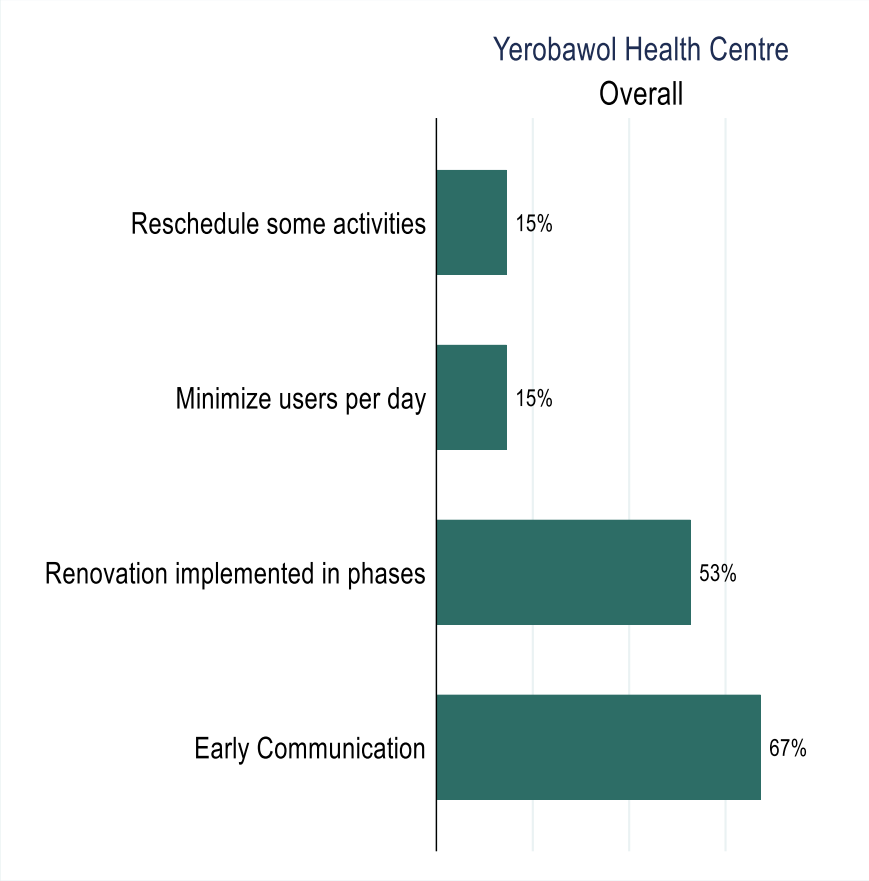


Figure 6.7: Perception of respondents on the potential negative impacts on healthcare service delivery

6.1.8. Temporal measures to continue healthcare services

When asked what temporal measures the management can take to maintain service delivery during the renovation, 67% of the overall respondents suggested early communication while

53% suggested the renovation to be done in phases. A much lower percentage (15%) suggested to minimize the number of users per day and reschedule some activities. These suggestions are similar within the groups with over 50% of both patients and staff suggesting early communication and the renovation to be implemented in phases.


Yerobawol Health Centre
Overall
Reschedule some activities
15%
Minimize users per day
15%
Renovation implemented in phases
53%
Early Communication
67%

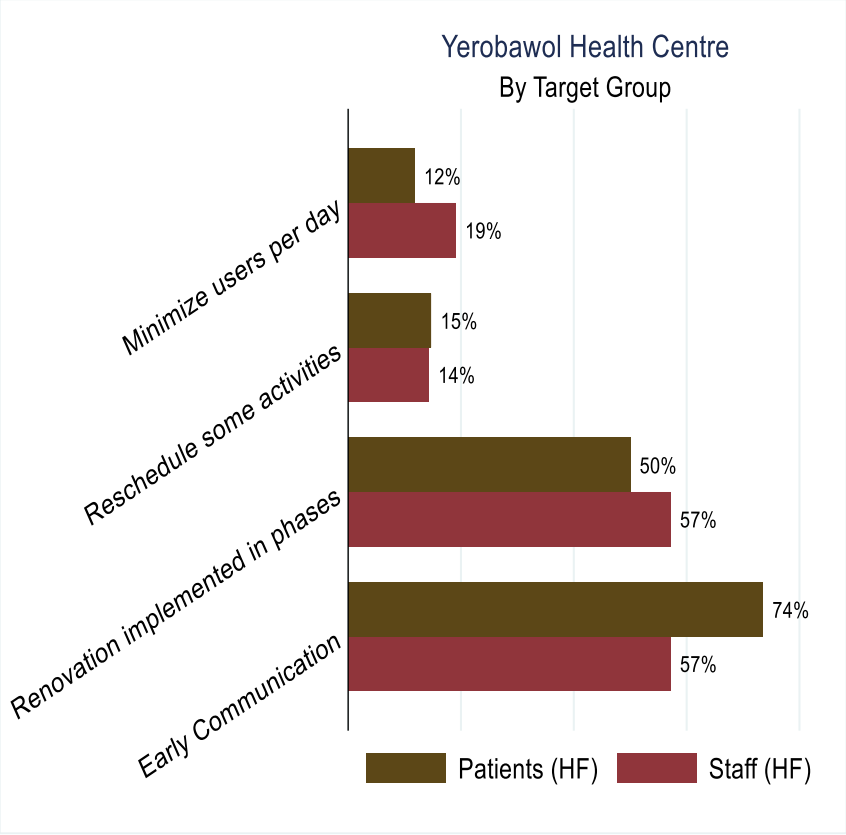
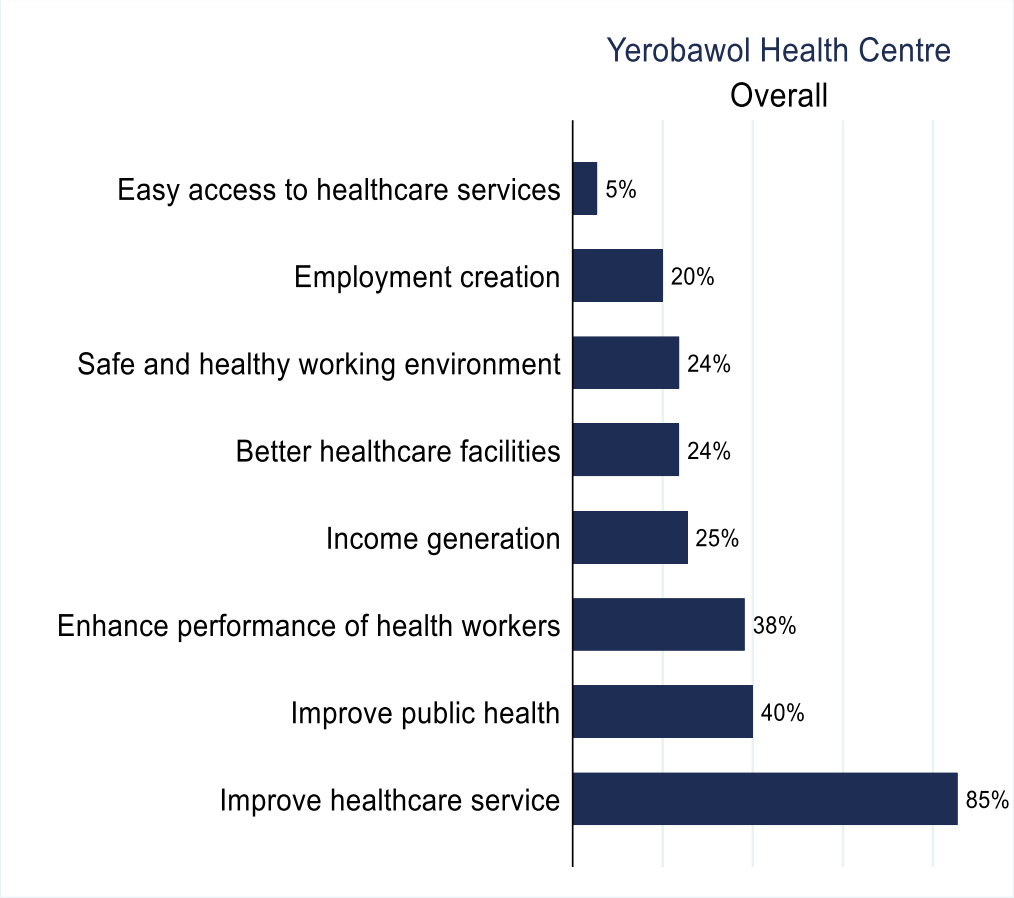

Yerobawol Health Centre
By Target Group
Minimize users per day
12%
19%
Reschedule some activities
15%
14%
Renovation implemented in phases
50%
57%
Early Communication
74%
57%
Patients (HF)
Staff (HF)

Figure 6.8: Perception of respondents on temporal measures to continue healthcare services delivery

6.1.9. Potential Positive Environmental and Social Impacts

The respondents mentioned a list of positive environmental and social impacts they think will be associated with the project implementation. On top of the list is improve healthcare service mentioned by 85% of the overall respondents. Next is improve public health mentioned by 40% followed closely by enhance performance of health workers at 38%. The rest of the impacts listed are income generation by 25%, better healthcare facilities 24%, safe and healthy working environment 24%, employment creation 20%, and easy access to healthcare services by 5%. Within the patient and staff groups, 85% of the patients and 86% of the staff mentioned improve healthcare service. Enhance performance of health workers is mentioned by 38% of both groups. Better healthcare facilities and safe and healthy working environment are both mentioned by only 9% of the patients and almost half of the staff (48%). A higher percentage of the patients (29%) mentioned income generation compared to 19% of the staff.


Yerobawol Health Centre
Overall
Easy access to healthcare services
5%
Employment creation
20%
Safe and healthy working environment
24%
Better healthcare facilities
24%
Income generation
25%
Enhance performance of health workers
38%
Improve public health
40%
Improve healthcare service
85%

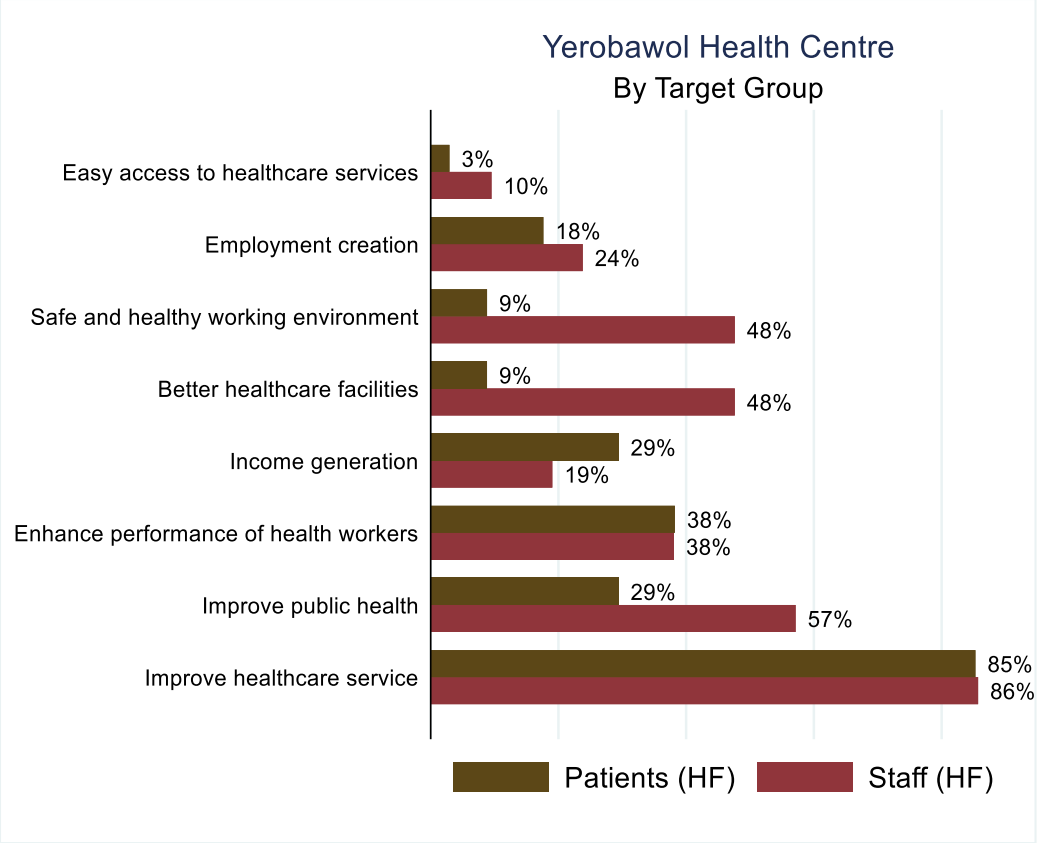
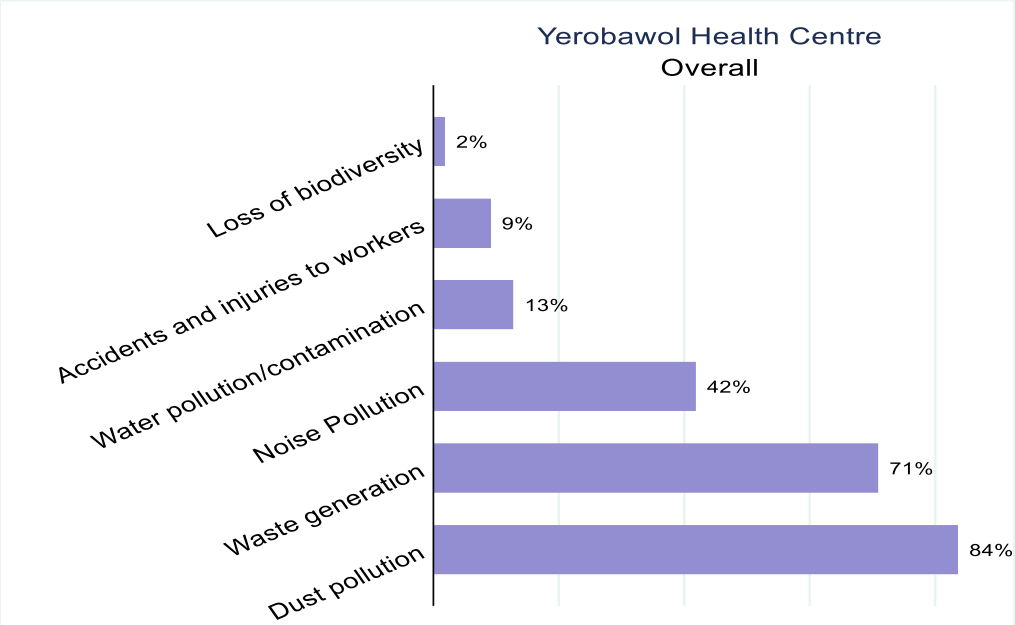


Figure 6.9: Perception of respondents on potential E&S positive impacts

6.1.10. Potential negative impacts on health safety and environment

Dust pollution is the top potential negative health safety and environmental impact that may be associated with the project mentioned by 84% of the overall respondents. This is followed by waste generation by mentioned by 71%, noise pollution by 42%, water pollution/contamination by 13%, accidents and injuries to workers by 9%, and loss of biodiversity by only 2%. The patients and staff have similar opinions on the negative impacts with over 50% of each group mentioning dust pollution and waste generation. Loss of biodiversity is only mentioned by some staff (5%).



