

**REPUBLIC OF THE GAMBIA**



**OFFICE OF THE VICE PRESIDENT**

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**NATIONAL SOCIAL PROTECTION AGENCY**

**VULNERABLE YOUTH AND WOMEN SUPPORT PROJECT (VYWSP)**

***Environmental and Social Impact Assessment***

FOR

***THE CONSTRUCTION / REHABILITATION OF CHAMEN HEALTH  
CENTER, CENTRAL RIVER REGION (CRR)***

**DRAFT REPORT**

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Submitted by



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## List of Abbreviations and Acronyms

<b>CBD</b>	Convention on Biological Diversity
<b>CCD</b>	Convention to Combat Desertification
<b>C-ESMP</b>	Contractor Environmental and Social Management Plan
<b>CoC</b>	Codes of Conduct
<b>DCD</b>	Department of Community Development
<b>DoF</b>	Department of Forestry
<b>DPPH</b>	Department of Physical Planning and Housing
<b>EHS</b>	Environmental, Health, and Safety Guidelines
<b>ESIA</b>	Environmental and Social Impact Assessment
<b>ESMS</b>	Environmental and Social Management System
<b>ESMP</b>	Environmental and Social Management Plan
<b>ESS</b>	Environmental and Social Standards
<b>FGDs</b>	Focus Group discussions
<b>GBV</b>	Gender-Based Violence
<b>GDHS</b>	Gambia Demographic Health Survey
<b>GEAP</b>	Gambia Environmental Action Plan
<b>GER</b>	Gross Enrolment Rate
<b>GoTG</b>	Government of The Gambia
<b>GRM</b>	Grievance Redress Mechanism
<b>HCWM</b>	HealthCare Waste management
<b>HF</b>	Health Facility
<b>HFU</b>	Health Facility Users
<b>HSE</b>	Health Safety and Environment
<b>ICWMP</b>	Infection Control and Waste Management Plan
<b>ILO</b>	International Labour Organization
<b>KIIs</b>	Key Informant Interviews
<b>LGA</b>	Local Government Area
<b>LTB</b>	Leprosy and Tuberculosis

<b>LRR</b>	Lower River Region
<b>MoECCNAR</b>	Ministry of Environment, Climate Change and Natural Resources
<b>MoGCSW</b>	Ministry of Gender, Children and Social Welfare
<b>MoH</b>	Ministry of Health
<b>MoLRGRA</b>	Ministry of Lands, Health, Governments, and Religious Affairs
<b>MoTWI</b>	Ministry of Transport Works and Infrastructure
<b>NAWEC</b>	National Water and Electricity Company
<b>NDP</b>	National Development Plan
<b>NEA</b>	National Environment Agency
<b>NEMA</b>	National Environment Management Act
<b>NER</b>	Net Enrolment Rate
<b>NGO</b>	Non-Governmental Organization
<b>PHC</b>	Primary Health Care
<b>PHC</b>	Population and Housing Census
<b>PCU</b>	Project Coordination Unit
<b>PDO</b>	Project Development Objective
<b>OHS</b>	Occupational Health Safety
<b>OPD</b>	Outpatient Department
<b>PMT</b>	Project Management Team
<b>PPE</b>	Personal Protective Equipment
<b>RHD</b>	Regional Health Directorate
<b>RPPHO</b>	Health Principal Public Health Officer
<b>SEA</b>	Sexual Exploitation and Abuse
<b>SEAH</b>	Sexual Exploitation, Abuse and Harassment
<b>SEP</b>	Stakeholder Engagement Plan
<b>STIs</b>	sexually transmitted infections
<b>TAC</b>	Technical Advisory Committees
<b>VAC</b>	Violence Against Children
<b>VDCs</b>	Village Development Committees
<b>VHS</b>	Village Health Services

<b>VOC</b>	Volatile Organic Compounds
<b>WB</b>	World Bank
<b>WCR</b>	West Coast Region
<b>WHO</b>	World Health Organization
<b>WMP</b>	Waste Management Plan

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## GLOSSARY OF TERMS

**Cumulative impacts/effects:** The impact on the environment resulting from the action's incremental impact when added to other past, current, and reasonably foreseeable future actions.

**Direct impacts:** These are effects that occur through the direct interaction of an activity with an environmental, social, or economic component.

**Disclosure:** Information is available to all stakeholders at all stages of the development of projects.

**Environment:** this is a diversity of things made up of natural and artificial environments. It includes chemical substances, biodiversity, socio-economic activities, cultural, aesthetic, and scientific factors likely to have direct or indirect, immediate or long-term effects on the development of an area, biodiversity, and human activities.

**Environmental and Social Impact Assessment (ESIA):** It is an instrument to identify and assess the potential environmental and social impacts of a proposed project, evaluate alternatives, and design appropriate mitigation, management, and monitoring measures.

**Environmental Monitoring:** This instrument provides, during project implementation, information about key environmental aspects of the project that enables the borrower and the bank to evaluate the success of mitigation as part of project supervision and allows corrective action to be taken when needed.

**Grievance:** An issue, concern, problem, or claim (perceived or actual) that an individual or community group wants a company or contractor to address or resolve.

**Impact:** A positive or negative effect caused by a project or an environmental activity.

**Indirect impacts:** are effects that are not a direct result of the project, often produced away from or as a result of a complex impact pathway. They are also known as secondary or even third-level impacts.

**Involuntary resettlement:** This is a policy triggered in situations involving (a) involuntary taking of land resulting in (i) relocation or loss of shelter, (ii) loss of assets or access to assets, or (iii) loss of income sources or means of livelihood, whether or not the affected persons must move to another location; or (b) the involuntary restriction of access to legally designated parks and protected areas resulting in adverse impacts on the livelihoods of the displaced persons. The policy aims to avoid involuntary resettlement to the extent possible or reduce and mitigate its adverse social and economic impacts.

**Mitigation measures refer** to feasible and cost-effective measures that may reduce potentially significant adverse environmental impacts to acceptable levels.

**Pollution:** is the contamination caused by waste, harmful biochemical products derived from human activities that may alter man's habitat and cause adverse effects on the environment like man's social well-being, animals, flora and fauna and the world they live in.

**Risk:** are potential negative consequences to a project that result from its impacts (or perceived impacts) on the natural environment (i.e. air, water, soil) or communities of people (e.g. employees, customers, local residents).

**Scoping:** Scoping is the process of determining the content and extent of matters that should be covered in environmental information to be submitted to a competent authority or other decision-making body

**Screening:** This determines whether or not an EIA is needed and is a formal requirement under the EIA Regulations.

**Stakeholders:** A “stakeholder” refers to individuals or groups who: (a) are affected or likely to be affected by the project (project-affected parties); and (b) may have an interest in the project (other interested parties)

**Vulnerable individuals/groups Individuals/groups:** who may be more likely to be adversely affected by the project impacts and/or more limited than others in their ability to take advantage of a project’s benefits

**Waste:** anything that no longer has a use or purpose and needs to be disposed

## Executive Summary

### Project overview

The Government of The Gambia (GoTG) through the National Social Protection Agency (NSPA) has received support from the African Development Bank (AfDB) for the Vulnerable Youth and Women Support Project (VYWOSP) to provide vulnerable groups, particularly out-of-school youth and women, with market-oriented skills and access to a range of services (financial and nonfinancial, basic social services) to tackle the multidimensional aspect of poverty and vulnerability. The main thrust of the project is that if poor and vulnerable women and youth in rural areas have the required skills in the agricultural value chain and access to quality basic social services, then there will be an increase in their productivity, and household income, and access to quality healthcare and education, thus reducing poverty and improve inclusive growth. Transformative social and behavioral change communication will intervene to sustainably strengthen achievements and bring change in populations' perception of gender equity, women's economic empowerment, use of basic social services, etc.

The project is adopting 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. It 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 additional financial support from the Bank is geared towards supporting the implementation of The Gambia National Health Strategic Plan (2021 – 2025). A portion of the grant is allocated for the construction and renovation of the Chamen Health Center. The project has the following four (4) components:

**Component 1:** This component will build on the existing project that is focused on providing non-financial support to youth and women-owned enterprises. In addition to existing activities (functional literacy and entrepreneurship training, provision of equipment and non-financial services), it will promote access to finance for the creation of decent jobs and enhance nutrition skills on selected agricultural value chains. It has two sub-components.

**Component 2:** This component will increase the impact of the existing project that is focused on financing the renovation and equipping of two healthcare centers. AF-VYWOSP will support the renovation and equipping of four additional health facilities 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 three sub-components.

**Component 3:** The component will enhance the nutrition surveillance system to function as an early warning tool, improving the ability to promptly monitor and address nutritional deficiencies. This will ensure timely interventions to prevent malnutrition from worsening. Additionally, for severe cases of malnutrition, nutrition treatment centers in the health facilities will be upgraded and rehabilitated into better-equipped facilities. These improvements will lead to more effective management and recovery of malnourished individuals, thereby reducing morbidity and mortality rates associated with malnutrition.

**Component 4:** This component will support activities that aim to enhance effective and efficient management of project activities such as coordination and capacity building on financial management and procurement. At the environmental level, risks will be related to Component 2 and Activity 2.1, in particular the component concerning the Renovation of four additional Healthcare facilities to provide high quality health services including for sexual and reproduction health.

### **Project objective**

The project's overall objective is to improve the incomes and productivity of the most vulnerable youth and women in rural areas and to improve their access and use of basic social services, including health, nutrition, and education services. The additional financial support from the Bank was geared towards supporting the implementation of The Gambia National Health Strategic Plan (2021 – 2025). A portion of the grant was allocated for the construction and renovation of the Chamen Health Center.

### **Project area of Intervention**

The intervention included the construction/renovation of Chamen Health Center, which is situated in the Nianiya District of the Central River Region North (CRRN). The health facility was established in 1938, it stands as one of the oldest minor healthcare facilities in the country. The health center provides essential healthcare services to thirty-four communities within the Nianiya District, serving a catchment area population of 12,585, which includes 1,928 individuals under the age of five.

The facility typically records approximately 500 Out-Patient Department (OPD) consultations each month for the general population. Among these, there is a notable higher frequency of around 300 consultations specifically for children under five years old. In the year 2024, Chamen Health Centre reported a total of 250 skilled deliveries.

The services offered by the health center include outpatient care, inpatient services, reproductive health, laboratory testing, antenatal care, immunization, public health initiatives, as well as tuberculosis and HIV services. As a government-managed health facility, Chamen Health Centre is strategically located along the Chamen Highway, ensuring accessibility for the communities it serves. Chamen Health Center premise is rectangular in shape with a dimension of 100 meters by 200 meters, giving an area of 20,000m<sup>2</sup>.

## **State of Infrastructure at Chamen Health Center**

The general conditions of these structures are fairly better though the facility is small in size and therefore requires an expansion to accommodate more patients and key personnel of the Health Centre. However, the buildings developed some defects which are as follows:






- 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 toilets
- Painting of the facility
- Leakage marks on ceiling
- Replacement/changing of doors and windows
- Broken floor tiles




## **Recommended Renovation/Construction Activities at Chamen Health Center**

Although there has been quite a number of renovations done in the past but the current status of the infrastructures within the facility demands urgent renovation to ensure better and quality health care service deliver. Following the assessment of the health facility, the following recommended construction/renovation works are required:

- Removed and replace with new roofing sheets and roofing structures
- Repaired and replaced all electrical fault on the cables as well as appliances
- Repaired all hairline and major cracks on walls
- Repaired and replace with new plumbing fittings in wards and toilets
- Repaint the whole facility
- Remove and replaced with new ceiling
- Remove and replaced with new doors and windows
- Provide new floor tiles where needed
- Expand the labour ward by creating delivery room for each patient with complete privacy.
- Expand the maternity ward to accommodate more patients.
- Construct one story building staff quarters to accommodate more staff.
- Construct a ward for male and female to accommodate more patients.
- Construct of new block to accommodate Public Health, Laboratory and scanning for patients.
- Reconstruction of about 250m perimeter fence.
- Provides additional power supply using solar panels.
- Provides additional water tanks and solar street lights

## List of the Infrastructure to be renovated/constructed

Name of Infrastructure	Proposed renovation work	Pictures
Existing Maternity Unit Block	<ol style="list-style-type: none"> <li>1. Painting</li> <li>2. Roofing</li> <li>3. Ceiling</li> <li>4. Extended walls and expansion</li> <li>5. Tiling</li> <li>6. Installation of doors and windows</li> <li>7. Plumbing and electrical work</li> </ol>	
Outpatient Block	<ol style="list-style-type: none"> <li>1. Roofing</li> <li>2. Installation of doors and windows</li> <li>3. Plumbing and electrical work</li> <li>4. Painting</li> <li>5. Tiling</li> </ol>	
Existing Staff quarters	<ol style="list-style-type: none"> <li>1. Painting</li> <li>2. Roofing</li> <li>3. Tiling</li> <li>4. Ceiling</li> <li>5. Installation of doors and windows</li> <li>6. Plumbing and electrical work</li> <li>7. Cooking stove</li> </ol>	
Waiting Area	<ol style="list-style-type: none"> <li>1. Painting</li> <li>2. Roofing</li> <li>3. Tiling</li> <li>4. Electrical works</li> </ol>	
Public toilets	<ol style="list-style-type: none"> <li>1. Painting</li> <li>2. Roofing</li> <li>3. Installation of doors and windows</li> <li>4. Tiling</li> <li>5. Plumbing work</li> </ol>	

Fence	1. Construction of a new 250m Perimeter fence	
Water	1. Installation of water tank 2. Installation of solar panel for the tank	
Electricity	1. Installation of solar panels 2. Installation of batteries for the solar	
New Maternity Unit & Labour Ward	1. Painting 2. Included walls 3. Reinforcement and formwork 4. Plastering and blockwork 5. Ceiling 6. Installation of doors and windows 7. Plumbing and electrical work 8. Roofing 9. Tiling	
New staff quarters	Construction of a new one-story building 1. Painting 2. Roofing 3. Ceiling 4. Extended walls 5. Concrete work 6. Reinforcement and formwork 7. Plastering and blockwork 8. Tiling 9. Installation of doors and windows 10. Plumbing and electrical work	
New block to accommodate Public Health, Laboratory and scanning for patient	Construction of a new Block 1. Painting 2. Roofing 3. Ceiling	

	4. Extended walls 5. Concrete work 6. Reinforcement and formwork 7. Plastering and blockwork 8. Tiling 9. Installation of doors and windows 10. Plumbing and electrical work	
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### **Project beneficiaries**

Chamen Health Center is located in Chamen Village, Nianija District in the northern part of Central River Region (CRR) in the Kuntaur Local Government Area that is about 9km from the main road. The facility is covering 33 villages including two Primary Health Care (PHC) key Villages such as Palleleh, Buduck and Bakadaji Jailan village clinic with 4 community health nurses are overseeing the primary health care services. It has a catchment area population of 12,585 and 1928 under five populations.

### **Rationale for ESIA for the Project**

The project is anticipated to positively impact healthcare service delivery by improving access, quality, staff motivation and retention. It will also positively impact development opportunities, thus improving the livelihood of the local communities and beyond. Apart from the positive impacts, the project might pose adverse negative impacts and thus require an Environmental and Social Impact Assessment (ESIA) study. To fulfill the statutory requirement of AfDB and the National Environment Agency (NEA), the NSPA of The Gambia contracted a consulting expert team to develop this ESIA report.

The overall objective of conducting the ESIA is to determine the potential adverse environmental and social impacts of the construction and renovation of the Chamen Health Center (BDH) and to develop mitigation measures that can be adopted to reduce or eliminate these adverse impacts as well as maximize the potential benefits of the project.

The following are the specific objectives of the ESIA study:

- To identify project activities that have the potential to impact the environment negatively.
- To map negative environmental and social areas of concern in constructing and renovating the health facilities.
- Develop mitigation measures and an Environmental and Social Management Plan (ESMP).

- 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.

### **Objectives of ESIA/ESMP**

The overall objective of conducting an ESIA is to identify, assess, and evaluate the potential environmental and social impacts of the construction/renovation of Chamen Health Center and develop mitigation and enhancement measures that can be adopted to reduce or eliminate these negative impacts as well as maximize the potential benefits of the project. The assessment and management plan will be key to developing a sustainable intervention with minimal environmental and social impact. The assessment results will also provide evidence based on informing stakeholders including policymakers and project actors.

### **Scope of ESIA/ESMP**

The focus of the ESIA study is on the project activities associated with the renovation/construction of the Chamen Health Center.

### **Project Alternatives**

The objective of analyzing this project's alternatives is to identify practical options to reduce or prevent the adverse impacts on the proposed renovation/construction of Chamen Health Center.

Intending to increase access to quality healthcare services, the alternative analysis of this project considers other practicable strategies that can be looked at to achieve the project objectives and eliminate adverse environmental and social impacts associated with project implementation. Reactions from consultations and engagement with the community and key stakeholders highlighted that the major benefit of the proposed project is improving access to better healthcare services in the district of Nianija as it is the only health facility in the district. Therefore, the renovation/construction of the Chamen Health center is most appropriate considering its proximity to good road facilities for easy reach by users. In the case where the zero scenarios alternatives are considered, this means that the project will not be implemented. The forgone costs of not having the project could result in economic and social losses regarding employment development, human welfare, livelihood and improved services. The location and layout alternatives were not considered since the proposed renovation/construction works will take place within the premises of existing structures at Chamen Health Center. Also, the intended project concerns the expansion work of the Chamen Health Center, which already exists in the project area.

### **Analysis of alternatives**

Option/ Method of Deployment	Potential Environmental, Social, Technological and Economic Implications		Preferred Option
<b>Zero scenario alternatives</b>			
<b>Allowing the project</b>	<b>Advantages</b> 1. Employment opportunities will be provided during the project implementation	<b>Disadvantages</b> 1. The anticipated adverse environmental and social impacts will be a reality	The not allowed option is preferred
<b>Not allowing the project</b>	<b>Advantages</b> 1. The anticipated adverse environmental and social impacts will be avoided	<b>Disadvantages</b> 1. There will be loss of employment opportunities due to the project	
<b>Location and layout alternatives</b>			
<b>Build within the existing premises</b>	<b>Advantages</b> 1. No extra cost to be incurred in buying land 2. No grievances due to dispossession	<b>Disadvantages</b> - Potential construction of available space	Build on site option preferred
<b>Build on a different site</b>	<b>Advantages</b> - May lead to a wider space available	<b>Disadvantages</b> 1. Cost implication for a new land 2. Potential grievances arising from dispossession	
	<b>Advantages</b>	<b>Disadvantages</b>	
<b>Construction</b>			
<b>1. Cement blocks</b>	1. Materials available 2. Will promote business 3. Relatively manageable	1. Pollution effect of cement 2. Retains heat and generally hot at night 3. Environmental degradation due to extraction of sand	Cement blocks since it is easier to made and readily available
<b>4. Bunt bricks</b>	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 atmosphere due to burning	
<b>Solid waste management</b>			

Option/ Method of Deployment	Potential Environmental, Social, Technological and Economic Implications		Preferred Option
1. <b>Composting</b>	<ol style="list-style-type: none"> <li>1. Availability of manure for gardening</li> <li>2. Will reduce the reliance on agro-chemicals</li> </ol>	<ol style="list-style-type: none"> <li>1. Tedious and time consuming</li> </ol>	Both options preferred
2. <b>Disposal</b>	<ol style="list-style-type: none"> <li>3. Will prevent indiscriminate littering and pollution</li> </ol>	<ol style="list-style-type: none"> <li>1. Proper disposal site may not be close to source of waste</li> <li>2. May incur significant cost thus a sustainability challenge</li> <li>3. Further contamination of land and ground water due to type of waste and characteristics of a disposal site</li> </ol>	
<b>Water supply</b>			
<b>Reliance on existing water supply</b>	<ul style="list-style-type: none"> <li>- Will enable no disruption of the water supply system</li> <li>- Will require no cost implications</li> </ul>	<ul style="list-style-type: none"> <li>- The demand will be too much for the existing system to support</li> </ul>	Both options preferred
<b>Improvement of the existing capacity with pumping system and overhead tank</b>	<ul style="list-style-type: none"> <li>- Will enhance the existing capacity</li> <li>- Will ensure that adequate water is available for other needs</li> </ul>	<ul style="list-style-type: none"> <li>- Will incur significant cost implication</li> </ul>	
<b>Energy supply</b>			
<b>Solar</b>	<b>Advantages</b> <ul style="list-style-type: none"> <li>- Environmentally friendly</li> <li>- Does not incur extra cost besides the initial</li> <li>- The local environmental conditions support it</li> </ul>	<b>Disadvantages</b> <ul style="list-style-type: none"> <li>- Not enough power will be generated to serve all the needs</li> <li>- Risk of theft</li> </ul>	Solar is the preferred option but it is highly recommended to connect to the national grid to enable the powering of the appliances
<b>Generator</b>	<ul style="list-style-type: none"> <li>- Does not incur significant start-up cost, depending on the type and power needed</li> </ul>	<ul style="list-style-type: none"> <li>- Noise and vibration impacts</li> <li>- Emission from the generator exhaust especially as it ages</li> <li>- Frequent buying of fuel to power the generator may not be sustainable</li> </ul>	

Option/ Method of Deployment	Potential Environmental, Social, Technological and Economic Implications		Preferred Option
<b>Grid</b>	- Ensures that all the Center`s appliances are functional	- Frequent buying of cash power will have significant cost implications	
<b>Timing and duration of construction works</b>			
<b>Construction during the dry season</b>	<b>Advantages</b> - Heavy machinery and trucks can easily access the construction site to deliver the materials	<b>Disadvantages</b> - Dust emission due to use of heavy vehicles, excavations, etc	The preferred option to construct during the dry season but work to be scheduled to avoid dust, noise and vibration impacting working sessions.
<b>Construction during the rainy season</b>	- Dust emission will be minimal due to wet conditions	- Certain areas with muddy soils will be inaccessible	

### **Methodological Approach**

The assessment was conducted using a mixed-method approach using both quantitative and qualitative data collection approaches. Therefore, both primary and secondary data collection were used to collect the data required for the assessment.

#### ***Secondary Data Collection***

This involves a desk review of relevant project documents to gain in-depth knowledge and understanding of the project. These vital documents include the Project Appraisal Document (PAD), feasibility study and design reports, and other relevant documents from previous projects. Several relevant policy and legal documents were also reviewed.

#### ***Primary Data Collection***

Primary data is required for the baseline study and stakeholder consultations. Data on the project environment and socio-economic impacts were collected from stakeholders by conducting surveys, expert discussions, focus group discussions (FGDs), and key informant interviews (KIIs). The survey targeted health staff at Chamen Health Center and service users/patients within the Chamen Health Center Catchment Area to gauge their perceptions of the environmental and social impacts of the project as well as establish their level of understanding and appreciation of the proposed project.

## **Fieldwork**

For the survey, 82 individuals were sampled and surveyed in the targeted facility and surrounding communities. The survey data collection was done using the Survey Solution CAPI tool, which was used for the overall management of the survey. The administration of survey questionnaires was done using the tool's interviewer App via tablets. The interviews were in-person in the location of the target respondents. Mobilization of participants for FGD was done and for each FGD, 5 to 20 participants were mobilized. KIIs were administered using the guide developed.

## **Assessment of Environmental Impacts**

Following the data collection, consultations and field visits, potential impacts associated with or resulting from Project activities were assessed. The significance of potential impacts that may result from the proposed Project was determined to assist in preparing recommendations for the proposed Project evaluation.

## **Policy, Legal and Institutional Framework**

To ensure the effective implementation and achievement of the project's objectives, the project will operate within an inclusive framework of policies and legal regulations. This framework includes the National laws and policies, the African Development Bank's (AfDB) Integrated Safeguards System (ISS), relevant international conventions, and environmental regulations. This have been contextualized and presented in this ESIA report. The main aim is to maximize the project's positive impacts while minimizing any adverse effects. Gap analysis and comparison was also conducted between National Environmental Laws and AfDB ISS provisions. Furthermore, recommendations provided to address capacity needs for successful implementation of the project and sustainability.

## **Environmental and Social Baseline Conditions of the proposed project site**

Generally, the Gambia's natural environment has not changed significantly across regions and administrative boundaries over the years. Therefore, the focus for for the assessment is site specific, regarding the existing physical, biological and socio-economic environmental conditions.

**Rainfall:** Like other regions in The Gambia, Chamen also enjoys rainfall from May to October and a dry season from November to April. The average annual precipitation of The Gambia is approximately 807 mm, while the mean number of wet days is around 74 days per year from year 1970 to 2015

**Air and Noise Quality:** According to findings for the current air and noise quality at Chamen health facility, it is found to be within the accepted standards except for particulate matter 2.5(PM 2.5). This indicates that while air pollution may not be a major health concern for the general public, it can have negative effects on those who are more vulnerable (sensitive groups).

**Water Quality:** The results indicated a low pH of 5.77 at Chamen Health Center, against the WHO recommendation of 6.5-8.5 range. Nonetheless, the pH improved slightly after aeration; however, it still remains below the recommended WHO standard. Despite, low pH being a common phenomenon observed in the groundwater within the country, excessive consumption of low pH water might have health implications. Therefore, appropriate methods should be employed to raise the pH level to the required WHO Standard. Importantly, it is recommended that further tests should be conducted before the start of construction works as the water obtained onsite might be used for drinking by workers.

**Temperatures:** Temperatures in The Gambia increase from the coast towards the east. The Chamen health center is situated in a region of the country that experiences high temperatures during the dry season particularly when compared to the coastal areas in the western region. The mean maximum temperature during the daytime ranges from 30 °C to 34 °C throughout the year in The Gambia including Chamen. From late November to February, this Chamen area and the whole region experiences cooler weather, with temperatures ranging from 25 °C to 18 °C during the early hours of the day.

**Humidity:** On average, August is the most humid throughout the entire year whereas February is known to be the least humid. Drastic increase in relative humidity is observed from the month of July to September which falls in the rainy season. The average annual percentage relative humidity is calculated to be around 68 %.

Between the years 2010 and 2017, the Kuntaur Local Government Area (KLGA) where Chamen is located, recorded its highest humidity levels in August and September, reaching 78%. In contrast, the lowest humidity was observed in February, with a figure of just 31%. Over this period, KLGA had an average annual relative humidity of approximately 53%, which is lower than the overall average relative humidity for The Gambia

**Flora and Fauna:** There are different tree species present at Chamen Health Centre. The Health Centre has some trees within the health facility premises. The tree species present are 16 neem trees, 5 mango trees and 4 baobab trees. No endangered plant species were observed within the facility premise. No tree felling will be required for the project. The project area comprises land that is already available for development and is not classified under any form of environmental protection, conservation status, or other legal restrictions.

There are problems of animal intrusion at Chamen Health Center. There were lots of cats and dogs and as well as sheep and goats present within the health center at the time of the assessment. Even though, no wildlife species were observed during the field visit at the site, however, there are high possibilities of the existence of reptiles and rodents.

**Demography:** According to the GBOS 2024 Population and Housing Census (PHC), The Gambia had a population of 2.42 million with Females constituting 51 percent as against 49 percent of males. Between 2013 and 2024, The Gambia's annual population growth rate is 2.5 per cent. This shows 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. The Gambia population is predominantly youthful, with 40.8 per cent under 15 years of age and only 3.0 per cent aged 65 and over. This dependent population is likely to put pressure on the working-age population, 15 to 64 years, which accounts for 56.2 per cent of the population. At the LGA level, Banjul and Kanifing have a relatively smaller proportion of youthful population (30.0% and 34.2% respectively) compared to Kuntaur (47.9%) and Basse (46.7%), where nearly half the population is under 15 years.

**Education:** The Gambia Education Sector Policy for 2016-2030<sup>1</sup> 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 programmes to achieve equitable access to quality and relevant education for all including Chamen.

**Health:** The Government of The Gambia prioritizes the citizenry's health and specifically focuses on reducing maternal and newborn deaths, reducing the burden of diseases, and ensuring that the country has a skilled and healthy workforce. Majority of births in Kuntaur LGA occur in health centers (82.5%) including Chamen Health Center. The proportion of births that occurred at home was about 14 per cent. The health indicator at Kuntaur Local Government Area (KLGA) of which Chamen is covered is very low. According the Gambia Demographic Health Survey (GDHS) report 2019-20, 40% of the household's population in KLGA, had improved sanitation facilities, 89% with improved source of drinking water, 24% of married women had unmet need for family planning

**Agriculture:** Chamen, like many communities in The Gambia, has a longstanding agricultural tradition that underpins its economy and sustains the livelihoods of many residents. The region's fertile lands and favorable climate have historically supported diverse farming activities, including the cultivation of staple crops such as groundnuts, rice, millet, sorghum, and maize. Fruits like mangoes, oranges, bananas, and cashews are cultivated, contributing to local consumption and export revenues.

**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, learn, and live healthy and fulfilling lives. In 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 households' total food consumption. It constitutes more than 61 per cent of total food consumption. Chamen has exhibited high poverty rates. In 2003, the headcount poverty rate stood at 56.7%, indicating that over half of the population lived below the poverty line.

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<sup>1</sup> The Gambia Education Sector Policy for 2016-2030. Accessible, Equitable and Inclusive Quality Education for sustainable Development. chrome-extension://efaidnbmnnnibpcajpcgclefindmkaj/http://www.rodra.co.za/images/countries/gambia/policies/Education%20Policy%202016-2030.pdf

This figure slightly increased to 57.5% in 2010 (GBoS 2010), highlighting persistent economic hardships.

## Stakeholder Consultation

Public consultation and stakeholder engagement are fundamental principles of the ESIA process. Stakeholder consultation was carried out through holding series of public meetings in Chamen and neighbouring selected communities, including Sitokoto, Sareh Aplha, Sinchu Makka, Sareh Konteh, and Buduk and with the Technical Advisory Committee (TAC) and the Regional Health Directorate, Central River Region from February 23<sup>rd</sup> to March 10<sup>th</sup>, 2025. Each FGD meeting was attended by 5 to 20 participants. The meetings were organized with the assistance of the Officer In-Charge (OIC) of the Chamen Health Center and Central River Region Health Directorate. In attendance were 84 participants 47 (56%) females and 37 (44%) males). For the KII, 21 persons were interviewed. In total, the perception survey respondents were 82, 80% of service users/patients and 20% of service providers (staff of Chamen health center and RHD). More than half of the respondents (55%) were females and were married (93%).

All the persons of the consulted categories are supportive and are eager about the commencement of the health center renovation/construction project activities

## Analysis of Issues raised during Consultation

Expectations	Fears	Response
The community is eager for the completion	Duration and delay in Project Completion	A correct contract and monitoring plans for project contractors and contingencies to be put in place to ensure project is implemented and completed in time.
Improve accommodation for healthcare workers, thereby increasing staff numbers and retention	Possibility of child labour	Local labour will be prioritized, and contractors will be sensitized and monitored to adhere to national labour laws, especially on child labour prevention.
Increase access to healthcare services for the people of Chamen and its surrounding communities	Sexual abuse and harassment of community members by construction workers	A Code of Conduct (CoC) will be signed by all workers. GBV/SEA prevention training and grievance mechanisms will be enforced.
Enhanced quality and provision of healthcare services as more patients will be attended to	Influx of foreign workers in the community	Community engagement and local hiring will be prioritized to minimize social disruption. Influx management plans will be implemented.
Reduce maternal and child mortality	Sexual exploitation risks due to rising worker income	Awareness campaigns and close coordination with local leaders will help prevent exploitation and safeguard vulnerable groups.
Availability of a scanning facility to help stop women traveling to Bansang which is 50km away	Introduction of outside workers leading to social vices	Sensitization programs will be conducted to minimize cultural friction and promote respectful coexistence.

monthly just for antenatal scanning.	Commercial activities may increase the risk of school dropouts	Local leaders and school authorities will be engaged to ensure that school attendance is monitored.
Increase survival rate of accident victims by meeting the golden hour for emergency care	Lack of adequate sanitary facilities	Contractors will provide adequate temporary sanitation facilities on-site for workers.
Reduce patient waiting time Boost business opportunities during construction and operation	Increase in theft due to poor site security	Site security will be enhanced, and community policing partnerships will be encouraged.
Drive infrastructural and social service development in Chamen and neighboring communities	Interruption of healthcare services during construction	Construction will be phased or temporarily relocated to ensure uninterrupted service delivery.
Improve healthcare worker performance and motivation	Increased waste generation	Waste management plans will be implemented during construction and operation phases.
Promote skills transfer from skilled migrant workers to locals	Increased dust and moist pollution	Watering, dust screens, and good housekeeping practices will be used to control air quality impacts.
Reduce facility congestion and inspection difficulties Increase confidence and trust in health services	Construction may cause water shortages	Coordination with the water utility will ensure uninterrupted water supply or temporary alternatives (e.g., water tanks).
Make the facility more attractive to staff and users		
Reduce external referrals		

## Findings of the ESIA

The consultations yielded positive feedback from the stakeholders, expressing full support for the proposed construction/renovation of the district health hospital. The potential positive impacts associated with the implementation and operations of the proposed project include increase/improve access to quality healthcare, staff motivation and retention, reduced patient referrals, enhancement of the performance of health workers, reduced patient waiting, create employment opportunities, source of income from the sale of construction materials, etc. Some of the key findings of the consultation are as follows:

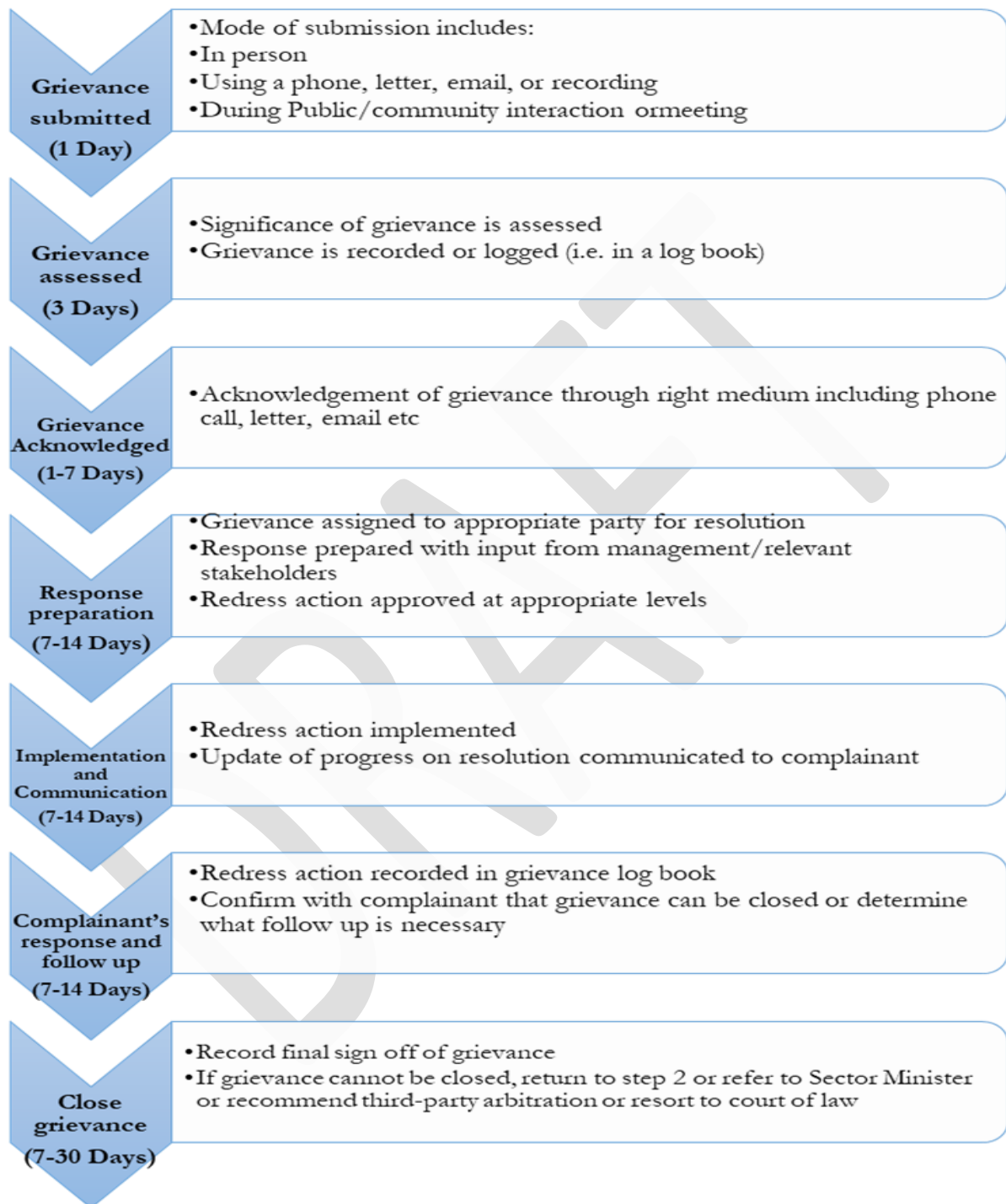
- 93% of the total respondents were aware of the health facility's proposed renovation activities. However, the project awareness level was higher among health facility (HF) users (9%)

- 79% of users and staff rated the healthcare facilities as poor, while more than half (51%) rated them as fair. For the healthcare services, 77% and 13% of the users and staff rated the service delivery as poor and fair, respectively
- Up to 98% of the respondents expressed that the project is anticipated to positively impact their livelihoods, of which 98% were among Health Facility Users (HFU) and 94% among Health Facility Staff (HFS). More than half (66%) of the respondents think the project will not impact health service delivery, 59% being HFU, and 81% HFS.
- More than 70% of the respondents perceived the healthcare facility services and facilities condition as poor.
- The majority of the respondents reported potential positive impacts as easy access to healthcare services (76%), improved healthcare services (76%), enhanced performance of healthcare workers (65%), safe and health working environment (60%), better healthcare facilities (56%), improved public health (54%), employment creation (32%), and income generation (27%).
- For the potential negative impacts that the project is likely to cause were reported as noise pollution (59%), waste generation (49%), dust pollution (41%), accidents and injuries to workers (35%), soil pollution/contamination (11%), gaseous emission from vehicles and heavy machinery (10%), and water pollution/contamination (9%).