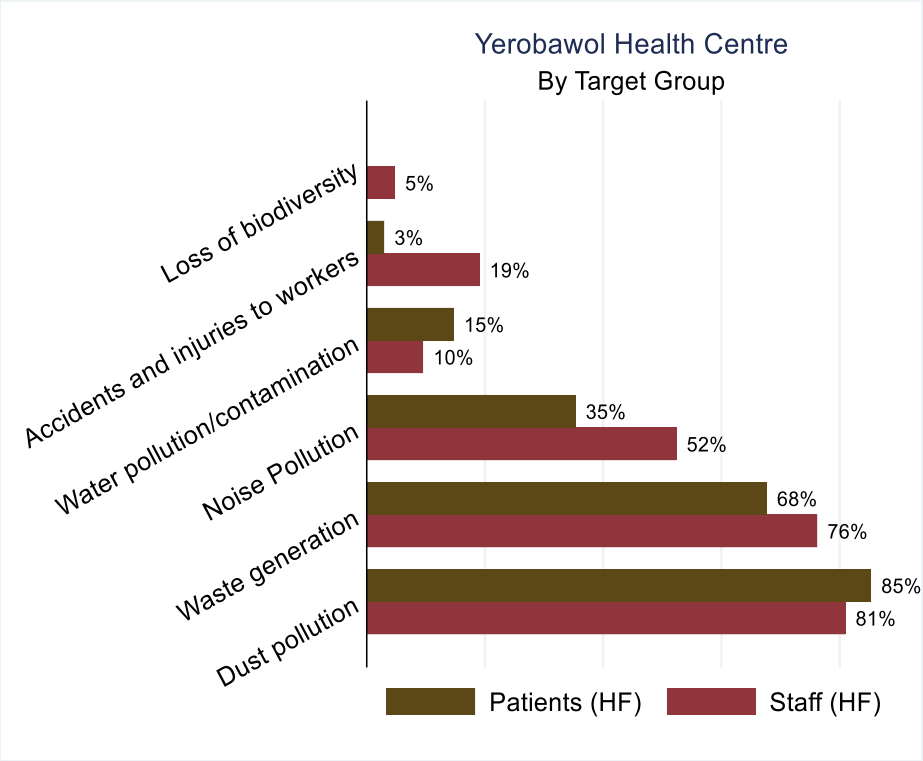
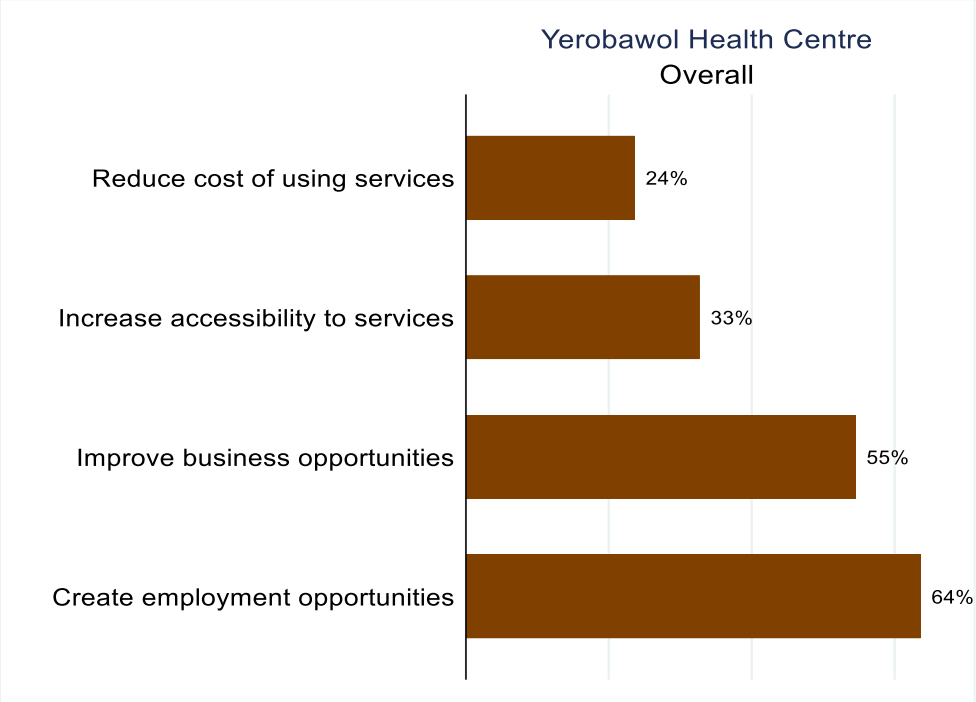


Figure 6.10: Perception of respondents on the potential negative impacts on HSE

6.1.11. Socioeconomic wellbeing of the healthcare users

The respondents expect some socioeconomic benefits from the renovation project. Toping the list is the creation of employment opportunities stated by 64% of the overall respondents. Fifty five percent (55%) expected improve business opportunities, while 33% expected

increase accessibility to services and 24% expected a reduction in the cost-of-service usage. Among the patients, 65% expected business opportunities compared to 38% of the staff and a lower percentage (21%) expected increase accessibilities to services to contrast to 52% of the staff. Over 50% in both groups expected the renovation to create employment opportunities.



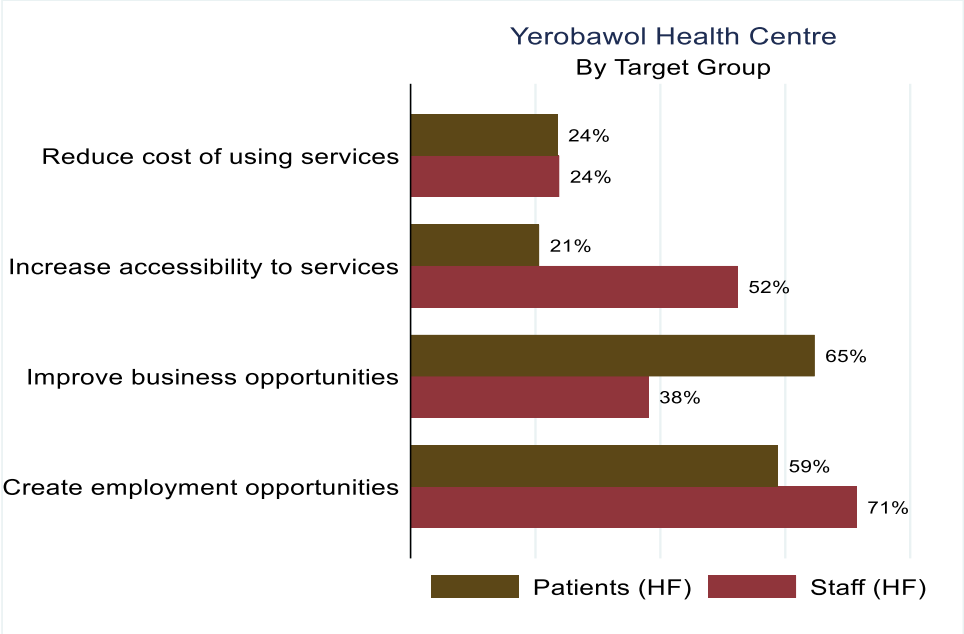


Figure 6.11: Perception of respondents on the socioeconomic wellbeing

6.1.12. Overall impact on livelihoods

The majority of the respondents believed the project will have an overall positive impact on their livelihood with 27% believing it to be excellent, 42% to be good and 31% saying it to be fair. None of the respondents stated the impact to be poor. Among the patients, 50% stated it will be fair, while 32% said it will be good and a lower 18% said it will be excellent. Among the staff, 57% stated the impact to be good while 43% said it will be excellent.

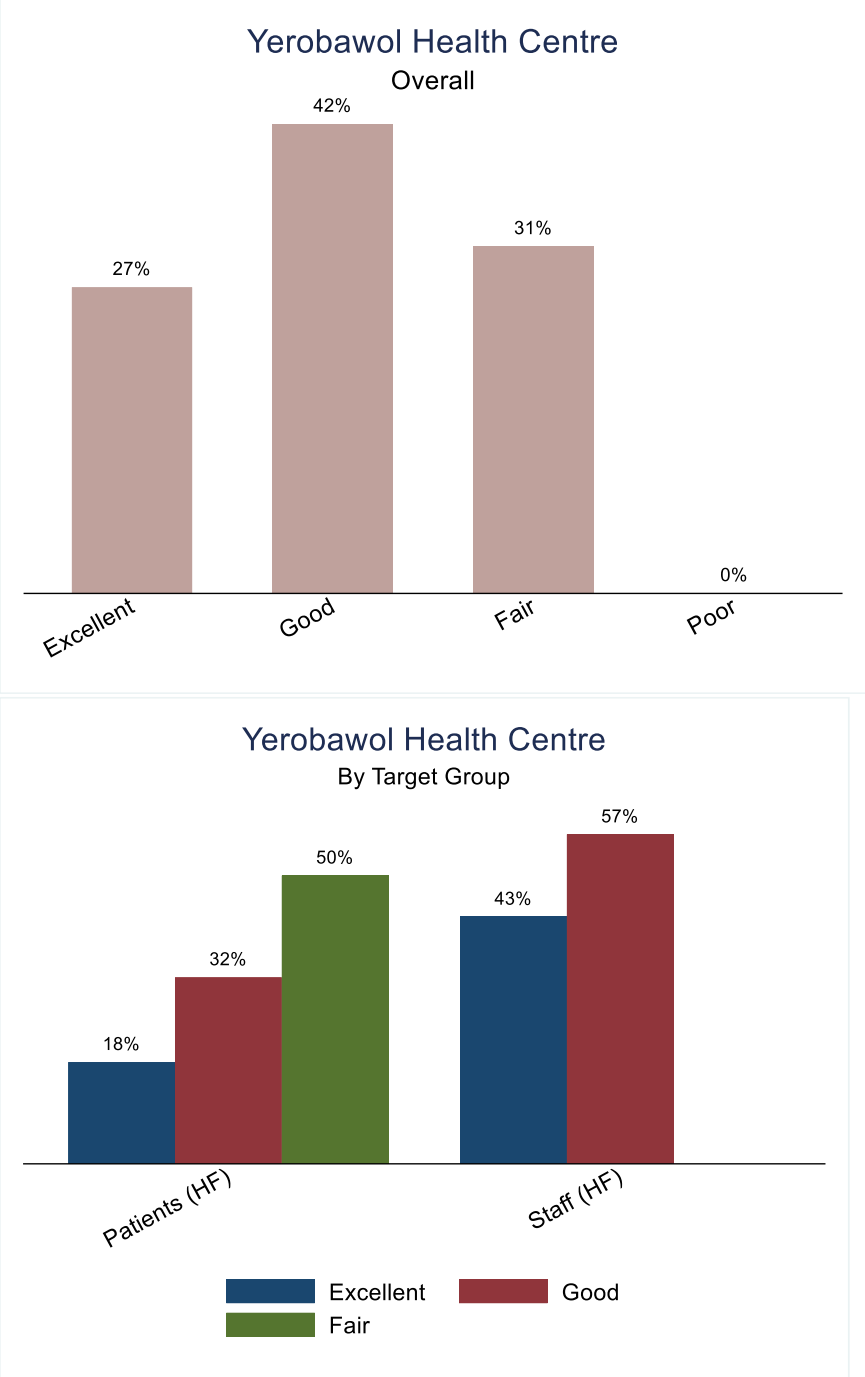


Figure 6.12: Perception of respondents on the overall impacts on livelihoods

6.1.13. Potential negative social impacts

The respondents mentioned some potential negative social impacts that they think will be associated with the project implementation. On top of the list is unfair treatment and discrimination to workers mentioned by 45% of the overall respondents, followed by disruption of health care services mentioned by 36%. The other impacts mentioned are

displacement of businesses (27%), promotion of child or forced labor (24%), high influx of workforce (11%), increased gender-based violence (7%), increase in communicable diseases and SDTs (4%), and 2% mentioned other negative impacts. Within the groups, more patients (53%) mentioned unfair treatment of workers, while more staff (52%) mentioned disruption of healthcare services.

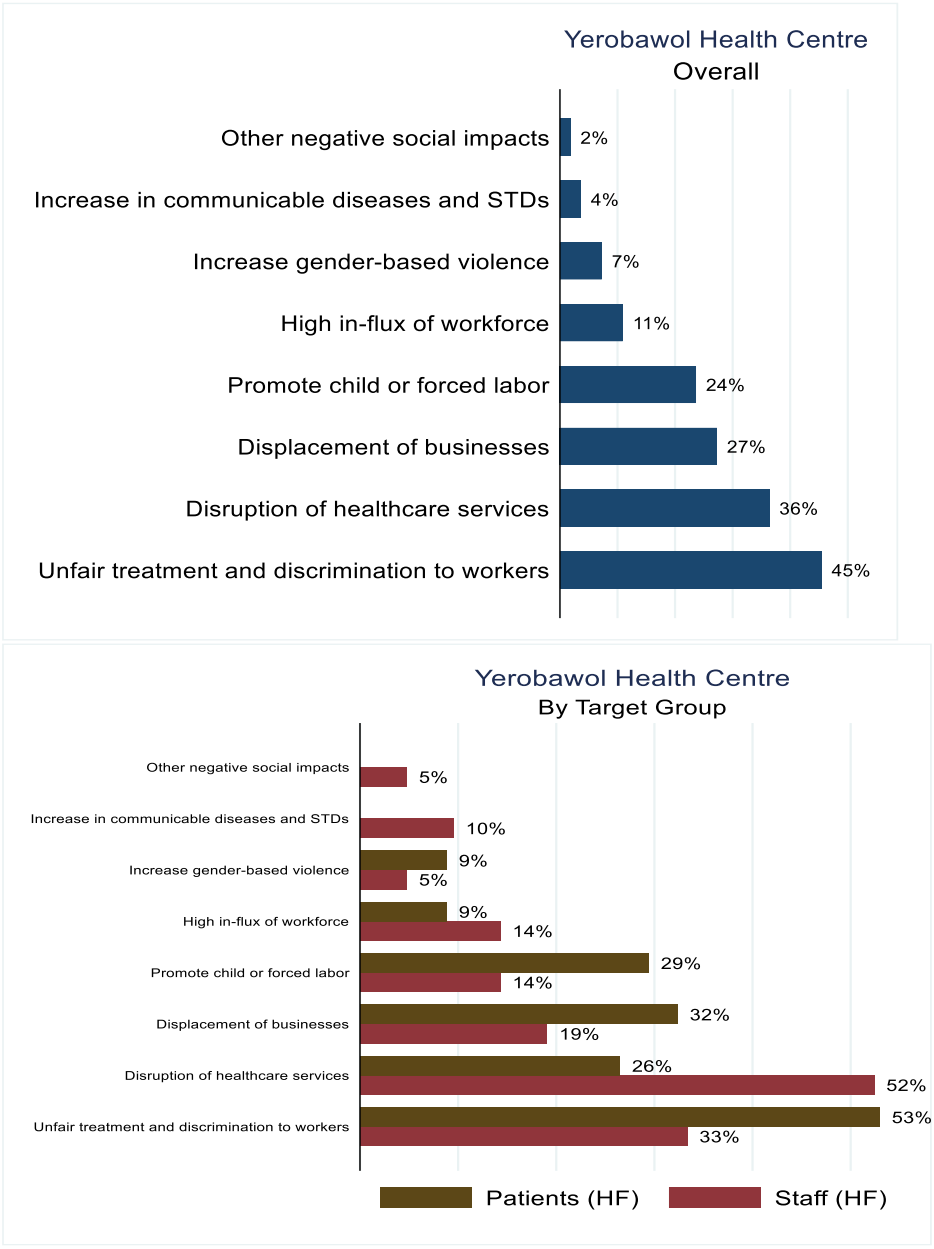


Figure 6.13: Perception of respondents on the potential negative social impacts

6.2. Stakeholder Consultation

As part of the stakeholder consultation, the consultant undertook a community engagement/consultation with the host community for the health center. The

consultation took place on the 9th March 2025. During the visit, Focus Group Discussions for both mixed gender (8 males & 5 females) and same gender and Key Informant Interviews were carried out. The venue for the meeting was at Foday Kunda health centre premises.

The discussions were centered on environmental and social impacts expected during the implementation of the project. Participants were also given the opportunity to discuss the infrastructural condition of the health facility but to also propose mitigative solutions on how to minimize negative environmental and social impacts and to what extent the proposed interventions contribute to communities' socio-economic conditions of the beneficiaries. The key concerns raised in the consultation meetings with the community members are presented in Table 6.1.

Table 6.1: Key concerns from community members

Theme	Summary of Discussions
Different structures in the facility	The health facility of Yerobawol has several functional units, including OPD, Public Health office, Labor ward, General wards (Adult, Children, and Maternal), Arts clinical center, LTS, Laboratory, Cashier office, OIC office, Kitchen, and staff quarters. However, some parts of the facility infrastructure are falling apart due to lack of maintenance. There are structures also built purely for solid waste management with the facility. At the time of the consultative meeting at the community of Yerobawol, the respondents alluded to the fact that these structures are old-fashioned designs and have not been renovated still, which is why they started cracking, and some of the staff's quarters within the facility lack indoor toilets, compromising the privacy of the staff as well as their comfort.
Public utilities	According to the respondent, the facility and the community heavily rely on the National Water and Electricity Company (NAWEC) for electricity supply to smoothen the operations within the facility. However, the community and the facility are highly dependent on groundwater sources using a borehole, which was given to the facility by a project. The water quality of the facility is perceived to be good; however, the water has not been subjected to laboratory tests for safety purposes. The community members also put an emphasis on the fact that they are depending on the borehole water from the facility as the main supplier because they do not have established boreholes within the community. The only water supply they got in the community is from their

	community well, which makes water insufficient within the community of Yerobawol.
Current condition of the facility	The facility is an old facility that was constructed decades ago. Some of the current structures within the facility are not in good shape, and it is risky to work in such environments. The plumbing system and wiring are poor, which is increasing the vulnerability of the staff and patients within the facility to disasters that result in loss of lives. The nature of the facility right now does not motivate workers, which is why the facility has insufficient human resources, such as medical workers. The community members also said that the insufficient number of healthcare workers in the facility affects their service delivery, and patients are kept waiting in the lane for more than an hour, which can worsen the health status of those patients. Here are some other services, like the scanning and X-ray; they are not available, as well as pharmacies that do not have drugs. Patients are always referred to buy medication at a far distance away from the community.
Perception on the proposed renovations	The respondents expressed great satisfaction with the proposed renovation of the facility. The renovation will improve the quality of the different infrastructures, enhance service delivery, and improve the living conditions of the staff residing within the facility as well as the community members too. The renovation of the facility will improve service delivery, and this can influence the growth and development of the community through people coming to settle in their community and business-minded personnel will come in, and this can be a great development for the community through socio-economic and infrastructural means.
Waste management	According to the respondents, most of the waste generated is temporarily stored in some pits within the community that they later burn, and the reason for burning the waste is because there is no waste collector in the community.
Positive impacts of the proposed facility renovation	The anticipated positive impacts are the enhancement of the infrastructure and the promotion of the reliability of water availability both in the facility and the community, which will motivate the staff and improve their productivity. Upon completion of the renovation, there is a high expectation that their well-being will be improved as well as reduce their vulnerability to disaster outbreaks. Renovation will also encourage the healthcare workers coming for postings in Yerobawol, which can minimize the inadequacy in human resources in the

	facility. The renovation can result in more employment opportunities for the inhabitants in the community. The renovation will attract investors in the community.
Proposed negative impacts	The respondents highlight that the renovation project will pose negative impacts on both their lives and livelihoods. These impacts are both environmental and social as well. **On environment** There is anticipation that the renovation will cause • Dust pollution, • Health and safety risk as renovation is in progress. • Construction waste issues, • Noise pollution, • Air Contact contamination with the leftovers and oil leakages. **Measures** • Ensure that the ground is always sprinkled with water daily • Ensure that the workers are always with their PPEs and mobile signage's to be displayed within the facility during renovation works. • Properly manage all solid waste and properly dispose them off. • Minimize the usage of heavy and noisy machines so as to minimize noise pollution. **On social lives and livelihoods** The negative social impacts it is going to have on the community and the health care workers as well as the patient in the facility are: • Temporal displacement of health facility for renovation to take place, there may be a challenge to accommodate staffs. • Influence in gender base violence and sexual harassment as a result of the influx of workers in the community. • The renovation might result to theft cases. • Affect the gardening done by inhabitants in the facility.. **Measures** • Develop a code of conduct to guide any contractor when going to the communities. • Advise the workers to follow the ethics and community norms and values.

	• Encourage community policing
Recommendation	The respondents urge the project to be implemented in phases to prevent it from obstructing their daily health care services in the facility. They are also anticipating that their community members will be employed as laborers that will help reduce the pressure of unemployment within the community as well as help other families meet their basic needs and wants. There should be proper community policing so as to reduce theft cases within the community that might be influenced by the number of workers coming in for the renovation. Let the ministry not only stop at renovation, but they also urged them to provide human resources as well as medications and other services like x-ray to reduce the stress on long-distance travel for medical screening and scanning.

7. Potential Environmental and Social Impacts

This chapter focuses on the identification and assessment of the planned renovation activities on the physical, biological, and socio-economic environment of the project intervention site as well as provide mitigation measures to address the identified adverse impacts.

a) During pre-renovation and renovation activities, sources of impacts are related to:

- Site clearing.
- Movement of machinery and vehicles
- Civil works.
- Transportation of construction materials (ie. Sand, gravel, cement etc)
- Recruitment and presence of workers (non-native)
- Waste generation
- Use of construction equipment and tools
- Consumption of resources (water, energy etc)
- Repair of equipment and machinery

During operational activities, sources of impacts are related to:

- Waste generation, storage, handling and disposal
- Maintenance of facilities
- Repair of equipment and machinery
- Intrusion of livestock and other animals in the facilities
- Consumption of resources (water, energy, etc.)

The components of the environment likely to be significantly affected by the project's activities (or sources of impact) are the physical (soil, air, water), biological (vegetation, wildlife) and human (economic activities, public health, employment, habitat, quality of life of the populations) environments.

The proposed project will be executed in two different stages and the procedure utilized in the identification and assessment of the potential impacts took into account the various phases of the project as shown in the checklist Table 7.1.

Table 7.1: Environmental Indicators interaction matrix of the project activities

Project Stage	Pre-renovation and Renovation										Operation				
Project activities	Site clearing	Recruitment and presence of workers (non-native)	Movement of machinery and vehicles	Civil works	Transportation of construction materials (I.e. sand, gravel,	Waste generation	Use of construction equipment and tools	Consumption of resources (water, energy etc)	Repair of equipment and machinery	Waste generation, storage, handling	Maintenance of facilities	Repair of equipment	Consumption of resources (water,	Presnce of facility users	Movement of vehicles in and out
Air Quality															
Dust and particulates	✓		✓	✓	✓										✓
Gaseous emissions (NO_X, SO_X, CO_X, GHGs etc)			✓		✓		✓								✓
Water Quality															
Surface water contamination/pollution		✓		✓					✓	✓					
Underground water contamination/pollution	-	-		-	-	-	-	-	-	-	-	-	-	-	-
Depletion of groundwater															

Soil Quality																
Soil contamination				✓						✓						
Soil erosion and siltation																
Change in topography/natural drainage				✓						✓						
Sensory Perceptions																
Noise Disturbance				✓				✓								
Vibration Disturbance				✓				✓								
Terrestrial Ecology-Flora																
Forested areas (removal)	✓															
Habitat fragmentation																
Terrestrial Ecology - Fauna																
Avifauna (degradation and removal of habitat)																
Rodents and mammals (degradation and removal of habitat)	✓															
Socio-economic/Cultural/Human Health																
Traffic congestion			✓			✓										✓
Waste generation (solid and liquid)	✓	✓		✓			✓		✓	✓	✓					
Public health (air and water quality)	✓		✓	✓			✓				✓					

Occupational Health and Safety (increased accident potential)		✓	✓	✓	✓		✓		✓						✓
Employment opportunities		✓													
Impact on livelihood															
In-migration		✓													
Gender-based violence; Sexual Exploitation and Abuse; Sexual and communicable diseases		✓													

7.1. Potential Environmental and Social Impacts

7.1.1. Impact on Air Quality

The clearing of the site and pre-renovation preparation activities may increase dust pollution especially during the dry season. Trees and shrubs serve as good windbreakers that reduce dust pollution and their removal may increase the dust pollution on immediate project site. However, the proposed project is not anticipated to experience complete tree removal but probably, trimming of tree branches may be required, where necessary.

The planned civil works at the renovation phase of the project is expected to include demolitions, light excavations, chipping of wall cracks, dealing with cements and uncovered deposited sand and gravels may cause the release of fugitive dust which may be harmful to health facility users and service providers. The impact of these activities on the air quality is expected to be higher during the dry season.

The movement of trucks during mobilization of construction elements such as cement bags, gravel, and sand poses adverse impacts on the air quality in two aspects:

- Dust generation: the movement of trucks on the exposed bare soil of the sites may promote dust generation.
- Gaseous emission: the truck employed for the transportation of construction materials as well as equipment and machinery for the renovation are powered by fossil fuel engines. Thus, the combustion of fossil fuel during the movement of trucks, use of machinery and equipment may cause atmospheric pollution through the emission of gaseous pollutants including Greenhouse Gases such as Carbon dioxide.

The generation of dust and particulates due to the site clearing, excavation and movement of construction trucks has the potential to directly impact on air quality. The emission of dust and gaseous pollutants are normal during such activities that triggered them. The impact will have only temporarily effect on the ambient air quality around the activity sites. The sensitive nature of the facilities users (i.e. patients) magnifies the impact of dust pollution and gaseous emissions in the facilities during the renovation phase.

The impact significance is assessed as high to medium.

Table 7.2: Impact Assessment Summary for air pollution

Table 7.2: Impact Assessment Summary for air pollution	
Types of impacts	Air pollution (dust and gaseous emissions)
Project activities	Excavation and digging activities, Site clearing and removal of vegetation, movement of machinery and vehicles, Transportation of construction raw materials (I.e. sand, gravel etc)
Impact characterization	Adverse, Direct, Normal, Short-term, Reversible

Impact Significance	Medium
Mitigation Measures/ Improvement	• Minimize cleared vegetation areas to those that are needed to be used. • Area should be dampened within suitable intervals (4 – 6 hours) to prevent a dust nuisance and this frequency should be increased during hotter days. • Cover or wet construction materials such as sand, gravel to prevent dust pollution. • Where unavoidable, construction workers working in dusty areas should be provided and fitted with dust mask (N95 respirators) • Vehicles carrying earth materials should be covered. • Facility users and service providers should wear face mask. • Movement of facility users should be restricted, and visitors controlled during the renovation activities • Proper housekeeping to cleanse dust particles that settled on the medical equipment and in wards/labs/offices. <u>Gases emissions</u> • Ensure that all vehicles involved in the transport of construction material and staff, and machinery used in construction is properly maintained and services. • Reduce the idling of vehicles that may occur and thus reduce the gaseous emission from vehicles in the area. • Reduce vehicle speed within the facility. • Promote the use of fuel-efficient vehicles with the proper emission standards and more eco-friendly fuel type.

7.1.2. Impact on Water Quantity and Quality

The local community close to the facility depends heavily on the water supply from the health facility. Thus, the renovation activities may cause competitive demand on the limited water source, and it may possibly lead to water scarce for domestic consumption.

Considering the short duration and moderate magnitude of run-off water on the project intervention site the significance of the impacts are expected to be medium during the renovation and operational phase of the facility.

In addition, release of hazardous substances (e.g. spilled cements, accidental diesel spills and leaks) leading to surface or groundwater contamination. During machinery maintenance engine oil may accidentally spill causing water contamination. Also, the repair of equipment has the potential to leak hydraulic fuels, oils, etc. and thereby has the potential to contaminate the water.

The impact significance of project activities on water quantity and quality is assessed as Medium to low.

Table 7.3: Impact Assessment Summary for water pollution

Table 7.3; Impact Assessment Summary for water pollution	
Types of impacts	Water Pollution
Project activities	Usage of water, oil spill, cement spillage, waste paints
Impact characterization	Adverse, Indirect, Abnormal, Medium-term, Accumulative
Impact Significance	Medium
Mitigation Measures/ Improvement	• Environmentally sound management of renovation activities especially during the rainy season to avoid water pollution. • The contractor must ensure that construction and mitigation measures comply with the ESMP-Contractor • Collection of waste oil for recycling • Avoid placing spoil on drainage paths. • In the event of a spill on water bodies, the contractor in charge of the work shall immediately notify the person responsible for the environmental monitoring of the work and take measures to stop the leak, contain the product and recover it. • Appropriate solid and liquid waste storage to limit the risk of pollution.

7.1.3. Waste Generation

During the renovation phase of the proposed project, solid and liquid waste may be generated by the construction workers onsite. The presence of workers on site will necessitate the need to have proper waste management in place because these workers will generate solid wastes

such as waste papers, aluminum cans, food which may affect the environment when directly disposed.

The indiscriminate disposal of renovation/construction waste material such as waste cement bags, debris, concrete, metal scraps etc. may pose an adverse impact on the environment and safety of the workers. The impact significance is medium.

The planned civil works will generate reduced quantities of solid and liquid waste but will have to be managed in a rigorous manner (collection, disposal, and treatment). This cumulative number of wastes will be added to the wastes already produced by facility users and service providers. Waste management (solid and liquid) is very problematic in the project intervention areas, as evidenced in the environmental baseline chapter (chapter 11). It is therefore necessary to take all the appropriate measures to ensure adequate waste management. To this purpose, it is important to provide the site with garbage cans for the collection of solid waste and ensure their removal and disposal by structures approved by the administration. The improper disposal of waste into water bodies may lead to water contamination.

The impact significance is rated as medium to low.

Table 7.4: Impact Assessment Summary for waste generation

Table 7.4: Impact Assessment Summary for waste generation	
Types of impacts	Waste
Project activities	Waste generated from workers campsite (if applicable), presence of workers on sites, disposal of waste on site, construction waste, domestic waste
Impact characterization	Adverse, Direct, Normal, Short-term,
Impact Significance	Medium

Mitigation Measures/ Improvement	• Preparation of (biomedical) waste management plan following the waste hierarchy and ensure proper implementation, supported by staff training. • Adequate skips and bins should be strategically placed within the campsite and construction site. • The skips and bins at the renovation and operation phase should be adequately designed and covered to prevent access by vermin and minimize odor. • Waste segregation in different bins should be practiced and ensure that workers adhere to the practice. • The skips and bins at both the renovation and operation phase should be emptied regularly to prevent overfilling. • Disposal of the contents of the skips and bins should be done at an approved disposal site or incinerated where suitable. • Reuse waste plastic materials (deform bottle containers) as feedstock for plastic product production. • Organic waste generated can be composted and use as manure. • Appropriate storage, handling and management of clinical waste. • Workers handling biomedical waste should be in proper PPEs.

7.1.4. Public Health

The end effect of most of the project related negative impacts such as poor air quality, water contamination, waste disposal and many others are on human health. The dust particles and gaseous emissions from the movement and operation of construction trucks and equipment poses adverse impact on human health in the form of respiratory disorder, which may prove to be fatal of many after extensive exposure. Most especially, the inhalation of asbestos materials that may be found in some of the structures may even cause death to those who inhale asbestos fibers persistently over an extend duration.

The significance of the impact is ranked as medium.

Table 7.5: Impact Assessment Summary for Public Health

Table 7.5: Impact Assessment Summary for Public Health	
Types of impacts	Public Health
Project activities	Activities that impact air and water quality; presence of asbestos

Impact characterization	Adverse, Indirect, long-term
Impact Significance	Medium
Mitigation Measures/ Improvement	• Ensure the mitigation for the impact on air and water quality as well as waste generation are implemented. This will reduce the impact on public health negligent. • Safe removal of asbestos in accordance with the Asbestos Abatement and Removal Action Plan (*See mitigation of air quality, water quality and waste generation*)

7.1.5. Impact on Occupational Health and Safety

There are numerous factors and activities that may pose occupational health and safety treat to the workers on the project site. However, the following are activities identified to have high probability to cause work-related incidents during the renovation phase:

- Onsite civil works (i.e. earthworks, floor concrete, electrical works, plumbing works, metal fabrication)
- Use of machineries and equipment
- Fuel/hazardous materials storage and handling
- Movement and operation of heavy construction trucks and equipment

The above activities may potentially result to construction site accidents such as falls from high heights; slips and falls; falling debris, materials, or objects; getting caught in-between objects; overexertion; machinery accidents; and getting hit by a vehicle. All these accidents may lead to injuries or death of workers. This impact significance is ranked medium.

Table 7.6: Impact Assessment Summary for Occupational Health and Safety

Table 7.6: Impact Assessment Summary for Occupational Health and Safety	
Types of impacts	Occupational Health and Safety
Project activities	All civil works, material transportation and handling, working conditions, workers' behaviour
Impact characterization	Adverse, Direct, Abnormal, Long-term
Impact Significance	Medium

Mitigation Measures/ Improvement	• Staff or workers should be given adequate training on occupational health and safety issues during the renovation and operation phase. • Induction training should be held for new workers on Health and Safety. • The workforce should conduct daily toolbox meetings. • The contractor should hire a Qualified Environment Health and Safety (EHS) officer. • The project proponent should develop a Health and Safety Management System if there is none. • Personnel Protective Equipment (PPE) should be provided to workers and ensure that they use them accordingly. • There should be onsite first aid kits and arrangement for a local nurse and/or public health office to regularly monitor the activities of the workers onsite. • Provide adequate working conditions for the workforce, including adequate toilets, clean water, rest and meal areas, lighting (for camps), and waste disposal facilities. • Regularly maintain working equipment • Limit the speed of machines and trucks involved in the work. • Securing the areas for maneuvering the machines • Train workers in best practices and emergency procedures before civil work begins. • Conduct a Risk Analysis for all activities during the renovation phase and propose mitigation measures. • There should be a workers' grievance mechanism establish and known to all workers. • Incident report system should be in place.

7.1.6. Impact of In-migration of workers on Community Health and Socio-cultural Conflicts

The project is expected to attract the inflow of workforce from other areas for job opportunities. The successful implementation of the renovation activities is anticipated to

increase labor demand in the project site. Some of the labor workforce are provided by laborers from neighboring communities or countries. The physical presence or staying of workforce in the local communities may cause the following negative impacts:

- Interaction between workforce and local communities may increase occurrence of communicable diseases, including HIV/AIDS and sexually transmitted diseases (STDs). Influx of resident and non-resident workers into the project area also increases the risks of sexually transmitted diseases (STDs) and could impact adversely on the spread of these illnesses especially relating to acquired immunodeficiency syndrome (AIDS). This impact, if left unmanaged may result in long term health issues which may eventually lead to fatality. Impact arising from this is ranked high.

- Real or perceived disruption to normal community life, through the domestic activities of a workforce. Imported workers have the tendency to introduce new lifestyle and activities that may be foreign to the host communities.

- Individuals are likely to permanently migrate into the area which may cause conflict with resident communities and put pressure on resources and infrastructure. This challenge increases demand on existing infrastructures and resources such as water supply, electricity, health facilities and many others due to influx of people to the project influence communities.

- Differences in nationality, ethnicity, religion, etc. may lead to discrimination and harassment, and differences (perceived or real) in working conditions between workers may lead to resentments.

Table 7.7: Impact Assessment Summary for In-migration of workforce

Table 7.7: Impact Assessment Summary for In-migration of workforce	
Types of impacts	In-migration of workforce
Project activities	Recruitment, All works onsite and presence of workers
Impact characterization	Adverse, Indirect, Abnormal, long-term
Impact Significance	Medium

Mitigation Measures/ Improvement	• The project should develop a labor management procedure (LMP) • Recruit local labor for unskilled jobs as a priority to ensure local ownership of the project. • Organize the work of unskilled employees in a task-oriented manner. • Post the internal rules of the work site. • Include provisions in the site code of conduct to deter employees from abusing the trust of food vendors/stallholders (those provisions will explain what behavior is not acceptable- including SEA/SH and what sanctions will be applicable in case of misconduct) • Training for all staff in acceptable behaviour with respect to community interactions. • Take gender into account (give a quota to women employed) and extensively sensitize and raise awareness of all workers on issues related to SEA/SH • Sensitize the personnel of project site on the respect of the habits and customs of the populations. • Establish a conflict prevention and management mechanism. • Respect the labor code regarding the recruitment of labor. • Ensure all workers on site sign the protocols, as well as get sensitized and their awareness raised on challenging issues such as HIV-AIDS, COVID-19 protocols, STIs, etc. • Ensure continuity of consultation and participation of the beneficiary communities throughout the project (with women consulted in small, separate groups facilitated by a woman). • Establish and publicize grievance procedure

7.1.7. Social Exclusion, Gender-Based Violence (GBV), Sexual Exploitation And Abuse And Sexual Harassment (SEA/SH) And Violence Against Children (VAC)

The nature of the work to be done generally requires a predominantly male workforce from which women and vulnerable groups are often excluded. Women and vulnerable groups are therefore likely to be excluded or offered fewer work opportunities, or to be confined to secondary tasks that are devalued and less paid.