### **Grievance Redress Mechanism**

It should be expected that grievances or disputes/complaints could arise in the implementation of the project. The Grievance Redress Mechanism (GRM) will provide stakeholders with a platform to address concerns about project impacts. It will adhere to international standards and follow a process for receiving, registering, investigating, and responding to complaints accordingly. Different available communication methods will be used to ensure that the grievance process is accessible and culturally appropriate. The NSPA PIU safeguard team will supervise the process, ensuring that all grievances are addressed respectfully and documented properly.

## Procedure for Grievance Redress



## GRM Implementation Budget Summary

Headings	Unit	Quantity	Unit cost (USD)	Total cost (USD)
Reproduction and distribution of forms	Lump sum	1	1,000	1,000
Organization of GRM awareness and public campaigns in project area	Session	6	2,000	12,000
Training of GRMC on the GRM specific to center construction/renovation.	Session	1	3,000	3,000
Support for the operating of complaints management committees	Lump sum	1	10,000	10,000
<b>Total cost of the implementation of GRM</b>				<b>26,000</b>

## Environmental and Social Risks and Mitigation Measures during Project Implementation Phases

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
<b>Pre-Construction/Renovation Phase</b>				
Site preparation and mobilization of equipment/machinery movements	Air (dust & gaseous emissions) and noise pollution affecting health and property Traffic accidents due increase traffic of trucks and light vehicles	Medium	<ul style="list-style-type: none"> <li>○ Water spraying within the facility to suppress dust</li> <li>○ Cover or wet construction materials such as sand, gravel to prevent dust pollution during transportation.</li> <li>○ Ensure that all vehicles involved in the transport of construction material and staff, and machinery used in construction is properly maintained and services.</li> <li>○ Reduce the idling of vehicles that may occur and thus reduce the gaseous emission from vehicles in the area.</li> <li>○ Reduce vehicle speed within the facilities.</li> </ul>	Contractor and NEA
<b>Construction/Renovation Phase</b>				
Site clearing	Interference with the physical setting	Medium	<ul style="list-style-type: none"> <li>○ Ensure there is minimal disturbance to the topography of the facility area; including the</li> </ul>	Contractor

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
			<ul style="list-style-type: none"> <li>○ local drainage Restoration shall be undertaken to ensure that the original setting is as much as possible retained;</li> <li>○ Ensure proper demarcation of the health facility area to be affected by the new construction/renovation works to limit vegetation removal from the health facilities,</li> <li>○ Ensure retention of trees close to the site to the extent possible and</li> <li>○ Re-vegetate the facility area in the disturbed sections and surrounding environment after completion of works.</li> </ul>	
Renovation/construction activities (All components)	Air pollution affecting health and property	Medium	<ul style="list-style-type: none"> <li>○ Access to pre-construction sites by the public must be prohibited by placing appropriate signs, barriers and security attendance.</li> <li>○ Workers must be provided with personal protective gear.</li> </ul>	

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
			<ul style="list-style-type: none"> <li>○ Trucks transporting earth material must be covered to prevent dust and flying debris.</li> <li>○ Provide appropriate PPE (dust masks, gloves etc.) to workers and enforce on use,</li> <li>○ All works must be carried out during daytime to reduce noise nuisance. Contractors must be warned in their agreement clauses to address the ESMP.</li> </ul>	
Use of equipment and machinery	Noise emissions from machineries and vibration from construction activities	Medium	<ul style="list-style-type: none"> <li>○ Contractor must determine the time in the day to engage in activities that will likely cause very loud and prolong noise nuisance in the neighborhood.</li> <li>○ Noise suppression measures must be applied to all construction equipment such as;</li> <li>○ Install portable barriers to shield compressors and other small stationary equipment, cover engine of generators where necessary;</li> </ul>	Contractor

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
			<ul style="list-style-type: none"> <li>○ Use of quiet equipment (i.e. equipment designed with noise control elements such as those that utilize electricity as opposed to those which utilize diesel or petrol) and ensure all the equipment used on site are well maintained and in good working condition,</li> <li>○ Limit pickup trucks and other small equipment to a minimum idling time and observe a common-sense approach to vehicle use, and encourage workers to shut off vehicle engines whenever possible;</li> <li>○ Provision of appropriate PPE (hearing protection - ear muffs/plugs) to the workers and any other person visiting the construction and renovation site especially in work areas with heightened noise levels,</li> <li>○ Limit construction activities causing extreme noise</li> </ul>	

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
			<p>during day time, between 8am and 7pm;</p> <ul style="list-style-type: none"> <li>○ Consider manual labour-based construction methodologies; and</li> <li>○ Construction workers should be made aware of the sounding residents and advised to limit verbal and other forms of noise.</li> </ul>	
Use of equipment and machinery	Visual disturbance from unpleasing landscape	Low	<ul style="list-style-type: none"> <li>○ Sites must be cleared off equipment and machinery after all Project activities.</li> <li>○ All waste and unused material will be removed for management according to the waste management plan in the C-ESMP.</li> <li>○ Stockpiles of materials should be organized and located at strategic locations within the specified facility properties where the works will be.</li> </ul>	Contractor
	Effects of public health and safety risks	Medium	<ul style="list-style-type: none"> <li>○ Install warning and safety signs - Integrate staff</li> </ul>	Contractor

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
			training, especially drivers on defensive driving <ul style="list-style-type: none"> <li>○ Forbid access to the sites</li> <li>○ Ensure supervision of workers</li> <li>○ Do not employ children</li> <li>○ Create awareness on GBV, SEA/H, VAC and penalties for non-compliance</li> <li>○ Provide information on the use of the GRM</li> </ul>	
	Effects of Occupational health and safety risks	Medium	<ul style="list-style-type: none"> <li>○ Comply with OSH rules and regulations as stipulated in the Labour Act, 2007</li> <li>○ Provide training and safety information to all workers and visitors</li> <li>○ Provide on-the-job training and knowledge on procedures to reduce risks</li> <li>○ Workers should be trained in good practices and contingency measures prior to the start of works.</li> <li>○ Provide proper conditions of work, including access to toilets, drinking water and waste disposal facilities.</li> </ul>	Contractor, Labour Department

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
			<ul style="list-style-type: none"> <li>○ Implement a health and safety program to effectively identify and correct risky conditions routinely, protect the workers and public from hazards, provide personal protective equipment and emergency equipment such as fire extinguishers and first aid kits plus training on their use.</li> <li>○ Record and report incidents and near-misses</li> <li>○ Where possible, use local workers</li> <li>○ Educate workers on the risks and prevention methods of communicable diseases; carry out surveillance.</li> </ul>	
	Interruption of the services	Medium	<ul style="list-style-type: none"> <li>○ Healthcare services disruption during the renovation activities will be mitigated by making advanced arrangements for spaces for the continuity of services</li> </ul>	NSPA, Regional Health Directorate, Contractor

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
	Effects of renovation/construction-related wastes	Medium	<ul style="list-style-type: none"> <li>○ Prepare waste management plan as part of the C-ESMP to be implemented at the site (storage, provision of bins, site clean-up, bin clean-out schedule, etc.) before commencement of any works, which should promote waste minimization and recycling.</li> <li>○ Encourage efficient use of materials to avoid and minimize waste production as much as possible.</li> <li>○ Ensure waste is recycled/reused before opting to dispose of</li> <li>○ Reuse waste plastic materials (deform bottle containers) as feedstock for plastic product production.</li> <li>○ Organic waste generated can be composted and use as manure.</li> <li>○ Designate temporal waste/garbage holding areas at site.</li> </ul>	Contractor, Kuntaur Area Council, NEA

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
			<ul style="list-style-type: none"> <li>○ Appropriate storage, handling and management of clinical waste</li> <li>○ Use of waste receptacles that encourage segregation to hold waste on site before its collection</li> <li>○ Use of durable, long-lasting materials that shall not need to be replaced often.</li> <li>○ Engage the Area Council to dispose of hazardous waste and have waste destruction certificate and waste transfer notes.</li> <li>○ Waste disposal by burning shall not be encouraged/permitted and signage should be erected.</li> <li>○ NEA to identify waste disposal sites with strict adherence to health and safety of the environment</li> <li>○ Prohibit burning of solid waste material at project site ( to identify designated dump site).</li> </ul>	

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
	Accidental spills and leakages	Low	<ul style="list-style-type: none"> <li>○ Temporal storage on site of all hazardous /toxic substance will be in safe containers, labelled with details of composition, properties and handling information including safety data sheets</li> <li>○ Ensure proper storage of chemicals / materials, and if possible, in secondary containers just in case of accidental puncturing and away from storm water runways or exposure to weather elements such rains</li> <li>○ Ensure proper handling, storage and disposal of waste oil, lubricants, oil filters and fuel from vehicles. Hazardous waste would be contained and properly disposed by licensed hazardous waste handler</li> <li>○ Provide and use appropriate PPE (medical mask, gowns, heavy duty gloves, eye</li> </ul>	Contractor, and NEA

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
			<p>protection and boots) to workers on site</p> <ul style="list-style-type: none"> <li>○ Have spill prevention and response procedure including all necessary equipment and that of workers are trained.</li> </ul>	
	Noise emissions from machineries and vibration from construction activities	Medium	<ul style="list-style-type: none"> <li>○ Contractor must determine the time in the day to engage in activities that will likely cause very loud and prolong noise nuisance in the neighborhood.</li> <li>○ Noise suppression measures must be applied to all construction equipment such as;</li> <li>○ Install portable barriers to shield compressors and other small stationary equipment, cover engine of generators where necessary;</li> <li>○ Use of quiet equipment (i.e. equipment designed with noise control elements such as those that utilize electricity as opposed to those which utilize diesel or</li> </ul>	Contractor Safeguard Officer,

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
			<p>petrol) and ensure all the equipment used on site are well maintained and in good working condition,</p> <ul style="list-style-type: none"> <li>○ Limit pickup trucks and other small equipment to a minimum idling time and observe a common-sense approach to vehicle use, and encourage workers to shut off vehicle engines whenever possible;</li> <li>○ Provision of appropriate PPE (hearing protection - ear muffs/plugs) to the workers and any other person visiting the construction and renovation site especially in work areas with heightened noise levels,</li> <li>○ Limit construction activities causing extreme noise during day time, between 8am and 7pm;</li> <li>○ Consider manual labour-based construction methodologies; and</li> </ul>	

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
			<ul style="list-style-type: none"> <li>○ Construction workers should be made aware of the sounding residents and advised to limit verbal and other forms of noise.</li> </ul>	
	Extraction and use of construction materials	Low	<ul style="list-style-type: none"> <li>○ Construction materials should be sourced from registered and NEA licensed quarry and sand mining within the project area</li> <li>○ Designate a place for the extraction of building materials within the region</li> </ul>	Contractor, NEA Regional Officer
	Effects of increased water demand for mixing materials, wetting surfaces or cleaning/curing completed structures	Low – Medium	<ul style="list-style-type: none"> <li>○ Ensure that water is used efficiently at the site by sensitizing construction staff to avoid irresponsible water use. Alternatively, the contractor should source own water by drilling a borehole specifically for the construction/ renovation works;</li> <li>○ Encourage prompt maintenance of water pipeline leaks, and</li> </ul>	Contractor, Department of Water resources and Chamen Health Center Management

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
			<ul style="list-style-type: none"> <li>○ Upon commissioning, the health center management will be required to supply water to the facility at its cost for normal operations. The area is not connected to the national water grid. It is recommended that water conserving taps that turn-off automatically when water is not being used be installed at the facility coupled with waterless urinals and cisterns of low water volume use.</li> </ul>	
Recruitment of workers	Labour influx	Medium	<ul style="list-style-type: none"> <li>○ Implement a no hiring ‘at the gate’ policy when hiring construction workforce: It will be made clear that there will be no recruitment of workforce and people “at the gate”, and the formal recruitment process will be clearly advertised, so as to discourage settlement of opportunistic demands and tension.</li> <li>○ Hire from within the locality, hence will limit</li> </ul>	Contractor, NSPSASafeguard Officer and Regional Social Welfare Officer.

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
			<p>movement or very short distances from their homes;</p> <ul style="list-style-type: none"> <li>○ Effective contractual obligations for the contractor will be done with workers to adhere to the mitigation of risks against labour influx,</li> <li>○ Keep proper and updated records of the labourers on site (including Age, Gender, and Resident Community) while avoiding child and forced labour;</li> <li>○ Fair treatment, non-discrimination and equal opportunity for all labourers.</li> <li>○ All workers are to sign a code of conduct that clearly discourages labour influx</li> <li>○ Ensure that workers and the community are informed about the Grievance Redress Mechanism (GRM)</li> <li>○ GBV focal person at Chamen district centers should be part of the GBV team</li> </ul>	

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
	Human rights and gender inequalities / violation	Low – Medium	<ul style="list-style-type: none"> <li>○ During the recruitment of workers, there will be no discrimination against one gender either by design or oversight;</li> <li>○ Ensure the provision of the necessary basic sanitary facilities for gender – provide separate sanitary facilities for each gender;</li> <li>○ Ensure mechanisms are in place for reporting and addressing gender discrimination incidences and other human rights violations.</li> <li>○ Treat women, children and men with respect;</li> <li>○ Report any violations of the CoC to workers’ representative, HR or grievance redress committee and ensure that no employee who reports a violation of the CoC in good faith will be punished in any way; and</li> </ul>	Contractor, Health Social Welfare Officer

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
			<ul style="list-style-type: none"> <li>○ Comply with the National Gender and Equality Act, 2011.</li> </ul>	
	Gender-based violence (GBV), Sexual exploitation and abuse (SEA), Violence against Children (VAC)	Medium	<ul style="list-style-type: none"> <li>○ Develop a code of conduct that encompasses clear warning to workers on any SEA/SH, to be signed by all contractor workers on site</li> <li>○ project staff must adhere to project CoC, which encompasses clear warning to workers on any SEA/SH and to be signed by every worker on site;</li> <li>○ Mechanisms to be in place where workers are free to report any sexual advances and abuse to the senior management without fear of intimidation;</li> <li>○ Share information with the community on the GRM;</li> <li>○ Share information on GBV/SEA/SH services around/near the facility for survivors' support</li> <li>○ Ensure that staff are sensitized on</li> </ul>	Contractor, NSPA, Health Social Welfare Office

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
			GBV/SEA/SH risk management.	
	Grievances arising from construction activities	Medium	<ul style="list-style-type: none"> <li>○ Putting in place grievance mechanisms</li> <li>○ Assigning a contractor-based GRM Focal Person</li> <li>○ Putting in place channels to allow people to the complaint- e.g. Telephone, Email, registers, WhatsApp platform for workers, suggestion box, among others</li> <li>○ Raising awareness among all stakeholders on the existing GRM and sensitizing them to the need to register their dissatisfaction with the contractor or the facility.</li> <li>○ Resolving complaints within the project timeline (acknowledging within seven days and resolving within 21 days or as soon as possible</li> <li>○ Immediately after reception of GBV/SEA/SH complaints refer the survivors to GBV services</li> </ul>	Contractor, NSPA and Regional Health Directorate

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
			<p>for assistance and inform the PIU and the World bank within 24 hours of reception of GBV/SEA/SH complaints</p> <ul style="list-style-type: none"> <li>○ Ensure that complaints reports using the annexed formats are reported to the PMT monthly</li> </ul>	
	Child labour	Low	<ul style="list-style-type: none"> <li>○ Develop and implement a Children Protection Strategy that will ensure minors are protected against negative impacts associated with the Project, including on SEA/SH.</li> <li>○ All staff must sign, committing themselves to protecting children, a contract that clearly defines what is and is not acceptable behavior</li> <li>○ Children under the age of 18 years should not be hired on-site as provided by the Child Rights Act (Amendment) 2014.</li> </ul>	Contractor, Health Social Welfare Office and Regional Health Directorate

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
			<ul style="list-style-type: none"> <li>○ Wherever possible, ensure that another adult is present when working in the proximity of children.</li> <li>○ Not to invite unaccompanied children to workers' homes, unless they are at immediate risk of injury or in physical danger.</li> <li>○ Refrain from physical punishment or discipline of children).</li> <li>○ Refrain from hiring children for domestic or other labor, which is inappropriate given their age or developmental stage, which interferes with their time available for education and recreational activities, or which places them at significant risk of injury.</li> <li>○ Comply with all relevant local legislation, including labor laws about child labor,</li> </ul>	
	Labor disputes	Medium	<ul style="list-style-type: none"> <li>○ Fair terms and conditions shall be applied for project workers (guided by relevant</li> </ul>	Contractor, NSPA and Department of Labour

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
			labour laws), and the project LMP <ul style="list-style-type: none"> <li>○ The project shall also have GRMs for project workers (direct workers and contracted workers) to address their workplace grievances promptly;</li> <li>○ Project shall abide by the provision of the project LMP, and</li> <li>○ The project shall respect the workers' right to labor unions and freedom of association;</li> <li>○ Ensure equal compensation for excess working hours</li> </ul>	
<b>Operational Phase</b>				
Health care Facility Operation	Improper Healthcare waste management	Medium	<ul style="list-style-type: none"> <li>○ The health center shall prepare, operate, and maintain a Health Care Waste Management Plan (HWMP) that is adequate for the scale and type of activities and identifies hazards consistent with the AfDB OS guidelines for</li> </ul>	Chamen Health Center Management, Kuntaur Area Council and Regional Health Directorate

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
			<p>Health Facilities and WHO guidelines (section 4.5.2).</p> <ul style="list-style-type: none"> <li>○ Waste should be identified and segregated at the point of generation. Non-hazardous waste, such as paper, cardboard, glass, aluminum, and plastic, should be collected separately and recycled. Food waste should be segregated and composted. Infectious and/or hazardous wastes should be identified and segregated according to their category using the colour-coded system.</li> <li>○ Prevention and minimization of waste production (integrating systems and practices to avoid waste creation into facility design and management, equipment and consumables purchasing).</li> <li>○ Reuse or recycling of wastes to the degree feasible</li> </ul>	

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
			<ul style="list-style-type: none"> <li>○ Seal and replace waste bags and containers when they are approximately three-quarters full. Full bags and containers should be replaced immediately.</li> <li>○ Identify and label waste bags and containers properly before removal.</li> <li>○ Transport waste to storage areas on designated trolleys/carts, which should be cleaned and disinfected regularly. Never transport infectious and non-infectious waste together.</li> <li>○ Instructions on handling infectious waste from isolation and treatment centers should be made available to the waste handlers.</li> <li>○ Ensure the safety and health of the healthcare waste handlers through the provision of appropriate PPEs, vaccination against Hepatitis B and tetanus, and</li> </ul>	

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
			<p>post-exposure prophylaxis (PEP).</p> <ul style="list-style-type: none"> <li>○ Waste storage areas should be located within the center and sized to the quantities of waste generated,</li> <li>○ Unless refrigerated storage is possible, storage times between generation and treatment of waste should not exceed 48 hours during cool season, and 24 hours during the hot season.</li> <li>○ Packaging containers for sharps should be puncture-proof</li> <li>○ Ensure microwaved and shredded waste are secured to prevent pieces of shredded waste from scattering as particles during transportation to the final disposal site.</li> <li>○ Routine monitoring of shredded waste for quality assurance of the de-contamination.</li> </ul>	

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
			<ul style="list-style-type: none"> <li>○ Properly transport treated waste to a disposal facility (i.e. the inert waste to a sanitary landfill)</li> </ul>	
	Risk of fire outbreak	Medium	<ul style="list-style-type: none"> <li>○ Provide sand buckets and fire extinguishers at strategic positions within the center and ensure servicing.</li> <li>○ Stand-by generator operators shall have basic training in fire control.</li> <li>○ Fire alarm cards containing emergency telephone numbers should be well displayed at the hospital.</li> <li>○ Undertake regular fire drills targeting all center staff to gauge the levels of preparedness, test emergency response, and use the results to improve the response mechanism.</li> <li>○ Provision of a fire assembling point</li> </ul>	Chamen Health Center Management, and the Fire and Rescue Department
	Occupational Safety and Health Risks for Healthcare Workers	Medium	<ul style="list-style-type: none"> <li>○ Update and implement center emergency response plan.</li> </ul>	Chamen Health Center Management,

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
			<ul style="list-style-type: none"> <li>○ Ensure identification of risks (Job Risk Assessment) and instituting proactive measures,</li> <li>○ Train the healthcare workers on the potential OHS risks relevant to their work; of particular interest are the operators of the generators and equipment, who must be trained on the contents of the health and safety plan, including on the general functioning of the treatment facility, including heat recovery and flue-gas cleaning technologies, where appropriate; Health, safety and environmental implications of treatment operations; Technical procedures for operation of the plant; Recognition of abnormal or unusual conditions; Emergency response, in case of equipment failures and alarms; Maintenance of the</li> </ul>	and Regional Health Directorate

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
			<p>plant and record keeping; Surveillance of the final waste treated product.</p> <ul style="list-style-type: none"> <li>○ Provision of adequate and required personal protective equipment (PPE) to health workers and enforce on use. This includes a single-use medical mask, gown, Apron, eye protection, boots or closed shoes.</li> <li>○ Provision of a system for disinfection of the multi-use PPE if not available.</li> <li>○ Implement a systemic risk management plan comprising risk prevention, evacuation of accident victims, evaluation and improvement measures.</li> <li>○ Limit access to the waste treatment area only to authorized persons;</li> <li>○ Warning and safety signage to be placed at the areas within the microwave site;</li> <li>○ All personnel involved with the HCWM process should</li> </ul>	

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
			<ul style="list-style-type: none"> <li>○ be subjected to medical surveillance;</li> <li>○ The waste holding area/chambers should be well sheltered from direct rainfall, sunlight, and strong winds but should be adequately aired;</li> <li>○ All machinery and equipment involved in the waste treatment and disposal process should be washed and disinfected before leaving site;</li> <li>○ Thorough, complete and up to date records on healthcare waste management, incidents and accidents and grievances should be kept.</li> <li>○ Provide adequately stocked first aid kit to be placed at strategic locations to allow ease of access by workers on-site;</li> </ul>	
	Environment pollution due to solid waste generation	Low – Medium	<ul style="list-style-type: none"> <li>○ The Chamen Health Center Management, and Regional Health Directorate shall</li> </ul>	Chamen Health Center Management,

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
			<p>prepare a waste management plan to be implemented at the health facility (storage, provision of bins, site clean-up, bin clean-out schedule, etc.) to promote waste minimization and recycling.</p> <ul style="list-style-type: none"> <li>○ The Chamen Health Center Management, and Regional Health Directorate shall be responsible for handling and disposal of all waste originating from the waste treatment microwave area,</li> <li>○ Encourage efficient use of materials to avoid and minimize waste production as much as possible.</li> <li>○ Designate temporal waste/garbage holding areas at the site.</li> <li>○ Use of waste receptacles that encourage segregation to hold waste on-site before collection.</li> <li>○ Use durable, long-lasting materials that do not need to be replaced often.</li> </ul>	and Regional Health Directorate

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
			<ul style="list-style-type: none"> <li>○ Engage NEMA registered waste contractor to dispose of hazardous waste and have waste destruction certificate and waste transfer notes.</li> <li>○ Waste disposal by burning shall not be permitted, and signage should be erected.</li> <li>○ Depending on the service level and tasks of the hospital, the wastewater might contain chemicals, pharmaceuticals and contagious biological agents, and might even contain radioisotopes. A major part of liquid chemical waste is disposed of via the sink. The most important chemicals in center wastewater are anesthetics, disinfectants, chemicals from laboratory activities, developer and fixer solutions from photographic film processing, and iodinated X-ray contrast media. Note that sludge and sewage from</li> </ul>	

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
			<p>healthcare facilities generated by a basic wastewater-management system should never be used for agricultural or aquaculture purposes. Effluents from the basic treatment should not be discharged into water bodies used nearby to irrigate fruit or vegetable crops, produce drinking water, or for recreational purposes.</p>	
	Improper waste disposal	Medium	<ul style="list-style-type: none"> <li>○ Ensure regular monitoring of solid-liquid waste management practices and waste treatment;</li> <li>○ Ensure proper management of pharmaceutical waste by engaging a consultant to develop measures and guidelines for the hospital;</li> <li>○ To ensure proper sewage management;</li> <li>○ Install appropriate drainage channels within the health facility;</li> </ul>	Chamen Health Center Management, and Regional Health Directorate

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
			<ul style="list-style-type: none"> <li>○ The center management should undertake regular assessments of waste generation quantities and categories to facilitate waste management planning and investigate opportunities for waste minimization continuously,</li> <li>○ Separate residual chemicals from containers and dispose of the containers to reduce the generation of secondary contamination, especially wastewater.</li> <li>○ Ensure the healthcare waste generated in the center are disinfected, treated, and safely disposed of appropriately</li> </ul>	
	Increased energy use	Medium	<ul style="list-style-type: none"> <li>○ Use load shedding on the lighting system and other equipment to avoid creating peaks in demand,</li> <li>○ Turn lights off using automated sensors or a building automation system,</li> </ul>	Chamen Health Center and NAWEC

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
			<ul style="list-style-type: none"> <li>○ Install a sub-meter throughout to monitor its power usage and</li> <li>○ Install solar energy resources to provide additional security lighting within the waste management area in case of power outages</li> </ul>	
	GBV/SEA/SH	Medium	<ul style="list-style-type: none"> <li>○ Continuous sensitization of staff on SEA/SH risk management</li> <li>○ Provision of GRM channels for reporting SEA/SH cases</li> <li>○ Ensuring that the GBV/SEA/SH one pager is placed on strategic points of the facility</li> <li>○ Document available GBV/SEA/SH referral pathways for survivors' information and support</li> <li>○ Develop an Action plan of all GBV/SEA/SH incidences to avoid presence</li> <li>○ Ensure the facility is well light to avoid hiding places for SEA/SH perpetrators</li> </ul>	Chamen Health Center Management, and Regional Health Directorate

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
			<ul style="list-style-type: none"> <li>○ Provision of separate helping places for men and women</li> <li>○ To include prohibition of GBV/SEA in Employees Code of conduct e.g. discouraging the use of inappropriate language or behavior, harassing, abusive, sexually provocative, demeaning or culturally inappropriate language towards women or children.</li> <li>○ Prohibiting sexual activity with children under 18 years—including through digital media and promoting respect to the rule of law in respect to children’s rights.</li> </ul>	
	Security and conflict	Low	<ul style="list-style-type: none"> <li>○ Ensuring that security personnel undertake adequate surveillance</li> <li>○ Stock taking of the equipment and accessories to ensure there is no loss</li> <li>○ Ensuring proper fencing and lighting arrangement.</li> </ul>	Chamen Health Center Management, and Regional Health Directorate

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
			<ul style="list-style-type: none"> <li>○ Improve security surveillance e.g. by installing CCTV cameras at a strategic point to enhance security, ensuring proper check-in and check-out arrangements.</li> <li>○ Consider public police reinforcement in incidences of escalated insecurity.</li> </ul>	
<b>Decommissioning Phase</b>				
Equipment/ Machine decommissioning			<ul style="list-style-type: none"> <li>○</li> </ul>	
Demolition Wastes	Soil pollution/air pollution/water resources pollution	Medium	<ul style="list-style-type: none"> <li>○ Use an integrated solid waste management system i.e. through the hierarchy of options 1. Source reduction 2. Recycling, 3 Composting and re0use 4. Combustion. 5 Sanitary landfilling</li> <li>○ Provide appropriate waste skips that encourage waste segregation</li> <li>○ Ensure proper waste collection, storage, treatment and disposal of waste generated</li> </ul>	Chamen Health Center Management, and Regional Health Directorate, and NEA

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
			<ul style="list-style-type: none"> <li>○ Donate reusable demolition waste to charitable organizations, individuals and institutions</li> <li>○ Properly dispose of the demolition debris when it is no longer considered useful</li> </ul>	
	OHS/ Public Safety	Medium	<ul style="list-style-type: none"> <li>○ The decommissioning contractor should have a well-developed EHS plan for the decommissioning exercise with supervision of an EHS Officer.</li> <li>○ A qualified EHS officer should be stationed at the decommissioning site during the entire decommissioning period to ensure compliance with the health and safety plan.</li> <li>○ Ensure the workers are provided with adequate and appropriate PPE (dust mask, ear plugs, helmets, gloves) on-site and enforce the use</li> <li>○ While working at height, provide safety harnesses and scaffolding equipment</li> </ul>	Chamen Health Center Management, and Regional Health Directorate, and NEA

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
			<ul style="list-style-type: none"> <li>○ Fence off/ barricade the site before demolition to minimize health and safety risks</li> <li>○ Restrict demolition activities during daytime between 0080hrs to 1600 hrs.</li> <li>○ Provide a well-stocked first aid kit and ensure one of the workers can administer first aid.</li> </ul>	
	Grievances arising from project decommission	Medium	<ul style="list-style-type: none"> <li>○ Ensuring that there is an operational GRM that is responsive to stakeholders' concerns</li> <li>○ Inclusive stakeholder engagement to raise awareness of the project decommissioning and clarify issues and consider the input of the affected and interested parties in the process</li> <li>○ The center should continue to create awareness about the GRM mechanism in place to all workers and patients.</li> </ul>	Chamen Health Center Management, and Regional Health Directorate

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
			<ul style="list-style-type: none"> <li>○ Ensure appropriate and mutually acceptable redress actions are identified and implemented to the satisfaction of complainants.</li> <li>○ Ensuring that there is a workable mechanism for opening complaints reported through suggestion boxes</li> <li>○ Document and report on all sub-project-related grievances</li> </ul>	

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## **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 implementing the mitigation measures are presented in the Table below.

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## ESMP Guidelines for Mitigation Measures Implementation Phases

Activities	Impacts	Indicators	Means of verification	Timelines (preparation, construction, exploitation, Closing phases)	Responsible for			Implementation Cost (US\$)
					Execution	Monitoring	Aftercare	
<ul style="list-style-type: none"> <li>○ Site clearing and preparation.</li> <li>○ Civil during renovation.</li> <li>○ Removal of vegetation</li> <li>○ Movement of machinery and vehicles</li> </ul>	Air Quality	<ul style="list-style-type: none"> <li>● Systematic watering of site and spoil (at least twice a day in the dry season)</li> <li>● Number of covered trucks</li> <li>● Up-to-date maintenance booklet for machinery</li> <li>● Waste tracking form</li> <li>● Number of cases where speed limits were exceeded</li> <li>● Percentage of staff wearing the correct PPE</li> </ul>	Report of air sample analysis	Renovation and operation phase	Project contractor	NSPA PIU, NEA ESIA Working Group	Health Facility Management	2,000
<ul style="list-style-type: none"> <li>○ Use of sanitary facilities by staff</li> <li>○ Run-off water</li> <li>○ Oil spill</li> <li>○ Solid waste and effluent discharge</li> </ul>	Water Quality	<ul style="list-style-type: none"> <li>● Level of compliance of discharges (pH, COD, BOD, SS, coliforms, etc.) with the applicable water quality standard</li> <li>● Existence of an HSE manual and its implementation</li> <li>● Level of compliance with EHS guidelines</li> <li>● Existence of an approved and implemented waste</li> </ul>	Reports of water sample analysis	Renovation and operation phase	Project contractor	NSPA 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			Implementation Cost (US\$)
					Execution	Monitoring	Aftercare	
<ul style="list-style-type: none"> <li>○ Presence of workers on site</li> <li>○ Onsite civil work/floor concrete</li> <li>○ Painting and coating</li> <li>○ Disposal of construction / renovation waste</li> <li>○ Domestic and sanitary waste generated by workers</li> <li>○ Biomedical waste</li> </ul>	Waste generation	<ul style="list-style-type: none"> <li>● Existence of an approved and implemented WMP</li> <li>● Waste tracking slip</li> <li>● Existence of labelled bins for waste collection</li> <li>● Existence of clean-up kit on site</li> <li>● Effectiveness of the waste recovery and treatment contract</li> </ul>	Records on waste management	Renovation and operation phase	Project contractor	NSPA PIU, NEA ESIA Working Group, Regional Health Directorate	Health Facility Management	3,000

Activities	Impacts	Indicators	Means of verification	Timelines (preparation, construction, exploitation, Closing phases)	Responsible for			Implementation Cost (US\$)
					Execution	Monitoring	Aftercare	
<ul style="list-style-type: none"> <li>○ All civil works</li> <li>○ Material transportation and handling</li> <li>○ Working conditions</li> <li>○ Workers' behaviour</li> </ul>	Occupational Health and Safety (increased accident potential)	<ul style="list-style-type: none"> <li>• Existence of a Workforce Management Plan</li> <li>• Number of awareness campaigns conducted among the population</li> <li>• Number of accident cases involving site activities</li> <li>• Number of workers equipped with PPE</li> <li>• Number of workers made aware of safety measures</li> <li>• Level of compliance with health and safety requirements of the labor code</li> <li>• Level of compliance of collective protection equipment with project risks</li> <li>• Effectiveness of the implementation of mitigation measures</li> </ul>	Report on work related accidents, injuries, near misses and illnesses.	Renovation and operation phase	Project contractor	NSPA PIU, NEA ESIA Working Group, Regional Health Directorate	Health Facility Management	3,000
		<ul style="list-style-type: none"> <li>• Number of training and awareness sessions on occupational health and safety</li> <li>• Existence of first aid kits at work sites</li> <li>• Effectiveness of posting of safety instructions</li> <li>• Existence of an HSE agent on site</li> </ul>						

Activities	Impacts	Indicators	Means of verification	Timelines (preparation, construction, exploitation, Closing phases)	Responsible for			Implementation Cost (US\$)
					Execution	Monitoring	Aftercare	
<ul style="list-style-type: none"> <li>○ Recruitment, All works onsite.</li> <li>○ Presence of workers</li> </ul>	In-migration (Risk of conflicts related to the use of labor )	<ul style="list-style-type: none"> <li>● Number of local community workers recruited</li> <li>● Number of skilled workers from the community recruited by the project</li> <li>● Conflict prevention and management committee established and functioning</li> <li>● Number of workers with PPE</li> <li>● Level of compliance with the requirements of the labor code in terms of health and safety at work</li> <li>● Number of workers who have benefited from capacity building</li> </ul>	Record of employees hired	Renovation and operation phase	Project contractor	NSPA PIU, NEA ESIA Working Group, Regional Health Directorate	Health Facility Management	5,000

Activities	Impacts	Indicators	Means of verification	Timelines (preparation, construction, exploitation, Closing phases)	Responsible for			Implementation Cost (US\$)
					Execution	Monitoring	Aftercare	
<ul style="list-style-type: none"> <li>○ Interaction of workforce with community members</li> </ul>	Gender-based violence (GBV), Sexual exploitation and abuse (SEA), Violence against Children (VAC)	<ul style="list-style-type: none"> <li>• Existence of a complaint management mechanism that is sensitive to GBV, SEA, SH</li> <li>• Number of people sensitized on GBV (disaggregated by sex)</li> <li>• Number of awareness sessions for staff on SEA/SH and the content of the code of conduct</li> <li>• Number of awareness raising campaign for communities in GBV/SEA/SH/VAC</li> <li>• Number of complaints received and treated</li> <li>• Percentage of SEA/SH related complaints that had been referred to GBV service providers for assistance</li> <li>• Percentage of all staff and workers who signed the code of conduct</li> </ul>	GBV, SEA, SH Complaint report  Report on GBV/SEA/SH sensitization	Renovation and operation phase	Project contractor	NSPA PIU, NEA ESIA Working Group, Civil Society	Health Facility Management	8,000

Activities	Impacts	Indicators	Means of verification	Timelines (preparation, construction, exploitation, Closing phases)	Responsible for			Implementation Cost (US\$)
					Execution	Monitoring	Aftercare	
		<ul style="list-style-type: none"> <li>• Existence of a complaint management mechanism that is sensitive to GBV, SEA, SH</li> <li>• Number of people sensitized on GBV (disaggregated by sex)</li> <li>• Number of awareness sessions for staff on SEA/SH and the content of the code of conduct</li> <li>• Number of awareness raising campaign for communities in GBV/SEA/SH/VAC</li> <li>• Number of complaints received and treated</li> <li>• Percentage of SEA/SH related complaints that had been referred to GBV service providers for assistance</li> <li>• Percentage of all staff and workers who signed the code of conduct</li> <li>• Number of consultations with women done in separate groups led by a woman.</li> </ul>						

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

- a) Air quality management program
- b) Water quality management program
- c) Waste management program
- d) Occupational Health and Safety management program
- e) GBV, SEA and SH Prevention Program
- f) Socio-cultural management program

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.

### **ESMP Monitoring**

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 Monitoring (US\$)
<b>Air Pollution</b>	Dust and particulate matters (PM <sub>2.5</sub> & PM <sub>10</sub> )	Use of Air-sampling instrument/ Point measurements at the project sites	Quarterly	ESIA – Working Group (WG); Project Environmental Officer; Consultant	2,000
	Gaseous emissions (CO, SO <sub>2</sub> , Nox)	Outdoor air quality monitoring measurements and analysis	Quarterly	ESIA – Working Group (WG); Project Environmental Officer; Consultant	2,000
<b>Noise and vibration</b>	Noise level in dB(A) (Leq, Leq day, Leq night, and hourly Leq) ≤49.2 dB(A) daytime (7am-10pm)	Onsite measurement of noise level and frequency of vibration	Quarterly	ESIA – Working Group (WG); Project Environmental Officer; Consultant	2,000
<b>Soil Contamination</b>	Soil properties - Soil pH within 6.0-8.5 range; heavy metals (As, Pb, Cd, Hg) below WHO limits at all test location	Collection of soil sample from sites and analysis	End of Project Audit	ESIA – Working Group (WG); Project Environmental Officer; Consultant	3,000
<b>Water Pollution</b>	Temp., Turbidity, pH, EC, TDS, Salinity, Color, Odor, Taste, TSS, PO <sub>4</sub> <sup>3-</sup> , NO <sub>3</sub> <sup>-</sup> , NO <sub>2</sub> <sup>-</sup> , Fe, Cl <sup>-</sup> , Alkalinity, Hardness, Ca, Mn, DO, As, F <sup>-</sup> , SO <sub>2</sub> <sup>-4</sup> , NH <sub>4</sub> , TC and FC	Sample collection (and analysis) from water sources (of closest surface waterbody or borehole)	Quarterly	ESIA – Working Group (WG); Project Environmental Officer; Consultant	8,000

Potential Impact	Indicator Parameter	Monitoring Method and Location	Timeline/Frequency	Responsibility	Cost for Monitoring (US\$)
<b>Waste</b>	Types, quality, quantity, collection system, and disposal locations.	Visual checks to assess the situation and record-keeping including photographs if applicable.	Quarterly	ESIA – Working Group (WG); Project Environmental Officer; Consultant ESIA – Working Group (WG); Project Environmental Officer; Consultant	3,000
<b>Social life impact/Socio-cultural conflict</b>	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 Engagement Plan in the host community	Quarterly	ESIA – Working Group (WG); Project Environmental Officer; Consultant	5,000
<b>Influx of people</b>	Number of workers from outsider the host community -	Monitor and record the number of workers employed	Quarterly	ESIA – Working Group (WG); Project Environmental Officer; Consultant	2,000
<b>Occupational health and safety</b>	Frequent illness of workforce, workplace accident, medical fitness	Observation, interviews, and the use of Job-Hazard-Analysis report, and reports from nearby healthcare facilities	Quarterly	ESIA – Working Group (WG); Project Environmental Officer; Consultant	2,000
<b>Community Health Impact</b>	Common/prevalent diseases in the host communities	Use of questionnaires within the host communities as well as collection of health statistics from the nearest healthcare centre (Chamen)	Annual Environmental and Social Performance Audit	ESIA – Working Group (WG); Project Environmental Officer; Consultant	4,000

Potential Impact	Indicator Parameter	Monitoring Method and Location	Timeline/Frequency	Responsibility	Cost for Monitoring (US\$)
<b>Hazard-exposure to workforce</b>	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	2,000
<b>Gender Impacts (GBV, SEA/SH)</b>	Report of GBV, SEA/SH cases - reported cases resolved within 30 days	Investigation of reported cases, interview with affected and non-affected victims	Quarterly	ESIA – Working Group (WG); Project Environmental Officer; Consultant	10,000
<b>TOTAL</b>					<b>45,000</b>

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## **Implementation Schedule and Cost Estimates**

The environmental and social management plan will be implemented in line with the finalized project schedule, as well as activities integrated into the project design. There would be a need for the contractor to update the safeguards instruments based on the final design of the construction, renovation or upgrading works. The proposed budget for implementation of the ESMP is US\$ 160,000, including capacity building for relevant stakeholders as indicated in the Table below.