The works, through their potential socio-economic impacts, could cause an aggravation of already existing gender inequalities to the detriment of women and children, and thus prevent the participation and benefit of men and women in the development.

Women may also endure various forms of violence on and off the project sites. The presence of a large male population may encourage the practice of prostitution- including human trafficking of women and children to project areas for this purpose, expose women to sexual violence, harassment and discriminatory practices or violations of fundamental rights (lack of employment contracts or blackmail/request for sexual favors to obtain a job, abusive dismissal, underpayment, lack of leave). The Labor Act, 2023 prohibits children from engaging in agricultural, industrial, or non-industrial work for economic gains.

In addition, rivalries between outside workers and the local male population related to extra-marital affairs may arise. Finally, family cohesion is likely to be put to the test when local workers, thanks to the remuneration received from their employment on the site, would lead them to increase their consumption of alcohol, a factor increasing risks of domestic violence.

There is a risk of using children as laborers during project implementation, particularly during pre-renovation for site cleanup. Children playing in the facility and around work sites may be subject to verbal, physical, or sexual exploitation and abuse, at construction sites, in addition to accidents/incidents occurring at construction sites. These risks of GBV, SEA/SH, VAC, are to be considered especially during the implementation stages of the project.

Table 7.8: Impact Assessment Summary for GBV/SEA/VAC

Table 7.8: Impact Assessment Summary for GBV/SEA/VAC	
Types of impacts	Gender-based violence (GBV), Sexual exploitation and abuse (SEA), Violence against Children (VAC)
Project activities	Presence of workers
Impact characterization	Adverse, Indirect, Abnormal, Long-term
Impact Significance	Medium

Mitigation Measures/ Improvement	• Ensure that code of conducts (CoC) are developed and signed by all personnel and workers and that they attend regular training on SEA/SH, content of CoC and sanctions. • Action Plan for Implementing ESHS and OHS Standards, and Preventing Gender Based Violence (GBV) and Violence Against Children (VAC) must be rigorously applied and monitored for compliance. These Codes will also be included in the Contractors ESMP. • Ensure that SEA/SH Action Plan is developed and implemented prior to the physical start of civil works. • Develop and implement a complaint/grievance mechanism (GM) sensitive to GBV, SEA/SH, VAC, and other forms of discrimination with accessible entry points to submit complaints, referral to GBV service providers and confidential, survivor-centered procedures for verification and managing of complaints. • Conduct regular awareness raising campaigns about the project and the risks of GBV, SEA/SH, VAC with workers and community members (and with women in separate groups with a woman facilitator) • Include provisions in the site's internal regulations to discourage employees from abusing the trust of food vendors/stallholders, and the use of GBV, SEA/SH, VAC • Report and sanction all forms of GBV related to the project activities. • Formally prohibit child labor • Monitor changes in the status of women and the potential impacts of the project on them by conducting regular focus groups consultations with women in a sample of villages (in small groups facilitated by a woman).

7.2. Potential Risk and risk management measures

7.2.1. Disaster risk assessment

Figure 7.1 presents the natural hazards mapping which shows that the common natural disaster hazards identified in The Gambia were flood, drought, bush fire, disease outbreak, windstorms, lightning storms, coastal erosion, soil erosion, salt intrusion and mangrove

depletion. As for the proposed project intervention region (URR), the most prevalent natural disaster hazards were found to be floods and droughts.

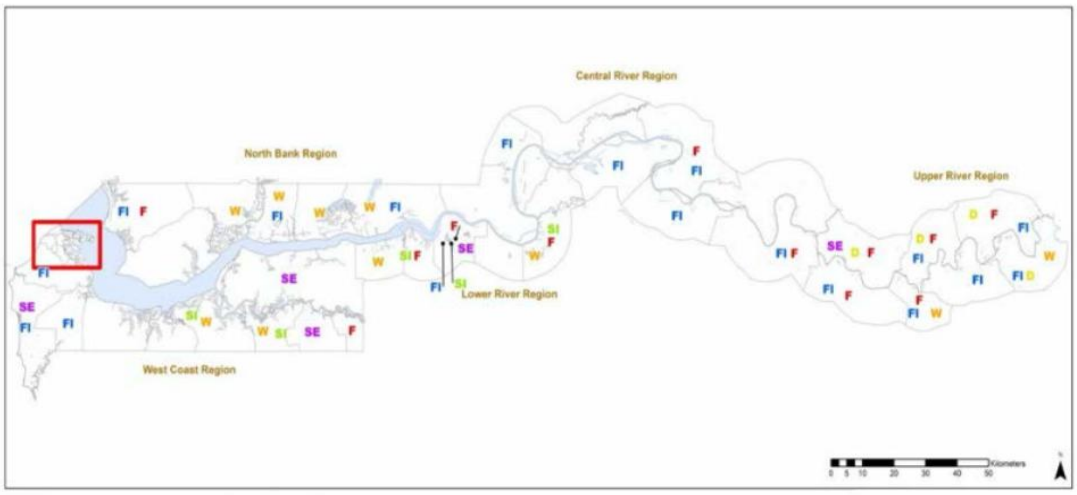


Figure 7.1: Local hazard and risk zoning in The Gambia (UNDP and NDMA, 2014)

From the hazard risk analysis on Table 7.9, floods was ranked as the disaster that posed the highest risk in Yerobawol Health Center, with a corresponding probability level of D (likely), and consequence level of 4 (major). Windstorms and drought scored moderate risk whereas bush fires posed the lowest risk in all the facilities. However, in the event of any of these disasters, access to basic social services could be threatened for large segments of the population with possible threat of health hazards, diseases, and malnutrition amongst vulnerable groups.

Table 7.9: *Probabilities, likelihoods, and impact levels of disasters in project site*

Hazard	Assignment of Probabilities		Impact levels		Risk Ranking
	Probability Level	Descriptor	Consequence Level	Descriptor	
Floods	D	Likely	4	Major	High Risk
Windstorms	A	Remote	3	Moderate	Low Risk

Bush fires	A	Remote	3	Modera te	Low Risk
Drought	C	Possible	3	Modera te	Moderate Risk

7.2.2. Technical risks

The objective of the identification and analysis of technological risks is to identify the situations that may be the cause of an accident, and to analyze the associated safety barriers (prevention measures, means of protection and intervention).

Analysis of hazards related to the equipment used and the processes

During the pre-renovation and renovation phase

During this phase, the risk of falling from a height is present during the renovation works which includes roofing, ceiling, working on the electrical system, plumbing, siding, etc.

There is also another potential danger related to manual or mechanical handling work which could result in open wounds, musculoskeletal disorders, etc. during the work.

During the work of the renovation many risks can also occur. This is the case for risks related to:

- An increase in vehicle traffic that can increase the risk of accidents with local residents and livestock on their own
- The use and handling of heavy equipment and machinery that can lead to accident risks for workers
- Handling sharp objects used to cut can lead to accidents with serious injuries
- Hot equipment such as chalimus[2] can also promote accidents for workers

[2] Welding equipment

In the operation phase

The main hazard in the operation phase of the facility is the biomedical waste.

a) biomedical waste

The main sources of these healthcare wastes or biomedical wastes are (i) the wards and dispensary services, (ii) the laboratory, and (iii) blood banks and blood collection services. The healthcare waste will include:

- Infectious waste: waste contaminated with blood and other body fluids (e.g., from samples collected for diagnostic purposes and then disposed of), cultures and stocks of infectious agents used in the laboratory (e.g., autopsy waste and infected laboratory animals), or waste from hospitalized patients in isolation and materials (e.g., swabs, bandages and disposable medical devices).
- Anatomical waste: human body tissues and organs or contaminated body fluids and animal carcasses.
- Sharps: syringes, needles, scalpels and disposable razor blades, etc.
- Chemicals: e.g., solvents used in laboratory preparations, disinfectants and heavy metals in medical devices (mercury in broken thermometers) and batteries.
- Pharmaceuticals: expired, unused and contaminated drugs, vaccines and sera.
- Other wastes that do not present any particular biological, chemical, radioactive or physical hazard.

During renovations, construction waste can be mixed with biomedical waste as the waste is incinerated. Workers may be tempted to incinerate them together or mix them.

To this end, it is important to ensure the development and implementation of a comprehensive system for assigning responsibility, handling and disposing of waste. in addition to this, it is necessary to:

- Raising awareness of the risks associated with healthcare waste and practices to ensure safety.
- Selecting safe and environmentally sound solutions to protect those who handle, store, transport, treat or dispose of waste from hazards.
- ensuring that biomedical waste is never compacted or mixed with other types of waste.

- If waste is not packaged appropriately, ensure that it is placed in a biomedical waste overpack.

If household waste is mixed with biomedical waste, ensure that it is considered biomedical waste.

b) Short circuit

The short circuit is a large current that develops in a network by accidental contact between two parts with different potentials. The contact is between phases, or phases and neutrals or phases and earth. The through current is the maximum current that the source can supply at this point.

c) Hazards related to work at height

The risk encountered when working at height is the fall. A destabilization can lead to the fall of the operator carrying out work at an altitude of more than 2 meters without PPE or with inadequate PPE.

d) Hazards related to night work

Night work is a factor that increases the risk of accidents because of poor visibility than during the day and the notion of distance is not appreciated in the same way.

e) Impacts with cement and concrete spill

f) The risk of cement and concrete spill occurs when workers do not take care during the use of cement and concretes.

g) Mechanical hazards. Maintenance personnel should avoid being caught between a moving and a fixed part of the construction equipment/machinery.

h) Hazards related to maintenance and servicing operations

During maintenance and servicing work, the risks involved are, among others:

- falling from a height when roofing and ceiling
- health hazards related to solvent fumes
- electrocution

Table 7.10: ***Probabilities, likelihoods, andpotentials risks levels of operation phase in project sites***

Hazard	**Assignment of Probabilities**		**Impact levels**		**Risk Ranking**
	Probability Level	**Descriptor**	**Consequence Level**	**Descriptor**	
Biomedical waste and contamination	D	Likely	4	Major	High Risk
Disease Epidemic	B	Unlikely	4	Major	Moderate Risk
Short circuit	C	Possible	3	Moderate	Moderate Risk
Hazards related to work at height	D	Possible	4	Major	High Risk
Hazards related to night work	B	Possible	4	Major	High Risk
Impacts with cement and concrete spill	B	Possible	3	Moderate	Moderate Risk
Mechanical hazards	B	Possible	3	Moderate	Moderate Risk
Hazards related to maintenance and servicing operations	B	Possible	3	Moderate	Moderate Risk

7.2.3. Professional risks

The study of occupational risks in the construction sector allows us to anticipate the probable impacts on the health of workers and to put in place preventive barriers to mitigate any work-related accident or illness.

Prevention and protection against occupational risks

One of the general principles of prevention is to adapt the work to the man. In this sense, prevention and protection measures are recommended. The priority concerning these means of prevention and protection must be given to collective protection equipment. If this is not possible, the Contractor shall use personal protective equipment.

Some prevention principles to be implemented before the start of the works site are described below:

- Provide handling equipment adapted to the activity
- train the personnel on handling techniques
- Define flexible working hours by integrating the vagaries of the climate
- study the choice of equipment and techniques to be used, considering the operations of building the pole massifs, assembling the trellises, connecting the cables, maintenance, and upkeep of the equipment, etc.
- define a maintenance schedule for the equipment to guarantee maximum safety and optimal performance.

Table 7.11 presents the overview of impact analysis and proposed mitigation and maximization measures

Table 7.11: Summary of impacts and proposed project measures

Phase/Activities	IMPACTS	Scope of negative impacts (low, medium, high)	MEASURES
Pre-renovation and renovation phase • Excavation and digging activities, • Site clearing and removal of vegetation, • Movement of machinery and vehicles, • Transportation of construction raw materials (I.e. sand, gravel etc)	Air pollution (dust and gaseous emissions)	Medium	• Minimize cleared vegetation areas to those that are needed to be used. • Area should be dampened within suitable intervals (4 – 6 hours) to prevent a dust nuisance and this frequency should be increased during hotter days. • Cover or wet construction materials such as sand, gravel to prevent dust pollution. • Where unavoidable, construction workers working in dusty areas should be provided and fitted with dust mask (N95 respirators) • Vehicles carrying earth materials should be covered. • Facility users and service providers should wear face mask. • Movement of facility users should be restricted, and visitors controlled during the renovation activities • Proper housekeeping to cleanse dust particles that settled on the medical equipment and in wards/labs/offices. Gases emissions

Phase/Activities	IMPACTS	Scope of negative impacts (low, medium, high)	MEASURES
			• Ensure that all vehicles involved in the transport of construction material and staff, and machinery used in construction is properly maintained and services. • Reduce the idling of vehicles that may occur and thus reduce the gaseous emission from vehicles in the area. • Reduce vehicle speed within the facility. • Promote the use of fuel-efficient vehicles with the proper emission standards and more eco-friendly fuel type.
<u>Pre-renovation and renovation phase</u> • Civil works • Recruitment and presence of workers • Waste generation • Consumption of resources (water, energy etc) • Repair of equipment and machinery	Water Pollution	Medium	• Environmentally sound management of renovation activities especially during the rainy season to avoid water pollution. • The contractor must ensure that construction and mitigation measures comply with the ESMP-Contractor • Collection of waste oil for recycling • Avoid placing spoil on drainage paths. • In the event of a spill on water bodies, the contractor in charge of the work shall immediately notify the person responsible for the environmental monitoring of the work and take measures to stop the leak, contain the product and recover it. • Appropriate solid and liquid waste storage to limit the risk of pollution.

Phase/Activities	IMPACTS	Scope of negative impacts (low, medium, high)	MEASURES
Waste generated from workers campsite, presence of workers on sites, disposal of waste on site, construction waste, domestic waste, biomedical or healthcare waste	Waste Generation	Medium	• Preparation of (biomedical) waste management plan following the waste hierarchy and ensure proper implementation, supported by staff training. • Adequate skips and bins should be strategically placed within the campsite and construction site. • The skips and bins at the renovation and operation phase should be adequately designed and covered to prevent access by vermin and minimize odor. • Waste segregation in different bins should be practiced and ensure that workers adhere to the practice. • The skips and bins at both the renovation and operation phase should be emptied regularly to prevent overfilling. • Disposal of the contents of the skips and bins should be done at an approved disposal site or incinerated where suitable. • Reuse waste plastic materials (deform bottle containers) as feedstock for plastic product production. • Organic waste generated can be composted and use as manure.

Phase/Activities	IMPACTS	Scope of negative impacts (low, medium, high)	MEASURES
			• Appropriate storage, handling and management of clinical waste. • Workers handling biomedical waste should be in proper PPEs.
Activities that impact air and water quality; presence of asbestos	Public Health	Medium	• Ensure the mitigation for the impact on air and water quality as well as waste generation are implemented. This will reduce the impact on public health negligent. • Safe removal of asbestos in accordance with the Asbestos Abatement and Removal Action Plan (*See mitigation of air quality, water quality and waste generation above*)
• All civil works, • Material transportation and handling, • working conditions, • workers' behaviour	Occupational Health and Safety	Medium	• Staff or workers should be given adequate training on occupational health and safety issues during the renovation and operation phase. • Induction training should be held for new workers on Health and Safety. • The workforce should conduct daily toolbox meetings. • The contractor should hire a Qualified Environment Health and Safety (EHS) officer. • The project proponent should develop a Health and Safety Management System if there is none.

Phase/Activities	IMPACTS	Scope of negative impacts (low, medium, high)	MEASURES
			• Personnel Protective Equipment (PPE) should be provided to workers and ensure that they use them accordingly. • There should be onsite first aid kits and arrangement for a local nurse and/or public health office to regularly monitor the activities of the workers onsite. • Provide adequate working conditions for the workforce, including adequate toilets, clean water, rest and meal areas, lighting (for camps), and waste disposal facilities. • Regularly maintain working equipment • Limit the speed of machines and trucks involved in the work. • Securing the areas for maneuvering the machines • Train workers in best practices and emergency procedures before civil work begins. • Conduct a Risk Analysis for all activities during the renovation phase and propose mitigation measures. • There should be a workers' grievance mechanism establish and known to all workers. • Incident report system should be in place.

Phase/Activities	IMPACTS	Scope of negative impacts (low, medium, high)	MEASURES
• Recruitment, • All works onsite • Presence of workers	In-migration of workforce	Medium	• The project should develop a labor management procedure (LMP) • Recruit local labor for unskilled jobs as a priority to ensure local ownership of the project. • Organize the work of unskilled employees in a task-oriented manner. • Post the internal rules of the work site. • Include provisions in the site code of conduct to deter employees from abusing the trust of food vendors/stallholders (those provisions will explain what behavior is not acceptable- including SEA/SH and what sanctions will be applicable in case of misconduct) • Training for all staff in acceptable behaviour with respect to community interactions. • Take gender into account (give a quota to women employed) and extensively sensitize and raise awareness of all workers on issues related to SEA/SH • Sensitize the personnel of project site on the respect of the habits and customs of the populations. • Establish a conflict prevention and management mechanism. • Respect the labor code regarding the recruitment of labor.

Phase/Activities	IMPACTS	Scope of negative impacts (low, medium, high)	MEASURES
			• Ensure all workers on site sign the protocols, as well as get sensitized and their awareness raised on challenging issues such as HIV-AIDS, COVID-19 protocols, STIs, etc. • Ensure continuity of consultation and participation of the beneficiary communities throughout the project (with women consulted in small, separate groups facilitated by a woman). • Establish and publicize grievance procedure
Presence of workers	Gender-based violence (GBV), Sexual exploitation and abuse (SEA), Violence against Children (VAC)	Medium	• Ensure that code of conducts (CoC) are developed and signed by all personnel and workers and that they attend regular training on SEA/SH, content of CoC and sanctions. • Action Plan for Implementing ESHS and OHS Standards, and Preventing Gender Based Violence (GBV) and Violence Against Children (VAC) must be rigorously applied and monitored for compliance. These Codes will also be included in the Contractors ESMP. • Ensure that SEA/SH Action Plan is developed and implemented prior to the physical start of civil works. • Develop and implement a complaint/grievance mechanism (GM) sensitive to GBV, SEA/SH, VAC, and other forms of discrimination with accessible entry points to submit complaints, referral to GBV service providers and confidential, survivor-centered procedures for verification and managing of complaints.

Phase/Activities	IMPACTS	Scope of negative impacts (low, medium, high)	MEASURES
			• Conduct regular awareness raising campaigns about the project and the risks of GBV, SEA/SH, VAC with workers and community members (and with women in separate groups with a woman facilitator) • Include provisions in the site's internal regulations to discourage employees from abusing the trust of food vendors/stallholders, and the use of GBV, SEA/SH, VAC • Report and sanction all forms of GBV related to the project activities. • Formally prohibit child labor • Monitor changes in the status of women and the potential impacts of the project on them by conducting regular focus groups consultations with women in a sample of villages (in small groups facilitated by a woman).

8. Environmental and Social Management Plan

8.1. Introduction

An Environmental and Social Management Plan (ESMP) is essentially a management tool and standalone component of an ESIA that provides the assurance that the mitigation measures developed for the significant impacts of a proposed project are implemented and maintained throughout the project life-cycle. It outlines management strategies for safety, health, and environmental stewardship in the proposed project implementation. It states in specific terms how the project proponent's commitments will be implemented to ensure sound environmental practice. Table 8.1 provides the ESMP guidelines for the implementation of the mitigation measures.

The overarching objective of ESMP is to:

- ensure that all mitigation measures prescribed in the ESIA document for eliminating, minimizing, and enhancing the project adverse and beneficial impacts are fully implemented; and
- provide part of the basis and standards needed for overall planning, monitoring, auditing, and review of environmental and socio-economic performance throughout the project activities.

This has been developed to manage negative impacts/effects, enhance benefits, and ensure good standards of practice are used throughout the project. These objectives shall be achieved by:

- ensuring compliance with all stipulated legislation on protection of the biophysical and socio-economic environment and Project proponent's HSE policy.
- integrating environmental and socio-economic issues fully into the project development and operational philosophies.
- promoting awareness on the management of the biophysical and socioeconomic environment among workers.
- rationalizing and streamlining existing environmental activities to add value to efficiency and effectiveness.
- ensuring that only environmentally and socially sound procedures are employed during the project implementation; and
- continuous consultations with the relevant regulatory bodies, community leaders (local heads/chiefs), youth leaders, women leaders, village development committee (VDC), and other stakeholders throughout the project lifecycle.

The ESMP section of the ESIA report rationally completes the process that begins with establishing the environmental baseline condition followed by carrying out the Environmental and Social Impact Assessment then Implementation of Mitigation Measures and Monitoring the success of those measure.

Table 8.1: ESMP Guidelines for Mitigation Measures Implementation

Activities	Impacts	Indicators	Means of verification	Timelines (preparation, construction, exploitation, Closing phases)	Responsible for			Cost of implementation (US$)
					Execution	Monitoring	Afterc are	
○ Site clearing and preparation. ○ Civil during renovation. ○ Removal of vegetation ○ Movement of machinery and vehicles	Air Quality	• Systematic watering of site and spoil (at least twice a day in the dry season) • Number of covered trucks • Up-to-date maintenance booklet for machinery • Waste tracking form • Number of cases where speed limits were exceeded • Percentage of staff wearing the correct PPE	Report of air sample analysis	Renovation and operation phase	Project contractor	PIU, NEA ESIA Working Group	Health Facility Management	2,000

Activities	Impacts	Indicators	Means of verification	Timelines (preparation, construction, exploitation, Closing phases)	Responsible for			Cost of implementation (US$)
					Execution	Monitoring	Aftercare	
○ Use of sanitary facilities by staff ○ Run-off water ○ Oil spill ○ Solid waste and effluent discharge	Water Quality	• Level of compliance of discharges (pH, COD, BOD, SS, coliforms, etc.) with the applicable water quality standard • Systematic pre-employment medical check-up during recruitment • Existence of an HSE manual and its implementation • Existence of an approved and implemented waste	Reports of water sample analysis	Renovation and operation phase	Project contractor	PIU, NEA ESIA Working Group, Department of Water Resources Regional Officer	Health Facility Management	2,000

Activities	Impacts	Indicators	Means of verification	Timelines (preparation, construction, exploitation, Closing phases)	Responsible for			Cost of implementation (US$)
					Execution	Monitoring	Aftercare	
○ Presence of workers on site ○ Onsite civil work/floor concrete ○ Painting and coating ○ Disposal of construction / renovation waste ○ Domestic and sanitary waste generated by workers ○ Biomedical waste	Waste generation	• Existence of an approved and implemented WMP • Existence of an approved and implemented Biomédical Waste MP • Waste tracking slip • Existence of labelled bins for waste collection • Existence of clean-up kit on site • Effectiveness of the waste recovery and treatment contract	Records on waste management Complaint registry Complaint Management Committee Report	Renovation and operation phase	Project contractor	PIU, NEA ESIA Working Group, Regional Health Directorate	Health Facility Management	4,000

○ All civil works ○ Material transportation and handling ○ Working conditions ○ Workers' behaviour	Occupational Health and Safety (increased accident potential)	• Existence of a Workforce Management Plan • Number of awareness campaigns conducted among the population • Number of accident cases involving site activities • Number of workers equipped with PPE • Number of workers made aware of safety measures • Level of compliance with health and safety requirements of the labor code • Level of compliance of collective protection equipment with project risks • Effectiveness of the implementation of mitigation measures • Number of training and awareness sessions on occupational health and safety • Existence of first aid kits at work sites • Effectiveness of posting of safety instructions • Existence of an HSE officer on site	Periodic Reports on work related accidents, injuries, near misses and illnesses. Complaint registry Complaint Management Committee Report	Renovation and operation phase	Project contractor	PIU, NEA ESIA Working Group, Regional Health Directorate	Health Facility Management	4,000
○ Recruitment, All works onsite. ○ Presence of workers	In-migration (Risk of conflicts related to the use of	• Number of local community workers recruited • Number of skilled workers from the community recruited by the project • Conflict prevention and management committee established and functioning • Number of workers with PPE • Level of compliance with the requirements of the labor code in terms of health and safety at work	Record of employees hired	Renovation and operation phase	Project contractor	PIU, NEA ESIA Working Group, Regional Health Directorate	Health Facility Management	8,000

Activities	**Impacts**	**Indicators**	**Means of verification**	**Timelines** (preparation, construction, exploitation, Closing phases)	**Responsible for**			**Cost of implementation (US$)**
					Execution	**Monitoring**	**Aftercare**	
	labor)	• Number of workers who have benefited from capacity building						

○ Interaction of workforce with community members	Gender-based violence (GBV), Sexual exploitation and abuse (SEA), Violence against Children (VAC)	• Existence of a complaint management mechanism that is sensitive to GBV, SEA, SH • Number of people sensitized on GBV (disaggregated by sex) • Number of awareness sessions for staff on SEA/SH and the content of the code of conduct • Number of awareness raising campaign for communities in GBV/SEA/SH/VAC • Number of complaints received and treated • Percentage of SEA/SH related complaints that had been referred to GBV service providers for assistance • Percentage of all staff and workers who signed the code of conduct	GBV, SEA, SH Complaint report Report on GBV/SEA/SH sensitization complaints received by the complaint management committees complaint received from the police station	Renovation and operation phase	Project contractor	PIU, NEA ESIA Working Group, Civil Society	Health Facility Management	10,000

8.2. Environmental and Social Management Plan Programmes

This section presents the programmes for managing the identified impacts. It is worth noting that the use of management programmes to manage the impacts is necessitated by the fact that most of the mitigation measures cannot be implemented as discrete, isolated actions because there are spatial, temporal, and casual interactions among impacts. The programmes recommended for managing the potential impacts of the proposed project include:

a) Air quality management programme
b) Water quality management programme
c) Waste management programme
d) Occupational Health and Safety management programme
e) GBV, SEA and SH Prevention Programme
f) Socio-cultural management programme
g) Healthcare waste management plan

The implementation of the ESMP is also linked to a series of comprehensive management plans. Management and mitigation measures should follow legislative requirements. Where no legal guidance is provided, industry and/or international good practices should be applied as far as is practicable.

Based on project related information available at the time of this study, the management objectives, set target, required actions, monitoring, and reporting for various aspects/impacts are also presented in Table 8.2 below.

Table 8.2: ESMP Schedule/Programme for Project's Aspect

N°	ESMP	Objective	Target	Action	Monitoring and reporting	Responsibility
1.	Air Quality Management Plan	To minimise the release of emissions (combustion products and particulate/dust) to air during renovation phase of the project	Limit emissions of pollutant gases like NOx, SOx, CO, in addition to dust, smoke, and fumes, within acceptable standards through the renovation phase of the project work activities	•Maintenance programme shall be developed and implemented for all associated power generators and heavy-duty equipment • Controlling fuel consumption for all equipment and vehicles through prudent work execution and effective journey management • Implement basic environmental awareness management program • Limit use of diesel-powered generators to minimum required to sustain uninterrupted operation. • Vehicle speeds in construction area and unpaved areas of the health facility shall be limited to a maximum of 30km/h. • Where practicable, vehicles and machinery that are used intermittently should not be left idling for long periods of time. • Re-vegetate disturbed areas as soon as possible. • Wet areas that have the potential of raising significant dusts during work activities	Visual inspection shall be undertaken by the HSE focal person/Contractors to check for evidence of excessive dust generation. If necessary, dust monitoring shall be undertaken during air quality monitoring devices in areas likely to generate dust that would affect nearby residents and workplaces to determine whether controls are being applied effectively. Maintenance schedule and records shall be kept. Maintain a logbook for site fuel consumption and estimate emission from consumption. All issues shall be documented, acted on and reported in accordance with site procedures.	Project Environmental Officer

				• No open burning of waste to be undertaken. • During renovation, particulate matter (dust generation) will be controlled using water sprays and dust suppressants, as required.		
2.	Water Quality Management Plan	Avoid the contamination of surface and underground water during renovation and operation.	Surface and underground water is not contaminated during renovation and operational activities	• Avoid discharging waste in water bodies. • Clean up all spillages to prevent contamination of surface and underground water. • Regular maintenance of the water system in the facility Avoidance of areas liable to flooding and instability	Regular collection of water samples and analyses to know the status of the water quality using portable water quality testing device. If necessary the samples will be sent to a Laboratory for advance tests. All complaints shall be documented, acted on and reported in accordance with site procedures. • Incidents of water contamination or spills • Results of inspections • Results of any corrective actions	Project Environmental Officer
3.	Waste Management Plan	To ensure that all the various generated waste streams during the renovation and operation phase of the project are well managed in	Practice standard waste management to protect public health and the environment	See Annex ??	• Existence of an approved and implemented WMP • Waste tracking slip • Existence of labelled bins for waste collection • Existence of clean-up kit on site	

		line with best practice			• Effectiveness of the waste recovery and treatment contract	
4.	Socio-cultural Management Plan	To ensure that there are no adverse effects on the region's cultural values. • Minimise social and/or community impacts associated with all work activities. • Maximise opportunities for local engagement and businesses opportunities during the various project phases especially during the construction period.	Cultural values understood and protected by project proponent. • Receive and respond to complains about social or community management issues	Develop and implement community relations and engagement plan. No unauthorised disturbance of cultural activities by the proposed project • Plan activities in recognition of indigenous cultural activities. • Continue to consult with the indigenous communities. • Accommodation shall be provided for some construction workers (not from surrounding communities) to minimise pressure on existing infrastructure • Basic health and medical services (first level assist, first aid) shall be available to reduce the demand on existing health facilities. • Specify and implement the behaviour standards expected from all construction workers. This shall be formalised in a code of conduct that shall be agreed to and signed by every employee and sub-contractor. • Complaints about unacceptable behaviour from construction workers shall be investigated and, appropriate	Review feedback from the *Alkalo* and the village development committee and related Government/non-Governmental Organisations. Monitoring shall be by stakeholder feedback and by review of complaints. All complaints received shall be reported to the project manager. Monthly reports shall be prepared on social and cultural management issues and any corrective actions undertaken	Project Environmental Officer

				action taken. • Use a wide range of communication tools to ensure that community is kept informed of project progresses. • Offer opportunities for the involvement of local businesses and for the employment of residents		
5.	Security, Health and Safety Management Plan	To ensure that the project does not adversely affect the security, health, safety of the employees, contractors or the general public as well as the environment.	Zero reportable injuries, spills, and work-related illnesses	The contractor shall be required to prepare a project specific Security, Health, Safety, and environmental Management Plan in accordance with the requirements of project proponent's management system. • Site specific Environmental Management Plan to be prepared by the contractors will be developed prior to construction activities, after specific areas have been determined for project activities to ensure appropriate environmental management strategies. • All workers on the project shall go through a compulsory orientation programme before they start work. • Environmental, Health, Safety, and Security plans, programs, and regulations governing the project would be implemented and complied with. • Every worker would be made to sign a personal commitment to individual and corporate safety while at work.	The security, safety, health, and environmental performance shall be monitored in accordance with the project and corporate procedures and reported to the project management team. Monthly/Quarterly audits shall be executed Monthly reports shall be prepared on health, security, environment and safety performance along incidents and corrective actions undertaken	Project Environmental Officer

				• Health, Security, Safety, and environmental awareness programs e.g. AIDS, and malaria awareness) shall be organized for personnel. Public health risks present significant issues for project proponent operations. Project proponent management as well as employees and contractors will be committed to working actively together to mitigate the impact of infectious diseases such as HIV/AIDS and of malaria.		

8.3. Environmental and Social Monitoring Plan

Monitoring is a tool to ensure adherence to agreed actions, to access compliance to environmental and social standards, to provide enhanced data for risk management purposes and facilitate any needed project design or operational changes. It provides feedback to the management on what is working and what is not working.

The monitoring will be undertaken to ensure that the proposed mitigation measures for negative impacts are implemented. For this reason, it is important that environmental and social monitoring be included in the project planning.

The essential objectives are:

- ✓ To measure the level of completion (success or failure) of implementation of mitigation measures.
- ✓ Identifying unpredicted impacts; and
- ✓ Facilitate integration of environmental and social management in the project implementation interventions.

Monitoring the implementation of mitigation measures and proponent commitments are essential in sustainable implementation of proposed undertaking. The quality of the environment depends on the quality of environmental components (air, water, soil); thus, a study of the parameters of the environmental components will give a good indicator of the condition of the environmental resources. For example, water quality monitoring looks at the parameter-indicators of the water resources component of the environment; thus, the need to identify the parameters that define the quality of the environment (air, water, soil, vegetation, etc.), as presented in the table below. The monitoring plan for the ecological and socio-economic components of the proposed project in Table 8.3.

Table 8.3: Monitoring plan

Potential Impact	Indicator Parameter	Monitoring method and location	Timeline/Frequency	Responsibility	Cost for Annual Monitoring (US$)
Air Pollution	Dust Pollution and Gaseous emissions	Use of Air-sampling instrument/ Point measurements at the project sites	Quarterly	ESIA – Working Group (WG); Project Environmental Officer; Consultant	4,000
Water Pollution	Temp., pH, Turbidity, Nutrients (sulphate, nitrate, etc.), Heavy metals, BOD	Sample collection (and analysis) from water sources (of closest surface waterbody or borehole)	Quarterly	ESIA – Working Group (WG); Project Environmental Officer; Consultant	4,000
Social life impact/Socio-cultural conflict	Cultural conflicts, norms, social vices, project-perception of community leaders, hospitality of indigenous	Continuous effort of Consultations (at all levels); review of implementation of Community Development Agreement in the host community	Quarterly	ESIA – Working Group (WG); Project Environmental Officer; Consultant	10,000
Health Impact	Common/prevalent diseases in the host communities	Use of questionnaires within the host communities as well as collection of health statistics from clinic and hospitals within the area	Annual Environmental and Social Performance Audit	ESIA – Working Group (WG); Project Environmental Officer; Consultant	3,000
Hazard-exposure to workforce	Frequent illness of workforce, workplace accident, medical fitness	Observation, interviews, and the use of Job-Hazard-Analysis report	Biannually	ESIA – Working Group (WG); Project Environmental Officer; Consultant	4,000
GBV, SEA/SH	Report of GBV, SEA/SH cases	Investigation of reported cases, interview with affected and non-affected victims	Quarterly	ESIA – Working Group (WG); Project Environmental Officer; Consultant	10,000
TOTAL					**35,000**

8.4. Healthcare Waste Management Plan

A detailed Infection Control and Waste Management Plan (ICWMP) has been developed for The Gambia and was detailed in Table 8.4. The MoH is responsible for providing the legal framework managing environmental and social risks in the health sector and develop various instruments to address priority health issues. These instruments include the National Health Policy, the Health Sector Strategic Plan, the Health Care Waste Management (HCWM) Plan and the HCWM Policy . The national health policy emphasizes the provision of preventive, promotive, curative and rehabilitative services, and is buttressed by the HCWM Policy which specifically highlights HCWM as a priority. The HCWM plan then defines in a clear and precise way the roles, responsibilities and field competencies of actors involved in HCWM, outlining the processes of HCW collection, transportation, storage and treatment. The plan sets out the health promotion and prevention actions that can be used to prevent diseases and injuries that can be caused by poorly managed HCW.