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## ESMP Implementation Budget

Activities	Impacts	Indicators	Means of Verification	Timelines (Preparation / Construction / Exploitation / Closing phases)	Responsible			Funding Source	Implementation Cost (US\$)
					Execution	Monitoring	Aftercare		
Mitigation Measures	Address Environment and Social impacts	Number of impacts mitigated	Monitoring reports	All phases	Contractor	NEA	MOH	Govt/Project budget / AfDB	23000
Capacity building of PIU, contractors, workers, and stakeholders	Improved capacity for ESMP implementation	Number of trainings conducted; number of staff trained	Training reports; attendance sheets	Preparation & Construction phases	NSPA PIU	NEA	RHD	Govt/Project budget / AfDB	25000
Environmental & Social Monitoring Implementation	Enhanced compliance and mitigation effectiveness	Frequency of site visits and audits	Monitoring reports; audit findings	All phases	NSPA PIU NEA	NEA NSPA PIU	RHD NEA	Govt/Project budget / AfDB	45000
GRC reinforcement and operations	Improved grievance redress system	Number of grievances received/resolved	Grievance logs; GRC meeting minutes	Preparation & Construction phases	Local Community	NSPA PIU	GRC	Govt/Project budget / AfDB	26000
Environmental and Social Aftercare Programmes	Sustainability of ESMP outcomes	Number of post-project activities maintained	Aftercare reports; beneficiary feedback	Decommission phase	NSPA PIU	NEA	RHD	Govt/Project budget / AfDB	11000
Development of Waste Management Plan	Safer waste management practices	Availability and implementation of plan	Waste management plan document	Preparation & Exploitation phases	RHD	NEA	Health Facility Management	Govt/Project budget / AfDB	10000

Annual Environmental Audit	Ensures ESMP compliance and adaptive management	Completion of annual audit	Audit reports	Exploitation & Closing phases	NSPA PIU	Consultant	NEA	Govt/Project budget / AfDB	20000
Total									160,000

Please note that the ESMP budget estimates is based on similar assignments for the Vulnerable Youth and Women Support Project (VYWoSP) and expert knowledge

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## **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.

### **ESMP Disclosure**

Upon approval of the ESIA /ESMP report, the NSPA will ensure it is published on the NSPA and Ministry of Health websites. NEA will also publish it on its website and other relevant places as may be required. The Africa Development Bank will disclose it on its website.

### **Environmental and social aftercare programmes**

To reduce and manage the impacts of the proposed project, the surrounding local communities and the environment, the following are recommended for implementation as environment and social aftercare programmes in line with the ESMP for sustainability:

- Community and environmental education programme
- Water quality management programme
- Waste management programme
- Air quality management programme
- Occupational Health and Safety management programme
- Gender, SEA/SH& Social Management Programme

It should be noted that the proposed ESMP will form the benchmark for any upcoming management programmes and related plans as well as addressing the monitoring factor in line with relevant laws and good practices for sustainable development.

### **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 site. Thus, new or alternative means of mitigation may be suggested. Therefore, an independent environmental audit is recommended midway of the Project implementation.

## **Conclusions**

The potential adverse impacts associated with the proposed project are possible to mitigate successfully. The proposed development should be permitted to proceed, provided the project proponent demonstrates full commitment to implementing the proposed mitigation measures and Environmental and Social Management Plan (ESMP). An environmental audit is recommended upon the completion of construction works to verify the implementation of the proposed mitigation

measures. Any unforeseen impacts arising from the project should be identified and addressed through annual environmental audits.

It is also advised that the project establish a Grievance Redress Mechanism to effectively manage and resolve any grievances or complaints from individuals affected by the project.

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## Résumé Exécutif

### Aperçu du Projet

Le Gouvernement de la Gambie (GoTG), par le biais de l'Agence Nationale de Protection Sociale (NSPA), a reçu un soutien de la Banque Africaine de Développement (BAD) pour le Projet de Soutien aux Jeunes et Femmes Vulnérables (VYWoSP). Ce projet vise à offrir aux groupes vulnérables, en particulier les jeunes déscolarisés et les femmes, des compétences orientées vers le marché ainsi qu'un accès à une gamme de services (financiers et non financiers, services sociaux de base) afin de lutter contre les aspects multidimensionnels de la pauvreté et de la vulnérabilité.

L'objectif principal du projet est que, si les femmes et les jeunes pauvres et vulnérables des zones rurales acquièrent les compétences nécessaires dans la chaîne de valeur agricole et ont accès à des services sociaux de base de qualité, leur productivité et leurs revenus augmenteront, tout comme leur accès à des soins de santé et à une éducation de qualité, ce qui contribuera à la réduction de la pauvreté et à une croissance inclusive. Une communication pour un changement social et comportemental transformateur interviendra pour renforcer durablement les acquis et modifier la perception des populations sur l'équité de genre, l'autonomisation économique des femmes, l'utilisation des services sociaux de base, etc.

Le projet adopte une approche holistique pour traiter les aspects multidimensionnels de la vulnérabilité et de la pauvreté. Il contribuera également à la réduction des inégalités de genre en offrant de meilleures perspectives économiques et sociales aux jeunes filles et aux femmes, tout en réduisant les attentes sociales envers les jeunes hommes en tant que pourvoyeurs du foyer. Il contribuera en outre à renforcer la résilience du pays en s'attaquant à certains des principaux facteurs de fragilité. L'Évaluation de la Fragilité de la Gambie a identifié le faible développement humain, y compris le chômage des jeunes, la pauvreté, les inégalités et le faible accès aux services de santé et de protection sociale, comme des moteurs de fragilité et des facteurs potentiellement déstabilisateurs, d'autant plus que la Gambie est un contributeur important aux flux migratoires irréguliers vers l'Europe.

Le soutien financier additionnel de la Banque vise à appuyer la mise en œuvre du Plan Stratégique National de la Santé de la Gambie (2021 – 2025). Une partie de la subvention est allouée à la construction et à la rénovation du Centre de Santé de Chamen. Le projet comporte les quatre (4) composantes suivantes :

#### **Composante 1 :**

Cette composante s'appuiera sur le projet existant, axé sur l'appui non financier aux entreprises détenues par des jeunes et des femmes. En plus des activités existantes (alphabétisation fonctionnelle, formation à l'entrepreneuriat, fourniture d'équipements et de services non financiers), elle visera à promouvoir l'accès au financement pour la création d'emplois décents et à renforcer les compétences en nutrition dans certaines chaînes de valeur agricoles. Elle comprend deux sous-composantes.

#### **Composante 2 :**

Cette composante renforcera l'impact du projet existant qui finance la rénovation et l'équipement de deux centres de santé. Le projet AF-VYWOSP appuiera la rénovation et l'équipement de

quatre structures de santé supplémentaires afin d'améliorer l'accès équitable aux services de santé, y compris la réponse aux violences basées sur le genre (VBG) et aux mutilations génitales féminines/excision (MGF/E). De plus, il est prévu d'améliorer la capacité du système de santé à détecter et donc à répondre aux épidémies grâce au renforcement du système de surveillance. Elle comporte trois sous-composantes.

### **Composante 3 :**

Cette composante renforcera le système de surveillance nutritionnelle afin qu'il fonctionne comme un outil d'alerte précoce, améliorant la capacité à surveiller et à traiter rapidement les carences nutritionnelles. Cela permettra d'assurer des interventions opportunes pour empêcher l'aggravation de la malnutrition. En outre, pour les cas graves de malnutrition, les centres de traitement nutritionnel dans les établissements de santé seront modernisés et réhabilités en structures mieux équipées. Ces améliorations permettront une gestion plus efficace et une meilleure récupération des personnes souffrant de malnutrition, réduisant ainsi les taux de morbidité et de mortalité associés.

### **Composante 4 :**

Cette composante soutiendra des activités visant à renforcer la gestion efficace et efficiente des activités du projet, notamment la coordination et le renforcement des capacités en gestion financière et en passation de marchés. Sur le plan environnemental, les risques seront liés à la Composante 2 et à l'Activité 2.1, en particulier la composante concernant la rénovation de quatre structures de santé supplémentaires pour fournir des services de santé de haute qualité, y compris en matière de santé sexuelle et reproductive.

### **Objectif du Projet**

L'objectif global du projet est d'améliorer les revenus et la productivité des jeunes et des femmes les plus vulnérables dans les zones rurales, ainsi que d'améliorer leur accès et leur utilisation des services sociaux de base, notamment les services de santé, de nutrition et d'éducation. Le soutien financier additionnel de la Banque vise à appuyer la mise en œuvre du Plan Stratégique National de la Santé de la Gambie (2021 – 2025). Une partie de la subvention a été allouée à la construction et à la rénovation du Centre de Santé de Chamen.

### **Zone d'Intervention du Projet**

L'intervention a porté sur la construction/rénovation du Centre de Santé de Chamen, situé dans le district de Nianija, dans la région nord du fleuve central (CRRN). Établie en 1938, cette structure est l'un des plus anciens établissements de soins mineurs du pays. Le centre de santé fournit des soins essentiels à 34 communautés du district de Nianija, couvrant une population de 12 585 habitants, dont 1 928 enfants de moins de cinq ans.

Le centre enregistre en moyenne 500 consultations par mois au service des consultations externes (OPD), dont environ 300 concernent des enfants de moins de cinq ans. En 2024, le Centre de Santé de Chamen a enregistré un total de 250 accouchements assistés par du personnel qualifié.

Les services offerts comprennent les soins externes, les services d'hospitalisation, la santé reproductive, les analyses de laboratoire, les soins prénatals, la vaccination, les initiatives de santé publique ainsi que les services de traitement de la tuberculose et du VIH. En tant qu'établissement de santé géré par le gouvernement, le Centre de Santé de Chamen est stratégiquement situé le long de l'autoroute de Chamen, garantissant un bon accès aux communautés desservies. Le site du centre est de forme rectangulaire avec des dimensions de 100 mètres sur 200 mètres, soit une superficie de 20 000 m<sup>2</sup>.

### État des Infrastructures au Centre de Santé de Chamen

Les structures sont dans un état général relativement acceptable, bien que le centre soit de petite taille et nécessite une extension pour accueillir plus de patients et de personnel. Cependant, plusieurs défauts ont été constatés :

- Fuites mineures visibles au plafond et fuites majeures sur les toitures nécessitant un remplacement des tôles et des structures de toit ;
- Pannes électriques majeures sur les câbles et les appareils ;
- Fissures mineures et majeures sur les murs ;
- Remplacement des installations de plomberie dans les toilettes ;
- Peinture générale de l'établissement ;
- Traces d'humidité sur les plafonds ;
- Remplacement des portes et fenêtres ;
- Carreaux de sol cassés.

### Travaux de Rénovation/Construction Recommandés au Centre de Santé de Chamen

Bien que plusieurs travaux de rénovation aient été réalisés par le passé, l'état actuel des infrastructures nécessite des rénovations urgentes pour garantir la prestation de services de santé de qualité. Les travaux suivants sont recommandés :

- Dépose et remplacement complet des tôles et structures de toit ;
- Réparation/remplacement de tous les câbles et équipements électriques défectueux ;
- Réparation de toutes les fissures sur les murs (mineures et majeures) ;
- Réparation/remplacement des installations de plomberie dans les salles et toilettes ;
- Repeindre l'ensemble de la structure ;
- Remplacement complet des plafonds ;
- Remplacement des portes et fenêtres ;
- Pose de nouveaux carreaux de sol là où nécessaire ;
- Extension de la salle d'accouchement avec création de chambres individuelles pour garantir l'intimité ;
- Extension de la maternité pour accueillir davantage de patientes ;
- Construction d'un bâtiment d'un étage pour loger le personnel ;
- Construction d'un pavillon pour hommes et femmes pour accroître la capacité d'accueil ;
- Construction d'un nouveau bâtiment pour héberger les services de santé publique, le laboratoire et les examens médicaux ;
- Reconstruction d'une clôture périmétrique de 250 m environ ;

- Fourniture d'une source d'énergie supplémentaire par panneaux solaires ;
- Installation de réservoirs d'eau supplémentaires et d'éclairage public solaire.

### Bénéficiaires du Projet

Le Centre de Santé de Chamen est situé dans le village de Chamen, district de Nianija, dans la partie nord de la région centrale du fleuve (CRR), relevant de l'administration locale de Kuntaur, à environ 9 km de la route principale. L'établissement couvre 33 villages, y compris deux villages clés en soins de santé primaires (PHC) tels que Palleleh, Buduck et la clinique de Bakadaji Jailan. Quatre infirmiers communautaires supervisent les services de soins de santé primaires. La population de la zone de couverture s'élève à 12 585 habitants, dont 1 928 enfants de moins de cinq ans.

### Justification de l'ESIA pour le Projet

Le projet est censé avoir un impact positif sur la prestation des services de santé, en améliorant l'accès, la qualité des soins, la motivation et la rétention du personnel. Il aura également un impact favorable sur les opportunités de développement, améliorant ainsi les conditions de vie des communautés locales et au-delà. Cependant, en plus de ces impacts positifs, certaines retombées négatives potentielles pourraient survenir, d'où la nécessité de réaliser une **Étude d'Impact Environnemental et Social (ESIA)**. Pour répondre aux exigences réglementaires de la BAD (Banque Africaine de Développement) et de l'Agence Nationale de l'Environnement (NEA), l'Agence Nationale de Protection Sociale (NSPA) de la Gambie a engagé une équipe de consultants experts pour réaliser cette étude.

L'objectif global de l'ESIA est de déterminer les impacts environnementaux et sociaux potentiellement négatifs liés à la construction et à la rénovation du Centre de Santé de Chamen et de proposer des mesures d'atténuation afin de réduire ou éliminer ces impacts négatifs tout en maximisant les bénéfices potentiels du projet.

### Objectifs Spécifiques de l'Étude ESIA

- Identifier les activités du projet susceptibles d'avoir un impact négatif sur l'environnement ;
- Cartographier les préoccupations environnementales et sociales dans le cadre des travaux de construction et de rénovation des infrastructures sanitaires ;
- Élaborer des mesures d'atténuation et un **Plan de Gestion Environnementale et Sociale (PGES)** ;
- Identifier les bonnes pratiques et innovations pour promouvoir un environnement sain et réduire la dégradation environnementale ;
- Identifier les risques, contraintes et opportunités liés à l'environnement dans lequel le projet sera mis en œuvre.

### Objectifs de l'ESIA/PGES

L'objectif global de la réalisation de l'ESIA est d'identifier, d'évaluer et d'analyser les impacts environnementaux et sociaux potentiels de la construction/rénovation du Centre de Santé de Chamen, et de proposer des mesures d'atténuation et de renforcement pour réduire ou éliminer ces impacts négatifs, tout en maximisant les bénéfices.

L'évaluation et le plan de gestion seront essentiels pour garantir une intervention durable avec un impact environnemental et social minimal. Les résultats de l'évaluation fourniront également une base factuelle pour informer les parties prenantes, y compris les décideurs politiques et les acteurs du projet.

### Portée de l'ESIA/PGES

L'ESIA se concentre sur les activités liées à la rénovation/construction du Centre de Santé de Chamen.

### Alternatives du Projet

L'analyse des alternatives vise à identifier des options pratiques pour réduire ou prévenir les impacts négatifs associés aux travaux de rénovation/construction du Centre de Santé de Chamen. Dans le but d'améliorer l'accès à des services de santé de qualité, l'analyse prend en compte d'autres stratégies réalisables permettant d'atteindre les objectifs du projet tout en évitant les impacts environnementaux et sociaux négatifs liés à sa mise en œuvre. Les différents scénarios analysés visent à sélectionner un plan de conception et de construction conforme aux objectifs du projet ainsi qu'aux conditions naturelles et socio-économiques réelles du site de Chamen. L'analyse démontre que **l'option « Pas de Projet »** ne constitue pas une alternative viable pour le Ministère de la Santé et les populations de Chamen et du district de Nianija dans leur ensemble.

### Approche Méthodologique

L'évaluation a été réalisée en adoptant une approche méthodologique mixte combinant des méthodes de collecte de données quantitatives et qualitatives. Par conséquent, des données primaires et secondaires ont été collectées pour répondre aux besoins de l'évaluation.

### Collecte de Données Secondaires

Elle a consisté en une revue documentaire des documents pertinents du projet afin d'acquérir une connaissance approfondie et une compréhension globale de celui-ci. Ces documents essentiels incluent le **Document d'Évaluation du Projet (PAD)**, les rapports d'étude de faisabilité et de conception, ainsi que d'autres documents relatifs à des projets antérieurs. Plusieurs documents de politiques et textes juridiques pertinents ont également été examinés.

## Collecte de Données Primaires

Les données primaires sont essentielles pour l'étude de référence et les consultations des parties prenantes. Les informations sur l'environnement du projet et ses impacts socio-économiques ont été recueillies auprès des parties prenantes à travers des enquêtes, des discussions d'experts, des groupes de discussion (FGDs) et des entretiens avec des informateurs clés (KIIs). L'enquête a ciblé le personnel de santé du **Centre de Santé de Chamen** ainsi que les usagers/patients de la zone de couverture du centre, afin de recueillir leurs perceptions sur les impacts environnementaux et sociaux du projet, mais aussi d'évaluer leur niveau de compréhension et d'adhésion au projet proposé.

## Travail de Terrain

Pour l'enquête, 82 individus ont été échantillonnés et interrogés dans l'établissement ciblé et les communautés environnantes. La collecte des données a été réalisée à l'aide de l'outil **Survey Solution CAPI**, utilisé pour la gestion globale de l'enquête. Les questionnaires ont été administrés via l'application pour enquêteurs de l'outil, installée sur des tablettes. Les entretiens ont été menés en personne sur les lieux de résidence des répondants ciblés. La mobilisation des participants pour les discussions de groupe (FGD) a été effectuée, avec entre 5 et 20 participants mobilisés par groupe. Les entretiens avec les informateurs clés (KIIs) ont été menés à l'aide d'un guide élaboré à cet effet.

## Évaluation des Impacts Environnementaux

À la suite des consultations, des visites de terrain et de la collecte de données, les impacts potentiels liés aux activités du projet ont été évalués. La **significativité** des impacts potentiels a été déterminée afin d'orienter les recommandations à intégrer dans l'évaluation du projet proposé.

## Cadre Politique, Juridique et Institutionnel

Pour garantir une mise en œuvre efficace et l'atteinte des objectifs du projet, celui-ci s'inscrit dans un cadre réglementaire et politique inclusif. Ce cadre comprend les lois et politiques nationales, le **Système Intégré de Sauvegardes (ISS)** de la Banque Africaine de Développement (BAD), les conventions internationales pertinentes, et les réglementations environnementales. Ce cadre a été contextualisé et présenté dans ce rapport d'ESIA. L'objectif principal est de maximiser les impacts positifs du projet tout en minimisant les effets négatifs. Une **analyse des écarts** a été réalisée entre la législation environnementale nationale et les dispositions de l'ISS de la BAD. Des recommandations ont également été formulées pour combler les lacunes en matière de capacités et assurer une mise en œuvre réussie et durable du projet.

## Conditions Environnementales et Sociales de Référence du Site du Projet

**Pluviométrie :** Comme dans d'autres régions de la Gambie, Chamen bénéficie de la saison des pluies de mai à octobre et d'une saison sèche de novembre à avril. La précipitation annuelle moyenne est d'environ **807 mm**, avec environ **74 jours de pluie par an** (période de 1970 à 2015).

**Qualité de l'air et du bruit :** Les résultats montrent que la qualité actuelle de l'air et du bruit au Centre de Santé de Chamen est globalement conforme aux normes, à l'exception des particules fines **PM 2.5**, qui peuvent nuire aux groupes vulnérables.

**Qualité de l'eau :** Le pH de l'eau prélevée sur le site était de **5,77**, en dessous de la norme recommandée par l'OMS (6,5–8,5). Bien que le pH ait légèrement augmenté après aération, il reste inférieur à la norme. Une consommation prolongée d'eau à faible pH peut avoir des conséquences sanitaires. Il est donc recommandé de corriger le pH et de refaire des tests avant le démarrage des travaux, car l'eau pourrait être utilisée par les travailleurs.

**Températures :** Dans la région de Chamen, les températures varient de **30 °C à 34 °C** durant l'année, avec des températures plus fraîches (**18 °C à 25 °C**) entre novembre et février.

**Humidité :** Le taux moyen d'humidité annuelle est d'environ **68 %**. En août et septembre, il atteint **78 %**, tandis qu'en février, il chute à **31 %**. La moyenne annuelle dans la zone de gouvernement local de Kuntaur (KLGa) est de **53 %**, inférieure à la moyenne nationale.

**Flore et faune :** Le site du centre de santé possède **16 neem**, **5 manguiers** et **4 baobabs**, aucune espèce végétale menacée n'a été observée. Aucune coupe d'arbres ne sera nécessaire. Le site n'a aucun statut de protection environnementale.

Cependant, la présence d'animaux errants (chats, chiens, chèvres, moutons) a été constatée, avec une forte probabilité de reptiles et de rongeurs, bien qu'aucune faune sauvage n'ait été observée lors de la visite.

**Démographie :** D'après le **Recensement Général de la Population et de l'Habitat (PHC) 2024**, la Gambie compte **2,42 millions** d'habitants, dont **51 % de femmes**. Le taux de croissance annuel est de **2,5 %**, avec une population majoritairement jeune (**40,8 %** ont moins de 15 ans). À Kuntaur, **47,9 %** de la population a moins de 15 ans, contre environ 30 % à Banjul.

**Éducation :** La **Politique du secteur éducatif 2016–2030** vise une éducation inclusive, équitable et axée sur l'apprentissage à vie, avec une attention particulière à l'équité de genre et aux groupes vulnérables. L'accès à une éducation de qualité est crucial pour le développement économique de communautés comme Chamen.

**Santé :** Le gouvernement met l'accent sur la réduction de la mortalité maternelle et néonatale. À Kuntaur, **82,5 % des accouchements** ont lieu dans les centres de santé, dont celui de Chamen. Toutefois, les indicateurs sanitaires restent faibles : **40 %** des ménages disposent de sanitaires améliorés, **89 %** d'eau potable, et **24 %** des femmes mariées ont des besoins non satisfaits en planification familiale (source : Enquête Démographique et de Santé 2019–2020).

**Agriculture** : L'économie de Chamen repose principalement sur l'agriculture avec des cultures comme **l'arachide, le riz, le mil, le sorgho et le maïs**, ainsi que des **fruits** (mangues, oranges, bananes, noix de cajou) pour la consommation locale et l'exportation.

**Pauvreté et inégalités** : En 2003, le taux de pauvreté était de **56,7 %**, passant à **57,5 %** en 2010 (GBoS). La pauvreté à Chamen reste élevée, et les dépenses alimentaires représentent **plus de 61 %** de la consommation alimentaire des ménages.

### Consultation des Parties Prenantes

La consultation publique et l'engagement des parties prenantes sont des principes fondamentaux du processus d'Étude d'Impact Environnemental et Social (EIES). Des consultations ont été menées à travers une série de réunions publiques organisées à **Chamen** et dans des communautés voisines sélectionnées, notamment **Sitokoto, Sareh Alpha, Sinchu Makka, Sareh Konteh et Buduk**, ainsi qu'avec le **Comité Consultatif Technique (TAC)** et la **Direction Régionale de la Santé (CRR)**, entre le **23 février et le 10 mars 2025**. Chaque discussion de groupe (FGD) a réuni entre **5 et 20 participants**. Les réunions ont été organisées avec l'appui du **Responsable en charge (OIC)** du Centre de Santé de Chamen et de la Direction régionale de la santé du Centre River. Au total, **84 participants** ont assisté aux réunions (dont **47 femmes – 56 %**, et **37 hommes – 44 %**). Par ailleurs, **21 personnes** ont été interviewées dans le cadre des **entretiens avec des informateurs clés (KII)**. En tout, **82 personnes** ont répondu à l'enquête de perception, dont **80 % étaient des usagers/patients** et **20 % des prestataires de soins** (personnel du centre de santé de Chamen et de la direction régionale). Plus de la moitié des répondants (**55 %**) étaient des **femmes mariées (93 %)**.

### Résultats de l'EIES

Les consultations ont généré des retours positifs de la part des parties prenantes, exprimant un **soutien total** à la rénovation/construction proposée de l'hôpital de district. Les **impacts positifs potentiels** attendus incluent :

- Amélioration de l'accès aux soins de santé de qualité
- Motivation et rétention du personnel
- Réduction des références de patients vers d'autres structures
- Amélioration des performances du personnel de santé
- Réduction du temps d'attente des patients
- Création d'emplois
- Génération de revenus par la vente de matériaux de construction

Quelques résultats clés des consultations :

- **93 %** des répondants étaient **informés** des travaux de rénovation proposés du centre de santé. Le niveau de sensibilisation était plus élevé chez les usagers (HFU – Health Facility Users).

- **79 %** des usagers et du personnel ont évalué les **infrastructures de santé** comme étant **médiocres**, et **51 %** les ont jugées **passables**.
- Pour la **qualité des services**, **77 %** ont jugé les prestations **médiocres**, et **13 %** les ont qualifiées de **passables**.
- **98 %** pensent que le projet aura un **impact positif** sur leurs conditions de vie (98 % des usagers, 94 % du personnel).
- Cependant, **66 %** estiment que le projet **n'aura pas d'impact direct** sur la prestation de services de santé (59 % des usagers et 81 % du personnel).
- Plus de **70 %** perçoivent l'état général du centre de santé et de ses services comme **médiocre**.

Impacts positifs potentiels perçus :

- Accès facilité aux soins (**76 %**)
- Amélioration des services de santé (**76 %**)
- Meilleure performance du personnel de santé (**65 %**)
- Environnement de travail sûr et sain (**60 %**)
- Amélioration des infrastructures de santé (**56 %**)
- Amélioration de la santé publique (**54 %**)
- Création d'emplois (**32 %**)
- Génération de revenus (**27 %**)

Impacts négatifs potentiels perçus :

- Pollution sonore (**59 %**)
- Production de déchets (**49 %**)
- Pollution par la poussière (**41 %**)
- Accidents/blessures des ouvriers (**35 %**)
- Pollution du sol (**11 %**)
- Émissions de gaz par véhicules/machines (**10 %**)
- Pollution de l'eau (**9 %**)

Mécanisme de Gestion des Plaintes (MGP)

Il est à prévoir que des **plaintes ou conflits** pourraient surgir durant la mise en œuvre du projet. Le **Mécanisme de Gestion des Plaintes (MGP)** offrira une **plateforme aux parties prenantes** pour exprimer leurs préoccupations concernant les impacts du projet. Ce mécanisme respectera les **normes internationales** et suivra un processus structuré de **réception, enregistrement, enquête et réponse** aux plaintes. Différents canaux de communication seront utilisés pour garantir un accès **équitable et culturellement approprié** au mécanisme. L'équipe de sauvegarde de l'**Unité de gestion du projet (UGP) de la NSPA** supervisera l'ensemble du processus pour s'assurer que toutes les plaintes soient **traitées avec respect et dûment documentées**.

Risques environnementaux et sociaux et mesures d'atténuation pendant les phases de mise en œuvre du projet

Activités / Problèmes clés	Impacts potentiels	Niveau d'impact	Mesures d'atténuation proposées	Parties responsables
<b>Phase de Pré-construction / Rénovation</b>				
Préparation du site et mobilisation des équipements/mouvements des machines	Pollution de l'air (poussière et émissions gazeuses) et pollution sonore affectant la santé et les biens	Moyenne	<ul style="list-style-type: none"> <li>o Pulvérisation d'eau sur le site pour supprimer la poussière</li> <li>o Recouvrir ou humidifier les matériaux de construction tels que le sable, le gravier pour éviter la pollution par la poussière pendant le transport.</li> <li>o Veiller à ce que tous les véhicules impliqués dans le transport de matériaux de construction, de personnel et de machines utilisées dans la construction soient correctement entretenus et révisés.</li> <li>o Réduire les arrêts inutiles des véhicules afin de réduire les émissions gazeuses dans la zone.</li> <li>o Réduire la vitesse des véhicules dans les installations.</li> </ul>	Entrepreneur et NEA

Activités / Problèmes clés	Impacts potentiels	Niveau d'impact	Mesures d'atténuation proposées	Parties responsables
<b>Phase de Construction / Rénovation</b>				
Défrichage du site	Interférence avec le cadre physique	Moyenne	<ul style="list-style-type: none"> <li>o Assurer une perturbation minimale de la topographie de la zone de l'installation, y compris du drainage local.</li> <li>o La restauration sera effectuée pour s'assurer que le cadre original est autant que possible conservé.</li> <li>o Assurer la délimitation appropriée de la zone de santé à affecter par les travaux de construction / rénovation pour limiter l'élimination de la végétation des installations de santé.</li> <li>o Conserver les arbres proches du site dans la mesure du possible et</li> <li>o Révégétaliser l'espace de l'installation dans les sections perturbées et l'environnement autour après l'achèvement des travaux.</li> </ul>	Entrepreneur

Activités / Problèmes clés	Impacts potentiels	Niveau d'impact	Mesures d'atténuation proposées	Parties responsables
Activités de construction / rénovation (tous les composants)	Pollution de l'air affectant la santé et les biens	Moyenne	<ul style="list-style-type: none"> <li>o L'accès au site de pré-construction par le public doit être interdit en plaçant des panneaux, des barrières et une sécurité.</li> <li>o Fournir un équipement de protection individuel pour les travailleurs.</li> <li>o Les camions transportant des matériaux de terre doivent être couverts pour éviter la poussière et les débris volants.</li> <li>o Fournir un EPI approprié (masques contre la poussière, gants, etc.) aux travailleurs et appliquer son usage.</li> <li>o Tous les travaux doivent être effectués pendant la journée pour réduire les nuisances sonores.</li> </ul> <p>Les entrepreneurs doivent être avertis dans leurs accords pour respecter le PSE.</p>	Entrepreneur
Utilisation des équipements et machines	Émissions sonores des	Moyenne	o L'entrepreneur doit déterminer les	Entrepreneur

Activités / Problèmes clés	Impacts potentiels	Niveau d'impact	Mesures d'atténuation proposées	Parties responsables
	machines et vibrations des activités de construction		<p>heures de la journée pour effectuer des activités susceptibles de générer des nuisances sonores importantes et prolongées dans le voisinage.</p> <ul style="list-style-type: none"> <li>o Des mesures de suppression du bruit doivent être appliquées à tous les équipements de construction tels que : <ul style="list-style-type: none"> <li>o Installer des barrières portables pour isoler les compresseurs et autres équipements stationnaires, couvrir les moteurs des générateurs si nécessaire ;</li> <li>o Utiliser des équipements silencieux (c'est-à-dire des équipements conçus avec des éléments de contrôle du bruit comme ceux fonctionnant à l'électricité plutôt qu'à l'essence ou au diesel) et s'assurer que tous les équipements utilisés sur le site sont bien</li> </ul> </li> </ul>	

Activités / Problèmes clés	Impacts potentiels	Niveau d'impact	Mesures d'atténuation proposées	Parties responsables
			<p>entretenus et en bon état de fonctionnement ;</p> <ul style="list-style-type: none"> <li>o Limiter au minimum les périodes de ralenti des camions et autres petits équipements et adopter une approche de bon sens dans l'utilisation des véhicules, en encourageant les travailleurs à éteindre les moteurs de véhicules chaque fois que cela est possible ;</li> <li>o Fournir un EPI approprié (protection auditive - bouchons ou casques) aux travailleurs et à toute autre personne visitant le site de construction et de rénovation, en particulier dans les zones de travail avec des niveaux de bruit élevés ;</li> <li>o Limiter les activités de construction générant un bruit extrême pendant la journée, entre 8h et 19h ;</li> </ul>	

Activités / Problèmes clés	Impacts potentiels	Niveau d'impact	Mesures d'atténuation proposées	Parties responsables
			<ul style="list-style-type: none"> <li>o Envisager des méthodes de construction basées sur le travail manuel ; et</li> <li>o Informer les travailleurs des résidents voisins et leur conseiller de limiter le bruit verbal et d'autres formes de bruit.</li> </ul>	
Utilisation des équipements et machines	Perturbation visuelle du paysage	Faible	<ul style="list-style-type: none"> <li>o Les sites doivent être dégagés des équipements et machines après toutes les activités du projet.</li> <li>o Tous les déchets et matériaux non utilisés seront enlevés pour leur gestion conformément au plan de gestion des déchets du PSE.</li> <li>o Les stockages de matériaux doivent être organisés et situés à des endroits stratégiques au sein des propriétés de l'installation où les travaux auront lieu.</li> </ul>	Entrepreneur
<b>Phase d'exploitation</b>				
Exploitation des services de santé	Mauvaise gestion des déchets médicaux	Moyenne	<ul style="list-style-type: none"> <li>o Le centre de santé doit préparer, exploiter et maintenir un plan de gestion des</li> </ul>	Gestion du Centre de Santé Chamen, Conseil de la

Activités / Problèmes clés	Impacts potentiels	Niveau d'impact	Mesures d'atténuation proposées	Parties responsables
			<p>déchets médicaux (PGDM) adapté à l'échelle et aux activités du centre, conformément aux lignes directrices de la BAD pour les établissements de santé et aux directives de l'OMS (section 4.5.2).</p> <ul style="list-style-type: none"> <li>o Les déchets doivent être identifiés et séparés au point de génération. Les déchets non dangereux, tels que le papier, le carton, le verre, l'aluminium et le plastique, doivent être collectés séparément et recyclés. Les déchets alimentaires doivent être séparés et compostés. Les déchets infectieux et/ou dangereux doivent être identifiés et séparés en fonction de leur catégorie à l'aide du système de codage par couleur.</li> <li>o Prévention et minimisation de la production de</li> </ul>	Zone de Kuntaur et Direction Régionale de la Santé

Activités / Problèmes clés	Impacts potentiels	Niveau d'impact	Mesures d'atténuation proposées	Parties responsables
			<p>déchets (intégration des systèmes et pratiques pour éviter la création de déchets dans la conception et la gestion de l'établissement, l'achat d'équipements et de consommables).</p> <ul style="list-style-type: none"> <li>o Réutilisation ou recyclage des déchets dans la mesure du possible.</li> <li>o Sceller et remplacer les sacs et récipients à déchets lorsqu'ils sont remplis à environ trois quarts. Les sacs et récipients pleins doivent être remplacés immédiatement.</li> <li>o Identifier et étiqueter correctement les sacs et récipients à déchets avant leur enlèvement.</li> <li>o Transporter les déchets vers des zones de stockage sur des chariots/trolleys désignés, qui doivent être nettoyés et désinfectés</li> </ul>	

Activités / Problèmes clés	Impacts potentiels	Niveau d'impact	Mesures d'atténuation proposées	Parties responsables
			<p>régulièrement. Ne jamais transporter des déchets infectieux et non infectieux ensemble.</p> <ul style="list-style-type: none"> <li>o Des instructions sur la gestion des déchets infectieux provenant des centres d'isolement et de traitement doivent être mises à la disposition des agents chargés des déchets.</li> <li>o Assurer la sécurité et la santé des agents de gestion des déchets médicaux en leur fournissant un EPI approprié, une vaccination contre l'hépatite B et le tétanos, et une prophylaxie post-exposition (PPE).</li> <li>o Les zones de stockage des déchets doivent être situées au sein du centre et dimensionnées en fonction des quantités de déchets générées, sauf si un stockage réfrigéré est possible.</li> <li>o À moins qu'un stockage réfrigéré soit possible, les</li> </ul>	

Activités / Problèmes clés	Impacts potentiels	Niveau d'impact	Mesures d'atténuation proposées	Parties responsables
			<p>temps de stockage entre la génération et le traitement des déchets ne doivent pas excéder 48 heures pendant la saison froide et 24 heures pendant la saison chaude.</p> <ul style="list-style-type: none"> <li>o Les conteneurs pour les objets tranchants doivent être incassables.</li> <li>o Assurer le transport approprié des déchets traités vers une installation de traitement (par exemple, l'envoi des déchets inertes vers une décharge sanitaire).</li> </ul>	
Risque d'incendie	Moyenne	<ul style="list-style-type: none"> <li>o Fournir des seaux de sable et des extincteurs à des endroits stratégiques dans le centre et assurer leur entretien.</li> <li>o Les opérateurs des générateurs doivent recevoir une formation de base en lutte contre les incendies.</li> <li>o Les cartes d'alarme incendie contenant les numéros de téléphone</li> </ul>	Gestion du Centre de Santé Chamen et Département de lutte contre les incendies et de secours	

Activités / Problèmes clés	Impacts potentiels	Niveau d'impact	Mesures d'atténuation proposées	Parties responsables
		<p>d'urgence doivent être bien affichées à l'hôpital.</p> <ul style="list-style-type: none"> <li>o Organiser des exercices d'incendie réguliers visant tout le personnel du centre pour évaluer le niveau de préparation, tester la réponse d'urgence et utiliser les résultats pour améliorer le mécanisme de réponse.</li> <li>o Fournir un point de rassemblement pour les incendies.</li> </ul>		
Risques de santé et de sécurité au travail pour les travailleurs de la santé	Moyenne	<ul style="list-style-type: none"> <li>o Mettre à jour et mettre en œuvre le plan de réponse d'urgence du centre.</li> <li>o Identifier les risques (évaluation des risques professionnels) et mettre en place des mesures proactives.</li> <li>o Former les travailleurs de la santé sur les risques potentiels liés à leur travail ; en particulier pour les opérateurs des générateurs et des</li> </ul>	Gestion du Centre de Santé Chamen et Département de Santé et Sécurité au Travail	

Activités / Problèmes clés	Impacts potentiels	Niveau d'impact	Mesures d'atténuation proposées	Parties responsables
		<p>équipements, qui doivent être formés sur le contenu du plan de santé et de sécurité, y compris sur le fonctionnement général des installations de traitement, y compris les technologies de récupération de chaleur et de nettoyage des gaz de combustion, le cas échéant.</p> <ul style="list-style-type: none"> <li>o Fournir un EPI adéquat et nécessaire aux travailleurs de santé et faire respecter son usage. Cela peut inclure des gants, des masques, des lunettes et des blouses pour les manipulations des déchets médicaux.</li> <li>o Veiller à ce que des protocoles de sécurité et d'hygiène soient mis en place pour l'entretien de l'équipement et des installations.</li> </ul>		
<b>Phase de décommissionnement</b>				

Activités / Problèmes clés	Impacts potentiels	Niveau d'impact	Mesures d'atténuation proposées	Parties responsables
Fermeture et démantèlement du site	Gaspillage de matériaux	Faible	<ul style="list-style-type: none"> <li>o Assurer une planification rigoureuse du démantèlement et réduire au minimum la quantité de matériaux jetés.</li> <li>o Rechercher des options de réutilisation ou de recyclage pour tous les matériaux démantelés.</li> </ul>	Entrepreneur
Risques pour la santé et la sécurité liés au démantèlement	Risques d'accidents et d'exposition à des matériaux dangereux	Moyenne	<ul style="list-style-type: none"> <li>o Fournir un plan détaillé pour le démantèlement et la gestion des risques associés.</li> <li>o Assurer une supervision continue du processus de démantèlement pour prévenir les risques de sécurité et de santé.</li> </ul>	Entrepreneur

#### 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 document d'Étude d'Impact Environnemental et Social (EIES) pour éliminer, minimiser et améliorer les impacts négatifs et positifs du projet sont pleinement mises en œuvre ;
2. Fournir une partie de la base et des normes nécessaires pour la planification générale, la surveillance, l'audit et l'examen des performances environnementales et socio-économiques tout au long des activités du projet.