To operationalize the HCWM plan, the MOH has developed Health Care Waste Management – Standard Operating Procedures (HCWM SOP). The SOP has been designed as a means of accomplishing what is embodied in the HCWM policy and plan. It provides instructions on how to carry out the policy expressed in the plan and communicates who will perform the task, what materials are necessary, where the task will take place, when the task shall be performed, and how the responsible person will actually execute the task. The SOP covers all the relevant activities that are necessary to manage any HCW that can be generated from any health care facility. It traces the activities from "cradle to grave". These provisions will be strictly followed at each HCF and other participating clinics and facilities.

In the project intervention region (URR), waste collection and disposal is a joint responsibility of the respective Local Government Area and the Regional Health Directorate but the roles and responsibilities are not clearly defined regarding who provides financial and material resources, and management and technical supervision. Nevertheless, monitoring is the responsibility of the Regional Health Directorate.

Table 8.4: Health Care Waste Management Procedures

Waste Type	Measures	Cost (US$)
General Instructions	• All health care waste produced during the care of patients must be considered as infectious waste and should be segregated and collected safely in designated containers and bags, treated, and then safely disposed (WHO). • Train the staffs who are assigned in handling, treatment, and disposal of waste management • Train staff on how to put on and remove PPE. • Ensure necessary PPE (Gown, gloves, face mask, goggles or face shield, gumboots) is provided to all staffs, as required.	• 4000

	• Ensure staff wear PPE when handling and disposing waste according to HCW guideline. • Undertake proper segregation at source including: ✓ Ensure all staff are provided training on color coding and handling of infectious and hazardous waste ✓ All departments, laboratories and service delivery areas should be provided with appropriate equipment (needle cutters; sharps boxes) and color-coded bins	
General Waste – Food waste, paper, disposable cups, plates, spoons etc.	• Collect in black bag • Close and tie when 2/3rd full • Transfer the waste to a temporary storage point for general waste along a specified route at a fixed time point and store the waste separately at a fixed location • Transport to landfill away from facility	• 2000
Infectious Waste – Gown, gloves, apron, shoe cover, disposable items, mask etc.	• Collect in small biohazard red bags • Close, seal the bag with cable ties and tie lose when 2/3 full • Transfer the waste to a temporary storage point for medical waste along a specified route at a fixed time point and store the waste separately at a fixed location • Securely transfer to approved and professionally managed MOH incinerators • Transport other infectious waste according to general medical waste protocols	• 2000
Sharp Waste and needles	• Put in puncture proof plastic container • Close the lid and seal the container when 2/3 full • Put in the red bag and tie lose • Transfer the waste to a temporary storage point for medical waste along a specified route at a fixed time point and store the waste separately at a fixed location • Securely transfer out for incinerating or appropriate disposal	• 2000
Total		10,000

This Healthcare waste management plan is estimated to be ten thousand dollar (USD10,000).

8.5. Public disclosure

AfDB requires that project environmental reports are made available to project affected groups, local NGOs, and the public. Public disclosure of EIA documents or environmental reports is also a requirement of the Gambia NEA EIA procedures. The report should be disclosed to all relevant stakeholders to make inputs or comments. Public notice in the media should be served for that purpose.

The ESIA notice is expected to be published in the national newspapers as part of the EIA procedures and after project registration with the NEA. The ESIA notice will inform the general public about the project and will require the public and key stakeholders to table their concerns, suggestions and

comments to specific addresses and contacts to be provided in the notice. The draft report will then be reviewed by NEA taking into account any input by the public before it is approved and published.

8.6. Grievance and redress Mechanism

It should be expected that grievances could arise in the implementation of the measures at the community level. Therefore, the following mechanism is proposed to redress any grievance or complaint that may arise.

1. Set up a grievance redress committee easily accessible to the beneficiaries; the composition needs to be discussed between the Project team and the beneficiaries.
2. Sensitise the beneficiaries on the existence of the Committee and its roles, how to contact the Committee and register grievances.
3. The following process should be followed in receiving and responding to grievances.
    i. the grievance is received by Chairperson of the Committee and recorded in a grievance register.
    ii. the Chairperson summons a meeting within seven calendar days of receiving the grievance, inviting the representative of the Project in the Region
    iii. if the Committee agrees to an immediate action to satisfy the complainant, the latter shall be briefed by the Chairperson of the remedial action and how it will be implemented.
    iv. for a corrective action that requires a longer period, again the Chairperson will inform the complainant of the action and proposed timeline for correction.
    v. in either 'iii' or 'iv' above, the Chairperson get written satisfaction from the Complainant on the action taken and formally close the case in the Register.

In managing grievances, a Grievance Redress Mechanism will be employed and it will include:

- Setting up of a site-level GRM/Grievance Redress Mechanism Committee (GRMC) for the adaptation and implementation by the contractor with regular reporting to the PIU.
- The PCU will constantly engage project-affected persons through its Stakeholder and Public Disclosure Plan. This will keep the communities informed of developments on the project, including planned activities, project impacts and mitigation measures, grievance mechanism, the right to submit complaints and the compensation process.
- Building capacity of the project team and site level GRMC to ensure they can engage the communities, record and ensure grievances are resolved.
- Alternative Dispute Resolution Mechanisms will also be used as a key element of the GRM.

Grievances are expected to be communicated either verbally (in a language of choice) or in writing to the GRC. Upon receipt of complaints, timely responses are expected to be given. If grievances cannot be resolved locally, they are expected to be referred quickly to the region for resolution.

Actions to be taken to address the grievance will be agreed upon by the GRMC, and progress of implementation of agreed measures reported to the Local community, and PCU and on monthly basis.

A grievance management procedure indicating activities and timeframe for resolution of issues is shown in Figure 8.1.

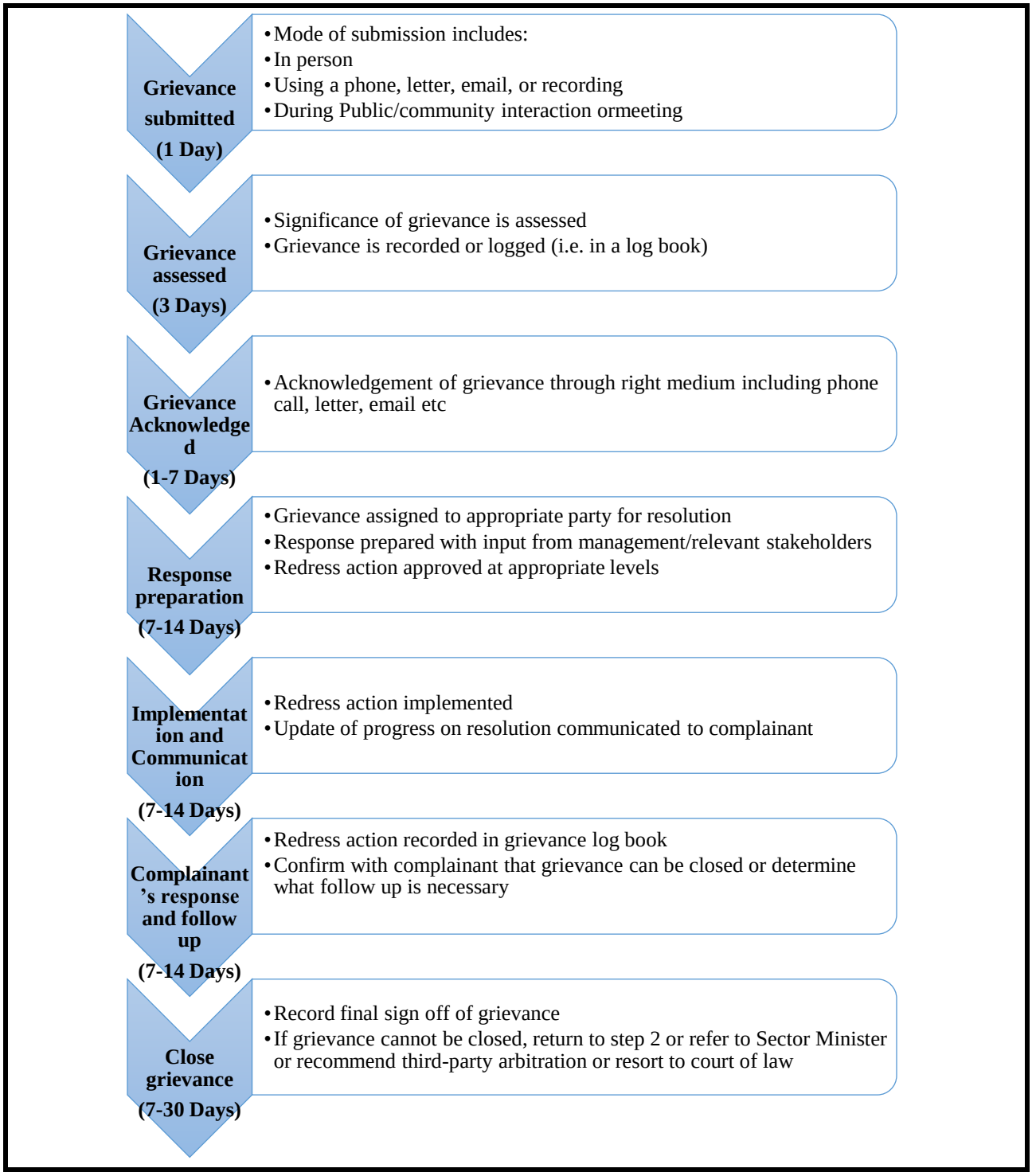


Figure 8.1: Procedure for Grievance Redress

8.6.1. GRM operating budget

Table 8.5 presents the operating budget of the GRM. This budget is estimated at USD 50,000.

Table 8.5: GRM Implementation Budget Summary

Headings	**Unit**	**Quantity**	**Unit cost (USD)**	**Total cost (USD)**
Reproduction and distribution of forms	Lump sum	1	`6,000	6,000
Organization of GRM awareness and public campaigns in project area s	Session	15	2,500	5,000
Training of GRMC on the GRM	Session	1	2,000	5,000
Support for the operating of complaints management committees	Monthly	12	1,000	5,000
Total cost of the implementation of GRM				**21,000**

8.7. Roles and Responsibilities of stakeholders

Table 8.5 presents relevant stakeholders together with the description of their unique role and responsibilities in terms of the implementation of mitigation measures and monitoring.

Table 8.6: Roles and Responsibilities of various Stakeholders

Institution	Mandate	Interest in project	Possible role/responsibility in implementation of ESMP	Gaps in the delivery of its ESMP responsibility	Nature and title of capacity building to achieve its mission in the ESMP
National Social Protection Secretariat (NSPS)	The Secretariat is mandated to provide social protection including access and use of basic social services such as health care	This project will be implemented through the NSPS	It is the responsibility of NSPS to ensure that the enhancement and mitigation measures in the ESMP are implemented The Secretariat will work with other stakeholders to monitor the E& S safeguards. They will shoulder the E&S monitoring of the project.	NSPS does not currently have an Occupational Health and Safety Specialist who can help in the monitoring of the implementation of the ESMP.	Hire a competent Occupational Health and Safety Specialist with experience in infrastructure projects
Ministry of Health	Responsible for the policy drive of health in the Gambia The ministry is the implementing partner of this project	The Ministry of Health interface between the benefiting sector and NSPS Works closely with the NSPS to ensure the project is successfully implemented	The ministry also supports all initiatives that gear towards health care service delivery The Ministry through the Regional Health Directorate ensures the project is implemented as planned.	The RHD lack the capacity to properly monitor the ESMP	Train and continuously engage the RHD focal person on Environmental and social safeguards of the project

		while adhering to E&S safeguards			
National Environment Agency	The NEA through the EIA working group is mandated government Agency for ensuring compliance of projects with national environmental management laws	Project has the potential of generating negative environmental and social effects if proposed surveillance activities are not properly implemented.	Direct monitoring of the implementation of the enhancement and mitigation measures and submission of quarterly monitoring reports to PMU. To advise the PIU on required adjustments to the enhancement and mitigation programs. Quarterly environmental monitoring with key stakeholders	The Agency lack basic testing devices to monitor air, water and soil quality on site.	Need to purchase and train staff on the use of these devices.
Ministry of Environment, Climate Change and Natural Resources	This Ministry oversees implementation of the environment policies adopted by the National Environment Management Council (NEMC)	The Project in line with policy goals in the sound management of the environment and conservation of natural resources	The Ministry co-opted in the monitoring to ensure adopted policies are in line with our national environmental laws Support in the monitoring of greenhouse gases (i.e methane) and waste management in intervention sites	Most of the staff are overwhelmed with many assignment	Identify a focal person to work closely with the ESIA working group on the project.
Department of Water Resources	Responsible for dealing with water resources and hydrological issues	Support in the design, installation and operationalization of the irrigation system and	Ensure water resources are used wisely Support in preventing water contamination and monitoring water quality	Lack hand-held water quality testing tools	Purchase hand-held water quality testing tools that can collect and analyse samples onsite.

		effective use of water resources			
Local Government Authorities	Regional authority within whose administrative area the project falls and a potential supporter in both project and post project era	Project compliments responsibilities to the beneficiaries	Potential contributor towards cost of sustainability of the project after implementation and life cycle in terms of technical and human resources as this would not be project's responsibility	Lack expertise to monitor the social aspect of the project	Train key staff on how to monitor social aspect of the project such as GBV/SEA/SH, Child labor etc.
Department of Public Health Services	Project has implication on public health issues	Monitor and help in controlling public health issues relating to the project activities	Key stakeholder in the monitoring of controlling public health issues	Lack the capacity to properly manage health care waste generated in the health facilities	Train staff and regularly supervise the management of healthcare wastes.
Healthcare center	Provide health care services to the facility users	Ensure that the renovation work is done properly according the contract and standards	Monitoring the workforce and the work activities at the health center	Lack expertise in environmental and social safeguards	An environmental and social safeguard specialist should be attached to health care center during the renovation phase of the project
Beneficiaries' communities	communities within the selected health facility's catchment areas or the users of the facilities	Project enhances livelihood of beneficiaries through easy access to quality health care services	• in-kind contributions, especially free labour towards plan implementation • record keeping aiding monitoring program.	Lack knowledge on construction related environmental and social impacts and mitigations	Sensitize the beneficiary communities of the negative impacts of the project and mitigation measures as well as monitoring techniques

			Provide relevant information during project monitoring		
Non-governmental Organizations:	those organizations working with beneficiary communities in the area health care	Project complements efforts in supporting RHD in providing basic health care services	• share and provide expertise in the implementation of the mitigation and monitoring programs. • share expertise and resources in building capacity of the beneficiaries.	Lack financial support to conduct training and sensitization of of project beneficiaries and construction workforce on GBV, SEA, SH and Child labor	Provide support for training and sensitization of project beneficiaries.
TOTAL					

8.8. Proposed Institutional Strengthening and Training Activities

8.8.1. Institutional responsibilities

The successful implementation of the enhancement, and mitigation, measures as well as the monitoring program requires partnerships and collaboration among all stakeholders that could be categorised as follows. The role of each category of institution is defined below.

8.8.2. Government Institutions

The implementation of project activities is expected to lie with the National Social Protection Secretariat (NSPS) under the Office of the Vice President. Government institutions need to participate in the Project as per their mandates. For example, the possible role of NEA in monitoring is already cited. The role of government institutions in any project activity should be largely defined by their statutory mandates.

8.8.3. NGOs

There are NGOs in the health care sector and there are NGOs in capacity building that is core to this project. Other matters core to the project includes gender, health, and sanitation issues to mention a few. NGOs are particularly helpful in capacity building and sensitisation but more so in the latter and the Project should therefore seek partnerships, especially with NGOs that have presence in the Regions.

8.8.4. Community institutions

The focus here is on the VDCs that are government-instituted bodies for the coordination of development support at the community level. These are entry points at community level and the establishment of any Project-related at that level depends largely on their cooperation thus making them central to the Project's success.

8.8.5. Institutional Arrangements

In view of the diverse ministries involved in the project, it will be institutionally anchored in the Office of the Vice-President (OVP). The executing agency will be the National Social Protection Secretariat (NSPS), within the OVP. The NSPS was established by the National Social Protection Policy, through a cabinet decision. A Project Steering Committee and a Technical Working Group in relevant key sectors to the project will be set up to ensure proper coordination of project implementation and provide guidance to the project to meet its objectives. The Steering Committee will meet twice a year, and the Technical Working Group quarterly.

The NSPS will coordinate the implementation of project activities. The actual implementation of health care facility rehabilitation activities will be the responsibility of the specialized agencies and/or line ministries (in this case the Ministry of Health). Memorandum of Understanding (MoU) will be signed between the project and implementing partners. The NSPS will be responsible for monitoring activities covering the preparation phase, the contracting phase, the financial procedures, physical implementation, and preparation of status reports. The NSPS will be the Bank's main interlocutor. An administrative management procedures manual will be prepared to ensure a flexible and effective intervention system.

The project will cover cost related to the recruitment of additional experts to strengthen the capacities of the NSPS to implement the project (deputy project manager, value chain and entrepreneurship specialist, social and environmental safeguards specialist, and a procurement specialist). The project manager (Coordinator of the NSPS), the communication officer, the financial management specialist, the accountant, the monitoring and evaluation expert are already in post in the NSPS. An assistant procurement officer is also in post. She will have her capacities strengthened by a recruited seasoned procurement officer during at least the first two years of implementation, before eventually taking the lead in the project procurement.

8.9. Capacity Building

The following Table 8.6 summarizes the capacity building measures for the project stakeholders.

Table 8.7: Information/Sensitization Measures & Capacity Building

No	Identified activities	Themes	Beneficiary	Budget (USD)
Institutional Capacity - Technical Skills Development and Awareness Raising				
1	Workshops and meetings to strengthen the human resource capacity of relevant stakeholders to manage ESIAs and ESMPs.	• Workforce management and incidents and accidents risk prevention and procedure for reporting • Implementation and monitoring environmental and social issues of project intervention site.	ESIA Technical working group. PIU Other vital stakeholders	15,000
2	Capacity building of relevant staff PIU, NEA and RHD	• Understanding of environmental and social safeguard issues • Understanding of the roles and responsibilities of PIU and NEA staff in the implementation of the ESMP • Role and functioning of the GM. • Purchase of portable air, noise and water testing devices • Support in managing health care waste	Environmental and Social Specialist Project Coordinator M & E Officer RAD	15,000

3	Information/ Awareness of the company's personnel	• Implementation and monitoring of an HSE plan • Prevention of construction site accidents and implementation of an emergency evacuation plan • Prevention and management of GBV/SEA/SH/VAC, GM • Raising awareness about diseases (HIV-AIDS, STI, COVID-19).	Construction Manager Works managers HSE expert Workers	5,000
Public Awareness - Education, Communication and Information Provision				
4	Beneficiary Communities Awareness Raising Campaign	• Raising public awareness on project issues (environmental and social issues, GBV, SEA/SH, VAC and GM, Emergency preparedness, etc.) • Assessment and prevention of accidents related to civil works and the movements of machines. • Prevention and management of GBV/SEA/SH/VAC, GM • Public awareness on diseases (HIV-AIDS/STI, COVID-19).	Local communities, CSOs/NGOs The public, especially the communities where the project will be implemented	10,000
TOTAL Forty thousand US Dollars			**40,000 USD**	

8.10. Cost of ESMP Implementation

The proposed budget for implementation of the ESMP is US$173,800 as indicated in Table 8.7.

Table 8.8: Summary of the costs of the environmental and social activities of the Kuntaur health centre rehabilitation project

N°	Designation	Cost (US$)	Responsibility
1.	Mitigation measures	30,000	Contractor
2.	Environmental and Social Monitoring Programe	35,000	PIU/NEA/RHD
3.	Environmental and Social after care Program	10,000	PIU/NEA/RHD
4.	Biomedical waste management plan	10,000	RHD/NEA
5.	Capacity-building measures	40,000	PIU/NEA/RHD
6.	Complaints Management Mechanism (PMM)	5,000	Local community/PIU
7.	Annual audits	10,000	PIU/Consultant
	Total	140,000	

N°	Designation	Cost (US$)	Responsibility
	Unexpected (10 %)	14,000	
	Overall cost	**154,000**	

8.11. Reporting Responsibilities of ESMP during Implementation

Reporting of the ESMP implementation and monitoring should be harmonized with the main Project monitoring and evaluation reporting system, to ensure holistic and effective communication amongst the stakeholders. Monthly/Quarterly reporting of ESMP implementation and monitoring is recommended from the NPSP and NEA; NEA shall evaluate the reports and coordinate immediate improvement, where necessary. An annual monitoring report shall be submitted to the PIU for consideration by the AfDB.

8.12. Environmental Audit

This is a systemic review of the Project activities against the ESMP to ensure that it is implemented in an environmentally sustainable manner. The audit may also identify possible new risks that have not been anticipated due to changes in the design of Project activities or changes at the sites. Thus, new or alternative means of mitigation may be suggested. Therefore, an independent environmental audit is recommended midway of the Project implementation**.**

9. Conclusion

The ESIA study has identified potential impacts that the proposed project may pose on the biophysical and socio-economic environment. The project activities were divided into two phases, namely the pre-renovation and renovation, and operation phase. Activities that trigger the identified impacts on specified environmental aspects were highlighted using an interaction-matrix checklist for each phase of the project. The potential impacts identified from the proposed activities of the project were further characterized to have an in-depth understanding of the nature of the identified potential project impacts. Project impact on the environment occurs when the existing environment interacts with the various project activities which may lead to changes in the environment. The already identified and characterized potential impacts in the previous stages of the assessment process were evaluated based on explicitly defined criteria to ascertain the significance of the impacts. The impact significance of the proposed project activities is the result of the impact assessment based on the evaluation of the various criteria.

Overall, the proposed project is expected to improve access to healthcare services, public health and better healthcare infrastructure. In addition, the project will improve the livelihood of the people and attract more development and boost economic activities in the region. On the other hand, the adverse impact of the project activities is anticipated from the following avenues (i) Air Pollution, (ii) Water Pollution, (iii) Waste generation, (iv-) Occupational Health and Safety, and (v) Socio-cultural Conflict

The community engagement and perception survey both revealed that the host communities approved and acknowledged the numerous potential positive impacts the proposed project will bring in their region and the country at large. However, they strongly recommended that the renovation should be done in facilities should be done in phases. The socio-cultural conflict impact of the project was rated high and recommendations were provided to mitigate this impact significance to medium or low.

In conclusion, the potential adverse impacts associated with the proposed project are possible to mitigate successfully. It is therefore recommended that:

The proposed development should be allowed to proceed if the project proponent is fully committed to implement the proposed mitigation measures and ESMP whose cost is estimated to be 154,000 USD. An environmental audit is recommended upon the completion of construction works to verify the implementation of the proposed mitigation measures. Any unforeseen project impacts shall be identified and addressed through annual environmental audits.

It is already recommended that the project should establish a Grievance Redress Mechanism to handle and resolve potential grievances and complains from project affected persons.

Appendix 1

Environmental and Social Requirements for renovation of health facilities

The contractor shall adhere to the following E&S throughout its terms of performance. [3]

Respect for the national laws and regulations: The Contractor and subcontractors must: know, respect and apply the laws and regulations in force in the country relating to the environment and relevant social aspects, to the disposal of solid and liquid wastes and noise standards, to the working hours, mitigation of risks of abuse and violence on the work site and in the community, etc.; take all appropriate measures in order to minimize the impacts on the environment as well as mitigate social risk, including those related to sexual exploitation and abuse (SEA) and sexual harassment (SH); to assume the responsibility for all complaints linked to failure to respect the environment.

Permits and authorizations before works: All implementation of works must be subjected to initial procedure of information and administrative authorizations. Before beginning works, the Contractor will obtain all the necessary permits for the implementation of planned works. Before the start of works, the Contractor must confer with the residents with whom he can make arrangements for facilitating the progress of the works.

Meeting of works take off: Before the starting of works, the Contractor and the subcontractor, under the supervision of the Project Coordinating Unit, will organize meetings with the authorities, representatives of the populations, including those vulnerable groups, such as women, who may be disproportionately affected by the civil works activities, situated in the zone of the project to inform them of the works to be implemented and their duration, of the calendar of works and the sites likely to be affected.

Preparation and Takeover of the site: The takeover of the site must be according to a defined calendar in agreement with the affected populations and the contractor. Before the installation and the beginning of works, the Contractor will ensure that compensations are paid to the rightful owner by the contractor. NA for this subproject.

Environmental and Social Management Plan: The Contractor must establish and submit, for the approval of the PCU, a detailed program of environmental and social management of the works as described in the ESMP Part 1 through Part 6 and Codes of Practice, including a SEA/SH Prevention and Response Action Plan (SEA/SH AP) for the contractor, which can be aligned with the SEA/SH AP for the project.

[3] These general conditions were adopted from the specific environmental and social provisions required in the COVID-19 Preparedness and Response Project Environmental and Social Management Framework as well as the Environmental and Social Codes of Practice detailed in the Farato Clinical Waste Treatment Centre Environmental and Social Management Plan.

Display of the internal regulations and sensitization of the staff: The Contractor must display internal regulation in a visible way in the various facilities of prescribing specifically: respect for the local customs; protection against the STD/HIV/AIDS; adherence to prohibitions against SEA/SH and respect for related provisions in worker codes of conduct; and the hygiene rules and safety measures. The Contractor must sensitize its staff particularly on the respect for the customs of the populations of the region where the work is done and on the risks of STD and HIV/AIDS as well as risks related to SEA/SH both with the community and on the work site.

Use of local labour: The Contractor is required to hire (outside of its technical staff) more labor in the zone where works are being done and to apply gender-equitable recruitment practices in order to ensure equal opportunity for recruitment of male and female personnel. Where qualified staff is lacking in the surrounding area it is allowed to hire the labor outside of the work zone.

Respect for work schedules: The Contractor must ensure that the work schedules respect the laws and national regulations in force. All derogation is submitted, as far as possible, for the approval of the contractor, (except in case of exception granted by the contractor), the Contractor must avoid executing works during the hours of rest, Sundays and public holidays.

Grievance Redress: Contractor shall accept and register complaints from its workforce and the public and make an effort to solve them according to its company policies and procedures which will include specific procedures to address the ethical and confidential management and resolution of SEA/SH complaints. Unresolved grievances should be directed to the project GRM as laid out in the Stakeholder Engagement Plan (SEP) and the ESMF.

Protection and Safety of Construction work staff: The Contractor must place at the disposal of the staff protective clothing that are in a good state, as well as all protective accessories and security appropriate for their activities (helmets, boots, belts, masks, gloves, glasses, etc.). The Contractor must keep strict watch on the wearing of the protective facilities in the works areas. A permanent control must be done to this effect and, in case of default corrective measures (warning, penalization, and dismissal) must be applied to the concerned staff. All workers shall be informed and comply with the appropriate Codes Of Conduct detailed in the ESMP.

Responsibility for Hygiene, Security and the Environment: The Contractor must designate a person responsible for Hygiene/Safety/Environment who will ensure that the hygiene, safety and protection rules of the environment, as well as all requirements related to management of social risk mitigation measures, including those related to SEA/SH, are followed rigorously by all and at all levels of execution, for the workers as well as for the population and other people in contact with the works area. The Contractor must put in place a medical and life saving service. The Contractor must prohibit access of the works area to the public and protect the area with fencing and road signs to indicate the different entrances and to take all measures for order and security to prevent accidents.

Measures against hindrances to traffic: The Contractor must avoid obstructing public access permanently maintain the flow of traffic and access for the residents during the construction. The Contractor will ensure that no excavation or trench remains open when not in immediate use, without adequate sign boards accepted by the contractor; and ensure that the temporary deviations allows movement without any danger.

Care for the works area and re-organization: At handing over of the site, the Contractor should ensure it is clean for immediate use. The Contractor cannot be relieved of its commitments and responsibility concerning their use without the good state of the site having been confirmed. The Contractor will take care of necessary arrangements to restore the site to a good condition. The Contractor is held responsible for the removal of all equipment and materials and properly dispose of what may be considered as waste. The Contractor cannot abandon them on the site or in the vicinity. Once the works are completed, the Contractor must (i) withdraw the materials, solid and liquid wastes, excess materials, fences etc. (ii) rectify the defects of the drainage system and fill all the excavated zones; (iii) afforest the zones initially deforested with suitable species, in collaboration with the local forestry services; (iv) protect the remaining dangerous works (wells, open trenches, protrusions, etc.); (v) make the pavements, sidewalks, gutters, rails and other works returned to the public; (vi) decontaminate the polluted soils (the contaminated parts must be cleaned and covered with sand); (vii) clean and destroy the drainage pits. After the withdrawal of all materials, minutes reporting restoration of the site must be written and included in the minutes of receipt of works.

Protection of unstable zones: During the dismantling of the works in unsteady places, the Contractor must take the following precautions not to accentuate the unsteadiness of the ground: (i) avoid any heavy circulation and any overload in the area of unsteadiness; (ii) preserve as much as possible the plant cover or reconstitute this latter by using local species adapted in case of risks of erosion.

Notification of noncompliance: The construction supervisor notifies the Contractor in writing of all cases of defect or noncompliance of the environmental and social measures. The Contractor must correct all defects in accordance with the instructions duly notified to him by the construction supervisor. The resumption of works or extra works resulting from noncompliance of contract provisions are at the cost of the Contractor.

Sign boards for the works site: The Contractor should place, before the start of the works and every time the need arises, sign boards in accordance with the laws and regulations in force.

Protection of the wetlands, fauna and flora: It is prohibited for the Contractor to put up temporary amenities (storage and parking areas, paths for bypassing or work, etc.) in wetlands.

Protection of sacred sites and archaeological sites: The Contractor must take all necessary measures to respect cultural sites (cemeteries, sacred sites, etc.) in the vicinity of works and must not damage them. If during the works, vestiges of worship, historic or archaeological interest are discovered, the Contractor must follow the following procedure: (i) stop works in the concerned zone; (ii) inform immediately the contractor who must make arrangements to protect the site to avoid any

damage; (iii) a protective perimeter must be identified and constructed around the site and no activity should be undertaken in it; (iv) prohibit removal and displacement of the objects and vestiges. Works must be suspended until the national body responsible for historical and archaeological sites grants authorization for continuation of works.

Management of wastes: The Contractor will deposit wastes as stipulated in the Project ESMF and this ESMP.

Protection against noise pollution: The Contractor is required to limit the noises in the work area that could seriously be a nuisance to the residents, either over a long time, or by their long duration outside of the normal hours of work. The levels not to be exceeded are: 55 to 60 decibels during the day; 40 decibels at night.

Protection against STD/HIV/AIDS and illnesses linked to the works as well as risks related to SEA/SH: The Contractor must inform and sensitize its staff on the risks linked to STD/HIV/AIDS and prohibitions against SEA/SH and respect for related provisions in worker codes of conduct. The Contractor must provide staff with condoms against STD/HIV/AIDS while sensitizing workers at the same time on the links with SEA/SH risk and prohibitions against SEA/SH. The Contractor must inform and sensitize its staff on safety and hygiene at work, including risks of SEA/SH on the work site. The Contractor must provide first aid facilities and provide basic medicine to the work staff free of charge.

Site Access and Public services and assistance: The Contractor must provide access to public and emergency services in all places. When a street is blocked, the Contractor must study with the PCU arrangements for the maintenance of the access for vehicles from the fire and ambulance services.

Contractor Journal: The Contractor must update a journal of the building site, in which will be consigned the complaints, failures or incidents with a significant impact on the environment, an incident with any community member as well as worker in juries, accidents and/or fatalities. The Contractor must inform the public in general and the bordering populations, of the existence of this journal, with the indication of the place where it can be consulted. It should be noted that incidents of SEA/SH will not be recorded in this journal and will be documented separately, and related case information will be maintained in a confidential and secure place with limited access.

Sanction: In application of the contractual arrangements, the lack of respect of the environmental and social clauses, duly observed by the contractor, could be a justification for penalties or termination of the contract.

Appendix 2

Environmental and Social Codes of Practices

CHECKLIST 1 Environmental and Social Codes of Practice –

SMALL SCALE CONSTRUCTION, UPGRADES, REHAB, EXPANSION OF HEALTH CARE FACILITIES

Target: Construction Workers OHS/Project Supervisor/Facility Manager

Worker Safety

- ✓ The local construction and environment inspectorates and communities have been notified of upcoming activities
- ✓ The public has been notified of the works through appropriate notification in the media and/or at publicly accessible sites (including the site of the works)
- ✓ All legally required permits have been acquired for construction and/or rehabilitation
- ✓ The Contractor formally agrees that all work will be carried out in a safe and disciplined manner designed to minimize impacts on neighboring residents and environment.
- ✓ Workers' PPE will comply with international good practice (always hardhats, as needed masks and safety glasses,

  harnesses and safety boots)
- ✓ Appropriate signposting of the sites will inform workers of key rules and regulations to follow.
- ✓ All incidents and accidents will be logged and reported
- ✓ Only qualified individuals will operate equipment, machinery and vehicles

General Rehabilitation and/or Construction

- ✓ During interior demolition debris-chutes shall be used above the first floor
- ✓ Demolition debris shall be kept in controlled area and sprayed with water mist to reduce debris dust
- ✓ During pneumatic drilling/wall destruction dust shall be suppressed by ongoing water spraying and/or installing dust screen enclosures at site
- ✓ Hazardous materials will be properly labelled, stored and maintained
- ✓ The surrounding environment (sidewalks, roads) shall be kept free of debris to minimize dust
- ✓ There will be no open burning of construction / waste material at the site
- ✓ There will be no excessive idling of construction vehicles at sites
- ✓ Construction noise will be limited to restricted times agreed to in the permit
- ✓ During operations the engine covers of generators, air compressors and other powered mechanical equipment shall be closed, and equipment placed as far away from residential areas as possible
- ✓ The site will establish appropriate erosion and sediment control measures such as e.g. hay

bales and / or silt fences to prevent sediment from moving off site and causing excessive turbidity in nearby streams and rivers.