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

Activités	Impacts	Indicateurs	Moyens de vérification	Phases (préparation, construction, exploitation, clôture)	Responsables	Coût de mise en œuvre (USD)
<ul style="list-style-type: none"> <li>- Défrichement et préparation du site</li> <li>- Travaux civils pendant la rénovation</li> <li>- Enlèvement de la végétation</li> <li>- Mouvement de machines et véhicules</li> </ul>	<p><b>Qualité de l'air</b></p>	<ul style="list-style-type: none"> <li>- Arrosage systématique du site et des déblais (au moins deux fois par jour en saison sèche)</li> <li>- Nombre de camions bâchés</li> <li>- Carnet d'entretien des machines à jour</li> <li>- Bordereau de suivi des déchets</li> <li>- Nombre de cas de dépassement des limitations de vitesse</li> <li>- Pourcentage du personnel portant les EPI appropriés</li> </ul>	<p>Rapport d'analyse d'échantillons d'air</p>	<p>Phase de rénovation et d'exploitation</p>	<p>Entrepreneur du projet UGP NSPA, Groupe de travail EIES de la NEA Gestion de l'établissement de santé</p>	<p>2 000</p>
<ul style="list-style-type: none"> <li>- Utilisation des installations</li> </ul>	<p><b>Qualité de l'eau</b></p>	<ul style="list-style-type: none"> <li>- Taux de conformité des rejets</li> </ul>	<p>Rapport d'analyse</p>	<p>Phase de rénovation et</p>	<p>Entrepreneur du projet UGP NSPA,</p>	<p>2 000</p>

Activités	Impacts	Indicateurs	Moyens de vérification	Phases (préparation, construction, exploitation, clôture)	Responsables	Coût de mise en œuvre (USD)
sanitaires - Eaux de ruissellement - Déversements d'huile - Déchets solides et effluents		(pH, DCO, DBO, SS, coliformes, etc.) avec les normes - Existence et mise en œuvre d'un manuel HSE - Taux de conformité aux directives EHS - Existence d'un plan de gestion des déchets validé et appliqué	d'échantillons d'eau	d'exploitation	GT EIES de la NEA, Direction Régionale des Ressources en Eau	
- Présence des travailleurs - Travaux civils sur site / bétonnage - Peinture et revêtements - Gestion des déchets de chantier - Déchets domestiques et sanitaires - Déchets biomédicaux	<b>Production de déchets</b>	- Existence d'un plan de gestion des déchets approuvé et mis en œuvre - Bordereau de suivi des déchets - Existence de poubelles étiquetées - Existence d'un kit de nettoyage sur site	Registres de gestion des déchets	Phase de rénovation et d'exploitation	Entrepreneur du projet UGP NSPA, GT EIES de la NEA, Direction Régionale de la Santé	3 000

Activités	Impacts	Indicateurs	Moyens de vérification	Phases (préparation, construction, exploitation, clôture)	Responsables	Coût de mise en œuvre (USD)
		<ul style="list-style-type: none"> <li>- Efficacité du contrat de traitement et valorisation des déchets</li> </ul>				
<ul style="list-style-type: none"> <li>- Travaux civils</li> <li>- Transport et manutention des matériaux</li> <li>- Conditions de travail</li> <li>- Comportement des travailleurs</li> </ul>	<p align="center"><b>Santé et sécurité au travail</b></p>	<ul style="list-style-type: none"> <li>- Existence d'un Plan de gestion de la main-d'œuvre</li> <li>- Nombre de campagnes de sensibilisation</li> <li>- Nombre d'accidents liés aux activités du site</li> <li>- Nombre de travailleurs équipés en EPI</li> <li>- Niveau de conformité au code du travail</li> <li>- Niveau de conformité des équipements de protection collective</li> <li>- Efficacité des mesures</li> </ul>	<p>Rapport sur les accidents, incidents, maladies professionnelles</p>	<p>Phase de rénovation et d'exploitation</p>	<p>Entrepreneur du projet UGP NSPA, GT EIES de la NEA, Direction Régionale de la Santé</p>	<p align="center">3 000</p>

Activités	Impacts	Indicateurs	Moyens de vérification	Phases (préparation, construction, exploitation, clôture)	Responsables	Coût de mise en œuvre (USD)
		d'atténuation				
		<ul style="list-style-type: none"> <li>- Nombre de séances de formation</li> <li>- Présence de kits de premiers soins</li> <li>- Affichage des consignes de sécurité</li> <li>- Présence d'un agent HSE sur site</li> </ul>				
<ul style="list-style-type: none"> <li>- Recrutement, travaux sur site</li> <li>- Présence de travailleurs</li> </ul>	<p><b>Migration de main-d'œuvre</b> (risques de conflits)</p>	<ul style="list-style-type: none"> <li>- Nombre de travailleurs issus des communautés locales</li> <li>- Comité de prévention des conflits mis en place et fonctionnel</li> <li>- Respect du code du travail en matière de sécurité</li> <li>- Nombre de travailleurs ayant bénéficié d'un</li> </ul>	Registre des employés recrutés	Phase de rénovation et d'exploitation	Entrepreneur du projet UGP NSPA, GT EIES de la NEA, DRS	5 000

Activités	Impacts	Indicateurs	Moyens de vérification	Phases (préparation, construction, exploitation, clôture)	Responsables	Coût de mise en œuvre (USD)
		renforcement de capacités				
- Interaction avec les communautés locales	<b>Violence basée sur le genre (VBG), exploitation/abus sexuels (EAS), violence envers les enfants (VAC)</b>	<ul style="list-style-type: none"> <li>- Mécanisme de gestion des plaintes sensible au genre en place</li> <li>- Nombre de personnes sensibilisées (par sexe)</li> <li>- Sessions de sensibilisation sur le code de conduite</li> <li>- Nombre de plaintes traitées</li> <li>- Pourcentage des plaintes référées à des prestataires spécialisés</li> <li>- Pourcentage du personnel ayant signé le code de conduite</li> </ul>	Rapport de plaintes VBG, EAS, SH Rapport de sensibilisation VBG/EAS	Phase de rénovation et d'exploitation	Entrepreneur du projet UGP NSPA, GT EIES de la NEA, Société civile	8 000

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

- 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 sécurité au travail
- e) Programme de prévention de la VBG, de l'EAS et du SH
- 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. Lorsque aucune directive légale n'est fournie, les bonnes pratiques industrielles et/ou internationales doivent être appliquées dans la mesure du possible.

#### Suivi du PGES

Le suivi sera effectué pour garantir que les mesures d'atténuation proposées pour les impacts négatifs sont mises en œuvre. Pour cette raison, il est important que le suivi environnemental et social soit inclus dans la planification du projet.

Les objectifs essentiels sont :

- } Mesurer le niveau d'achèvement (succès ou échec) de la mise en œuvre des mesures d'atténuation.
- } Identifier les impacts imprévus ; et
- } 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 pour une mise en œuvre durable du projet proposé. Le plan de suivi pour les composantes écologiques et socio-économiques du projet proposé est présenté ci-dessous.

#### Plan de Suivi

<b>Impact Potentiel</b>	<b>Paramètre Indicateur</b>	<b>Méthode et Lieu de Suivi</b>	<b>Fréquence/ Période</b>	<b>Responsabilité</b>	<b>Coût pour le Suivi (US\$)</b>
<b>Pollution de l'Air</b>	Poussières et matières particulaires (PM2.5 et PM10)	Utilisation d'un instrument de prélèvement de l'air / Mesures ponctuelles sur	Trimestriel	Groupe de travail ESIA (WG); Responsable Environnemental	2,000

<b>Impact Potentiel</b>	<b>Paramètre Indicateur</b>	<b>Méthode et Lieu de Suivi</b>	<b>Fréquence/ Période</b>	<b>Responsabilité</b>	<b>Coût pour le Suivi (US\$)</b>
		les sites du projet		du projet; Consultant	
	Émissions gazeuses (CO, SO <sub>2</sub> , NO <sub>x</sub> )	Surveillance de la qualité de l'air extérieur et analyses	Trimestriel	Groupe de travail ESIA (WG); Responsable Environnemental du projet; Consultant	2,000
<b>Bruit et Vibration</b>	Niveau de bruit en dB(A) (Leq, Leq jour, Leq nuit, et Leq horaire) ≤49,2 dB(A) de jour (7h-22h)	Mesure onsite du niveau de bruit et fréquence des vibrations	Trimestriel	Groupe de travail ESIA (WG); Responsable Environnemental du projet; Consultant	2,000
<b>Contamination du Sol</b>	Propriétés du sol - pH du sol dans la plage 6.0-8.5; métaux lourds (As, Pb, Cd, Hg) en dessous des limites de l'OMS à tous les sites de tests	Prélèvement d'échantillons de sol et analyses	Audit de fin de projet	Groupe de travail ESIA (WG); Responsable Environnemental du projet; Consultant	3,000
<b>Pollution de l'Eau</b>	Température, Turbidité, pH, EC, TDS, Salinité, Couleur, Odeur, Goût, TSS, PO <sub>4</sub> <sup>3-</sup> , NO <sub>3</sub> <sup>-</sup> , NO <sub>2</sub> <sup>-</sup> , Fe, Cl <sup>-</sup> , Alcalinité, Dureté, Ca, Mn, DO, As, F <sup>-</sup> , SO <sub>2</sub> <sup>-4</sup> , NH <sub>4</sub> , TC et FC	Collecte d'échantillons d'eau (et analyse) à partir des sources d'eau (plus proche plan d'eau ou forage)	Trimestriel	Groupe de travail ESIA (WG); Responsable Environnemental du projet; Consultant	8,000

<b>Impact Potentiel</b>	<b>Paramètre Indicateur</b>	<b>Méthode et Lieu de Suivi</b>	<b>Fréquence/ Période</b>	<b>Responsabilité</b>	<b>Coût pour le Suivi (US\$)</b>
<b>Déchets</b>	Types, qualité, quantité, système de collecte et lieux de mise en décharge	Vérifications visuelles pour évaluer la situation et tenue des registres, y compris des photographies si applicable	Trimestriel	Groupe de travail ESIA (WG); Responsable Environnemental du projet; Consultant	3,000
<b>Impact sur la vie sociale / Conflits socio-culturels</b>	Conflits culturels, normes, vices sociaux, perception du projet par les leaders communautaires, hospitalité des indigènes	Effort continu de consultations (à tous les niveaux); Révision de la mise en œuvre du Plan d'Engagement Communautaire dans la communauté hôte	Trimestriel	Groupe de travail ESIA (WG); Responsable Environnemental du projet; Consultant	5,000
<b>Afflux de personnes</b>	Nombre de travailleurs venant de l'extérieur de la communauté hôte	Suivi et enregistrement du nombre de travailleurs employés	Trimestriel	Groupe de travail ESIA (WG); Responsable Environnemental du projet; Consultant	2,000
<b>Santé et sécurité au travail</b>	Maladies fréquentes parmi les travailleurs, accidents de travail, aptitude médicale	Observation, interviews, et utilisation des rapports d'Analyse des Risques Professionnels, rapports des établissements de santé à proximité	Trimestriel	Groupe de travail ESIA (WG); Responsable Environnemental du projet; Consultant	2,000

<b>Impact Potentiel</b>	<b>Paramètre Indicateur</b>	<b>Méthode et Lieu de Suivi</b>	<b>Fréquence/ Période</b>	<b>Responsabilité</b>	<b>Coût pour le Suivi (US\$)</b>
<b>Impact sur la santé de la communauté</b>	Maladies communes / prédominantes dans les communautés hôtes	Utilisation de questionnaires au sein des communautés hôtes et collecte des statistiques sanitaires du centre de santé le plus proche (Chamen)	Audit annuel de la performance environnementale et sociale	Groupe de travail ESIA (WG); Responsable Environnemental du projet; Consultant	4,000
<b>Exposition aux risques pour la main-d'œuvre</b>	Maladies fréquentes parmi les travailleurs, accidents de travail, aptitude médicale	Observation, interviews, et utilisation des rapports d'Analyse des Risques Professionnels	Semestriel	Groupe de travail ESIA (WG); Responsable Environnemental du projet; Consultant	2,000
<b>Impacts liés au Genre (VBG, EAS/SH)</b>	Rapport des cas de VBG, EAS/SH - Cas signalés résolus dans un délai de 30 jours	Enquête sur les cas signalés, interview avec les victimes affectées et non affectées	Trimestriel	Groupe de travail ESIA (WG); Responsable Environnemental du projet; Consultant	10,000
<b>TOTAL</b>					<b>45,000</b>

#### Calendrier de Mise en Œuvre et Estimations des Coûts

Le plan de gestion environnementale et sociale (PGES) sera mis en œuvre conformément au calendrier finalisé du projet, ainsi qu'aux activités intégrées dans la conception du projet. Il sera nécessaire que l'entrepreneur mette à jour les instruments de sauvegarde en fonction de la conception finale des travaux de construction, de rénovation ou d'amélioration. Le budget proposé pour la mise en œuvre du PGES est de 160 000 USD, y compris le renforcement des capacités des parties prenantes pertinentes, comme indiqué dans le tableau ci-dessous.

#### Responsabilités de Reporting du PGES durant la Mise en Œuvre

Le reporting de la mise en œuvre et du suivi du PGES doit être harmonisé avec le système principal de suivi et d'évaluation du Projet afin d'assurer une communication holistique et efficace entre les parties prenantes.

### Divulcation du PGES

Une fois le rapport de l'EIES/PGES approuvé, la NSPA veillera à ce qu'il soit publié sur les sites internet de la NSPA et du Ministère de la Santé. L'Agence nationale de l'environnement (NEA) le publiera également sur son site web ainsi que dans d'autres lieux pertinents, selon les besoins. La Banque Africaine de Développement le rendra aussi disponible sur son site web.

### Programmes d'après-soins environnementaux et sociaux

Pour réduire et gérer les impacts du projet proposé sur les communautés locales environnantes et sur l'environnement, les programmes suivants sont recommandés dans le cadre du PGES pour assurer la durabilité :

- Programme d'éducation communautaire et environnementale
- Programme de gestion de la qualité de l'eau
- Programme de gestion des déchets
- Programme de gestion de la qualité de l'air
- Programme de gestion de la santé et sécurité au travail
- Programme de gestion du genre, VBG/HS et gestion sociale

Il convient de noter que le PGES proposé constituera la référence pour tous les futurs programmes de gestion et plans connexes, tout en intégrant le suivi conformément aux lois en vigueur et aux bonnes pratiques en matière de développement durable.

### Audit Environnemental

Il s'agit d'un examen systématique des activités du Projet par rapport au PGES afin de s'assurer que sa mise en œuvre est conforme aux principes de durabilité environnementale. L'audit peut également identifier de nouveaux risques non anticipés, résultant de modifications dans la conception des activités du Projet ou des changements sur le site. Ainsi, de nouveaux moyens d'atténuation ou des mesures alternatives peuvent être proposés. Il est donc recommandé de réaliser un audit environnemental indépendant à mi-parcours de la mise en œuvre du Projet.

### Budget proposé pour la mise en œuvre du PGES

Activités	Impacts	Indicateurs	Moyens de Vérification	Phases (Préparation / Construction / Exploitation / Clôture)	Responsables	Source de Financement	Coût de Mise en Œuvre (US\$)
<b>Mesures d'atténuation</b>	Conformité accrue et efficacité des mesures d'atténuation	Existence d'un PGES approuvé et mis en œuvre	Rapports	Toutes les phases	Entrepreneur, UGP NSPA, NEA, MoH	Budget du projet / AfDB	23,000
<b>Renforcement des capacités de l'UGP, des entrepreneurs, travailleurs et parties prenantes</b>	Capacité améliorée pour la mise en œuvre du PGES	Nombre de formations réalisées ; nombre de personnel et partenaires formés	Rapports de formation ; feuilles de présence	Phases de préparation et de construction	UGP NSPA, NEA, RHD	Budget du projet / GoTG, AfDB	25,000
<b>Mise en œuvre du suivi environnemental et social</b>	Conformité et efficacité accrues ; capacité renforcée pour un suivi efficace	Fréquence des visites de site et audits	Rapports de suivi ; constats d'audit	Toutes les phases	UGP, NEA, RHD	Budget du projet / GoTG, AfDB	45,000
<b>Renforcement et fonctionnement du Comité de gestion des griefs (CGG)</b>	Amélioration du système de traitement des plaintes	Nombre de plaintes reçues/résolues	Registres des plaintes ; procès-verbaux des réunions du CGG	Phases de préparation et de construction	Communauté locale, UGP NSPA, CGG	Budget du projet / GoTG, AfDB	26,000
<b>Programmes post-projet environnementaux et sociaux</b>	Durabilité des résultats du PGES	Nombre d'activités post-projet maintenues	Rapports post-projet ; retours des bénéficiaires	Phase de démantèlement	UGP NSPA, NEA, RHD	Budget du projet	11,000

Activités	Impacts	Indicateurs	Moyens de Vérification	Phases (Préparation / Construction / Exploitation / Clôture)	Responsables	Source de Financement	Coût de Mise en Œuvre (US\$)
<b>Élaboration du plan de gestion des déchets</b>	Pratiques de gestion des déchets plus sûres	Disponibilité et mise en œuvre du plan	Document du plan de gestion des déchets	Phases de préparation et d'exploitation	RHD, NEA, Gestion des établissements de santé	Fonds du projet / GoTG, AfDB	10,000
<b>Audit environnemental annuel</b>	Assure la conformité au PGES et une gestion adaptative	Réalisation de l'audit annuel	Rapports d'audit	Phases d'exploitation et de clôture	UGP NSPA, Consultant, NEA	Budget du projet/ GoTG, AfDB	20,000
<b>TOTAL</b>							160,000

## Conclusion

Les impacts négatifs potentiels associés au projet proposé peuvent être atténués avec succès. Le développement proposé doit être autorisé à avancer, à condition que le promoteur du projet démontre un engagement total à mettre en œuvre les mesures d'atténuation et le PGES. Un audit environnemental est recommandé à la fin des travaux de construction pour vérifier la mise en œuvre des mesures d'atténuation proposées. Tout impact imprévu découlant du projet doit être identifié et traité par des audits environnementaux annuels. Il est également conseillé que le projet établisse un mécanisme de traitement des plaintes pour gérer efficacement les griefs ou plaintes des personnes affectées par le projet.

## 1.0. Introduction

The Government of The Gambia through the National Social Protection Agency (NSPA) has received support from the African Development Bank (AfDB) for the Vulnerable Youth and Women Support Project (VYWoSP) to provide vulnerable groups, particularly out-of-school youth and women, with market-oriented skills and access to a range of services (financial and nonfinancial, basic social services) to tackle the multidimensional aspect of poverty and vulnerability. The main thrust of the project is that if poor and vulnerable women and youth in rural areas have the required skills in the agricultural value chain and access to quality basic social services, then there will be an increase in their productivity, and household income, and access to quality healthcare and education, thus reducing poverty and improve inclusive growth. Transformative social and behavioral change communication will intervene to sustainably strengthen achievements and bring change in populations' perception of gender equity, women's economic empowerment, use of basic social services, etc.

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. It 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 additional financial support from the Bank was geared towards supporting the implementation of The Gambia National Health Strategic Plan (2021 – 2025). In this regard, a portion of the grant was allocated for the construction and renovation of Chamen Health Center in Central River Region.

The project has the following four (4) components:

- 1) **Component 1:** Support to equitable and inclusive access to jobs and livelihood opportunities for youth and women (UA 4.28 million). This component will build on the existing project that is focused on providing non-financial support to youth and women owned enterprises. In addition to existing activities (functional literacy and entrepreneurship training, provision of equipment and non-financial services), it will promote access to finance for the creation of decent jobs and enhance nutrition skills on selected agricultural value chains. It has two sub-components.
  - a. *Sub-component 1.1* – Support for job creation will focus on providing credit access to women and youth-owned enterprises, alongside capacity building in entrepreneurship and financial skills for credit recipients. Beneficiaries will also receive training and equipment for agro-processing. A feasibility study will be done at the beginning of the project implementation to identify the financial intermediary, the criteria for accessing the financing facility, and the credits modalities. Additionally, the component will support the

- Ministry of Higher Education, Research, Science, and Technology (MoHERST) in creating regional national innovation and entrepreneurship hubs to foster entrepreneurship, innovation, and business development across regions. Capacity building will also be provided for the Ministry of Youth and Sport (MoYS), the Ministry of Gender, Children, and Social Welfare (MoGCSW), and MoHERST to strengthen their support for these initiatives.
- b. *Sub-component 1.2* – Provision of nutrition related skills development within selected agricultural value chains for women and youth. The component will include training programs on nutrition-sensitive agriculture practices while supporting improved storage and other postharvest loss technologies that retain nutrient content.
- 2) **Component 2:** Support for health systems strengthening (UA 8.72 million). This component will increase the impact of the existing project that is focused on financing the renovation and equipping of two healthcare centers. AF-VYWOSP will support the renovation and equipping of four additional health facilities 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 three sub-components.
- a. *Sub-component 2.1:* Renovation 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.
  - b. *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.
- 3) **Component 3:** Support for enhanced nutrition-smart surveillance and treatment systems (UA 1 million). The component will enhance the nutrition surveillance system to function as an early warning tool, improving the ability to promptly monitor and address nutritional

deficiencies. This will ensure timely interventions to prevent malnutrition from worsening. Additionally, for severe cases of malnutrition, nutrition treatment centers in the health facilities will be upgraded and rehabilitated into better-equipped facilities. These improvements will lead to more effective management and recovery of malnourished individuals, thereby reducing morbidity and mortality rates associated with malnutrition.

- a. *Subcomponent 3.1:* Strengthening nutrition surveillance as an early warning system through digitization and integration with health, agricultural and social services for a comprehensive view on nutritional status in the areas leading to better monitoring, timely interventions and ultimately improved nutritional outcomes. This will include capacity building to ensure the quality and accuracy of data collected.
  - b. *Subcomponent 3.2:* Renovation and upgrading of nutrition treatment centers will focus on enhancing infrastructure and service delivery capacities. This will include the expansion of facilities, provision of supplies, capacity building for health workers on the latest malnutrition treatment protocols, and improved service integration and referral systems.
- 4) **Component 4:** Project management (UA 1 million). This component will support activities that aim to enhance effective and efficient management of project activities such as coordination and capacity building on financial management and procurement. At the environmental level, risks will be related to Component 2 and Activity 2.1, in particular the component concerning the Renovation of four additional Healthcare facilities to provide high quality health services including for sexual and reproduction health.

## 1.1. Project Objective

The Project Development Objective (PDO) is to improve the incomes and productivity of the most vulnerable youth and women in rural areas and to improve their access and use of basic social services, including health, nutrition, and education services.

Overall, the project will:

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

## **1.2. Rationale for ESIA for the Project**

The National Environment Management Act (NEMA1994) provides the legal basis for environmental 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 should undergo the EIA procedure so that potential impacts are identified and adequate mitigation actions/strategies are developed.

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

Development of an Environmental and Social Impact Assessment (ESIA) report and submission of a report thereof is one of the essential requirements that the Agency relies on to determine if proponents are in a better position to ensure that their proposed developments do not create significant negative impacts on human/animal health and the environment.

In consequent to the above, it is a requirement by the environmental laws of the country and the AfDB safeguard policies to carry out an ESIA and prepare a report which include the Environmental and Social Management Plan (ESMP) accordingly.

## **1.3. Objectives of ESIA/ESMP**

The overall objective of conducting an ESIA is to identify, assess, and evaluate the potential environmental and social impacts of the construction/renovation of Chamen Health Center and to develop mitigation and enhancement measures that can be adopted to reduce or eliminate these negative impacts as well as maximize the potential benefits of the project. The assessment and management plan will be key to developing a sustainable intervention with minimal environmental and social impact.

The following are the specific objectives of the ESIA study:

- To identify project activities that has the potential to impact the environment negatively.
- To map negative environmental and social areas of concern in the construction/renovation of the Chamen health center.
- Develop mitigation measures and an Environmental and Social Management Plan (ESMP).
- 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.

#### **1.4. Scope of ESIA/ESMP**

The focus of the ESIA study is on the project activities associated with the renovation/construction of the Chamen Health Center in Chamen Village, Nianija District in the northern part of Central River Region (CRR) in the Kuntaur Local Government Area.

The key activities undertaken for the preparation of this ESIA included:

- Detailed desk review to better understand the project objectives, components, activities and outcomes as well as the legal and institutional framework around the implementation of this project.
- Conduct field visits to the selected site for the health center construction/renovation to observe the existing environment and social conditions, assess the proposed development, and identify potential impacts.
- Conduct a comprehensive scoping to identify the environmental and social risk and impact issues for the Chamen Center
- Consultations with relevant stakeholders using suitable data collection methods such as focus group discussions, key informant interviews, etc.
- Carry out the Environmental and Social Impact Assessment (ESIA), and develop Environmental and Social Management Plan (ESMP).

#### **1.5. Description of The Gambia Health Care System**

##### **1.5.1. Description of The Gambia Health Care System<sup>2</sup>**

The Gambian healthcare system is founded on a robust primary healthcare concept that dates back to 1980. It operates through a three-tier structure comprising primary, secondary, and tertiary levels of care.

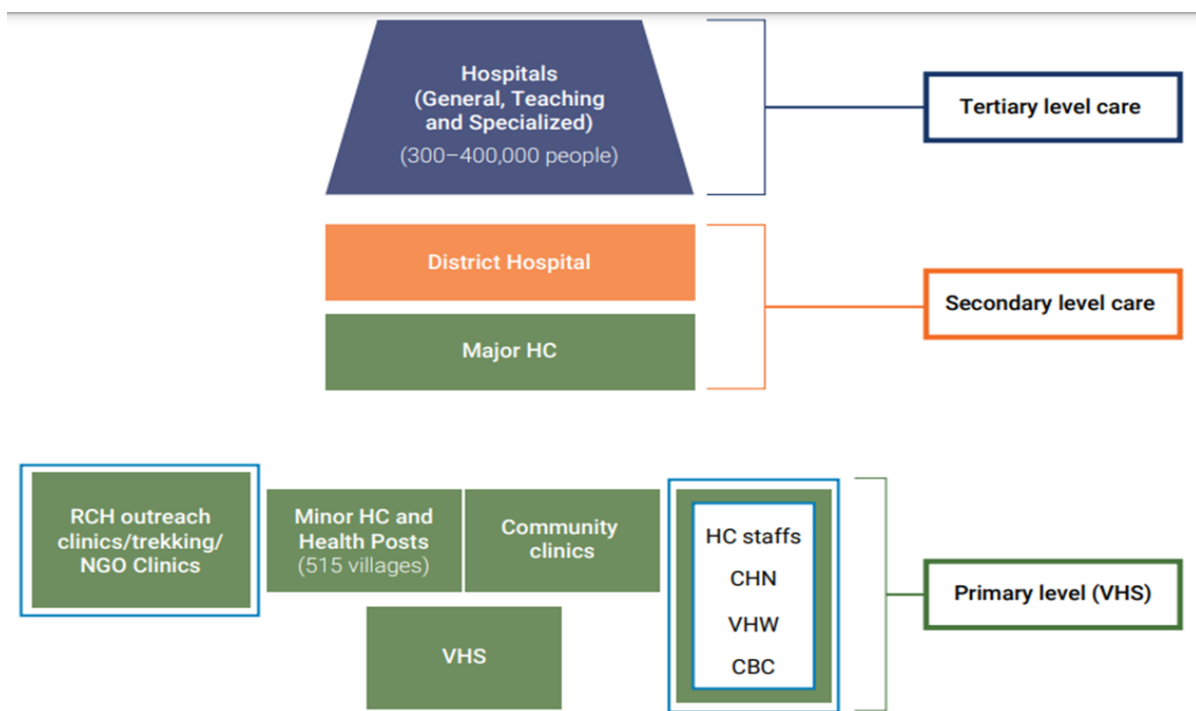
At the primary level, there are Village Health Services (VHS), which include village health posts, village clinics, and reproductive health outreach clinics. The secondary level is made up of minor and major health centers and district hospitals. The tertiary level primarily consists of hospitals, including general, specialized, and teaching hospitals, as illustrated in **Figure 1**.

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<sup>2 2</sup> Extracted from the National Multi-Sectoral Strategy and Costed Action Plan, 2022 – 2027.

<https://www.afro.who.int/sites/default/files/2022-07/National%20Multi-sectoral%20Strategy%20and%20Costed%20Action%20Plan%20for%20NCD%20prevention%20and%20control%20-Gambia%202022-27.pdf>

In addition to the public health system, there is a network of private healthcare facilities throughout the country. This includes Non-Governmental Organizations (NGOs), private for-profit entities, and faith-based health facilities, all of which complement the services provided by the public sector.



**Figure 1. Structure of The Gambia Health Care System**

The Health Service Assessment report of 2019 noted that the decentralization of healthcare is weak, and that the delegation of authority is more of a “push” system where allocations to facilities are based on what is received from the central authority rather than specific requisition<sup>3</sup>. This system impacts on the quality of both general and specific services provided at facility level. Hence, health services utilization is low with a shortage of health facilities, core healthcare workers, medicines, and equipment. Although 40% of the population resides in rural areas, where access to healthcare is mainly from primary or secondary level facilities, coverage in rural areas is low with an average coverage of 40% nationally. Only 20% of health funding is allocated to these facilities<sup>4</sup>.

Coordination across the health sector in The Gambia, involving government, civil society/NGOs, and donors, remains a significant challenge. Despite notable improvements, the Health Service Assessment Report (2019) revealed that most coordination occurs at the programme or activity level rather than across various health programmes within the Ministry of Health (MoH). Currently, there is no established cross-programme coordination mechanism within the MoH, or between private

<sup>3</sup> Health Management Information System, (2019). Health Service Statistics Report, Ministry of Health, Banjul, The Gambia

<sup>4</sup> National Health sector Strategy plan 2021-2025

health sectors and NGOs. Consequently, the regulation of healthcare providers in the private sector and NGOs continues to be problematic.

Furthermore, the coordination and regulation of healthcare personnel face similar challenges, as the professional councils lack the necessary capacity to effectively carry out their regulatory responsibilities. While legislation provides these councils with the statutory authority for regulation and licensing, they do not possess adequate technical and financial resources to enforce regulations on health providers. Additionally, many healthcare providers are often unaware of the relevant regulations governing their profession. Nevertheless, the MoH has implemented a mechanism to license all private and NGO health facilities, as well as their personnel.

## 1.6. Chamen Health Center

Chamen Health Center, one of the identified health facilities earmarked for renovation/construction is situated in the Nianija District of the Central River Region North. Established in 1938, it stands as one of the oldest minor healthcare facilities in the country. The health center provides essential healthcare services to thirty-four communities within the Nianija District, serving a catchment area population of 12,585, which includes 1,928 individuals under the age of five.

The facility typically records approximately 500 Out-Patient Department (OPD) consultations each month for the general population. Among these, there is a notable higher frequency of around 300 consultations specifically for children under five years old. In the year 2024, Chamen Health Centre reported a total of 250 skilled deliveries.

The services offered by the health center include outpatient care, inpatient services, reproductive health, laboratory testing, antenatal care, immunization, public health initiatives, as well as tuberculosis and HIV services. As a government-managed health facility, Chamen Health Centre is strategically located along the Chamen Highway, ensuring accessibility for the communities it serves (see **Figure 2**). Chamen Health Center premise is rectangular in shape with a dimension of 100 meters by 200 meters, giving an area of 20,000m<sup>2</sup>.



Figure 2. Google Earth Map Showing the Proximity of the Closest Community to the Site

Table 1.0 Location and Perimeter Coordinates of Chamen Health Center

Location Coordinates	13.712457,	-15.162931
Perimeter Coordinates		
	Latitude	Longitude
A	13.711863	-15.163054
B	13.712265	-15.161264
C	13.713995	-15.161707
D	13.713612	-15.163478

The health center premise is flat with few fruits and wild trees including 8 Mango trees, 1 Eucalyptus Nicholli, 1 Mahogany, 2 Neem trees and 2 palm trees. (Figure 3.). In addition, there is presence of small ruminants' droppings such as goats and sheep within the site which is evidence presence of domestic animals in area.

Although, there has been quite a number of renovations done in the past but the current status of the infrastructures within the facility demands urgent renovation to ensure better and quality health care service deliver. The following units are proposed for construction/renovation works:



**Figure 3: Current state of the Chamen Health Center environment with variety of trees**

### **1.7. State of Infrastructure at Chamen Health Center**

The general conditions of these structures are fairly better though the facility is small in size and therefore requires an expansion to accommodate more patients and key personnel of the Health Centre. However, the buildings developed some defects which are as follows:

- 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 toilets
- Painting of the facility
- Leakage marks on ceiling
- Replacement/changing of doors and windows
- Broken floor tiles



Figure 4. Structural Defects identified at Chamen Health Center





### 1.8. Recommended Construction/Renovation Activities at Chamen Health Center





Although there has been quite a number of renovations done in the past but the current status of the infrastructures within the facility demands urgent renovation to ensure better and quality health care service deliver. Following the assessment of the health facility, the following recommended construction/renovation works are required:

- Removed and replace with new roofing sheets and roofing structures
- Repaired and replaced all electrical fault on the cables as well as appliances
- Repaired all hairline and major cracks on walls
- Repaired and replace with new plumbing fittings in wards and toilets
- Repaint the whole facility

- Remove and replaced with new ceiling
- Remove and replaced with new doors and windows
- Provide new floor tiles where needed
- Expand the labour ward by creating delivery room for each patient with complete privacy.
- Expand the maternity ward to accommodate more patients.
- Construct one story building staff quarters to accommodate more staff.
- Construct a ward for male and female to accommodate more patients.
- Construct of new block to accommodate Public Health, Laboratory and scanning for patients.
- Reconstruction of about 250m perimeter fence.
- Provides additional power supply using solar panels.
- Provides additional water tanks and solar street lights

**Table 2.0. List of the Infrastructure to be Renovated/Constructed (scope of work)**

Name of Infrastructure	Proposed renovation work	Pictures
Existing Maternity Unit Block	8. Painting 9. Roofing 10. Ceiling 11. Extended walls and expansion 12. Tiling 13. Installation of doors and windows 14. Plumbing and electrical work	
Outpatient Block	6. Roofing 7. Installation of doors and windows 8. Plumbing and electrical work 9. Painting 10. Tiling	
Existing Staff quarters	8. Painting 9. Roofing 10. Tiling 11. Ceiling 12. Installation of doors and windows 13. Plumbing and electrical work 14. Cooking stove	
Waiting Area	5. Painting 6. Roofing 7. Tiling 8. Electrical works	

Public toilets	<ol style="list-style-type: none"> <li>6. Painting</li> <li>7. Roofing</li> <li>8. Installation of doors and windows</li> <li>9. Tiling</li> <li>10. Plumbing work</li> </ol>	
Fence	<ol style="list-style-type: none"> <li>2. Construction of a new 250m Perimeter fence</li> </ol>	
Water	<ol style="list-style-type: none"> <li>3. Installation of water tank</li> <li>4. Installation of solar panel for the tank</li> </ol>	
Electricity	<ol style="list-style-type: none"> <li>3. Installation of solar panels</li> <li>4. Installation of batteries for the solar</li> </ol>	
New Maternity Unit & Labour Ward	<ol style="list-style-type: none"> <li>1. Painting</li> <li>2. Included walls</li> <li>3. Reinforcement and formwork</li> <li>4. Plastering and blockwork</li> <li>5. Ceiling</li> <li>6. Installation of doors and windows</li> <li>7. Plumbing and electrical work</li> <li>8. Roofing</li> <li>9. Tiling</li> </ol>	
New staff quarters	<ol style="list-style-type: none"> <li>Construction of a new one-story building</li> <li>11. Painting</li> <li>12. Roofing</li> <li>13. Ceiling</li> <li>14. Extended walls</li> <li>15. Concrete work</li> <li>16. Reinforcement and formwork</li> <li>17. Plastering and blockwork</li> <li>18. Tiling</li> </ol>	

	19. Installation of doors and windows 20. Plumbing and electrical work	
New block to accommodate Public Health, Laboratory and scanning for patient	Construction of a new Block 1. Painting 2. Roofing 3. Ceiling 4. Extended walls 5. Concrete work 6. Reinforcement and formwork 7. Plastering and blockwork 8. Tiling 9. Installation of doors and windows 10. Plumbing and electrical work	

### 1.9. Primary Beneficiaries of the Project

Chamen Health Center is located in Chamen Village, Nianija District in the northern part of Central River Region (CRR) in the Kuntaur Local Government Area that is about 9km from the main road. The facility is covering 33 villages including two Primary Health Care (PHC) key Villages such as Palleleh, Buduck and Bakadaji Jailan village clinic with 4 community health nurses are overseeing the primary health care services. It has a catchment area population of 12,585 and 1928 under five populations. The district is having 6 RCH sessions, two Base and four trekking sites. The facility is 62km away from Janjanbureh, which is the administrative center of Central River Region and 80km from Bansang General Hospital, which is the nearest and the only referral hospital in the region.

### 1.10. Project Alternatives

The objective of analyzing this project's alternatives is to identify practical options to reduce or prevent the adverse impacts on the proposed renovation/construction of Chamen Health Center.

Intending to increase access to quality healthcare services, the alternative analysis of this project considers other practicable strategies that can be looked at to achieve the project objectives and eliminate adverse environmental and social impacts associated with project implementation. The scenarios are given to choose the design and renovation/construction plan in accordance with the objectives and the actual natural environment and socioeconomic conditions in Chamen Health Center. The various alternatives to the proposed project were assessed regarding environmental acceptability and economic feasibility during the assessment process as discussed below.

#### 1.10.1. Action Alternative Scenarios

Reactions from consultations and engagement with the community and key stakeholders highlighted that the major benefit of the proposed project is improving access to better healthcare services in the

district of Nianija as it is the only health facility in the district. Therefore, the renovation/construction of the Chamen Health center is most appropriate considering its proximity to good road facilities for easy reach by users.

#### **1.10.2. Zero or No Project Alternative**

In the case where the zero scenarios alternatives are considered, this means that the project will not be implemented. The forgone costs of not having the project could result in economic and social losses regarding employment development, human welfare, livelihood and improved services. So, this option is not recommended for this project since the plot of land belongs to the health center and there is no other alternative plot that the developer can access without incurring additional costs. There is also evidence that the renovation/construction of this health facility will not have severe negative impacts on the surrounding environment and communities.

Therefore, Zero or No Project Option is the least preferred from the health, socio-economic, and perspectives, considering that the health risks associated with no renovation/construction in the Nianija District, especially with long the distance to referral hospitals will persist. This analysis shows that the No Project alternative may not be an option for the MoH and the people Nianija District.

#### **1.10.3. Location and layout alternatives**

The location and layout alternatives were not considered since the proposed renovation/construction works will take place within the premises of existing structures at Chamen Health Center. Also, the intended project concerns the expansion works of the Chamen Health Center, which already exists in the project area. This means that the site fits the proposed project. The site also has access to water, but no grid electricity expansion in the area. However, Solar Energy source is a viable option.

#### **1.10.4. Construction**

The design considered construction techniques that use local materials as much as possible and imported materials where local ones cannot be obtained. The construction will involve the use of locally made materials like cement blocks because there is no other affordable solution available for the construction of such permanent structures and bearing in mind that the other alternative is the use of burnt bricks, which are very detrimental and destructive to the environment. Local materials made from wood, tiles, or iron sheets manufactured locally will be used for roofing, which substitutes the other alternative of using imported ones. The use of locally made materials provides employment and also supports the promotion of local industries.

#### **1.10.5. Solid waste management**

The waste will be sorted on-site and four categories of wastes will be treated separately:

- Organic wastes that will be generated during the renovation/construction and operation phases of the project will be transformed into organic manure through composting and used in the landscape plants as soil dressing;
- For paper, wood, etc., a better option is to transport them to a designated waste dumping site for appropriate disposal;
- Stony and earthy materials will be converted into construction materials. This will be tried only during the construction phase;
- Artificial and non-biodegradable materials (metals, plastics, etc.) will be removed from the site and reused where possible or sold to companies for recycling or taken to the approved landfill site.

Several opportunities will need to be explored for reducing solid waste. The most possible option is the composting of organic wastes and their reuse.

#### **1.10.6. Water supply**

The water supply will be connected to the health center's existing solarized water supply network. However, additional capacity is required to improve cleaning, toilet flushing or the plant's watering system. It is therefore suggested to install an additional 4000 liters water tank, a high-capacity pumping machine and solar panels. This will ensure water availability throughout the project lifecycle and operational phase.

#### **1.10.7. Energy supply**

There are many types of energy sources. The best option would be to use a renewable energy source. Solar energy would be a better option, but the high demand for energy in different building activities is also considered; hence solar energy cannot cope with the demand. Using a generator also presents many disadvantages, among them, the high prices of fuel including the high fuel prices and noise pollution. The only reliable option is to connect the building to the national grid available in the area.

#### **1.10.8. Timing and Duration of Construction Works**

The renovation/construction works schedule will follow a logical building order. For the earthworks, the intention is to minimize the excavation on site and any consequential effects of soil erosion and the downstream drainage system clogging. Interruption with normal activities of center staff and users around the construction site, including noise and dust pollution, is anticipated since normal center activities within the project implementation period. Thus, rehabilitation/construction works will be scheduled to minimize the impact of noise and dust on the center and the surrounding environment. The timing and duration of the construction works is likely to have a number of implications, especially if the rainy season is taken into account. Heavy rains will undoubtedly affect the duration of construction activities especially in areas with high rainfall and soft soil which makes road transport almost impossible due to mud and sliding, hence the complication of delivering materials to the construction site.

**Table 3.0. Analysis of Alternatives**

<b>Option/ Method of Deployment</b>	<b>Potential Environmental, Social, Technological and Economic Implications</b>		<b>Preferred Option</b>
<b>Zero scenario alternatives</b>			
<b>Allowing the project</b>	<b>Advantages</b> 2. Employment opportunities will be provided during the project implementation	<b>Disadvantages</b> 1. The anticipated adverse environmental and social impacts will be a reality	The not allowed option is preferred
<b>Not allowing the project</b>	<b>Advantages</b> 1. The anticipated adverse environmental and social impacts will be avoided	<b>Disadvantages</b> 1. There will be loss of employment opportunities due to the project	
<b>Location and layout alternatives</b>			
<b>Build within the existing premises</b>	<b>Advantages</b> 1. No extra cost to be incurred in buying land 2. No grievances due to dispossession	<b>Disadvantages</b> - Potential constriction of available space	Build on site option preferred
<b>Build on a different site</b>	<b>Advantages</b> - May lead to a wider space available	<b>Disadvantages</b> 3. Cost implication for a new land 4. Potential grievances arising from dispossession	
	<b>Advantages</b>	<b>Disadvantages</b>	
<b>Construction</b>			
<b>2. Cement blocks</b>	4. Materials available 5. Will promote business 6. Relatively manageable	5. Pollution effect of cement 6. Retains heat and generally hot at night 7. Environmental degradation due to extraction of sand	Cement blocks since it is easier to made and readily available
<b>8. Bunt bricks</b>	3. Promotion of local skills 4. Employment opportunities	5. Will lead to environmental degradation 6. Risk of fire outbreaks 7. More labor intensive and time consuming	

Option/ Method of Deployment	Potential Environmental, Social, Technological and Economic Implications		Preferred Option
		8. Emission into atmosphere due to burning	
<b>Solid waste management</b>			
<b>4. Composting</b>	1. Availability of manure for gardening 2. Will reduce the reliance on agro-chemicals	2. Tedious and time consuming	Both options preferred
<b>5. Disposal</b>	6. Will prevent indiscriminate littering and pollution	4. Proper disposal site may not be close to source of waste 5. May incur significant cost thus a sustainability challenge 6. Further contamination of land and ground water due to type of waste and characteristics of a disposal site	
<b>Water supply</b>			
<b>Reliance on existing water supply</b>	<ul style="list-style-type: none"> <li>- Will enable no disruption of the water supply system</li> <li>- Will require no cost implications</li> </ul>	<ul style="list-style-type: none"> <li>- The demand will be too much for the existing system to support</li> </ul>	Both options preferred
<b>Improvement of the existing capacity with pumping system and overhead tank</b>	<ul style="list-style-type: none"> <li>- Will enhance the existing capacity</li> <li>- Will ensure that adequate water is available for other needs</li> </ul>	<ul style="list-style-type: none"> <li>- Will incur significant cost implication</li> </ul>	
<b>Energy supply</b>			
<b>Solar</b>	<b>Advantages</b> <ul style="list-style-type: none"> <li>- Environmentally friendly</li> <li>- Does not incur extra cost besides the initial</li> <li>- The local environmental conditions support it</li> </ul>	<b>Disadvantages</b> <ul style="list-style-type: none"> <li>- Not enough power will be generated to serve all the needs</li> <li>- Risk of theft</li> </ul>	Solar is the preferred option but it is highly recommended to connect to

Option/ Method of Deployment	Potential Environmental, Social, Technological and Economic Implications		Preferred Option
<b>Generator</b>	<ul style="list-style-type: none"> <li>- Does not incur significant start-up cost, depending on the type and power needed</li> </ul>	<ul style="list-style-type: none"> <li>- Noise and vibration impacts</li> <li>- Emission from the generator exhaust especially as it ages</li> <li>- Frequent buying of fuel to power the generator may not be sustainable</li> </ul>	the national grid to enable the powering of the appliances
<b>Grid</b>	<ul style="list-style-type: none"> <li>- Ensures that all the Center`s appliances are functional</li> </ul>	<ul style="list-style-type: none"> <li>- Frequent buying of cash power will have significant cost implications</li> </ul>	
<b>Timing and duration of construction works</b>			
<b>Construction during the dry season</b>	<p><b>Advantages</b></p> <ul style="list-style-type: none"> <li>- Heavy machinery and trucks can easily access the construction site to deliver the materials</li> </ul>	<p><b>Disadvantages</b></p> <ul style="list-style-type: none"> <li>- Dust emission due to use of heavy vehicles, excavations, etc</li> </ul>	The preferred option to construct during the dry season but work to be scheduled to avoid dust, noise and vibration impacting working sessions.
<b>Construction during the rainy season</b>	<ul style="list-style-type: none"> <li>- Dust emission will be minimal due to wet conditions</li> </ul>	<ul style="list-style-type: none"> <li>- Certain areas with muddy soils will be inaccessible</li> </ul>	

### 3. Methodology

The Environmental & Social Impact Assessment aims to ensure the project is environmentally and socially sound and fits the community/beneficiaries' needs and aspirations well. The study, therefore, describes and quantifies the potential impacts on the biophysical environment and the beneficiary and neighboring populations before, during, and on completion of the project. Mitigation measures are proposed for any negative impacts identified, and an environmental and social management and monitoring plan has been developed covering each phase of the project site. The following strategies were adopted to achieve the objectives of the Environmental & Social Impact Assessment:

- Detailed assessment of the state of the environment in the project location
- Evaluation and prediction of positive and negative environmental and social impacts associated with the project
- Recommendation of mitigation measures to address adverse environmental and social impacts, and
- Develop an Environmental and Social Management Plan (ESMP)

The methodological approach to preparing this ESIA report included a desk review of AfDB Requirements, Environmental and Social Standards, Environmental Health and Safety Guidelines, National Policies, institutional and regulatory frameworks, different laws, and ministerial orders applied to this project. Institutional and community consultations/engagements were also held across the relevant communities using a mixed-method approach to data collection using both quantitative and qualitative approaches (through interviews in the form of Key Informant Interviews (KIIs) and Focus Group Discussions (FGDs) with National, Regional, District and village authorities). The questionnaire and Environmental and Social (E&S) screening form were designed on Survey Solutions, a Computer Assisted Personal Interview (CAPI) tool used for data collection; the use ensured that the data collected was coherent and reliable. The information from the desk-reviewed documents, the baseline information reviewed, and stakeholder interviews were analyzed and put together to prepare this ESIA/ESMP report.

The assessment was carried out using a mixed-method approach to data collection by means of both quantitative and qualitative approaches.

#### 4.1. Data Collection

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

#### 4.1.1. Secondary Data Collection

**Desk review:** Relevant project documents were being carefully reviewed to develop an in-depth knowledge and understand of the project. Some of these documents include the Project document, baseline reports, and similar projects reports in the country, among others.

The following key legal documents were also reviewed among others:

- National Policies and Regulations
- National Legislations
- Relevant Environmental and Social Standards (i.e. AfDB`s safeguard instruments)
- Relevant International Environmental Instruments /Conventions The Gambia subscribed to
- As part of the secondary information gathering to identify existing environmental conditions, proposed developments at the selected proposed selected sites 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.

#### 4.1.2. Primary Data Collection

Primary data is required for the baseline study and stakeholder consultations. To gather data from stakeholders on project environment and socio-economic impacts, the following data collection activities were carried out: Survey; Expert Discussion; Focus Group Discussion (FGDs); and Key Informant Interviews (KIIs) and flora and fauna identification. Analysis approach use for the flora and fauna included field visits to identify the existing plant and animal species within the health facility. Direct counting of all visibly identifiable species during site visits was done.

The survey targeted health service users (patients) and health personnel or providers. Both service users and providers were targeted in facilities where the renovation or constructions works will take place. The purpose of the survey was to gauge the perception of beneficiaries on the environmental and social impacts of the project.

The population of the study was the total average health care users visiting the selected facilities per day. The health service user's data received at Chamen Health Center per day was an average of 65 users. The distribution of the average service users per day in each facility is reported and that of Chamen is in bold in **Table 4.0**.

**Table 4.0. Population of service users in each facility**

S/N	Facility	Region	Catchment area Population	Av. Patient/Week
1	<b>Chamen</b>	<b>CRRN</b>	12,585	75

To determine the sample size for the perception survey, the Krejcie and Morgan (1970) sampling size determination formula 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 is 45. To select respondents for the survey, a single-stage sampling design was adopted where in the respondents were selected at the health center using convenient sample at the project facility. The allocation of the sample to the health facility is shown in the table below. However, in total, 66 respondents were recruited due to the pressure from the community member to respond to the questionnaire.

**Table 5.0. Sample Size (Service Users/Patient)**

S/N	Facility	Population	Sample Size
1	Chamen	75	35

Data on the population of staff of the health facility project were obtained from the Regional Health Directorate (RHD), CRR. 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 16 respondents was calculated out of a total population of 45 health service providers in the selected health facility, 4 circuits and RHD (See Table 6.0). Again, PPS is used to apportion the sample to the health facility, however 16 service providers responded to the questionnaire.

**Table 6.0 Sample size Service providers**

S/N	Facility	Population	Sample Size
1	Chamen	47	16

The following category of respondents were targeted for the qualitative data collection: Regional Health Directorate Officer in-charge of the health facility; Alkalos of project sites; VDC Chairman; Women head; Youth head; Nurses; Public health officers; Community health nurses; Area Councils & Governor; CSOs/NGOs (Health). Overall, the target was to do 8 KIIs and 4 Focus Group Discussions – one in each community of the facility.

**Table 7.0. Target Group for each Data Collection Type**

No.	Data Collection Type	Target Group
1.	Perception Survey	<ol style="list-style-type: none"> <li>1. Users (patients)</li> <li>2. Providers (RHD staff, public health &amp; nurses)</li> </ol>
2.	FGD/KII	<ol style="list-style-type: none"> <li>1. Regional Health Directorate</li> <li>2. Officer in-charge</li> <li>3. Alkalos</li> <li>4. VDC Chair Persons</li> <li>5. Women head/group</li> <li>6. Youth head/group</li> <li>7. Nurses</li> <li>8. Public health officer</li> </ol>

		9. Community health nurse 10. Area Council 11. Office of the Governor 12. Regional Technical Advisory Committee
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#### 4.1.3. Groundwater sample collection and analysis

The water sampling and analysis was undertaken to understand the overall baseline water quality of the groundwater in the study area. Groundwater samples were collected from representative selected groundwater sources at the proposed project site.

The groundwater sampling locations were selected to obtain a representative water sample from various zones within the project site. The samples were collected from existing tube wells (hand-tube wells being used by the villagers). Groundwater samples were collected from different groundwater sources located in the study area. After collection, the groundwater samples were sent to the laboratory [Water Quality Monitoring and Control Laboratory, Department of Water Resources (DWR), Abuko, Kanifing Municipal Council (KMC)] for further examination of the groundwater parameters.

The samples were analyzed for parameters covering Bacteriological and Physico-chemical characteristics, which included certain heavy metals and trace elements. Water samples were collected as grab water samples in a pre-washed 2-liter plastic jerry can and 250 ml sterilized clean PET bottle for complete physio-chemical and bacteriological tests respectively. The samples were analyzed as per the standard procedure/method given in Standard Method for Examination of Water and Wastewater Edition 20, published by APHA.

#### 4.1.4. Ambient Air Quality Monitoring

The objective of the ambient air quality monitoring test was to establish the baseline ambient air quality in the proposed project intervention area. The study area is characterized as a rural area comprising habitation, bush, savanna grassland, and agricultural lands. The existing sources of generation of particulate matter and gaseous air pollutants were primarily from vehicles plying the nearby roads, windblown dust from agricultural lands, domestic heating, and cooking. There were no other remarkable sources of air pollution such as heavy industries observed very close to the project site.

The ambient air quality parameters like Particulate Matter (PM2.5, PM10) and Carbon Monoxide (CO) were measured at three locations in the project site and sounding area during baseline data collection. All measurements were taken upwind, downwind and crosswind of the suspected sources of generation of the dust. The concentration of air pollutants and their severity were compared to Environmental Quality Standards Regulations, 1999, and WHO Ambient Air Quality Guideline Values.

The baseline status of the ambient air quality was established through a scientifically designed ambient air quality monitoring network.

#### **4.1.5. Ambient Noise Monitoring**

Noise levels were recorded at three locations in the study area during the monitoring period. Noise levels were recorded in the form of sound pressure levels with the help of a digital sound level meter. The purpose of ambient noise level measurement was to determine sound intensity at the monitoring locations. The locations were chosen in such a way that representative data could be recorded all over the proposed project site. The sound levels were recorded in form of A-weighted equivalent continuous sound pressure level (Leq) values with the use of A-weighting filters in the noise-measuring instrument.

#### **4.1.6. Stakeholder Consultation**

The stakeholder consultation targeted beneficiaries in selected communities within the intervention area. The purpose of the engagement was to gauge the perception of beneficiaries on the environmental and social impacts of the project.

The survey targeted health service users (patients) and health personnel or providers and community members around the health facility identified for construction/renovation. Both service users and providers were targeted in Nianija District.

The population of the study was all healthcare users and personnel, and consulting with the communities that will be impacted by the project. Six (6) communities close to the proposed site for the Chamen Health Center were targeted for consultation. In attendance were 84 participants in total; 47 (56%) females and 37 (44%) males). For the KII, 21 persons were interviewed. In total, the perception survey respondents were 82, 80% of service users/patients and 20% of service providers (staff of Chamen health center and RHD). More than half of the respondents (55%) were females and those married (93%).

#### **4.1.7. Data Collection Tools**

To gather information from respondents regarding the project activities and their environmental and social impacts, three main tools were developed and used: a questionnaire for quantitative data collection and FGD and KII guides for qualitative data collection. The tools developed by the consulting team for the primary data collection (questionnaires, FGD and KII guides) as an annex to this report for review by the project team to ensure that they were fit for purpose. The survey tools (i.e., questionnaires) were developed using the Survey Solution Designer App and any changes suggested by the client were easily integrated in the tool, which was 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 were assessed with guidance of the Africa Development Bank Environment and Social Safeguard policies provided in the ToR. Qualitative tools were also developed to collect similar type of information from the targeted participants.

#### **4.1.8. Recruitment, Training, and Pre-testing of Tools**

Before the start of data collection, qualified and experienced data collectors were recruited and trained on administration of the relevant tools. Experienced field data collectors were recruited for interviews and FGD moderation to ensure a high degree of accuracy in the data collection. They received 1-day training on data collection tools, interview procedures, and techniques. Interview procedures were standardized through interviewer participation in a mock interview exercise during the training.

Importantly, the supervisors worked together in the field to ensure data is collected as required.

#### **4.2. Fieldwork**

Once the tools were pilot-tested and corrected, the deployment of the data collectors for the various data collection sites as outlined above follows. For the survey, 82 individuals were sampled and surveyed in the targeted facility and surrounding communities. The survey data collection was done using the Survey Solution CAPI tool, which was used for the overall management of the survey. The administration of survey questionnaires was done using the tool's interviewer App via tablets. The interviews were in-person in the location of the target respondents. Mobilization of participants for FGD was done and for each FGD, 5 to 20 participants were mobilized. KIIs were administered using the guide developed.

In addition, the consultant team conducted observation visit to the project site to gather information on the environmental and social baseline.

#### **4.3. Assessment of Environmental Impacts**

To identify and assess potential impacts associated with or resulting from Project activities, the ESIA team used 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 was determined to assist in preparing recommendations for the proposed Project evaluation.

#### **4.4. Impact Identification**

The description of the planned project activities was to help in identifying the environmental aspects of the proposed project. These identified environmental aspects were matched with the existing baseline description of the project environment which was employed to generate a checklist of potential and related impacts of the proposed project. Project impacts were 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 also played a significant role in the process of impact identification.

#### **4.5. Impact Characterization**

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. The

characterization was based on the nature, characteristics and duration of the different project activities on the physicochemical and the 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 3.1.

$$[\text{Environment}] + [\text{Project}] = \{\text{Changed Environment}\} \quad \text{Equation 3.1}$$

The changed environment anticipated from the above interaction may be direct or indirect, adverse or beneficial, cumulative or residual, long-term or short-term as presented below.

**Positive/Beneficial Impacts:** Impacts that would produce an overall positive effect on the wellbeing of the people as well as the environment.

**Adverse Impacts:** Impacts that may result in;

- Irreversible and undesirable change(s) in the biophysical environment,
- Decrease in the quality of the biophysical environment,
- Limitation, restriction or denial of access to or use of any component of the environment to others, including future generations,
- Disturbance to the social cohesion and stability as well as the wellbeing of the people,
- Sacrifice of long-term environmental viability or integrity for short-term economic goals.

**Direct Impacts:** Impacts resulting directly (direct cause-effect consequence) from a project activity.

**Indirect Impacts:** Impacts that are at least one step removed from a project activity. They do not follow directly from a project activity.

**Normal Impacts:** Impacts that will normally be expected to follow a particular project activity.

**Abnormal Impacts:** An impact is considered to be abnormal when it follows a project activity as against sound predictions based on experience.

**Short-term Impacts:** Impacts that will last only within the period of a specific project activity.

**Long-term Impacts:** Impacts whose effects remain even after a specific project activity.

**Reversible Impacts:** Impacts whose effects can be addressed on application of adequate mitigation measures.

**Irreversible Impacts:** Impacts whose effects are such that the project (impacted component) cannot be returned to its original state even after adequate mitigation measures are applied.

**Cumulative Impacts:** Impacts resulting from interaction between ongoing project activities with other activities, taking place simultaneously.

**Incremental Impacts:** Impacts that progress with time or as the project activity proceeds.

**Residual Impacts:** Impacts that would remain after mitigation measures have been applied.

#### 4.6. Impact Evaluation

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 criteria and weighing scale adopted for the evaluation are provided below.

##### *Legal/Regulatory Requirement (L)*

The proposed project activities that trigger the identified impacts were weighted against existing legal/regulatory provisions to determine the requirement or otherwise for permits prior to the execution of such activities. The following weighting scale was used:

**Table Weighting Scale for Each Legal Condition**

Condition	Rating
No legal/regulatory requirement for carrying out project activity	Low = 1
Legal/regulatory requirement exist for carrying out activity	Medium = 3
A permit is required prior to carrying out project activity which may result in impact on the environment	High = 5

##### *Risk Posed by Impact (R)*

The health, safety and environmental risks associated with each impact was assessed and ranked as “Low”, “medium” or “high”, using the Risk Assessment Matrix (RAM) as shown in Table 7.0.

**Table 8.0. Risk Assessment Matrix**

			Likelihood				
			A	B	C	D	E
			Rare	Unlikely	Possible	Likely	Certain
Negative Consequences	5	Severe	M	H	H	H	H
	4	Major	M	M	H	H	H
	3	Moderate	L	M	M	M	H
	2	Minor	L	L	M	M	M
	1	Negligible	L	L	L	L	L
Positive impact (P)			P	P	P	P	P

The level of impact will be largely determined by a qualitative appraisal of the likely change in the receiving environment, human health/safety and socio-economic situation, based on the matrix in Table 7.0 and the weighting used was as follows:

- **Low Risk =1:** Where the level of risk is broadly acceptable and generic mitigation measures are already assumed in a design process but require continuous improvement.
- **Medium Risk =3:** Where the level of risk is tolerable, but mitigation measures are required to minimise the risk to reduce the risk as much as practicable (i.e. tolerable if ALARP).
- **High Risk =5:** Where the level of risk is not acceptable and mitigation measures are required to move the risk figure to the lower risk categories.
- Positive impacts (to be enhanced if at all practicable).

### *Frequency (F)*

The frequency of the occurrence of the identified impacts was also evaluated. Frequency of impact occurrence was rated as “low”, “medium” or “high” based on the historical records of accidents/incidents, consultation with experts or key informants and professional judgement. The frequency criterion is summarized below.

**Table 9.0. Frequency Criterion**

Low = 1	<ul style="list-style-type: none"> <li>○ Minor degradation in quality in terms of scale (&lt;0.1% of study area, habitat, very localized), appearance, duration (a few days to a month)</li> <li>○ Effect within range of naturally occurring impacts, changes, dynamics</li> <li>○ Rapid reversibility (change lasting only a few weeks before recovery), no lasting residual impact of significance</li> </ul>
Medium =3	<ul style="list-style-type: none"> <li>○ Degradation in quality in terms of scale (&gt;0.1% of study area, habitat, appearance, duration (a few months)</li> <li>○ Effect beyond naturally occurring impacts variability</li> <li>○ Slow reversibility (change lasting a few months before recovery), lasting residual impact</li> <li>○ Potential for cumulative impact</li> <li>○ Intermittent frequency of impact (occur in only a few occasions during the project execution period)</li> <li>○ Limited geographic extent of impact (large area within study area)</li> </ul>
High =5	<ul style="list-style-type: none"> <li>○ Major degradation in quality in terms of scale (&gt;1% of study area or habitat within the study area), appearance, duration (beyond duration of project)</li> </ul>

	<ul style="list-style-type: none"> <li>○ Irreversible or only slowly recoverable (change lasting more than 1 year) degradation of environmental ecosystem level (population, abundance, diversity, productivity)</li> <li>○ High frequency of impact (occur continuously and almost throughout the project execution period (&lt;4 months))</li> <li>○ Geographic extent of impact (e.g. encompassing areas beyond study area)</li> </ul>
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***Importance of Impact (I)***

The importance of target environmental component in respect of identified potential impacts will be determined and rated as “low”, “medium” or “high”. The rating will be based on consensus of opinions among consulted experts. The importance criterion is summarized below.

**Table 10.0 Importance of Impact Criterion**

Importance	Attribute – Environmental, Human Health and Safety
Low =1	<ul style="list-style-type: none"> <li>○ Imperceptible outcome</li> <li>○ Insignificant alteration in value, function or service of impacted resource</li> <li>○ Within compliance, no controls required</li> </ul>
Medium =3	<ul style="list-style-type: none"> <li>○ Negative outcome</li> <li>○ Measurable reduction or disruption in value, function or service of impacted resource</li> <li>○ Potential for non-compliance with international best practices</li> </ul>
High =5	<ul style="list-style-type: none"> <li>○ Highly undesirable outcome (e.g., impairment of endangered, protected habitat, species)</li> <li>○ Detrimental, extended flora and fauna behavioral change (breeding, spawning, molting)</li> <li>○ Major reduction or disruption in value, function or service of impacted resource</li> <li>○ Impact during environmentally sensitive period</li> <li>○ Continuous non-compliance with international best practices</li> </ul>

***Public Perception (P)***

Consultation with the project affected communities and stakeholders were carried out to determine the perception of the public on the proposed project and the identified potential impacts. The rating of “low”, “medium” or “high” was assigned based on consensus of opinion among consulted parties.

**Table 11. Summary of the public perception criterion**

Public Perception	
Low =1	<ul style="list-style-type: none"> <li>○ No known risk to human health, acute and/or chronic</li> <li>○ No known risk of life endangered for community inhabitants and site personnel</li> <li>○ Minor reduction in social, cultural, economic value</li> <li>○ Unlikely adverse perception among population</li> </ul>
Medium =3	<ul style="list-style-type: none"> <li>○ Limited incremental risk to human health, acute and/or chronic</li> <li>○ Unlikely life endangerment for community inhabitants and site personnel</li> <li>○ Some reduction in social, cultural, economic value</li> <li>○ Possibility of adverse perception among population</li> </ul>
High =5	<ul style="list-style-type: none"> <li>○ Elevated incremental risk to human health, acute and/or chronic</li> <li>○ Possibility of life endangerment for community inhabitants and site personnel</li> <li>○ Major reduction in social, cultural, economic value</li> <li>○ Continuous non-compliance with international best practices</li> <li>○ Any major public concern among population in the project region</li> </ul>

#### 4.7. Impact Significance

The impact significance of the proposed project activities is the result of the impact assessment based on the evaluation of the various criteria such as legal/regulatory requirements (**L**), risk posed by impact (**R**), frequency of occurrence (**F**), importance of affected environmental component (**I**) and public perception (**P**). The overall rating of impact significance of each identified impacts will be given as “low”, “medium” or “high”. To determine the overall impact significance, the following considerations will be adopted:

$$\text{Low} = (L+R+F+I+P) < 8$$

$$\text{Medium} = (L+R+F+I+P) \geq 8 \text{ but } < 15$$

$$\text{High} = (L+R+F+I+P) \geq 15 \text{ or } (F+I) \geq 6 \text{ or } P = 5$$

The rating for each identified potential impact against the selected criteria and the overall impact significance results based on the formula above is presented and discussed in the report.

#### 4.8. Mitigation Measures

In developing mitigation measures, the first focus is on measures that 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; and
- 8) **Recovery/Remediation:** This includes contingency plans and response, e.g., Emergency Response Plans and Procedures.

#### **4.9. 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 the 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.

#### **4.10. Complaint and Grievance Mechanism**

A generic complaint and grievance mechanism is developed following the basic principles for a good grievance redress mechanism.

#### **4.11. Environmental and Social Management Plan**

After the assessment and evaluation of all the significant environmental and social impacts, a management plan is formulated to effectively implement the recommended enhancement and mitigation measures. Various management plans and programs 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 is 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 is developed for the implementation of the ESMP and monitoring plan.

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## 5. Policy, Legal and Institutional Framework

This Chapter provides the various national and international policies, legal and institutional frameworks, as well as the AfDB Operational Safeguards (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:

### 5.1. Relevant National Policies

**Table 12** indicates the relevant national policies (*listed in order of date adopted*) that are relevant and guided the development and implementation of the Project.

**Table 12. 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 Social Protection Policy 2015-2025 (NSPP)	The policy is to contribute towards alleviating poverty and vulnerability in the country, in line with the Government of The Gambia's Vision and National Development Plan. The Policy is a comprehensive and cross-cutting social protection reform agenda and proposes a set of priority actions to guide the gradual establishment of a coherent social protection system in The Gambia.	This policy is relevant for the project. It is to facilitate the reform of the national social protection system by ensuring more efficient and effective use of resources, strengthened management and administrative systems, and progress towards a more inclusive form of social protection that makes basic income and social services available to The Gambia's poorest and most vulnerable people .This project is all about that and therefore relevant.
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 (2021-2030)	Integrated environment and natural resources management	Provides guidance in general environmental planning and natural resources management.

Policy	Description	Relevance to the Project
Forestry Policy	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 (CRR). However, since the project will be implemented in an existing health facility, no tree or forest clearance will be done. Relevant to the project for guidance for the protection of forest cover and protection of the trees in the project area
Gambia National Gender & Women Empowerment Policy (2010–2020)	To mainstream gender in national and sectoral planning and programming to ensure equity and equality	Women to be consulted throughout the project implementation 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 proposed site for the health center construction/renovation may be impacted.

Policy	Description	Relevance to the Project
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
Recovery Focused National Development Plan (RF-NDP) 2023-2027.	Policy to provide framework for sustainable development in the country including sustainable Health Care Management	The RF-NDP 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

## 5.2. The National Legal Framework

The legal frameworks that will guide the Project’s implementation are indicated in Table 13 below, listed in order of date enacted.

**Table 13. The Summary of National Legal Framework Relevant to the Project**

Title of Legislation or Regulations	Description	Relevance to the Project
Lands (Regions) Act, 1995	Regulates land tenure and property rights as well as general land administration in areas under Customary Land Tenure system. Act covers all Provinces land outside State Lands Areas.	All lands in CRR fall under this Act. Potential project site is held and administered under this Act. Since the proposed renovation/construction works will be held with the existing Chamen Health Center which has been established

Title of Legislation or Regulations	Description	Relevance to the Project
		by MoH in 1938, the ownership status of the facility will not arise.
Public Health Act, 1990	Health including abatement of nuisances and any condition that may be injurious to health. Protects public and environment.	Relevant to the Project since dust, noise, and other health risks (COVID-19, HIV, can be associated with the Project.
Land Acquisition & Compensation Act, 1991	Provides for procedures, consultation, and compensation of land.	The Land Acquisition and Compensation Act, 1991, is a significant legislation in The Gambia that governs the process of land acquisition by the government for public purposes, as well as the compensation to be provided to landowners. However, this Act will not be triggered by this project, since the project site is an existing health facility.
Physical Planning and Development Control Act, 1991	Ensures developments in The Gambia are in line with land use planning and construction standards.	The project construction 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 and have an ESMP 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	Project implementation has potential to discharge potentially polluting liquids into the environment of the health facility, thus facilitating disease transmission.

Title of Legislation or Regulations	Description	Relevance to the Project
	groundwater) or into surface waters (such as rivers or streams).	
Local Government Act, 2002	The 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 Office of the Governor of CRR, as well as the respective Technical Advisory Committee (TAC).
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 CRR. However, there is needed to 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 construction activities which will involve use of sand and gravel aggregates mined in designed areas or with the permission of authorities.
Labour 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

Title of Legislation or Regulations	Description	Relevance to the Project
		on working conditions, worker's rights, etc.
Anti-littering Regulations, 2007	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	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 renovation activities.
National Council for Arts and Culture Act, 2003	This Act protects historical monuments and objects of archaeological, paleontological, ethnographical, and traditional interest. The Act prohibits anyone from carrying out activities on or concerning any object declared to be preserved or protected.	This does not affect the Chamen Health center rehabilitation /construction project, since activities will be carried out in the existing center that do not contain historical monuments and objects of archaeological, paleontological, ethnographical, and traditional interest. Still relevant as there may be chance finds as it is an old settlement
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

### 5.3. Relevant International Conventions and Agreements

The most important of these international conventions and agreements to which Gambia is a Party that is relevant to this Project are as indicated in Table 14 below.

**Table 14. Summary of Relevant International Conventions Signed/Ratified by The Gambia**

<b>Agreement/Convention</b>	<b>Objective</b>	<b>Relevance to the Project Activities</b>
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 the vegetation destruction and the stripping of soil (use of quarry for the renovation works).
Convention to Combat Desertification (CCD), Ratified in 1996	Protection of forests to avoid desertification	The project activities may lead to the vegetation destruction and the stripping of soil (use of quarry for the renovation works).
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 Rights of Persons with Disabilities (CRPD) 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 facility
Convention on Migratory Species (CMS Convention), Signed 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 construction activities might cause them to migrate elsewhere.

Agreement/Convention	Objective	Relevance to the Project Activities
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.

#### 5.4. Institutional Framework

The institutional framework relevant to the implementation of this Project is as indicated in Table 15.

**Table 15. The Institutional Framework Relevant to the 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	<ul style="list-style-type: none"> <li>○ Evaluation of the ESIA report</li> <li>○ Grant Environmental Approval for the Project</li> <li>○ Disclosure and publication of the ESIA,</li> <li>○ Issuance and renewal of environmental certificates/permits</li> <li>○ Monitoring the environmental aspects of the ESMP implementation</li> </ul>	All phases of the Project from planning and design to the construction and operation

Institutions	Specific Responsibilities	Interests and roles in this Project implementation	Level of intervention
National Social Protection Agency (NSPA)	Under the Office of the Vice President, NSPA provide leadership and coordination across the totality of social protection efforts in The Gambia.	<ul style="list-style-type: none"> <li>○ NSPA is the executor of this Project in The Gambia coordinates and monitors the Project ESMP implementation.</li> </ul>	All phases of the Project from planning and design to the construction 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 construction and operation
Ministry of Lands and Health Administration	Oversee all the local government authorities. Its health representatives are the TACs located in the offices of the Health Governors.	The Ministry will support in the coordination of involuntary settlement as it enforces all legal regulations on land administration and land use	Pre-construction, construction, and operation phases
Governor's Office (CRR)	Oversee the Technical Advisory Committee (TAC) for CRR	The TACs will support the implementation and monitoring processes at the regional and community levels	Pre-construction and construction phases
Ministry of Health	Responsible for overall formulation and direction of the national health agenda, planning and health infrastructural development	<ul style="list-style-type: none"> <li>○ Provides guidance on transmissible diseases to consider during sensitization</li> <li>○ promotes safe and healthy environments at project sites</li> <li>○ responding to accidents</li> </ul>	Pre-construction and construction phases
Women's Bureau/Gender Directorate	Under the Ministry of Women, Children and Social Welfare, the Women's Bureau specifically promotes gender equity and women's empowerment in The Gambia.	<ul style="list-style-type: none"> <li>○ Ensures the rights of women affected by the Project are protected</li> <li>○ Participates in sensitization on gender issues.</li> </ul>	Pre-construction and construction phases

Institutions	Specific Responsibilities	Interests and roles in this Project implementation	Level of intervention
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, VAC etc.	Pre-construction and construction phases
Department of Labour	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-construction and construction phases
Health center managers	Responsible for the day-to-day operation of the healthcare facilities	Oversight responsible of all the activities carried out during the Construction and renovation in consultation with the NSPA, Regional Health Directorate and Contractor.	All phases of the project
Construction companies in charge of the renovation/construction works	In charge of the implementation of the renovation work in accordance with the signed contract.	Execute the project as designed and agreed, keeping in view the environmental and social safeguards	Pre-construction and construction phases
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

### 5.5. The AfDB's Operational Safeguards Policies

In line with the AfDB's Integrated Safeguards System (ISS -2023), and based on the fact that the proposed project will not trigger involuntary resettlement, only OS1, OS3, OS4, OS5, OS9 and OS10 out of the five Operational Safeguards (OS) embedded in the ISS are considered and triggered. These are indicated in **Table 16** below.