- ✓ excavation or trench will not remain open when not in immediate use

Waste Management

- ✓ Waste collection and disposal pathways and sites will be identified for all major waste types expected from demolition and construction activities.
- ✓ Mineral construction and demolition wastes will be separated from general refuse, organic, liquid and chemical wastes by on-site sorting and stored in appropriate containers.
- ✓ Construction waste will be collected and disposed properly by licensed collectors
- ✓ The records of waste disposal will be maintained as proof for proper management as designed.
- ✓ Whenever feasible the contractor will reuse and recycle appropriate and viable materials (except asbestos)

Wastewater Treatment

- ✓ The approach to handling sanitary wastes and wastewater from building sites (installation or reconstruction) must be approved by the local authorities
- ✓ Before being discharged into receiving waters, effluents from individual wastewater systems must be treated in order to meet the minimal quality criteria set out by national guidelines on effluent quality and wastewater treatment
- ✓ Monitoring of new wastewater systems (before/after) will be carried out
- ✓ Construction vehicles and machinery will be washed only in designated areas where runoff will not pollute natural surface water bodies.

Traffic Management

- ✓ avoid obstructing or blocking public roads
- ✓ permanently maintain the flow of traffic during the construction
- ✓ Use proper signal measures for trucks entering and exiting work site

Emergency Disaster and Preparedness Plan

- ✓ Fire safety measures will be designed including available firefighting equipment
- ✓ Hazardous response and containment plan operational
- ✓ Emergency response plans related to natural or man-made disasters fully functional.
- ✓ Regular training for staff, drills and evacuation tests, etc.

REFERENCES

- ➢ WHO technical brief water, sanitation, hygiene and waste management for COVID-19;
- ➢ WHO guidance on infection prevention and control at health care facilities (with a focus on settings with limited resources);

Appendix 3

Protmex PT6708 Digital Sound Level Meter

Temtop M2000 Air quality monitoring device

Appendix 4

Consultation Minutes for Yerobawol

	Response
Description of existing infrastructure	The health facility of Yerobawol has several functional units, including OPD, Public Health office, Labor ward, General wards (Adult, Children, and Maternal), Arts clinical center, LTS, Laboratory, Cashier office, OIC office, Kitchen, and staff quarters. However, some parts of the facility infrastructure are falling apart due to lack of maintenance. There are structures also built purely for solid waste management with the facility. At the time of the consultative meeting at the community of Yerobawol, the respondents alluded to the fact that these structures are old-fashioned designs and have not been renovated still, which is why they started cracking, and some of the staff's quarters within the facility lack indoor toilets, compromising the privacy of the staff as well as their comfort. According to the respondent, the facility and the community heavily rely on the National Water and Electricity Company (NAWEC) for electricity supply so as to smoothen the operations within the facility. However, the community and the facility are highly dependent on groundwater sources through the use of a borehole, which was given to the facility by a project. The water quality of the facility is perceived to be good; however, the water has not been subjected to laboratory tests for safety purposes. The community members also put an emphasis on the fact that they are depending on the borehole water from the facility as the main supplier because they do not have established boreholes within the community. The only water supply they got in the community is from their community well, which makes water insufficient within the community of Yorobawol.
Perception with regards to the current condition of the facility	The facility is an old facility that was constructed decades ago. Some of the current structures within the facility are not in good shape, and it is risky to work in such environments. The plumbing system and wiring are poor, which is increasing the vulnerability of the staff and patients within the facility to disasters that result in loss of lives. The nature of the facility right now does not motivate workers, which is why the facility has insufficient human resources, such as medical workers. The community members also said that the insufficient number of healthcare workers in the facility affects their service delivery, and patients are kept waiting in the lane for more than an hour, which can worsen the health status of those patients. Here are some other services, like the scanning and X-ray; they are not available, as well as pharmacies that do not have drugs. Patients are always referred to buy medication at a far distance away from the community.

Perception on the proposed renovations	The respondents expressed great satisfaction with the proposed renovation of the facility. The renovation will improve the quality of the different infrastructures, enhance service delivery, and improve the living conditions of the staff residing within the facility as well as the community members too. The renovation of the facility will improve service delivery, and this can influence the growth and development of the community through people coming to settle in their community and business-minded personnel will come in, and this can be a great development for the community through socio-economic and infrastructural means.
Description of the natural environment	The community has diverse species of biodiversity ranging from both flora and fauna. As per the respondents, the biodiversity within the community contributes immensely to their basic ecosystem services within the community. The flora species also contribute to providing a microclimate within the community in terms of shade, cool air, and minimizing the extreme temperatures and heat. There are a lot of flora, fauna, and avifauna species, and these are Malaina, Cashew, Acacia, Mango, Banana (Tomborong), Cassava, Birds, sheep, Monkeys, snakes, and squirrels. The air, water, and noise quality is perceived to be good by the community members; however, it has not been subjected to laboratory tests.
Waste management	According to the respondents, most of the waste generated is temporarily stored in some pits within the community that they later burn, and the reason for burning the waste is because there is no waste collector in the community.
Positive impacts of the proposed facility renovation	The anticipated positive impacts are the enhancement of the infrastructure and the promotion of the reliability of water availability both in the facility and the community, which will motivate the staff and improve their productivity. Upon completion of the renovation, there is a high expectation that their well-being will be improved as well as reduce their vulnerability to disaster outbreaks. Renovation will also encourage the healthcare workers coming for postings in Yorobawol, which can minimize the inadequacy in human resources in the facility. The renovation can result in more employment opportunities for the inhabitants in the community. The renovation will attract investors in the community.
Potential negative impacts on the environment	The respondents highlight that the renovation project will pose negative impacts on both their lives and livelihoods. These impacts are both environmental and social as well. There is anticipation that the renovation will cause the following environmental impacts: • Dust pollution, • Health and safety risk as renovation is in progress. • Construction waste issues,

	• Noise pollution, • Air Contact contamination with the leftovers and oil leakages.
Proposed mitigation measures	• Ensure that the ground is always sprinkled with water daily • Ensure that the workers are always with their PPEs and mobile signage's to be displayed within the facility during renovation works. • Properly manage all solid waste and properly dispose them off. • Minimize the usage of heavy and noisy machines so as to minimize noise pollution
Potential negative impacts on social conditions	• The negative social impacts it is going to have on the community and the health care workers as well as the patient in the facility are: • Temporal displacement of health facility for renovation to take place, there may be a challenge to accommodate staffs. • Influence in gender base violence and sexual harassment as a result of the influx of workers in the community. • The renovation might result to theft cases. • Affect the gardening done by inhabitants in the facility
Proposed mitigation measures	• Develop a code of conduct to guide any contractor when going to the communities. • Advise the workers to follow the ethics and community norms and values. • Encourage community policing
Recommendation	The respondents urge the project to be implemented in phases so as to prevent it from obstructing their daily health care services in the facility. They are also anticipating that their community members will be employed as laborers that will help reduce the pressure of unemployment within the community as well as help other families meet their basic needs and wants. There should be proper community policing so as to reduce theft cases within the community that might be influenced by the number of workers coming in for the renovation. Let the ministry not only stop at renovation, but they also urged them to provide human resources as well as medications and other services like x-ray to reduce the stress on long-distance travel for medical screening and scanning.

Attendance for the consultation at YeroBawol

Name	Designation	Gender	Contact
Bakary Badgie	PHO	Male	3395662
Lamin J. Drammeh	Lab Technician	Male	7307585
Banu Drammeh	Driver	Male	2110647
Hagie Darboe	ADWAC	Male	5179982
Hawa Fatty	NO/OIC	Female	3711593
Kally Bah	Deputy alkalo yorobawol	Male	3180405
Jammeh Bah	Community member	Male	3073312
Basirou Bah	Facility security	Male	3783606
Mamadou Bah	Community member	Male	3562551
Fatoumata Mballow	Community member	Female	
Jariatou Kebbeh	Community member	Female	3548908
Jariatou Jallow	Women leader	Female	2908443
Ramata Jawo	Community member	Female	3240507
Kebba Jatta	RSWO	Male	7777061
Yaya B Ceesay	Director of planning BSAC	Male	3512723
Samba Bah	RPNO	Male	3730160
Mamadou Njie	NEA-URR	Male	3235280

Field visit Photos

Staff Quaters

Waste Inceneration Center

Public Health Office

Mosque

Renovated Kitchen

Laundery Center

Waste Burning Center

Toilet

RCH (Reproductive Child Health)

Post Natal Ward

Labour Ward

LTI and Laboratory Unit

Drug store

ANC (Antenatal care)

Old Kitchen

Toilet

Nurse Station

Yorobawol FGD Community

Flora species recorded in the project intervention region (URR)

Scientific Name	Common Name	Family	IUCN Status	Endemic Status	Growth Form	Uses
Parkia biglobosa	African locust bean	Mimosoideae	LC	Non-Endemic	Tree	Food and medicine
Blepharis linariifolia		Acanthaceae	LC	Non-Endemic	Shrub	Food, medicine and craftwork
Amaranthus spinosus		Amaranthaceae	LC	Non-Endemic		Food and medicine
Magnifera indica	Mango	Amaranthaceae	LC	Non-Endemic	Tree	Food and medicine
Calotropis procera	Swallow wort	Apocynaceae	LC	Non-Endemic	Shrub	Medicinal use
Leptadenia hastata		Apocynaceae	LC	Non-Endemic	Climber	Food
Pergularia tomentosa		Apocynaceae	LC	Non-Endemic	Shrub	Medicinal use
Borassus aethiopum	African fan palm	Arecaceae	LC	Non-Endemic	Tree	Food and craftwork
Hyphaene thebaica	Doum palm	Arecaceae	LC	Non-Endemic	Tree	Food and medicine
Phoenix dactylifera	Date palm	Arecaceae Phoenix	LC	Non-Endemic	Tree	Food and medicine
Tamarindus indica	Tamarind	Caesalpinioideae	LC	Non-Endemic	Tree	Medicinal use, ingredient for local drink
Centaurea senegalensis		Asteraceae	LC	Non-Endemic	Herb	Medicinal use
Balanites aegyptiaca	Soapberry tree	Balanitaceae	LC	Non-Endemic	Shrub	Food and medicine
Adansonia digitata	Baobab	Bambacaceae	LC	Non-Endemic	Tree	Food and medicine

Guiera senegalensis		Combretaceae	LC	Non-Endemic	Tree	Food and medicine
Ficus vogelii		Combretaceae	LC	Non-Endemic	Tree	Food and medicine

Scientific Name	Common Name	Family	IUCN Status	Endemic Status	Growth Form	Uses
Ipomoea asarifolia		Convolvulaceae	LC	Non-Endemic	Climber	Medicine, dye & tying material
Euphorbia serpium	Balsam spurge	Euphorbiaceae	LC	Non-Endemic	Shrub	Food and medicine
Chamaecrista mimosoides	Fishbone cassia	Fabaceae	LC	Non-Endemic	Herb	Medicinal use
Crotalaria pallida	Small Rattlebox	Fabaceae	LC	Non-Endemic	Shrub	Medicinal use
Cymbopogon giganteus		Fabaceae	LC	Non-Endemic	Grass	Medicinal & Building
Faidherbia albida	Winter thorn	Fabaceae	LC	Non-Endemic	Tree	Food and medicine
Mimosa pigra	Black Mimosa	Fabaceae	LC	Non-Endemic	Shrub	Medicinal & Erosion control
Ceiba pentandra	Silk cotton tree	Bombacaceae	LC	Non-Endemic	Tree	Consumed as food and used for construction
Mesosphaerum suaveolens	Wide Spikenard	Lamiaceae	LC	Non-Endemic	Herb	Medicinal use
Bombax costatum	Red kapok tree	Malvaceae	LC	Non-Endemic	Tree	Medicines, food & timber
Sida acuta	Broom weed	Malvaceae	LC	Non-Endemic	Grass	Medicinal use
Azadirachta indica	Neem tree	Meliaceae	LC	Non-Endemic	Herb	Medicinal use
Piliostigma thonningii	Camel's foot	Caesalpinioideae	LC	Non-Endemic	Tree	Medicinal purpose
Acacia nilotica	Egyptian mimosa	Mimosaceae	LC	Non-Endemic	Herb	Medicinal use
Eucalyptus tereticornis	Forest redgum	Myrtaceae	LC	Non-Endemic	Tree	Medicines
Cenchrus biflorus	Hedgehog grass	Poaceae	LC	Not Endemic	Grass	Consumed as food

Scientific Name	Common Name	Family	IUCN Status	Endemic Status	Growth Form	Uses
Themeda triandra	Kangaroo grass	Poaceae	LC	Not Endemic	Grass	Used as thatch and medicine
Ziziphus mauritiana	Jujube tree	Rhamnaceae	LC	Not Endemic	Tree	Consumed as food
Gardenia erubescens		Rubiaceae	LC	Not Endemic	Tree	Food and medicine
Anacardium occidentale	Cashew tree	Anacardiaceae	LC	Non-Endemic	Herb	Consumed as food
Gmelina arborea	Gmelina	Verbenaceae	LC	Non-Endemic	Tree	Timber

Source: Richflood field survey, 2024

Avifauna species recorded the project area during the field assessment

Scientific Name	**Common Name**	**IUCN Status**	**Endemic Status**
Polyboroides typus	African Harrier Hawk	LC	Not endemic
Tockus erthrorhynchus	Western Red-billed Hornbill	LC	Not endemic

Scientific Name	Common Name	IUCN Status	Endemic Status
Cinnyris venustus	Variable Sunbird	LC	Not endemic
Vidua chalybeata	Village Indigobird	LC	Not endemic
Bubulcus ibis	Western Cattle Egret	LC	Not endemic
Euplectes ardens	Red-collard Widowbird	LC	Not endemic
Estrilda caerulescens	Lavender Waxbill	LC	Not endemic
Vidua orientalis	Sahel Paradise Whydah	LC	Not endemic
Chrysococcyx caprius	Diederik Cuckoo	LC	Not endemic
Sarkidiornis melanotos	Knob-billed Duck	LC	Not endemic
Lamprotornis caudatus	Long-tailed Glossy Starling	LC	Not endemic
Streptopelia semitorquata	Red-eyed Dove	LC	Not endemic
Streptopelia vinacea	Vinaceous Dove	LC	Not endemic
Oena capensis	Namaqua Dove	LC	Not endemic
Ploceus cucllatus	Village Weaver	LC	Not endemic
Lamprotornis purpureus	Purple Glossy Starling	LC	Not endemic
Pogoniulus chrysoconus	Yellow-fronted Tinkerbird	LC	Not endemic
Corvus albus	Pied Crow	LC	Not endemic
Camaroptera brevicaudata	Grey-backed Camaroptera	LC	Not endemic
Pycnonotus barbatus	Common Bulbul	LC	Not endemic
Vanellus spinosus	Spur-winged Lapwing	NT	Not endemic
Tringa totanus	Senegal Coucal	LC	Not endemic
Prinia subflava	Tawny-flanked Prinia	LC	Not endemic
Dendrocygna viduata	White-faced Whistling Duck	LC	Not endemic
Passer griseus	Northern Grey-headed Sparrow	LC	Not endemic
Cypsiurus parvus	African Palm Swift	LC	Not endemic
Butorides striata	Green-backed Heron	LC	Not endemic

Scientific Name	Common Name	IUCN Status	Endemic Status
Laniarius barbarus	Yellow-crowned Gonolek	LC	Not endemic
Accipiter tachiro	African Goshawk	LC	Not endemic
Pternistis bicalcaratus	Double-spurred Francolin	LC	Not endemic
Actophilornis africanus	African Jacana	LC	Not endemic
Ardea intermedia	Intermediate Egret	LC	Not endemic
Coracias abyssinicus	Abyssinian Roller	LC	Not endemic
Halcyon malimbica	Blue-breasted Kingfisher	LC	Not endemic
Eurystomus glaucurus	Broad-billed Roller	LC	Not endemic
Ardea cinerea	Grey Heron	LC	Not endemic
Spermestes cucullata	Bronze Mannikin	LC	Not endemic
Columba guinea	Speckle Pigeon	LC	Not endemic
Lagonosticta senegala	Red-billed Firefinch	LC	Not endemic
Numida galeatus	Helmeted Guineafowl	LC	Not endemic
Cossypha niveicapilla	Snowy-crowned Robin Chat	LC	Not endemic
Poicephalus senegalus	Senegal Parrot	LC	Not endemic
Psittacula krameri	Rose-ringed Parakeet	LC	Not endemic
Himantopus Himantopus	Black-winged Stilt	LC	Not endemic

Ardea purpurea	Purple Heron	LC	Not endemic
Ardea alba	Great Egret	LC	Not endemic
Ardeola ralloides	Squacco Heron	LC	Not endemic
Scopus umbretta	Hamerkop	LC	Not endemic
Bostrychia hagedash	Hadada Ibis	LC	Not endemic
Mesopicos goertae	Grey Woodpecker	LC	Not endemic

Source: Richflood field survey, 2024