**Table 16. AfDB Environmental and Social Safeguards Triggered by the proposed project**

<b>AfDB Safeguards Instruments</b>	<b>Triggered by the Project</b>	<b>Remarks</b>
Integrated Safeguards System (ISS 2023)	Yes	Overarching operational safeguard mainstreams environmental, social, and sustainability considerations in all Bank operations.
OS1: Environmental and Social Assessment	Yes	Required for Category 1 and Category 2 projects to assess environmental, social, gender, and climate change impacts
OS2: Labor, Working Conditions, and Occupational Health and Safety	Yes	Reflects protection of workers' rights, health, safety, and promotion of decent work conditions.
OS3: Resource Efficiency, Pollution Prevention, and Climate Change	Yes	Promotes resource efficiency, reduction of greenhouse gas emissions, and management of pollution and hazardous materials.
OS4: Community Health, Safety, and Security	Yes	Addresses potential risks to communities' health and safety arising from project activities and infrastructure.
OS6: Biodiversity, Ecosystem Services, and Sustainable Natural Resource Management	Yes	Ensures conservation of biodiversity, maintenance of ecosystem services, and sustainable use of natural resources.
OS10: Stakeholder Engagement and Information Disclosure	Yes	Reflects the need for inclusive stakeholder consultation, grievance mechanisms, and public access to project information.

The Bank's policy on Disclosure and Access to Information (DAI) is also triggered. This Policy requires that all the stakeholders (including all people residing in the project area of influence) have the right to be informed of the proposed development project in their respective areas. In view of this, the ESMP summary will be disclosed on the Bank website to allow various stakeholders to access its contents and provide feedback where necessary.

## 5.6. Point of convergence of legislation and AfDB Operational Safeguards

The operational safeguards of AfDB (ISS 2023) and the national legislation have many measures in common and thus, this section highlights the point of convergence of these two legal tools as shown in Table 17.

**Table 17 Point of convergence of legislation and AfDB Operational Safeguards**

AfDB Safeguards Instruments	National Legislation	Points of Convergence
OS1: Environmental and Social Assessment	<ul style="list-style-type: none"> <li>National Environment Management Act, 1994</li> <li>Environmental Impact Assessment Regulations, 2014</li> </ul>	These are environmental legal safeguard tools that governs the process of determining the project's environmental and social category and the resulting environmental and social assessment requirements and procedures
OS2: Labor, Working Conditions, and Occupational Health and Safety	<ul style="list-style-type: none"> <li>Labour Act (2023)</li> <li>Public Health Act, 1990</li> <li>Sexual Offences Act, 2013</li> </ul>	These safeguards cover workers' conditions, rights and protection from abuse or exploitation.
OS3: Resource Efficiency, Pollution Prevention, and Climate Change	<ul style="list-style-type: none"> <li>Environmental Quality Standards Regulations 1999</li> <li>Anti-littering Regulations, 2007</li> <li>Environmental Discharge (Permitting) Regulations 2001</li> <li>Hazardous chemicals and pesticide control and management Act 1994</li> <li>National Climate Change Policy (2016 – 2025)</li> </ul>	Promotes resource efficiency, reduction of greenhouse gas emissions, and management of pollution and hazardous materials.
OS4: Community Health, Safety, and Security	<ul style="list-style-type: none"> <li>Labour Act (2023)</li> <li>Public Health Act, 1990</li> </ul>	Addresses potential risks to communities' health and safety arising from project activities and infrastructure.
OS6: Biodiversity, Ecosystem Services, and Sustainable Natural Resource Management	<ul style="list-style-type: none"> <li>Biodiversity and Wildlife Act, 2003</li> </ul>	Ensures conservation of biodiversity, maintenance of ecosystem services, and sustainable use of natural resources.

AfDB Safeguards Instruments	National Legislation	Points of Convergence
	<ul style="list-style-type: none"> <li>• The National Biodiversity Strategy and Action Plan (NBSAP), 2015</li> <li>• Gambia Environment Action Plan, GEAP (2021-2030)</li> <li>• Convention on Migratory Species (CMS Convention), Signed in 1994</li> </ul>	
OS10: Stakeholder Engagement and Information Disclosure		Reflects the need for inclusive stakeholder consultation, grievance mechanisms, and public access to project information.

**5.7. Comparison between National Environmental Management laws and provisions of the AfDB’s ISS**

Below is the gap analysis and comparison between National Environmental laws and AfDB’s ISS provisions and requirements.

**Table 18 Gap analysis and comparison between National Environmental Law and AfDB ISS provisions**

Aspect	The Gambia Environmental Law	AfDB ISS	Gap Analysis
Legal Framework	Limited legal framework; laws are fragmented and not comprehensively enforced	Comprehensive framework covering various environmental aspects	Inadequate national legal framework regarding requirement on different themes and ESA and it is done partially.
Scope of Environmental Protection	Focus on specific issues such as environmental health, natural resource management, and waste management; inadequate an integrated approach.	Holistic approach covering various issues such as health, safety at work, environmental management, biodiversity, climate change, and pollution.	Limited scope in Gambia environmental laws to address various decision-making processes.

Public Consultation/ stakeholder engagement	Limited mechanisms for public involvement; often top-down approach.	Emphasizes stakeholder engagement and participatory processes	Insufficient public participation in decision-making processes. Need for proactive stakeholder engagement and awareness raising on environment and related matters
Impact Assessment	Provisions for ESIA, but inconsistency in application. Involve different actors at national and regional levels, affected communities, private consultants to carry out effective assessment and implementation processes	Strong requirement for ESIA and risk assessment prior to project	Limited capacity for national ESIA processes for effective enforcement. Strengthening of ESIA processes needed in The Gambia for consistency and effective enforcement.
Enforcement Mechanisms	Weak enforcement capacities; lack of resources and trained personnel. Deficit in the monitoring of projects in practice	Established protocols for monitoring and enforcement of environmental standards.	Need for stronger enforcement mechanisms in The Gambia, including capacity building for the key actors and other stakeholders.
Environmental and Natural Resource Management	Existing laws focus on specific issues; limited overall strategy for environmental and Natural resources management	Comprehensive strategies for conservation, including ecosystem services.	Lack of a holistic Environmental and Natural Resource Management strategy in The Gambia. Need to review and update existing laws and policies
Vulnerable Groups (Women, elderly, persons with disabilities and youth) and Local Communities	Limited focus of rights and roles of vulnerable groups in environmental and natural resources management.	Strong emphasis on the rights of local Communities and vulnerable groups.	Need for improved recognition and incorporation of vulnerable groups and communities rights in The Gambia regarding environmental and natural resource management.
International Commitments	Limited engagement with international treaties and weak implementation.	Framework aligns with global best practices and international agreements.	Weak alignment with international commitments and practices in The Gambia.

Based on the comparison of the national environmental laws and the AfDB's ISS provisions and Gap analysis, different actors including institutions at the state, and local levels, and development

partners, are responsible for managing the environmental and social aspects of the project. The ESIA identified several capacity gaps that must be addressed to ensure effective implementation of the ESMP. To strengthen environmental and social sustainability, targeted capacity building is essential. This will involve training stakeholders to understand their roles in managing environmental and social impacts, with a focus on collaboration between ministries, integration of safeguards into project design, and the development of tailored Environment, Health, and Safety (EHS) guidelines.

These include the lack of robust environmental and social safeguards policies. Please refer to section 6.16. dealing with Capacity Development and Training regarding capacity needs and development for the project. The training program will build the capacity of environmental and social staff, as well as relevant personnel from ministries, NEA and local authorities, to effectively manage the project's impacts. Conducting the training will strengthen key skills in impact assessment, risk management, grievance handling, monitoring and compliance, ensuring the successful implementation of the ESMP and supporting the project's long-term sustainability.

DRAFT

## 6. Environmental and Social Baseline Conditions

The baseline environment describes the physical environmental conditions that will directly or indirectly impact the proposed project site and local communities. Physical observation and study of the proposed project site and area topography, and consultation with local communities were the dominant strategies used for investigating the physical environment of the proposed project area. Generally, the natural environment of the Gambia has not changed significantly across the respective regions and administrative boundaries over the years. The current physical environmental conditions within the project influence zone are all within acceptable national standards.

### 6.1. Direct influence area of the project

**Table 19: Environmental and social conditions in the potential administrative region identified**

District	Potential Area	Baseline Environment
Nianiija District in Central River Region North (CRRN)	Chamen and all communities in the Nianiija District	<p><b>Topography:</b> The topography of an area, including its elevation, slope, and landforms, can have a direct influence on various aspects. It can affect the availability of water resources, the distribution of habitats, and the ease of transportation and infrastructure development. The topography in the Project’s area of influence is generally flat and low-lying as is common in most areas of The Gambia.</p> <p><b>Drainage:</b> There are no surface water bodies within the Project’s direct area of influence in Chamen. Surface water that may be considered includes rainwater runoff during the wet season, which, based on the topography, empties into tributaries or percolates into the soil. Groundwater is mainly collected through the Shallow Sand Aquifer by traditional wells and boreholes.</p> <p><b>Biodiversity:</b> The presence and abundance of various plant and animal species in an area, known as biodiversity, can have a direct influence on ecosystem functioning, food webs, and overall ecosystem health. The Project area of influence is within an urban settlement with limited vegetation types found such as fruit trees, such as mangoes, which are more common than forest trees, such as neem trees. These will not be affected by the Project. Like the vegetation cover, fauna found in the Project area are merely domestic animals that will not be affected by the Project.</p>

		<p><b>Socioeconomic activities:</b> Like other urban regions in the Gambia, CRRN is primarily an agricultural region with its population dependent on agriculture for its food and cash income. Commerce is an important source of income among the local population in CRRN such weekly markets known as “lumos”.</p> <p><b>Natural disasters:</b> In CCRN like other parts of the country disasters such as floods and wildfires can directly impact the physical and social environment of an area. They can cause loss of life, damage to infrastructure and property, disruption of socio-economic activities, and long-term environmental changes. The susceptibility and vulnerability of an area to natural disasters can be influenced by factors such as location, geology, climate, and land use practices. Proper disaster preparedness, mitigation, and response measures can help reduce the impacts of natural disasters.</p>
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**6.2. Indirect influence area of the project**

The indirect influences on the Vulnerable Youth and Women Support Project (VYWOSP) in The Gambia are as follows:

**Poverty and Vulnerability:** The high poverty rates, low access to basic social services, and high youth and women unemployment and underemployment rates create a vulnerable population in The Gambia. The project aims to address these challenges and provide livelihood opportunities for vulnerable youth and women to help them escape poverty.

**Social Protection:** The government has identified social protection as a key strategic priority in its National Development Plan. The project aligns with this priority by providing access to basic social services, such as health, nutrition, education and social protection, to the vulnerable groups.

**Skills Development and Livelihood Support:** The project focuses on skills development and entrepreneurship training for vulnerable women and out-of-school youth. It aims to improve their productivity and income through the acquisition of market-oriented skills and access to financial and non-financial support.

**Access to Basic Social Services:** The project aims to improve the use and access of vulnerable groups to better and inclusive basic social services, including health, nutrition, and education. This addresses the inadequate access to these services, contributing to widespread poverty.

**Gender Equity:** The project aims to reduce gender inequalities by providing better economic and social prospects for young girls and women. It also seeks to change societal perceptions of gender equity and women's economic empowerment.

The Environmental and Social Impact Assessment (ESIA) and Environmental and Social Management Plan (ESMP) ensure that the project's renovation/construction activities consider potential adverse environmental effects and develop mitigation measures to minimize environmental and social impacts. The assessment results also provide evidence for policymakers and project actors.

### 6.3. Biophysical Environment

#### 6.3.1. Air quality and Noise Pollution

Result of the air quality test for the proposed renovation of the health facility project. The samples were collected at the Chamen Nianija Health Center on the 27th of February 2025 in the Central River Region Northern part. During the data collection process, samples were replicated three times in a site with an interval of three minutes between each of them. Values were averaged, and that is what we present for you in the table below, coupled with the air quality and noise pollution reference standards (Table 20).

**Table 20. Air Quality and Noise Pollution Test Details**

Field Number	Date	Start Time	End Time	Interval Between Samples	Location
01	26 <sup>th</sup> to 27 <sup>th</sup> February 2025	12:00 PM	13:00 PM	5 minutes	Chamen, Central River Region North (CRRN)

Table 19 indicates the results of the air and noise pollution tests taken on the site and the reference standards are also presented in Table 20

Samples of air and noise pollution were collected at the Chamen health facility. The results in table 21 indicate that the current air and noise quality in the above mention facility are found to be within the accepted standards except for particulate matter 2.5(PM 2.5). This indicates that while air pollution may not be a major health concern for the general public, it can have negative effects on those who are more vulnerable (sensitive groups). People with heart disease, respiratory disorders, the elderly, children, and expectant mothers are among the groups most at risk from air pollution. During these conditions, the aforementioned groups should stay indoors whenever possible and refrain from outdoor activities, particularly strenuous exercise. The public is usually not affected at this level.

The results of PM 2.5 is in line with what is reported in the perception survey (figure 5) reported that they perceive the air to be clean.

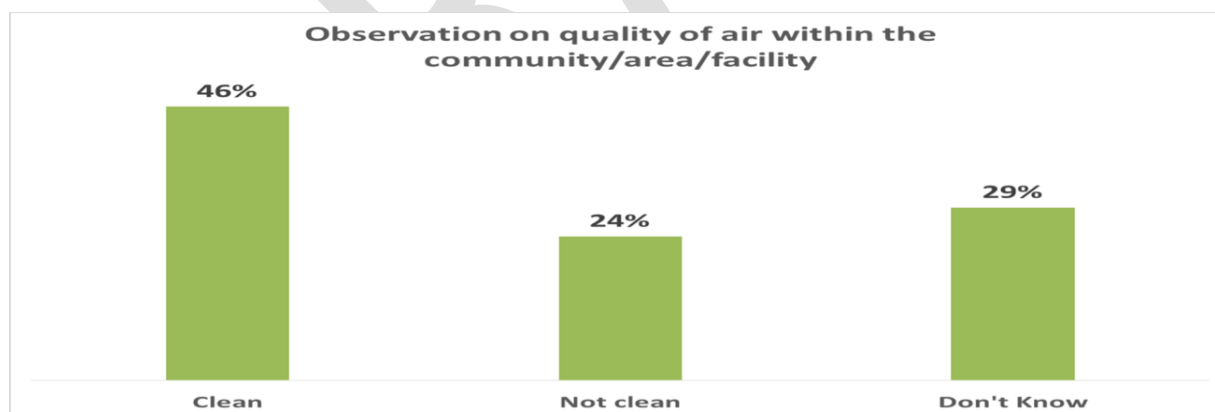
**Table 21. Air Quality and Noise Pollution Test Results**

Parameters	Chamen Nianija Health facility
Temperature (°C)	24.1
PM 2.5 (µg/m <sup>3</sup> )	37.7
PM 10 (µg/m <sup>3</sup> )	69.3

CO2 (ppm)	464
HCHO (mg/m <sup>3</sup> )	0.010
Humidity (%)	24.8
Noise (dB)	49.2

**Table 22. Air Quality Parameter and Noise Quality Reference Values**

Parameter	Good	Moderate	Unhealthy (sensitive Groups)	Unhealthy	Very unhealthy	Hazardous
PM 2.5 (µg/m <sup>3</sup> )	≤12	12-35.4	35.5-55.4	55.5-150.4	150.5-250.4	≥250.5
PM 10 (µg/m <sup>3</sup> )	≤54	55-154	155-254	255-354	354-424	≥425
CO2 (ppm)	≤700	701-1000	1001-1500	1501-2500	2501-5000	≥5001
	Healthy			Unhealthy		
HCHO (mg/m <sup>3</sup> )	≤0.1			≥0.01		
Noise (dB)	≤85			≥90		



**Figure 5. The perception about air quality**

### 6.3.2. Water Quality

The water quality analysis results in Table 23 indicate low pH of 5.77 at Chamen, against the WHO recommendation of 6.5-8.5 range. Nonetheless, the pH improved slightly after aeration; however, it still remains below the recommended WHO standard. Despite, low pH being a common phenomenon observed in the groundwater within the country, excessive consumption of low pH water might have health implications. Therefore, appropriate methods should be employed to raise the pH level to the

required WHO Standard. Importantly, it is recommended that further tests should be conducted before the start of construction works as the water obtained onsite might be used for drinking by workers.

Meanwhile, Electrical Conductivity and Salinity test results from the sample are significantly low and thus negligible with the reference to the WHO Recommended Guidelines.

Although, Iron remains a major groundwater contaminant in the country, however, the Chamen sample there is a trace of Iron contamination, with an indicated 0.02 mg (Fe+2/3/l) when cross-matched with the WHO Recommended guidelines of 0.3 mg (Fe+2/3/l). In principle, as groundwater is pumped, the quality changes over time and thus might accelerate iron level further. Despite, iron being part of the elements most essential for plant growth, certain levels might post harm to human health.

Furthermore, the sample is free from hardness based on the reading of 29.5 when cross-checked with the WHO Recommended guidelines of 200 mg (CaCO<sub>3</sub>/l). Moreover, there is barely any risk of heavy metal contamination as indicated by the test results of Arsenic, Cyanide, Copper, Mercury and Lead etc.

Apparently, nitrate is observed to be very low at Chamen with a reading of 5.1 mg (NO<sub>3</sub>--N/l), if cross-matched with the WHO Recommended guidelines of 10 mg (NO<sub>3</sub>--N/l).

In terms of the total and Faecal coliform, the sample is completely free of any biological contamination.

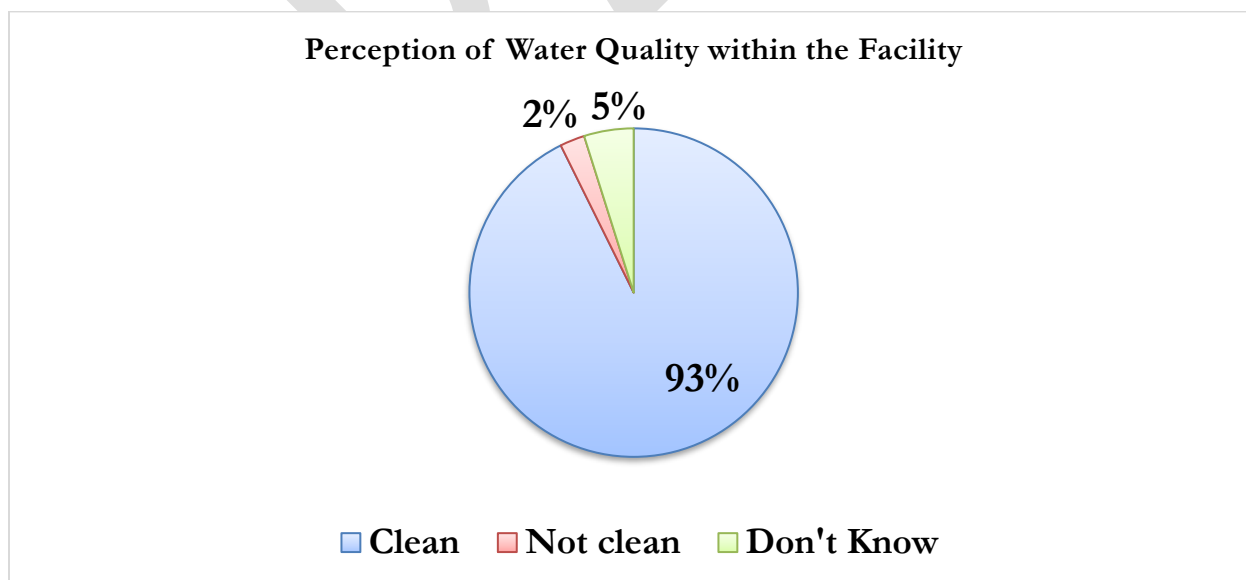
Overall, all the physico-chemical, chemical and microbiological parameters tested are below the recommended guideline values set by World Health Organisation

**Table 23. Water Quality Analysis Results for Chamen Health Center**

Parameters	Borehole	WHO Guideline Values
Temperature (°C)	31.3	Acceptable
Turbidity (NTU)	2.28	<5
pH	5.77	6.5 - 8.5
pH after aeration (A.pH)	5.79	6.5 - 8.5
Electrical Conductivity (µS/cm)	214.00	1300
Total Dissolved Solids (mg/l)	123.00	1000
Salinity (promile)	0.09	NS
Colour	Absent	Absent
Odour	Normal	Normal
Taste	Normal	Normal
Residual Chlorine (mg R.Cl <sub>2</sub> /l)	0.0	0.3
Suspended Solids (mg S.S./l)	4.00	NS
Phosphate (mg PO <sub>4</sub> <sup>3-</sup> /l)	0.13	NS

Parameters	Borehole	WHO Guideline Values
Nitrate (mg NO <sub>3</sub> <sup>-</sup> -N/l)	5.1	10
Nitrite (mg NO <sub>2</sub> <sup>-</sup> -N/l)	0.010	0.03
Total Iron (mg Fe <sup>+2/3</sup> /l)	0.02	0.3
Sodium (mg Na <sup>+</sup> /l)	0.0	150
Chloride (mg Cl <sup>-</sup> /l)	22.0	250
Copper mg Cu <sup>2+</sup>	0.0	2
Alkalinity (mg CaCO <sub>3</sub> /l)	25.6	>20
Free Carbon dioxide (mg CO <sub>2</sub> /l)	14	NS
Hardness (mg CaCO <sub>3</sub> /l)	29.5	200
Calcium (mg Ca <sup>+2</sup> /l)	9.0	200
Magnesium (mg Mg <sup>+2</sup> /l)	1.5	150
Manganese (mg Mn <sup>+2</sup> /l)	0.00	0.5
Fluoride (mg F <sup>-</sup> /l)	0.16	1.5
Sulphate (mg SO <sub>4</sub> <sup>-2</sup> /l)	4	250
Ammonia (mg NH <sub>4</sub> <sup>+</sup> /l)	0.45	1.5
Total Coliform (No./100ml)	0	nil
Faecal Coliform (No./100ml)	0	nil

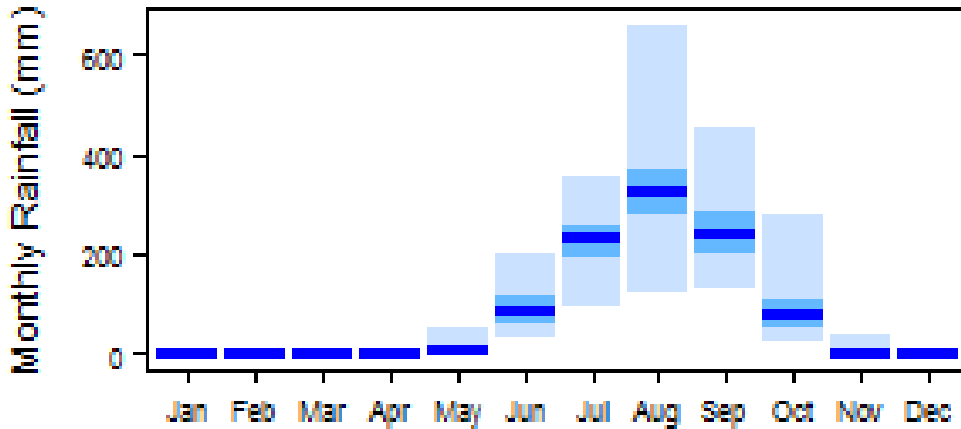
**Remarks: NS = not set , Please note that the stipulated guideline values are meant for drinking water quality recommended by World Health Organisation (WHO).**



**Figure 6: The Perception about Water Quality**

### 6.3.3. Rainfall

Rainfall is an essential factor that determines the climate of area to a large extent. The dry season period expands longer than the rainy season. The average annual precipitation of The Gambia is approximately 807 mm, while the mean number of wet days is around 74 days per year from year 1970 to 2015. Figure 5.2 shows that almost 85% of the rain falls between the month of July and September, with August as the peak of the rainy season. The highest mean total rainfall in The Gambia is 346.8 mm in August as presented in **Figure 6**. The amount of days it rains from the period of July to September varies from 14 to 19 days. This indicates that rain falls almost every other day during the stated time-frame. The area that receives the highest amount of rainfall is the coast, followed by the south-east. Current rainfall trends have shown decline in rainfall across the country, with greater changes in the western half of the country.



**Figure 7. Mean Total Rainfall by Month<sup>8</sup>**

Like other regions in The Gambia, Kuntaur LA also enjoys rainfall from May to October and dry season from November to April. The total average annual rainfall recorded from 2010 to 2017 in Kuntaur is 809.9 (see Table 24), which is the lowest rainfall reported compared to all the other regions during the same period. The month with the highest rainfall is August (280.9mm).

**Table 24. Kuntaur Local Government Area yearly rainfall (2010 - 2017)**

Year	Average rainfall (mm)
2010	867.2
2011	698.4
2012	922.4
2013	1039.8
2014	489.4

2015	796.7
2016	860.4
2017	813.3
<b>Total average</b>	<b>809.9</b>

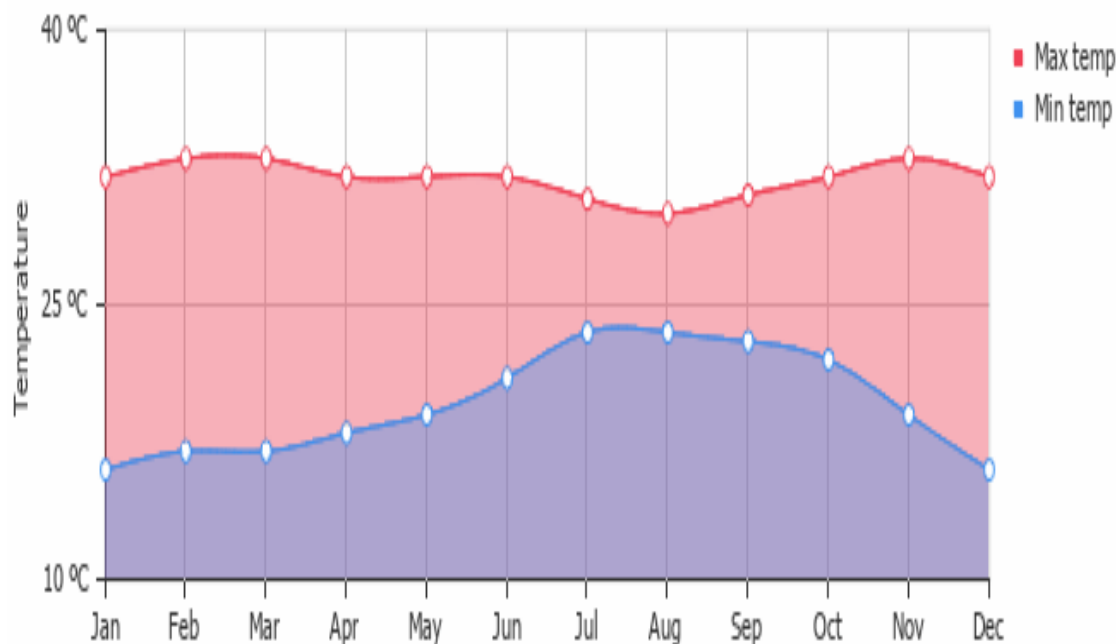
Source: Department of Water Resources

### 6.3.4. Temperature

Temperatures in The Gambia increases from the coast towards the east. The Chamen Health Facility is situated in a region of the country that experiences the highest temperatures during the dry season, particularly when compared to the coastal areas in the western region.

The mean maximum temperature during the daytime ranges from 30 °C to 34 °C throughout the year in The Gambia, as illustrated in **Figure 7**. However, in the project intervention zone, daily temperatures range from 40 °C to 44 °C during the dry season and from 32 °C to 36 °C during the rainy season.

From late November to February, this region experiences cooler weather, with temperatures ranging from 25 °C to 18 °C during the early hours of the day.



**Figure 8. Average minimum and maximum temperatures in The Gambia<sup>8</sup>**

**Figure 8.** shows the average minimum and maximum temperature in Kuntaur from 2010 to 2017. The temperature curve for both the average minimum and maximum in Kuntaur is a mirror of that total average temperature illustrated in Figure 7. This indicated that the temperature pattern in the country is similar in all the regions across the country with small differences from region to region. The maximum average temperature experienced in Kuntaur area (2010 - 2017) is 43.4°C in the month of May, whereas the minimum average temperature is 10.6°C in January. According to the data in

Figure 7. the average annual minimum temperature in Kuntaur is 16.97°C while the maximum is 39.11°C.

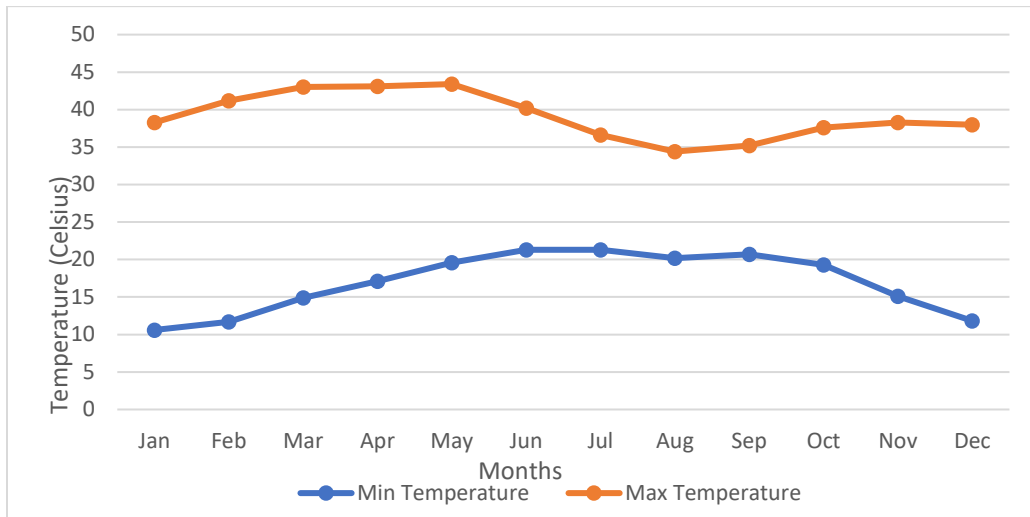


Figure 9. Average minimum and maximum temperatures in Kuntaur area (2010 - 2017); Source: Department of Water Resources

### 6.3.5. Humidity

On average, August is the most humid throughout the entire year whereas February is known to be the least humid (see Figure 9). Drastic increase in relative humidity is observed from the month of July to September which falls in the rainy season. The average annual percentage relative humidity is calculated to be around 68 %.

Between the years 2010 and 2017, the Kuntaur Local Government Area (KLGA) recorded its highest humidity levels in August and September, reaching 78%. In contrast, the lowest humidity was observed in February, with a figure of just 31%. Over this period, KLGA had an average annual relative humidity of approximately 53%, which is lower than the overall average relative humidity for The Gambia.

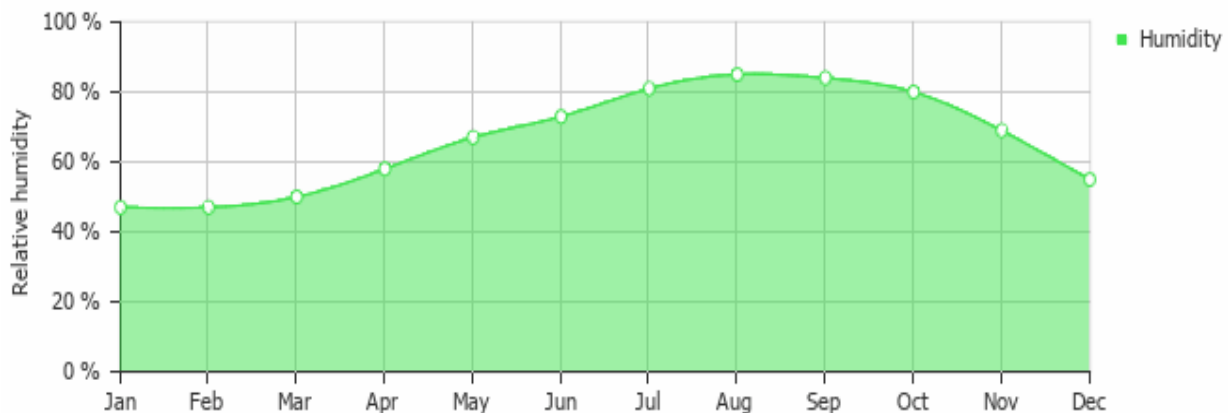


Figure 10. Average relative humidity in The Gambia<sup>8</sup>

### 6.3.6. Flora

There are different tree species present at Chamen health centre. The health centre has some trees within the health facility premises (see **Figure 11**). The tree species present are 16 neem trees, 5 mango trees and 4 baobab trees. No endangered plant species were observed within the facility premise. No tree felling will be required for the project. The project area comprises land that is already available for development and is not classified under any form of environmental protection, conservation status, or other legal restriction.



**Figure 11. Photo of trees around OPD in Chamen HC**

### 6.3.7. Fauna

There are problems of animal intrusion at Chamen health centre. There were lots of cats and dogs and as well as sheep and goats present within the health centre at the time of the assessment (see **Figure 12**). Even though, no wildlife species were observed during the filed visit at the site, however, there are high possibilities of the existence of reptiles and rodents.



**Figure 12. Donkeys and Sheep found inside the Chamen Health Center grounds**

## 6.4. Socio-economic Environment

### 6.4.1. Demographic

According to the GBOS 2024 Population and Housing Census (PHC), The Gambia had a population of 2.42 million with Females constituting 51 percent as against 49 percent of males. Between 2013 and 2024, The Gambia's annual population growth rate is 2.5 per cent. This shows 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. The Gambia population is predominantly youthful, with 40.8 per cent under 15 years of age and only 3.0 per cent aged 65 and over. This dependent population is likely to put pressure on the working-age population, 15 to 64 years, which accounts for 56.2 per cent of the population. At the LGA level, Banjul and Kanifing have a relatively smaller proportion of youthful population (30.0% and 34.2% respectively) compared to Kuntaur (47.9%) and Basse (46.7%), where nearly half the population is under 15 years.

In The Gambia, while 47.2% of households engage in agriculture, Kuntaur Local Government Area (KLGA) has the second highest proportion (79.1%) of involvement in agriculture after Kerewan LGA (91.6%).

Nianija is one of the ten districts of the Central River Division of the Gambia which is a predominantly Pulaar-speaking region of the Gambia, although other ethnicities exist there such as Mandinkas.

### 6.4.2. Education

The Gambia Education Sector Policy for 2016-2030<sup>5</sup> 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 programmes to achieve equitable access to quality and relevant education for all.

While the national Gross Enrolment Rate (GER) at primary level is 86.8 percent, the Kuntaur LGA only recorded 43.8 percent. The findings of the IHS further reveal that adult literacy rate in the LGA is the least when compared to other LGAs. The adult literacy rate in the Kuntaur LGA is 22.8 percent, which is well below the national average of 50.8 percent. To improve educational outcomes in the LGA, there is need to design a special educational programme for the LGA. Not limited to the provision of a standard library, teachers' quarters, the LGA is in need of a multipurpose Technical and Vocational Education Training (TVET) center where youth and women can acquire skills for a sustainable livelihood. This will be of great benefit if a TVET institution is created within the LGA.

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<sup>5</sup> The Gambia Education Sector Policy for 2016-2030. Accessible, Equitable and Inclusive Quality Education for sustainable Development. chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/http://www.rodra.co.za/images/countries/gambia/policies/Education%20Policy%202016-2030.pdf

### 6.4.3. Health

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.

The maternal mortality rate in the 2019-20 GDHS is estimated at 289 maternal deaths per 100,000 live births; that is, for every 1,000 births in The Gambia, about three women die during pregnancy, during childbirth, or within 42 days of the end of a pregnancy from causes other than accidents or violence. 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. Majority of births in Kautaur LGA occur in health centers (82.5%) including Chamen Helth Center. The proportion of births that occurred at home was about 14 per cent.

The health indicator at Kuntaur Local Government Area (KLGA) of which Chamen is covered is very low. According the Gambia Demographic Health Survey (GDHS) report 2019-20, 40% of the household's population in KLGA, had improved sanitation facilities, 89% with improved source of drinking water, 24% of married women had unmet need for family planning. For anemia, KLGA recorded highest prevalence with percentage of children 6-59 months and women age 15-49 years with any anemia is 77% and 62%, respectively. Compared to the national prevalence, KLGA has the highest prevalence of spousal violence with 43% versus 39% nationally. Fertility is also highest with 6.4 total fertility rates for the three years before the survey.

Given its crucial contribution in promoting healthy lives, access to safe drinking water is a key determinant of good health. About 86.1 percent of households in The Gambia have access to improved and safe drinking water source. When compared with other LGAs, the Kuntaur LGA records the least at 66 percent, which is below the national, urban and rural averages of 85 percent, 90.1 percent and 79.4 percent respectively.

Access to health care services is definitely a big problem for all the health facilities most especially to communities that are off-road and hard to reached communities. These communities find it difficult to access the health centre and they either trek by foot or use horse and donkey carts to the health centre. Only communities closer to the health centre and the communities the health centres are located find it easy to access the health centre.

Chamen Health Centre has proven to be one of the most challenging health facilities to access for residents, as many of the surrounding communities are located far apart with limited transportation options. During the rainy season, these communities are particularly affected, as the roads often

become flooded, making it nearly impossible to reach the health centre. This situation highlights the urgent need for improved access to healthcare services for these underserved populations.

#### 6.4.3.1. Services at Chamen Health Facility

The Services offered in Chamen health center are as follows:

- Laboratory analysis
- Pharmacy
- Leprosy and tuberculosis,
- Public health services,
- Outpatient consultation
- RCH services (Immunization)
- Admission.
- Maternity services (delivery and antenatal and postnatal care)

#### 6.4.3.2. Number of staffs per cadre

At the time of this assessment, Chamen had a total of 11 staff of which 7 are males and 4 females. Table 25 shows the different categories of staff in the healthcare facility and the number of staff under each cadre. The most interesting observation is that the facility had more support staff than health workers. According to RHD, officials and trained nurses do not want to be posted at Chamen health center due to limited staff residences

**Table 25. Number of staff per cadre in the identified health facilities**

H/c name	Public health officers	Nurses and midwives	Lab assistants	Pharmacy assistants	Supports staffs
Chamen	2	4	1	0	4

#### 6.4.3.3. 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 in KLGA - an average of 52.2 per cent. This was followed by the proportion of households who reported owning their dwellings (36%). The results show that households that are not owners but occupy their accommodation rent-free constitute a small proportion (4.3%) in the LGA.

#### 6.4.3.4. Main Source of Cooking Fuel

Households rely on a specific fuel as the primary source of domestic energy for cooking. The type of fuel they used for cooking has implications for development as it is related to their socio-economic

status. As Chamen health center is located in the KLGA, the main source of energy for cooking in K LGA is firewood (88.5%). Charcoal (7.1%) is the next main source of energy for cooking in the LGA. Non-wood fuel (gas, electricity or solar) is rarely used by households in the LGA for cooking. National Water and Electricity Company Ltd (NAWEC) provides 44.8 per cent of households' energy for lighting needs but battery-powered lamps are the main source of households' energy for lighting—about 38 per cent of households in the LGA.

#### 6.4.3.5. Waste Management of the Facility

Waste management at the health center is generally poor. There are visible animal droppings in the facility as well as perishable waste materials especially around the staff quarters. Waste scattered all over the premises of the health center especially used and rusted corrugated sheets, metals and used plumbing materials from an old pending renovation work within the facility.

##### ***Waste generation (types of waste generated)***

The types of waste generated in health centre are:

- General wastes (plastics, paper, used metals, leaves, food stuffs etc).
- Construction/demolition wastes (gravel, broken bricks, plumbing materials, used corrugated sheets, discarded asbestos roof sheets, etc)
- Infectious wastes (blood products, bodily fluids, cord clams, gloves, face mask). Waste is managed and treated using the National Health Care Waste Management Standard Operating through incineration.
- Sharps (needles and syringes)
- Animal droppings

##### ***Segregation and the waste bins available***

Waste segregation is not highly respected in the health facility. There are different colour coded bins available for different categories of wastes but the types of wastes observed in those waste bins were not the appropriate ones.

The types of waste bins available in the health facility are:

- Big buckets
- Cartons
- Safety boxes

#### 6.4.3.6. Water Supply

Access to safe drinking water, improved sanitation, and hygiene are essential to people's good health and development as well as contributing to the attainment of the targets under SDG. Access to water and sanitation are considered core socio-economic and health indicators, and key determinants of child survival, maternal, and children's health, family wellbeing, and economic productivity. Chamen health centre has a well converted into a borehole erected within the health facility to be supplying

water to all the different units and departments within the health centre and as well as to the staff quarters. **Figure 13.** presents the water storage tank in the health facility



**Figure 13. Overhead water tanks for solar powered borehole in the health facility**

#### 6.4.3.7. Electricity

Energy supply for the health centre is solar and previously diesel generator as a standby generator in case of electricity failure. These energy sources provide power to (see Figure 14) their outpatient department, labour ward and other areas within the health facility.



**Figure 14. Solar PV System at Chamen Health Facility**

## **6.5. Governance**

The Government of The Gambia is committed to ensuring sustainable human development by implementing policies that restore good governance, respect for human rights, the rule of law, and empowering citizens through decentralization and local governance. In order to attain the objective of strategic priority on the restoration of governance and improving the governance landscape, the government has established institutions that seek to promote good governance through improve access to justice, promotion of the rule of law and protection of human rights. Awareness of these institutions and their functions by the citizenry is critical for civil participation and responsible citizenship.

Awareness of the existence of the selected national governance institutions - National Council for Civic Education (NCCE) 16.7%, Office of the Ombudsman (11.0%) and the Alternative Dispute Resolution Secretariat (ADRS) 15.2 per cent, is very low. This defeats the purpose for which these institutions were created. Need for public education and awareness raising about such important institutions.

## **6.6. 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.

## **6.7. Agriculture**

Like many rural areas in The Gambia, the primary economic activity in the Kuntaur LGA is agriculture. The LGA has huge potential in rice cultivation due to its large area of arable land and availability of fresh water for all year-round production in 2019 a Needs Assessment for Rice Production in CRR-North was conducted by the Regional Agriculture Directorate which shows that there are eight existing tidal irrigation schemes which cover a total land area of about 441 hectares The assessment further indicates that the LGA also has an estimated 4,750 hectares of underdeveloped land that could be utilized (through tidal schemes) for all year rice production. This is an indication that if properly harnessed, the CRR region has the potential of becoming the food basket for the nation but we are constrained to do so.

The people of Chamen involve in horticultural gardening, especially women to provide basic needs for the family, particularly food security and nutrition.

## **6.8. 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. It constitutes more than 61 per cent of total food consumption.

The Kuntaur LGA is one of the poorest in The Gambia. Poverty headcount in the LGA is 72.4 percent, which is well above the national, rural and urban averages of 48.6 percent, 69.9 percent and 31.6 percent respectively. Out of the five districts in the Kuntaur LGA, Nianija stands out as the poorest, registering a headcount of 86.1 percent. This is followed by Upper Saloum and Lower Saloum districts which record poverty headcounts of 75.4 percent and 73.6 percent respectively. Given that the intensity/depth and severity of poverty are well above the national averages, the Kuntaur LGA needs quick interventions to improve living conditions and bring down poverty levels.

In Nianija, livestock ownership, ownership of farm implements, and off-farm income were used by communities as main criteria for wealth ranking. On the basis of these criteria, four wealth categories were identified, namely, the very poor, the moderately poor, the moderately rich and the rich. In Nianija, 80% were said to be poor or very poor. The very poor do not own cattle; the moderately poor own goats and sheep while the poor have between 1 and 2 heads of cattle. Land access was reported to be determined by the ability to cultivate the land. For the poor and very poor categories, land use was restricted and/or constrained by limited farm implements for adequate production. In Nianija, farming is the most important livelihood strategy, followed by both fishing and commerce which were given equal weight. Livestock rearing was fourth in importance as a source of livelihood for the community. One of the primary limitations on land use is the availability of water.

## 7. Stakeholder Consultation and Community Engagement

Public consultation and stakeholder engagement are fundamental principles of the ESIA process. It largely contributes to the successful design, implementation, operation and management of proposed projects. This process involved consultations with relevant project-affected persons/groups/businesses and concerned government authorities and intuitions, documenting their concerns, assessing potential impacts, and exploring avoidance and mitigation options. The aim of this exercise was to disseminate information to interested and affected parties (stakeholders), solicit their views and consult on sensitive issues, in order to add value to the project design considerations. Public consultation has also been highly useful for gathering environmental and socio-economic data, understanding likely impacts, determining institutions and individual preferences, selecting project alternatives and designing viable and sustainable mitigation measures

The methodology entailed mainly public consultation exercises by use of open-ended questionnaires and interviews with the stakeholders concerned. For this assignment, the following three methods of consultation were adopted:

- Perception survey
- Focus group discussion with communities around the proposed site
- Relevant stakeholder key informant interview

The objective of the perception survey was to establish the levels of understanding and appreciation of the selected communities around the proposed site for Chamen Health Center Construction/renovation to identify the impacts of the current and potential interventions on lives and livelihood as well as on the environment. In particular, the survey sought to understand people's perceptions, including people's general knowledge of the project, project activities that have the potential to adversely affect the environment and social wellbeing of communities around the proposed site and measures that can be taken to promote and protect social and environmental impacts.

To collect the information needed, the study adopted both quantitative and qualitative methodologies. For the quantitative data collection, which was implemented via a survey, targeted respondents included facility/potential facility users (i.e. patients/community members around the proposed site for the health hospital) and service providers (staff of Chamen RHD ). 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.

The targeted respondents for the community engagement or institutional consultation included TAC members relevant to the project (i.e. Health, NEA, Ministry of Gender and children), and governor of the region. At the community level, the interviews targeted the local authorities including District Chief, Village Alkalos, VDC chairpersons, women and youth leaders, and other members.

Apart from the perception survey that targeted potential service users and staffs, project relevant stakeholders at the health level, community consultations and stakeholder engagement exercises were conducted in different communities such as Sitokoto, Sareh Aplha, Sinchu Makka, Sareh Konteh, and Buduk

This was organized through FDGs and KIIs and a perception survey. Up to 6 FDGs and 21 key informant interviews were held with stakeholder institutions both at the health and national levels. In total, 84 persons were present for the FDGs, with 47 (56%) females and 37 (44%) males. Similarly, 82 participants participated in the perception survey with 55% being females. All the people of the consulted categories are eager about the commencement of the health center construction project activities, highlighting that it will:

- Provide temporary and long-term employment opportunities especially for women and youths thereby reducing irregular migration
- Increase easy access to healthcare services for many Gambians and non-Gambians alike
- The project upon completion will enhance quality and provision of medical/healthcare services as more patients will be attended to
- Reduce maternal and child deaths
- Increase survival rate for accident victims by meeting the golden hour of emergency care
- Reduce long waiting time
- Increase business opportunities during the construction/renovation and operational phases
- Bring about infrastructural and social service development in Chamen and neighboring communities
- Enhance performance of healthcare workers
- Improve healthcare services
- Promote skill transfer from skilled migrant workers
- Increase staff motivation and retention
- Reduce facility inspection due to current tight space in the facility
- Increase confidence and trust for users in the health services
- More attractive to staff and users, thus boosting confidence.
- Reduce referrals

Aside from the potential benefits anticipated, some environmental and social risks highlighted during consultation and proportion of the concerns about the risks are summarized in Table 26.

**Table 26. Summary of Issues Highlighted During the Consultation and Community Engagement**

<b>Environmental Risks Anticipated and Mitigation Measures</b>		
<b>Risk</b>	<b>Proportion of concerns about the risk</b>	<b>Mitigation</b>
1. Increased Waste generation	- Medium	- Work with council to properly manage waste generation during construction/renovation. - Temporal site for waste disposal before finally collection
2. Increased moist and dust pollution	- High	- Sprinkling of water for dust management - Protective gears - Site must be completely enclosed - Perimeter fence of the area during construction. - Sensitization of communities about dust and how they can protect themselves from it.
3. Noise generation	- High	- Heavy machines should be used only in the daytime
4. Loss of vegetation	- Low	- Indigenous trees must not be cut and design the construction of new building within the facility such that some trees will not be cut - Replanting of trees with the health facility
5. Oil leakage leading soil and water contamination	- Low	- Provide storage containers for waste oil - Containers must be covered - Use a confined place for equipment maintenance
6. Waste tires can trap water thus can become breeding grounds for mosquitos	- Medium	- Waste tires should be properly managed - Avoid burning of tires
7. Mining of sand and gravel	- Low	- Contractors should collect sand and gravel only from approved identified sites
8. Access roads to mining or construction sites via people's lands or farmlands.	- Medium	- Creation of suitable diversion to avoid tampering with farmlands. - Roads should be properly maintained.
9. Risk of accidents due to over speeding from construction vehicles	- Medium	- Speed limits must be instituted and observed to avoid accidents.

10. Healthy and safety	- Medium	- Due to high temperatures in the region, contractors should have breaks in peak temperature periods of the day.
11. Construction activity may lead to water shortage.	- Low	- Encourage contractor to construct an industrial borehole for their construction/renovation.
<b>Social Risks Anticipated and Mitigation Measures</b>		
<b>Risk</b>		<b>Mitigation Measures</b>
1. Sexual abusive and harassment of community members by workers on the construction site	- Medium	<ul style="list-style-type: none"> <li>- Contractor code of conduct for the workers</li> <li>- Any worker found wanting on the code of conduct should be dealt with appropriately by leveraging the law of the land.</li> <li>- Hiring of youths from and residents in the community</li> <li>- There should be continuous community engagement to increase awareness of some of these risks</li> </ul>
2. Possibility of child labour	- Low	<ul style="list-style-type: none"> <li>- Employment of underaged children must be avoided at all costs.</li> <li>- Verification of age, either through birth certificate or Identity Card, before hiring</li> <li>- Children must not be involved in hazardous work.</li> </ul>
3. Influx of foreign workers in the community	- Medium	<ul style="list-style-type: none"> <li>- Recruitment of local youths should be encouraged</li> </ul>
4. Risk of domestic violence	- Low	<ul style="list-style-type: none"> <li>- Work-related issues that may lead to increase in domestic violence such as not paying workers on time and therefore worsening their economic situation should be identified and properly addressed.</li> <li>- Community members should be sensitized on work induced domestic violence and how it can be mitigated.</li> </ul>
5. Sexual exploitation/inducement risk due to rise in the income levels of workers	- High	<ul style="list-style-type: none"> <li>- Communities should be sensitized about the risk and encouraged to protect their families from such risk.</li> </ul>
6. Introduction of alien lifestyle	- Medium	<ul style="list-style-type: none"> <li>- Sensitization of workers and community to minimize the transfer of foreign habits from construction workers.</li> </ul>

leading to rise of social vices		
7. Commercial activities at site may increase risk of school going children dropping out of school	- Low	- Members of the affected communities should be sensitized of the dangers of sending their school going children to construction site for revenue generation.
8. Lack of sanitary facilities leading to open defecation	- Low	- Proper sanitary facilities should be instituted at the construction site.
9. Increase in theft in the community due to poor security at construction site encouraging more stealing from youths in the community	- Low	- Construction site and materials should be well secured such that theft at the construction site can be minimized.
10. Inappropriate hiring and firing of workers	- Low	<ul style="list-style-type: none"> <li>- Contractors must follow due process in the recruitment of workers and avoid exploitation of workers.</li> <li>- People must not be hired without proper documentation of the conditions and terms of employment.</li> <li>- A Grievance Redress Management (GRM) system of some sort should be set up during the project implementation.</li> <li>- Contractor should promote equal employment opportunities to all and must not discriminate against women.</li> </ul>
11. Poor work environment in terms of health and safety	- Low	<ul style="list-style-type: none"> <li>- Provision of first aid boxes and health and safety gears at the construction site.</li> <li>- Contractors must hire a health and safety officer that will ensure health and safety protocols are always observed at construction site.</li> <li>- Work stressors that can affect the mental and psychological wellbeing of workers should be identified and appropriately dealt with.</li> </ul>

12. Interruption of services	- Medium	- Ensure timely communication for start of the project to give adequate time for planning by the RHD and HF for alternative continuation of services
13. Inconvenience of staff whose residences are included in the renovation	- Medium	- Ensure the timeline for renovation is communicated and short as possible to prevent prolong inconvenience on accommodation. - Rent convenient apartments/houses for affected staff to ensure continuity of service

### Analysis of Issues raised during Consultation

Expectations	Fears	Response
The community is eager for the completion	Duration and delay in Project Completion	A correct contract and monitoring plans for project contractors and contingencies to be put in place to ensure project is implemented and completed in time.
Improve accommodation for healthcare workers, thereby increasing staff numbers and retention	Possibility of child labour	Local labour will be prioritized, and contractors will be sensitized and monitored to adhere to national labour laws, especially on child labour prevention.
Increase access to healthcare services for the people of Chamen and its surrounding communities	Sexual abuse and harassment of community members by construction workers	A Code of Conduct (CoC) will be signed by all workers. GBV/SEA prevention training and grievance mechanisms will be enforced.
Enhanced quality and provision of healthcare services as more patients will be attended to	Influx of foreign workers in the community	Community engagement and local hiring will be prioritized to minimize social disruption. Influx management plans will be implemented.
Reduce maternal and child mortality	Sexual exploitation risks due to rising worker income	Awareness campaigns and close coordination with local leaders will help prevent exploitation and safeguard vulnerable groups.
Availability of a scanning facility to help stop women traveling to Bansang which is 50km away monthly just for antenatal scanning.	Introduction of outside workers leading to social vices	Sensitization programs will be conducted to minimize cultural friction and promote respectful coexistence.
	Commercial activities may increase the risk of school dropouts	Local leaders and school authorities will be engaged to ensure that school attendance is monitored.
	Lack of adequate sanitary facilities	Contractors will provide adequate temporary sanitation facilities on-site for workers.

<p>Increase survival rate of accident victims by meeting the golden hour for emergency care</p> <p>Reduce patient waiting time</p> <p>Boost business opportunities during construction and operation</p> <p>Drive infrastructural and social service development in Chamen and neighboring communities</p> <p>Improve healthcare worker performance and motivation</p> <p>Promote skills transfer from skilled migrant workers to locals</p> <p>Reduce facility congestion and inspection difficulties</p> <p>Increase confidence and trust in health services</p> <p>Make the facility more attractive to staff and users</p> <p>Reduce external referrals</p>	Increase in theft due to poor site security	Site security will be enhanced, and community policing partnerships will be encouraged.
	Interruption of healthcare services during construction	Construction will be phased or temporarily relocated to ensure uninterrupted service delivery.
	Increased waste generation	Waste management plans will be implemented during construction and operation phases.
	Increased dust and moist pollution	Watering, dust screens, and good housekeeping practices will be used to control air quality impacts.
	Construction may cause water shortages	Coordination with the water utility will ensure uninterrupted water supply or temporary alternatives (e.g., water tanks).

### 7.1. Key Findings of the Perception Survey

In total, the survey respondents were 82, 80% of users and 20% of staff of Chamen health center. More than half of the respondents (55%) were females and were married (93%). On employment status, the majority of respondents reported being self-employed (33%) followed by employed (50%) and unemployed (17%).

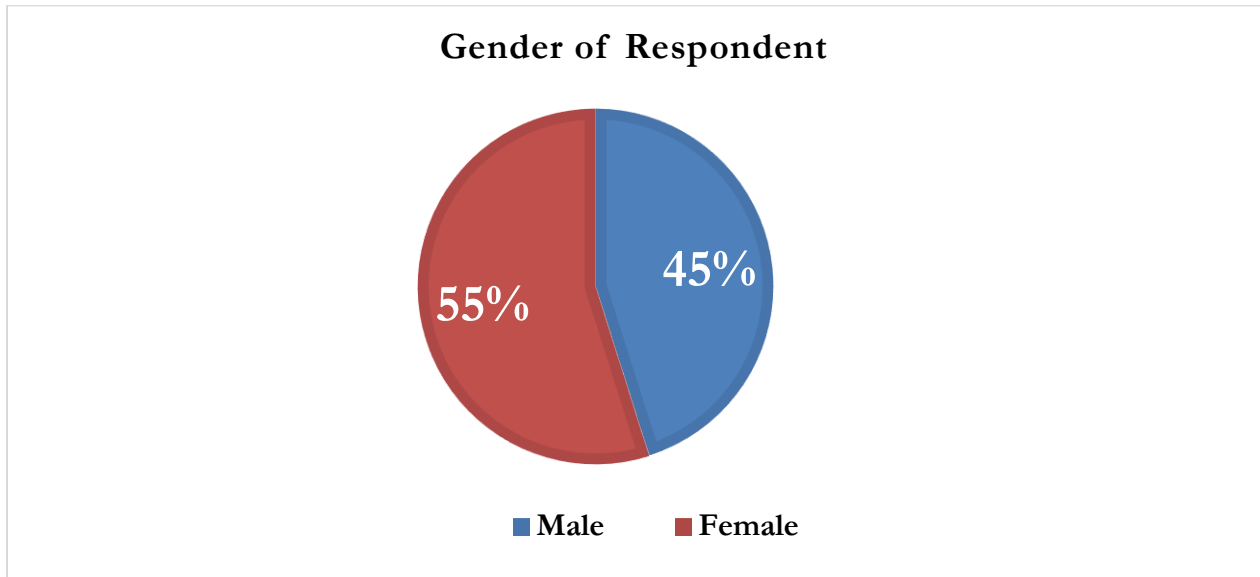


Figure 15: Gender of respondents

The survey respondents were asked about their awareness of the construction/renovation of Chamen Health Center and the results are presented in Figure 16. The results revealed that 93% of the total respondents were aware of the proposed health center construction/renovation. However, the project awareness level was higher among the health facility (HF) staff (100%) compared to the HF users (91%). On where they heard about the construction/renovation works, majority of the respondents (75%) reported that they learnt about it from community members, while 25% said from health workers as shown in figure 17.

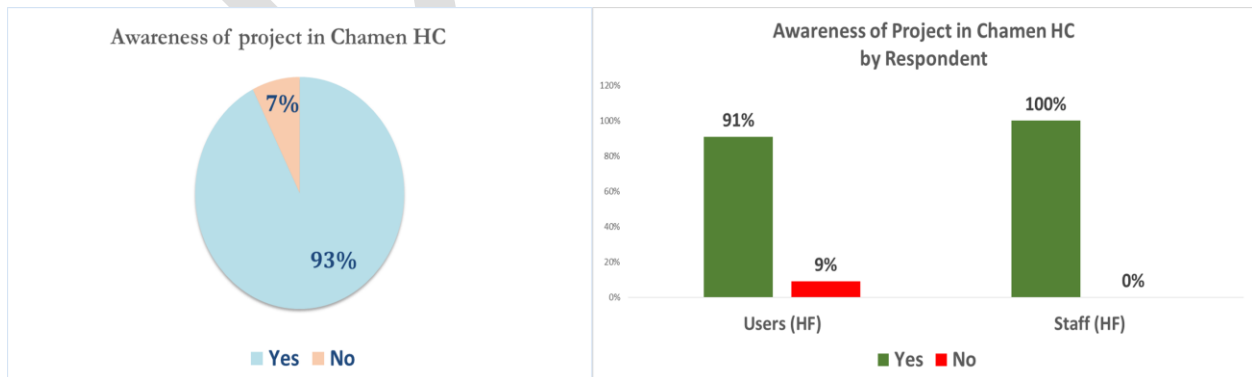
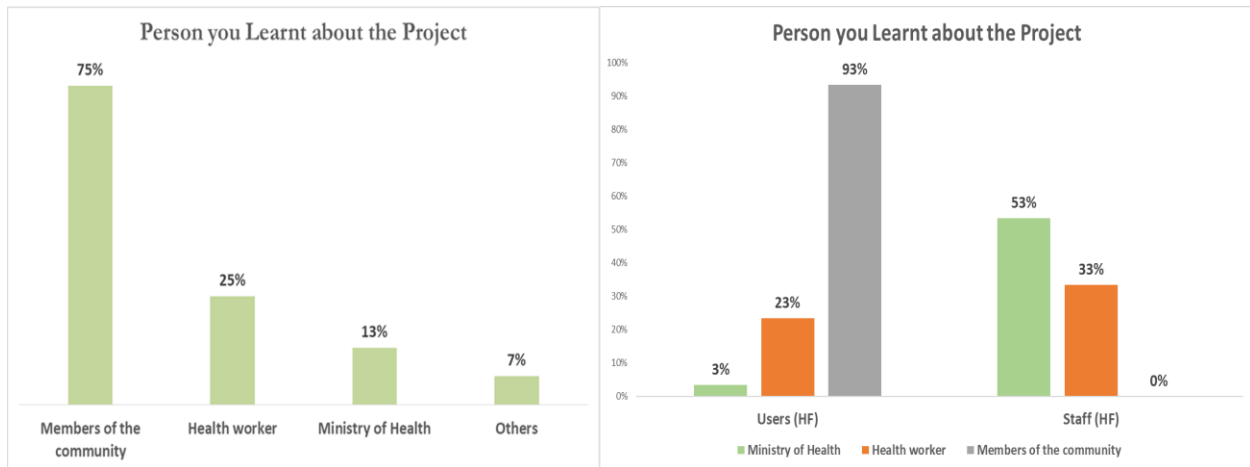
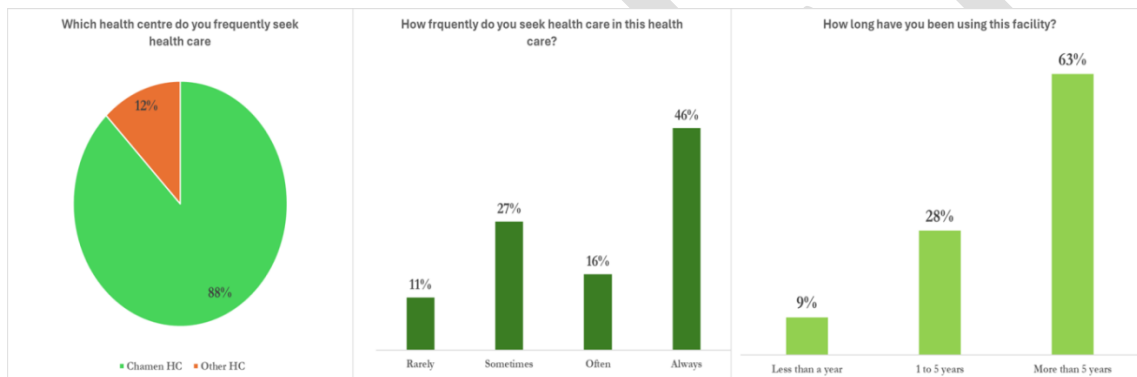


Figure 16. Awareness of the Chamen Health Center Construction/renovation Project



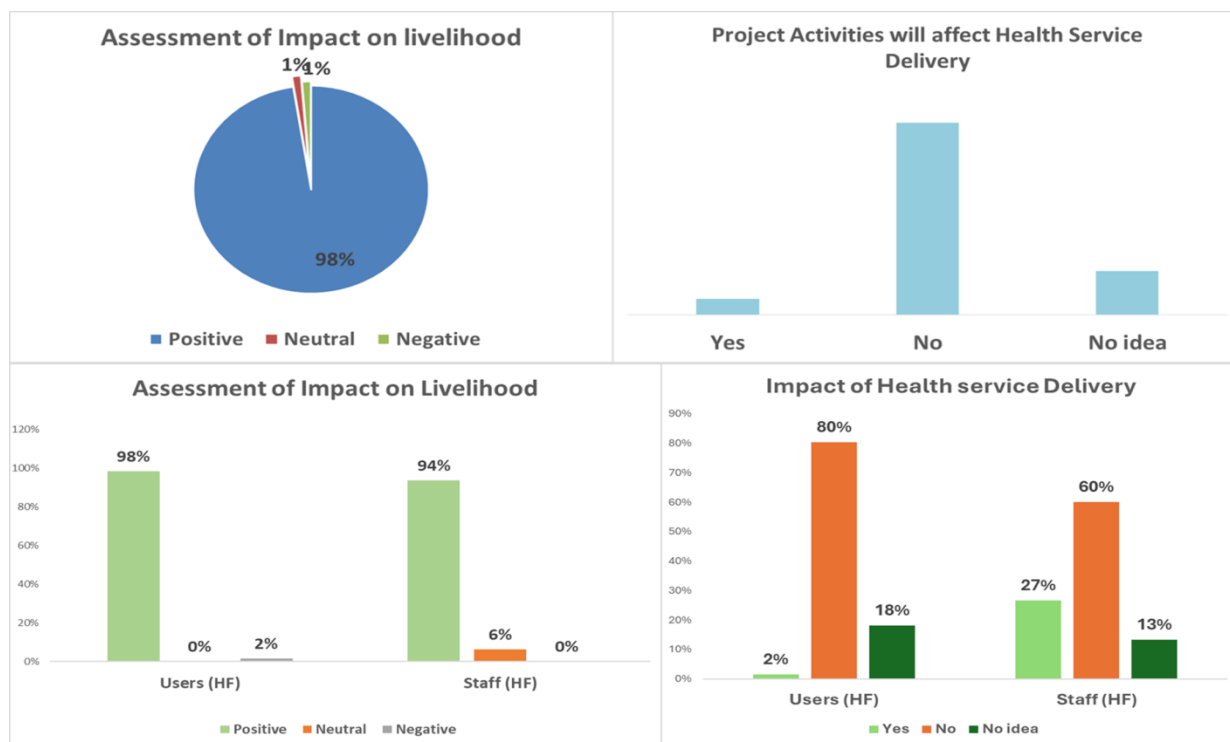
**Figure 17. From Whom Did You Learn About the Project**

When asked about where they seek healthcare, almost 90% responded Chamen health center with majority reporting always (46%) and more than 5 years (63%).



**Figure 18. Healthcare seeking behaviour among respondents**

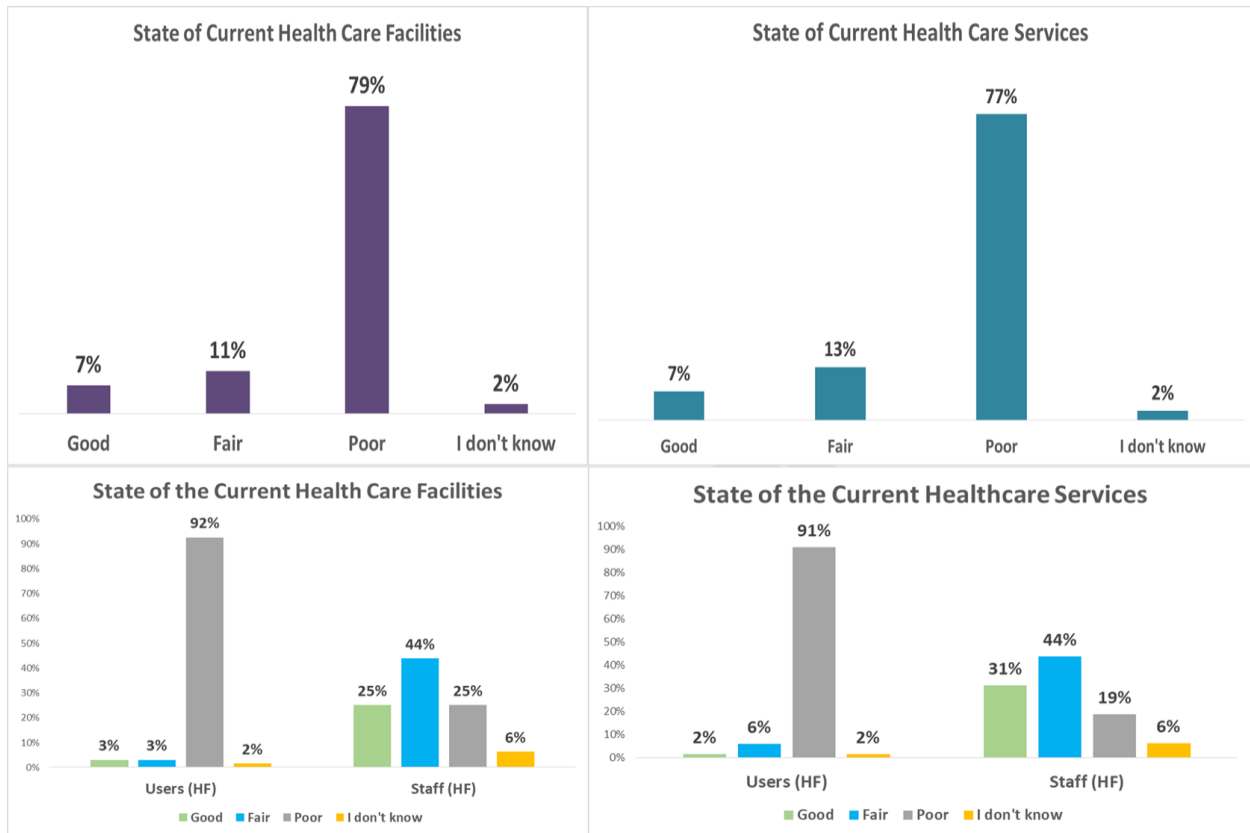
The respondents were informed of the proposed project and were asked about their perception of the overall impact of this project on their livelihood. Up to 98% of the respondents expressed that the project is anticipated to positively impact their livelihood, of which 98% were among health facility users (HFU) and 94% among health facility staff (HFS). Only 6% think the project will have an excellent impact on their health service delivery, with 2% being HFU and 27% HFS. This finding reflects the viewpoint of the key stakeholders of the project, who also believe that the project will have a positive impact on the livelihood, but the health service delivery may not be very impactful by constructing new structures or renovating existing building, when there is still a lack of specialized trained health workers, medications and diagnostic equipment.



**Figure 19. Impacts of the Project on Livelihood and Health Services Delivery**

In response to the question about the perception of respondents on the current healthcare services at the Chamen health center, 79% and 77% of the respondents stated that the healthcare facilities and services are poor, respectively. However, 44% and 25% of staff respondents rated the healthcare facilities as fair and good respectively and healthcare services as poor (92%). The users rated both healthcare facilities (92%) and services (91%) as poor as shown in **Figure 20**.

Overall, 50% of the respondents perceived the healthcare facility services and facilities condition as not good. Therefore, the healthcare facility requires renovation to improve services. The same sentiments were echoed in all the community consultations conducted. Similar concerns were reported by the TAC and other community members during the KIIs.



**Figure 20. Description of the current Healthcare Facilities and Services**

When asked about the positive environmental and social impact of the project, the majority of the respondents reported improved healthcare services (76%), easy access to healthcare services (76%), enhanced performance of healthcare workers (65%), safe and health working environment (60%), better healthcare facilities (56%), improved public health (54%), employment creation (39%), and income generation (27%) as shown in **Figure 21**.

For the potential negative impacts that the project is likely to cause were reported as noise pollution (59%), waste generation (49%), dust pollution (41%), accidents and injuries to workers (35%), soil pollution/contamination (11%), gaseous emission from vehicles and heavy machinery (10%), and water pollution/contamination (9%) as shown in **Figure 22**.

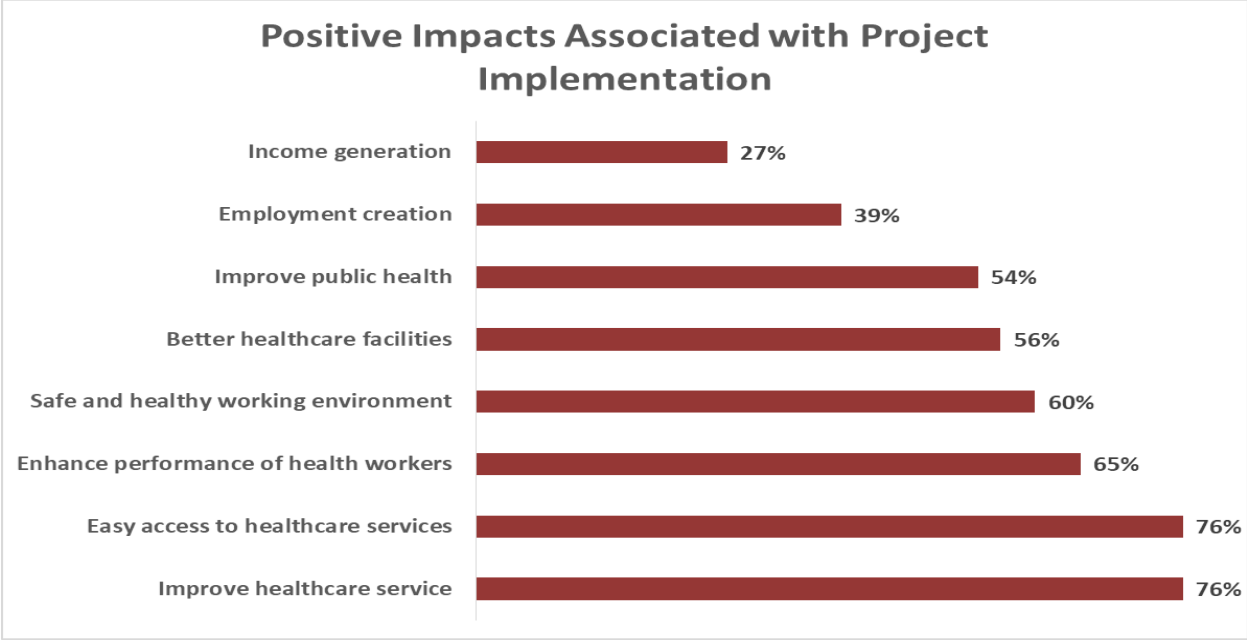


Figure 21. Potential Positive and Negative Impacts of the Project

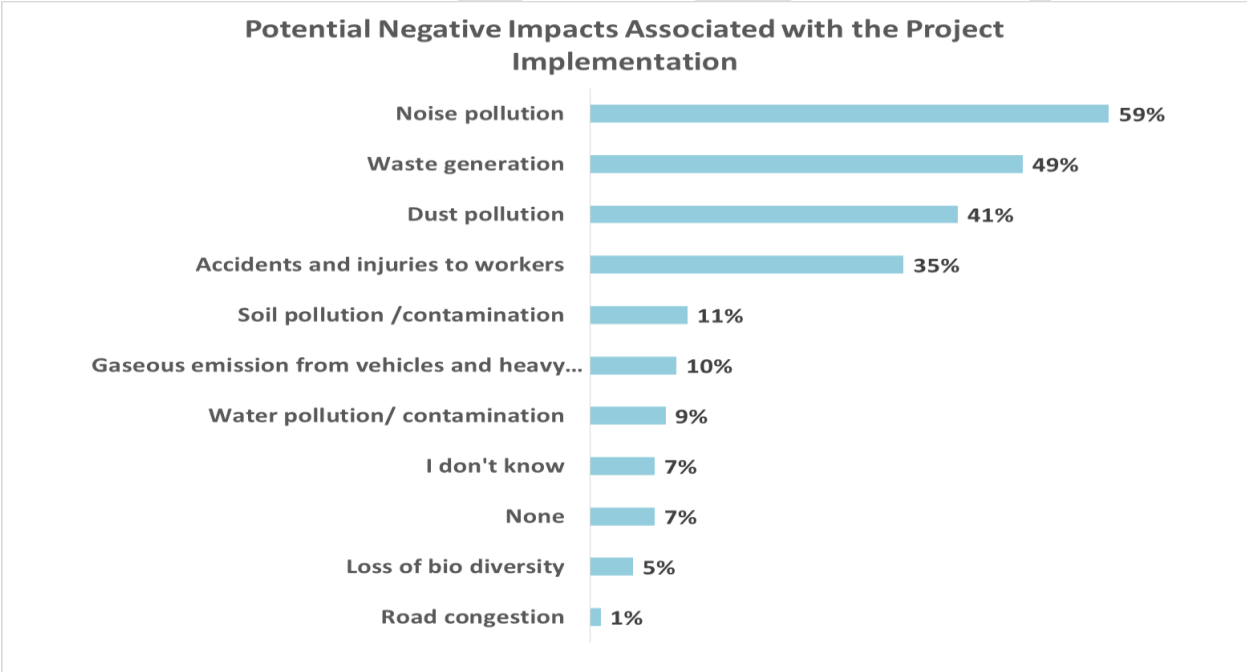
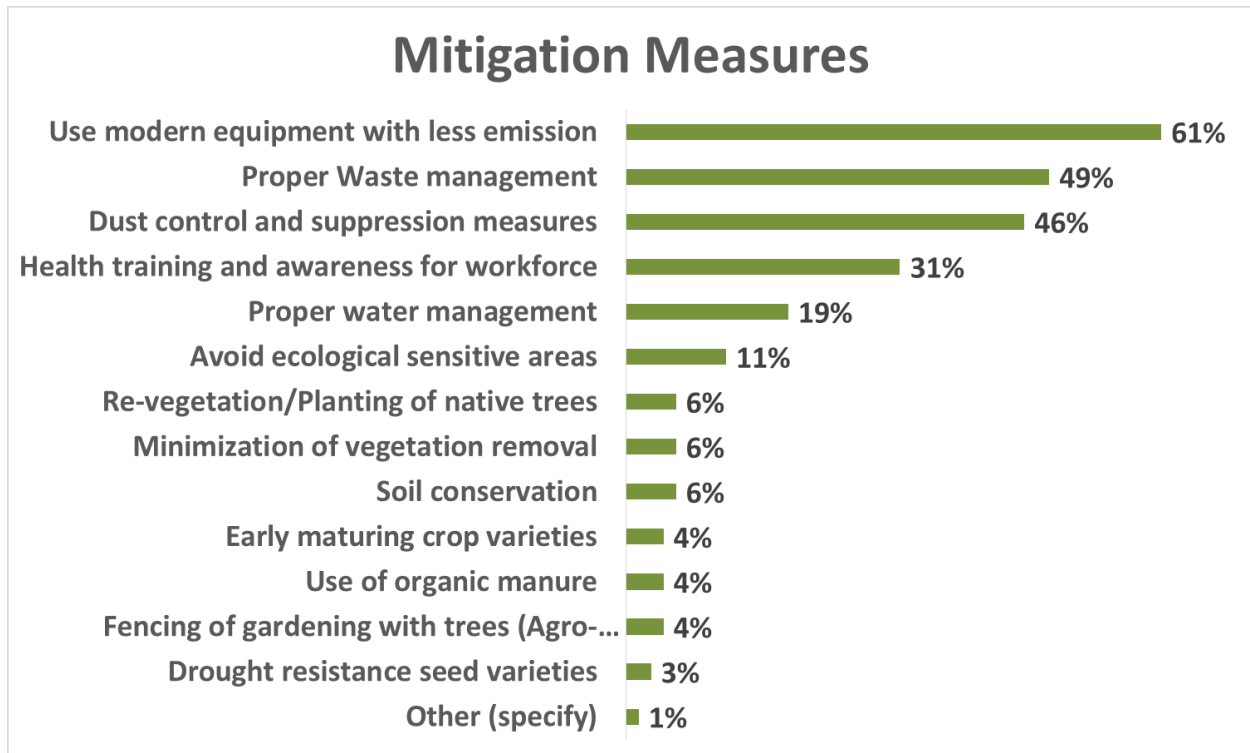


Figure 22. Potential Positive and Negative Impacts of the Project

In terms of what can be done to avoid or prevent the potential negative impacts, the majority of the respondents proposed proper waste management use modern equipment with less emission (61%), proper waste management (49%), dust control and suppression measures (46%), health training and awareness for the workforce (31%), proper water management (19%), avoid ecological sensitive areas (11%) (see Figure 23).



**Figure 23. What Do You Think Can Be Done to Avoid/Mitigate Against the Potential Negative Impacts?**

## 7.2. Potential Impacts and Mitigation measures

This chapter identifies and predicts the potential positive and negative impacts on environmental and social aspects arising from the proposed project's pre-construction, construction, operation, and decommissioning phases. These impacts are discussed below.

### 7.2.1. Potential Positive Impacts During Planning and Design Phase

#### 7.2.1.1. Employment Opportunities

During the planning and design phase, employment opportunities will be created for engineers, surveyors, environmentalists, health and safety, public health experts, and sociologists, among others. Those employed will improve their living standards from the fees paid for their services.

#### 7.2.1.2. Potential Negative Adverse Impacts

The proposed project will be executed in three different stages and the procedure utilized in the identification and assessment of the potential impacts took into account the various phases of the project. The main potential impacts associated with the project activities during the planning and design (pre-construction), construction, and operation phases of the project are presented in Table 27

Table 27. Environmental Indicators Interaction Matrix of the Project Activities

Project Phase	Pre-construction/renovation and Construction/renovation Phase									Operation Phase				
Project activities/Impacts	Site clearing	Recruitment & presence of workers (non-native)	Movement of machinery & vehicles	Civil works	Transportation of construction materials (sand, gravel, cement)	Waste generation	Use of construction equipment and tools	Consumption of resources (water, energy)	Repair of equipment and machinery – soil spillage	Waste generation, storage, handling and	Maintenance of facilities	Repair of equipment	Consumption of resources (water, energy)	Movement of vehicles in and out of facility
<b>Air Quality</b>														
Dust and particulates														
Gaseous emissions (NO <sub>x</sub> , SO <sub>x</sub> , CO <sub>x</sub> , GHGs etc.)														
<b>Water Quality</b>														
Underground water contamination/pollution														
<b>Soil Quality</b>														
Soil contamination														
Soil erosion and siltation														
Change in topography/natural drainage														
<b>Sensory Perceptions</b>														
Noise Disturbance														
Vibration Disturbance														

Project Phase	Pre-construction/renovation and Construction/renovation Phase									Operation Phase				
Project activities/Impacts	Site clearing	Recruitment & presence of workers (non-native)	Movement of machinery & vehicles	Civil works	Transportation of construction materials (sand, gravel, cement)	Waste generation	Use of construction equipment and tools	Consumption of resources (water, energy)	Repair of equipment and machinery – soil spillage	Waste generation, storage, handling and	Maintenance of facilities	Repair of equipment	Consumption of resources (water, energy)	Movement of vehicles in and out of facility
<b>Terrestrial Ecology-Flora</b>														
Forested areas (removal)														
Habitat fragmentation														
<b>Terrestrial Ecology - Fauna</b>														
Avifauna (degradation and removal of habitat)														
Rodents and mammals (degradation and removal of habitat)														
<b>Socio-economic, Cultural, Human Health</b>														
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														

Project Phase	Pre-construction/renovation and Construction/renovation Phase								Operation Phase					
Project activities/Impacts	Site clearing	Recruitment & presence of workers (non-native)	Movement of machinery & vehicles	Civil works	Transportation of construction materials (sand, gravel, cement)	Waste generation	Use of construction equipment and tools	Consumption of resources (water, energy)	Repair of equipment and machinery – soil spillage	Waste generation, storage, handling and	Maintenance of facilities	Repair of equipment	Consumption of resources (water, energy)	Movement of vehicles in and out of facility
In-migration/labour influx														
Gender-based violence; Sexual Exploitation and Abuse; Sexual and communicable diseases														
Spread of communicable diseases														
Occupational Health and Safety Risks														

## **7.2.2. Potential Negative Impacts During Planning and Design Phase**

Although planning and design studies do not allow for any large-scale destruction and disturbance of the biodiversity, potential risks may arise due to poor siting of the facilities or non-adherence to the Ministry of Health (MoH) guidelines and specifications on the infrastructure design. Additionally, the mobilization of skilled experts and consultations with key stakeholders and community members may lead to unnecessary heightened expectations and political speculations, especially on employment opportunities for the surrounding community members.

### **7.2.2.1. Proposed Mitigation Measures**

At the planning and design phase, it is expected that there will be minimal to no negative impacts. Nonetheless, the design team, NSPA Safeguard team shall take the necessary measures to mitigate risks through:

- Coordinating with the relevant Technical Government Ministries and departments in the development of the designs;
- The Project Management Team (PMT), specifically the NSPA Safeguard team, should ensure the design requirements are adhered to in the planning stage.
- Ensure all the legally required permits, such as getting the designs approved and acquiring the ESIA License before undertaking the construction activities;
- The contractor bidding documents should contain clauses on Environmental Social Health and Safety (ESHS) requirements to guide the contractor on the key requirements;

## **7.2.3. Potential Positive Impacts During Construction Phase**

### **7.2.3.1. Creation of Market for Construction Materials**

The project will require building and construction materials such as sand, cement, basalt, hard-core, lining, steel bars/rods, glass, soft boards, aluminum bars etc. Such materials should be sourced locally to assist in providing a ready market for suppliers of such materials within and outside the project area.

### **7.2.3.2. Source of Short-Term Employment Opportunities**

The construction work will require services from both the need for machine operators and other skilled and unskilled workers. It is recommended that such people be sourced from the local community as much as possible. Machine operators will be engaged in excavation, site clearance, compaction, and backfilling. Several workers, including casual workers, plumbers, electricians, engineers, and health and safety experts, are expected to work on the site for some time. Semi-skilled, unskilled, and formal employees are also expected to obtain gainful employment during construction. In addition, the project will offer a source of income to the women through the sale of food items to the workers, thereby enabling them to earn additional income to support their families. However, this is to be a medium positive impact of a short-term nature. It is estimated that at least 40 people will

benefit from the project in terms of short-term employment opportunities. This would benefit the local community but short-term in nature and can be enhanced through publicizing available project work opportunities in community “Bantabas”, mosques and churches, print and electronic media outlets, and social media platforms.

#### 7.2.4. Potential Negative Impacts During Project Construction Phase

##### 7.2.4.1. Interference with Physical Setting

As the current proposed site for the construction/renovation of the center is an existing health facility in use, the construction/renovation will involve excavation works that will interfere with the physical setting of the environment. Any excavated area should be well secured before it could be backfilled or before construction can be carried out to make it safe.

**Table 28. Impact Assessment Summary for the Interference with the Physical Setting**

Impact Assessment Summary	
Types of impacts	Interference with the Physical Setting
Project activities	Excavation and digging activities, Site clearing and removal of vegetation, movement of machinery and vehicles
Impact characterization	Adverse, Direct, Short-long term, Reversible
Impact Significance	Medium to high
Propose Mitigation Measures	
<p>The contractor should ensure that there is minimal disturbance to the topography of the area;</p> <ul style="list-style-type: none"> <li>○ The project designs should be such that they do not interfere with local drainage or, change the topography or introduce physical changes that are not in harmony with the physical setting of the project area. Any topographical change needed should be made to avoid soil erosion or storm water drainage issues;</li> <li>○ Restoration shall be undertaken to ensure that the original setting is as much as possible retained;</li> <li>○ All workers participating in the construction of the center and associated structures should be provided with adequate and appropriate PPE, be trained on their appropriate use and enforce on use, and</li> <li>○ The contractor should observe measures stipulated in the ESMP for sustainable project implementation.</li> </ul>	

##### 7.2.4.2. Improper management of construction-related solid waste

Solid waste generated during construction includes paper used for packing, plastics, scrap wood, glass cullet, metal, and debris. Dumping around the site will interfere with the aesthetic status and directly affect the surrounding community. Disposal of the same solid waste off-site could also be a social inconvenience if done in the wrong places. The off-site effects could be vector or pest breeding, pollution of physical components of the environment, including water resources, soil/land, invasion of scavengers, and informal recycling by communities.

Construction will involve earthworks and excavation, which could lead to spoil generation. If not well managed and finally disposed of, it could become an eyesore, creating hiding and breeding sites for rodents and other undesired creatures.

**Table 29. Impact Assessment Summary for Improper Management of Construction Related Solid Waste**

<b>Impact Assessment Summary</b>	
Types of impacts	Construction-related solid wastes
Project activities	Waste from excavation and digging activities, civil works, etc.
Impact characterization	Adverse, Direct, Normal, Short-term,
Impact Significance	Medium
<b>Propose Mitigation Measures</b>	
<ul style="list-style-type: none"> <li>○ The contractor shall prepare waste management plan as part of the C-ESMP to be implemented at the site (storage, provision of bins, site clean-up, bin clean-out schedule, etc.) before the commencement of any works, which should promote waste minimization and recycling.</li> <li>○ The contractor shall handle and dispose of all construction and related waste.</li> <li>○ Encourage efficient use of materials to avoid and minimize waste production as much as possible.</li> <li>○ Ensure waste is recycled/reused before opting to dispose of it.</li> <li>○ Designate temporal waste/garbage holding areas at the site.</li> <li>○ Use of waste receptacles that encourage segregation to hold waste on-site before its collection</li> <li>○ The open burning of waste and indiscriminate disposal of the resulting ash shall not be permitted, and signage should be erected to direct such a process.</li> <li>○ Maximize the re-use of excavated materials in the works as far as feasible to ensure that no permanent spoil dumps are created;</li> <li>○ Spoil dumping should be away from any water resources to avoid possible water pollution from siltation/sedimentation;</li> </ul>	

7.2.4.3. Extraction, Use and Management of Solid Waste from Construction Materials

Construction materials that will be used include timber, building blocks, basalts, sand and cement extracted from quarries and other natural resource banks such as rivers and land or obtained from hardware shops.

**Table 30. Impact Assessment Summary for Extraction, Use and Management of Solid Waste from Construction Materials**

<b>Impact Assessment Summary</b>	
Types of impacts	Extraction, Use and Management of Solid Waste from Construction Materials
Project activities	Mining, structural works, civil works activities, etc.
Impact characterization	Adverse, Direct, Normal, Short-term,

Impact Significance	Medium
<b>Propose Mitigation Measures</b>	
To check on the impacts of material extraction, use, and management of non-hazardous wastes, both solid and liquid, the following is recommended:	
<ul style="list-style-type: none"> <li>○ The contractors should source construction materials such as sand and basalt from registered and NEA-approved and licensed quarries and sand mining firms/groups and/or from suppliers of such firms are expected to apply acceptable environmentally friendly processes in their operations;</li> <li>○ During the transportation of construction materials, fine earth materials (sand and gravel) should be covered using tarpaulins to prevent spillage, dust, and particulate matter emission;</li> <li>○ The contractor should adhere to the procurement plan and only order for what will be required through accurate budgeting and estimation of actual construction material requirements;</li> <li>○ Contractor shall prepare a waste management plan to be implemented at the site (storage, provision of bins, site clean-up, bin clean-out schedule, etc.) before the commencement of any works, which should promote waste minimization and recycling;</li> <li>○ Contractor shall be responsible for handling and disposal of all construction and related waste;</li> <li>○ Encourage efficient use of materials to as much as possible avoid and minimize waste production;</li> <li>○ Ensure waste is recycled/reused before opting to dispose of it;</li> <li>○ Designate temporal waste/garbage holding areas at the site;</li> <li>○ Use of waste receptacles that encourage segregation to hold waste on-site before its collection;</li> <li>○ Use of durable, long-lasting materials that shall not need to be replaced often;</li> <li>○ Engage NEA in the disposal of hazardous waste and have waste destruction certificate and waste transfer notes;</li> <li>○ Waste disposal by burning shall not be permitted and signage should be erected;</li> </ul>	

#### 7.2.4.4. Noise and Vibration Generation

Construction activities of the proposed project will most likely result in noise emissions and vibrations due to the machines that will be used, e.g., excavation equipment and construction vehicles delivering materials to the site. Construction workers could also generate noise.

**Table 31. Impact Assessment Summary for Noise and Vibration Generation**

Impact Assessment Summary	
Types of impacts	Noise and Vibration Generation
Project activities	Excavation and digging activities, 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
Propose Mitigation Measures	

The NSPA Safeguard team, through the contractor, shall put in place several measures that will mitigate noise pollution during the construction phase, including the following:

- Noise suppression measures must be applied to all construction equipment, such as installing portable barriers to shield compressors and other small stationary equipment, cover the engine of generators where necessary;
- Use of quiet equipment (i.e., equipment designed with noise control elements such as those that utilize electricity as opposed to those which utilize diesel or petrol) and ensure all the equipment used on site is well maintained and in good working condition;
- Limit pickup trucks and other small equipment to a minimum idling time and, observe a common-sense approach to vehicle use, and encourage workers to shut off vehicle engines whenever possible;
- Provision of appropriate PPE (hearing protection - ear muffs/plugs) to the workers and any other person visiting the construction and renovation site, especially in work areas with heightened noise levels;
- Limit high noise-generating construction activities to during day time between 8am and 7pm;
- Consider manual labour-based construction methodologies and
- Construction workers should be made aware of the sensitive nature of the workplace and advised to limit verbal and other forms of noise

#### 7.2.4.5. Air pollution through Dust and Emissions

Dust could most likely be emitted during the clearing of the site and pre-construction preparation activities. It also includes excavation activities, construction material stock piles, and related earthworks that could lead to air-borne particulate matter pollution. Gaseous emissions are also expected from the construction vehicles. This is likely to affect site workers and neighboring community members in extreme situations that lead to respiratory problems.

The planned civil works at the project's construction phase is expected to include excavation, dealing with cements, and uncovered deposited sand and gravels, which 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.

**Table 32. Impact Assessment Summary for Air Pollution Through Dust and Emissions**

<b>Impact Assessment Summary</b>	
Types of impacts	Air pollution (dust and 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
<b>Propose Mitigation Measures</b>	

To mitigate on these, the following measures are proposed:

- Minimize the number of motorized vehicles in use and limit vehicle speeds to a maximum of 15Km/Hr around and within the project site;
- Make use of predetermined routes when bringing in construction material or the transportation of solid waste generated;
- Periodically service all the equipment and machinery and ensure in good working condition to minimize emissions;
- Wet all active construction areas as and when necessary to reduce dust,
- Cover the stock-piled construction materials and spoil generated from the excavations,
- Provide appropriate PPE (dust mask) to workers and enforce on use;
- When transporting construction material, ensure vehicles are covered with tarpaulins to minimize dust emissions; and
- Burning of solid waste material should not be permitted at the project site.

#### 7.2.4.6. Vegetation Loss

The proposed project is expected to be implemented within the Health center premises. The project site may include clearing of some vegetation for the expansion of structures and is surrounded by few fully grown indigenous trees.

**Table 33. Impact Assessment Summary for Vegetation Loss**

<b>Impact Assessment Summary</b>	
Types of impacts	Vegetation Loss
Project activities	Site clearing and removal of vegetation
Impact characterization	Adverse, Direct, Normal, Long-term, Irreversible
Impact Significance	Medium -High
<b>Propose Mitigation Measures</b>	
To mitigate on potential negative impacts related to vegetation loss, the following mitigation measures are recommended:	
<ul style="list-style-type: none"> <li>○ The contractor will ensure proper demarcation of the project area to be affected by the construction works to limit total vegetation removal on-site;</li> <li>○ Strict control of construction vehicles to ensure that they operate only within the area to be disturbed and designated access routes;</li> <li>○ Ensure retention of grass and mature trees close to the site to the extent possible; and</li> <li>○ Re-vegetate the area in the disturbed sections and surrounding environment after completion of works</li> </ul>	

#### 7.2.4.7. Accidental Spills and Leakages

The main chemicals to be held on the site during the construction phase are likely to be fuel lubricants, oil and grease (from construction vehicles/ equipment), paints and pest control substances to be applied on the wooden structures and foundations. Spillage of such compounds is likely to

immediately impact the local water resources (storm water) and consequently on the terrestrial and aquatic flora and fauna.

**Table 34. Impact Assessment Summary for Accidental Spills and Leakages**

Impact Assessment Summary	
Types of impacts	Accidental Spills and Leakages
Project activities	Site clearing and removal of vegetation
Impact characterization	Adverse, Direct, Normal, Short-term, Reversible
Impact Significance	Low
Propose Mitigation Measures	
<p>This can be checked by observing the following measures:</p> <ul style="list-style-type: none"> <li>○ Temporal storage in specifically designated areas on site of all hazardous/toxic substance will be in safe containers, labelled with details of composition, properties and handling information including safety data sheets and away from storm water runways or exposure to weather elements such as rains and for use only for construction works;</li> <li>○ Ensure proper storage of chemicals/materials, and if possible, in secondary containers just in case of accidental puncturing and away from storm water runways or exposure to weather elements such rains;</li> <li>○ Ensure proper handling, storage and disposal of waste oil, lubricants, oil filters and fuel from vehicles. Hazardous waste would be contained and properly disposed of by authority responsible for hazardous waste handling,</li> <li>○ The contractor should provide appropriate PPE (medical mask, gowns, heavy-duty gloves, eye protection and boots) to workers on site;</li> <li>○ During the course of the construction works, temporary drainage channels should be constructed to encourage dispersal of meteoric waters;</li> <li>○ The contractor to have spill prevention and response procedures, including all necessary equipment and that of workers are trained; and</li> <li>○ Contractor to immediately report to PCU Safeguard team for any spills or accidental releases.</li> </ul>	

**7.2.4.8. Increased Water Demand**

Water, to be sourced from the center supply, will mostly be used during construction for mixing materials (concrete casting) wetting surfaces or cleaning/curing completed structures and use by the construction workforce thus create an increased demand for water in addition to the existing demand by the center activities.

**Table 35. Impact Assessment Summary for Increased Water Demand**

Impact Assessment Summary	
Types of impacts	Increased Water Demand
Project activities	Water for block laying, civil works, and use by workers
Impact characterization	Adverse, Direct, Normal, Short-term, Reversible

Impact Significance	Low - Medium
<b>Propose Mitigation Measures</b>	
To check on its sustainable use, the following mitigation measures have been proposed:	
<ul style="list-style-type: none"> <li>○ The proponent, through the contractor, shall ensure that water is used efficiently at the site by sensitizing construction staff to avoid irresponsible water use;</li> <li>○ Install a discharge meter at water outlets to determine and monitor total water usage and enable the contractor to pay for the water he utilizes or wastes. Alternatively, the contractor should source water from own-drilled boreholes investigated and approved by the Department of Water Resources;</li> <li>○ Encourage prompt maintenance of water pipeline leaks; and</li> <li>○ Upon commissioning of the health Center, the Center management will be required to supply water to the facility at its cost for normal operations. We recommend that water-conserving taps that turn-off automatically when water is not being used be installed at the center coupled with waterless urinals and cisterns of low water volume use.</li> </ul>	

#### 7.2.4.9. Occupation/Public Health and Safety Impacts

Construction works unavoidably expose workers to OHS risks such as accidents and injuries from accidental falls from heights, slips due to wet surfaces, burns from welding, electrocution and use of faulty hand tools and construction equipment. Concerning public safety, there will be risks related to use of heavy equipment at the construction site and construction materials storage areas. There will also be an increased risk of traffic-related accidents caused by vehicles transporting construction materials.

**Table 36. Impact Assessment Summary for Occupation/Public Health and Safety Impacts**

<b>Impact Assessment Summary</b>	
Types of impacts	Occupation/Public Health and Safety
Project activities	Construction of structures (concrete mixing activities, masonry-concrete, framework, electricity, handling of hazardous materials and chemicals, use of construction equipment and tools for the structures finishing works, etc.), maneuvering of construction equipment and machinery.
Impact characterization	Adverse, Direct, Normal, Short-term, Reversible
Impact Significance	Low - Medium
<b>Propose Mitigation Measures</b>	

- The contractor shall prepare an OHS plan as part of their C-ESMP for the construction works and should include input from NSPA Safeguard team on potential health and safety risks associated with the construction activities and meet all OHS requirements in Gambia labour laws and regulations, and AfDB OS2;
- All construction workers should be sensitized on the health and safety requirements while at the project sites and risks associated with construction work;
- Workers should be provided with suitable PPE such as safety helmets, safety shoes, gloves, masks and overalls;
- Provision of clean and accessible sanitary facilities and drinking water to workers;
- Protect the active work sites to limit entry of unauthorized people such as health staff and patients. Use of screens and nets to avoid flying debris and ensure good housekeeping at the construction site;
- Trenches over 0.5m deep or wherever soil conditions dictate should be secured against accidental fall by workers and the public;
- Install information and safety signage along the work areas;
- Site should have an accessible grievance redress mechanism to allow workers/community to raise safety issues and propose improvements of project sites;
- Electrical installations works should be done by a trained and certified experienced personnel;
- Task based risk assessment should be done on daily basis to assess the risks and hazards thereby prescribing the appropriate prevention measures;
- A health and safety officer/safety champion shall be designated at the construction site and shall maintain a log of incidents (safety register) on site and report on any fatalities related to the project within 24 Hrs;
- Vehicle speeds should not exceed 15km/hr within and around the project site; and
- Have a traffic control person within the around project site; and
- The contractor shall report any worker death or serious accident immediately to NSPA Safeguard team.

**7.2.4.10. Increased Spread of Communicable Diseases**

During the construction phase there is a risk of spread of communicable diseases such as tuberculosis, HIV/AIDS and pulmonary infections. With the concentration of people at one place during construction, there will be a likelihood of increase in diseases such as typhoid, tuberculosis, diarrhea diseases, dysentery, and cholera and, respiratory diseases like the COVID-19. There is also potential increase in STIs given the labor requirements during construction phase.

**Table 37. Impact Assessment Summary for Increased Spread of Communicable Diseases**

Impact Assessment Summary	
Types of impacts	Increased Spread of Communicable Diseases
Project activities	Construction phase through several current activities requiring more onsite and community-level workers.

Impact characterization	Adverse, Direct, Normal, Short-term, Reversible
Impact Significance	Low
<b>Propose Mitigation Measures</b>	
Proposed mitigation measures include the following:	
<ul style="list-style-type: none"> <li>○ Treat affected local and non-native workers which will control the spread of disease vectors (through contaminated water and between people);</li> <li>○ Provision of adequate and accessible sanitation facilities in good condition with adequate water supply;</li> <li>○ Create awareness to workers on proper sanitation and personal hygiene to promote proper health;</li> <li>○ To mitigate risk from food-related contamination amongst construction workers, food supplies will be from the vendors with public health certificate;</li> <li>○ Sensitize the workers on HIV and link them to testing and care services as necessary.</li> <li>○ Hiring workers from the local community to prevent social challenges associated with STIs;</li> </ul>	

#### 7.2.4.11. Labour Influx Effects

The project will attract an average of 20 workers when construction/renovation is ongoing as workforce. It is recommended that the contractor, in conjunction with the NSPA Safeguard, ensure that unskilled labourers are recruited from within the project locality to prevent risks of communicable infections from other communities and disputes related to allegations of discrimination of the locals from unskilled job opportunities. Real or perceived disruption to normal community life through the domestic activities of a workforce should be avoided. Imported workers tend to introduce new lifestyles 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 pressure resources and infrastructure. This challenge increases demand for existing infrastructures and resources such as water supply, electricity, health facilities, and many others due to the influx of people to the project's influencing 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 resentment

**Table 38. Impact Assessment Summary for Labour Influx Effects**

<b>Impact Assessment Summary</b>	
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
<b>Propose Mitigation Measures</b>	

- The employees are hired from within the locality hence limited movement or very short distances from their homes;
- The contractor to ensure that the hiring process is done with fairness and gender sensitivity;
- Effective contractual obligations for the contractor will be done with workers to adhere to the mitigation of risks against labour influx;
- Contractor to keep proper and updated records of the labourers on site (including resident county, age, gender and skillsets);
- Fair treatment, non-discrimination and equal opportunity of all labourers;
- All workers to sign a CoC that will have provisions on individual responsibilities; and
- 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)
- 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.
- That the workers have access to an operational GRM.
- Training for all staff in acceptable behaviour with respect to community interactions.
- Sensitize the personnel of project sites with respect to the habits and customs of the populations.

#### 7.2.4.12. 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 Labour Act of 2023 prohibits children under 18 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 the risks of domestic violence.

There is a risk of using children as laborers during project implementation, particularly during pre-construction for site cleanup. Children playing in facilities 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, and VAC, are to be considered, especially during the implementation stages of the project.

**Table 39. Impact Assessment Summary for GBV/SEA/VAC**

<b>Impact Assessment Summary</b>	
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
<b>Propose Mitigation Measures</b>	
<ul style="list-style-type: none"> <li>○ Ensure that the code of conduct (CoC) is developed and signed by all personnel and workers and that they attend regular training on SEA/SH, the content of CoC and sanctions.</li> <li>○ 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.</li> <li>○ Ensure that the 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 verifying and managing complaints.</li> <li>○ Conduct regular awareness-raising campaigns about the project and the risks of GBV, SEA/SH, and VAC with workers and community members (and with women in separate groups with a woman facilitator)</li> <li>○ Include provisions in the site's internal regulations to discourage employees from abusing the trust of food vendors/stallholders and using GBV, SEA/SH, or VAC.</li> <li>○ Report and sanction all forms of GBV related to the project activities.</li> <li>○ Formally prohibit child labor</li> <li>○ Monitor changes in women's status and the project's potential impacts on them by conducting regular focus group consultations with women in a sample of villages (in small groups facilitated by a woman).</li> </ul>	

#### 7.2.4.13. Child Labour Risks

Incidence of child workers may occur during construction especially in light of the rising livelihood needs at the households level as a result several causes. It will be useful for the contractor management to protect the project from such incidence by ensuring that recruitment complies with the national

laws and that continuous monitoring is done within the phase to ensure non-occurrence of such incidences.

**Table 40. Impact Assessment Summary for Child Labour Risks**

<b>Impact Assessment Summary</b>	
Types of impacts	Child labour risks
Project activities	Any activities could involve children
Impact characterization	Adverse, Indirect, Abnormal, Long-term
Impact Significance	Low
<b>Propose Mitigation Measures</b>	
<ul style="list-style-type: none"> <li>○ The contractor will develop and implement a Children Protection Strategy that will ensure minors are protected against negative impacts associated by the Project including on SEA/SH.</li> <li>○ All staff must sign, committing themselves towards protecting children, a contract that clearly defines what is and is not acceptable behavior.</li> <li>○ Children under the age of 18 years should not be hired on site as provided by Labour Act, 2007</li> <li>○ Wherever possible, ensure that another adult is present when working in the proximity of children</li> <li>○ Not to invite unaccompanied children to workers'home, unless they are at immediate risk of injury or in physical danger. vi. Project workers must refrain from hiring children for domestic or other labor.</li> <li>○ Comply with all relevant local legislation, including labor laws in relation to child labor specifically provisions of Gambia's Labour Act of 2023.</li> <li>○ Ensure that recruitment inventory indicates the ages of employment applicants and age verification is done using the national identification cards.</li> </ul>	

### **7.2.5. Potential positive impacts during the Operational phase**

#### **7.2.5.1. Improve Medical Services at the Health Center**

The project will positively impact Gambians' health by easing access to quality medical care currently non-existent in Chamen health center. The construction and installation of medical equipment will enable currently ineffective healthcare facilities provide new or improved services to patients.

A key benefit to women is the opportunity to safely deliver children in a medical environment where existing healthcare facilities could not handle complicated deliveries through medical/theatre operations.

#### **7.2.5.2. Improvement in Livelihood and Local Economies**

Improved healthcare will reduce morbidity and improve labor productivity and household incomes leading to long-term benefits of improved local economies.

### 7.2.5.3. Employment Opportunities

Equipping healthcare facilities with modern equipment, enabling the provision of new healthcare services and resultant increase in visiting patients may create additional long-term technical and non-technical job opportunities for medical professionals, janitors, security guards etc.

## 7.2.6. Potential Negative Impacts during Operational phase

### 7.2.6.1. Improper Healthcare Waste Management

During its operation, the waste treatment microwave will be handling medical waste generated from several clinical activities including sample collection disease suspected patients, laboratory practices and procedures (performing and handling of specimen and chemicals) from activities in isolation area; vaccine waste from general vaccination services; which all need to be treated in an appropriate medical waste treatment facility before final disposal. Improper disposal of medical waste would have environmental and public health impacts: for example, open burning and incineration of medical waste can result in emissions of dioxins, furans and particulate matter, and result in unacceptable cancer risks.

**Table 41. Impact Assessment Summary for Improper Healthcare Waste Management**

<b>Impact Assessment Summary</b>	
Types of impacts	Improper Healthcare Waste Management
Project activities	Operational waste from vaccination, laboratory, and surgical procedures
Impact characterization	Adverse, Indirect, Abnormal, Long-term
Impact Significance	Medium
<b>Propose Mitigation Measures</b>	

- The center to prepare operate and maintain an Infection Control and Health Care Waste Management Plan (ICHWMP) adequate for the scale and type of activities and identified hazards consistent with the National regulations, Project ICWMP and the AfDB OS guidelines for Health Facilities, and WHO guidelines.
- Waste should be identified and segregated at the point of generation. Non-hazardous waste, such as paper, cardboard, glass, aluminum, and plastic, should be collected separately and recycled. Food waste should be segregated and composted. Infectious and/or hazardous wastes should be identified and segregated according to its category using the colour-coded system at their place of production to reduce the health risk from the smaller potentially infectious fractions (typically waste items contaminated with body fluids and used sharps);
- Staff to receive instruction on three-bin waste segregation and safe handling and storage of health-care wastes; members of Staff are aware of how to protect themselves from injuries and infection from waste; Waste containers and storage areas are cleaned regularly.
- Prevention and minimization of waste production (integrating systems and practices to avoid waste creation into facility design and management and equipment and consumables purchasing).
- Transport waste to storage areas on designated trolleys/carts, which should be cleaned and disinfected regularly.
- Instructions on how to handle the infectious waste from isolation and treatment centers should be displayed/made available to the waste handlers.
- Ensure safety and health of the health care waste handlers through provision of appropriate PPEs, vaccination against Hepatitis B and tetanus, and post-exposure prophylaxis (PEP) and ensure periodic maintenance of the waste treatment equipment.

#### 7.2.6.2. Fire Risk

Without provisions for fire safety, there is a risk of fire outbreak at the center and at the building with disastrous life and financial impact. Fires can start from the high voltage electricity, chemical spills, ignitable materials within the center, accidents/elevated emissions associated with the existing incinerator, cigarette smoking in non-designated places or old electrical connections.

**Table 42. Impact Assessment Summary for Risk Fire**

<b>Impact Assessment Summary</b>	
Types of impacts	Improper Healthcare Waste Management
Project activities	Operational waste from vaccination, laboratory, and surgical procedures
Impact characterization	Adverse, Indirect, normal, Long-term
Impact Significance	Medium
<b>Propose Mitigation Measures</b>	

- Provide sand buckets, fire extinguishers at strategic positions within the center and ensure servicing is done.
- Fire emergency telephone numbers should be well displayed at the center in the communal areas including wards and consultation rooms
- Undertake regular fire drills targeting the key staff/security, to gauge the levels of preparedness and test on emergency response and use the results to improve on the response mechanism, and

#### **7.2.7. Potential Impacts during the Decommissioning Phase**

Appropriate equipment operation and maintenance, accompanied with good practices on healthcare waste management, will contribute to increased access and quality healthcare for the users. The decommissioning exercise will have both positive and negative impacts: During the decommissioning stage, demolition or renovations will be done, creating job opportunities for the youth and women. Renovation works will also be undertaken for the proposed project site to restore it to its original state. This will include replacing the topsoil and re-vegetation, which will enhance the area's aesthetic value. There will be need to employ people involved in the site's reclamation to near its original state. The earth moving works during topsoil replacement will significantly deteriorate the acoustic environment within the area and the surrounding areas. This will be due to the noise and vibration experienced by machines and the workforce being utilized. Dust will also be emitted affecting the surrounding environment. The proponent will put in place mitigation measures for noise and dust pollution during the decommissioning phase. Grievances and conflicts may also arise due to dissatisfaction of stakeholders on the decommissioning process or resulting from lack of consultations. Therefore, it will help activate GRM awareness at this phase and ensure proper and meaningful stakeholder consultations.

#### **7.3. Project vulnerability to climate change**

The project is considered Category 2 due to potential moderate vulnerability to climate change. Extreme weather conditions such as storms and flooding may also affect the subproject component concerning accessibility, efficient means of communication and possible damage to infrastructure, particularly electrical works and fittings.

## 8. Environment and Social Management Plan (ESMP)

This Environmental and Social Management Plan (ESMP) for the proposed construction/renovation of the Chamen Health Center is a management tool and standalone component of an ESIA that assures that the mitigation measures developed for the significant impacts of a proposed project are implemented and monitored throughout the project life cycle. It identifies parties responsible for monitoring actions, associated costs, indicators, training or capacity building needs, and reporting on the proposed project. It specifically states how the project proponent's commitments will be implemented to ensure sound environmental practice. Essentially, the aim of ESMP is to:

- Ensure that all mitigation measures prescribed in the ESIA document for eliminating, minimizing, and enhancing the project's 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.

It is worth noting that key factors and processes may change through the life of the project and considerable provisions have been made for dynamism and flexibility of the ESMP. As such, the ESMP will be subject to regular periodic reviews on a necessary basis. Several activities will be carried out during the various phases of the proposed project to ensure adequate E&S impact management. The phases and activities for the project is outlined in Table 43

**Table 43. The Phases and Activities for the Project**

Phase	Activities/actions
Project Preparation (Pre-construction)	<ul style="list-style-type: none"> <li>○ Collection of baseline data in relation to ambient noise or air quality for monitoring purposes.</li> <li>○ Training of the relevant project staff in E&amp;S management.</li> <li>○ Review and appreciation of project design details; layout and specifications.</li> <li>○ Inclusion of environmental health and safety specifications in Tender Documents, and development of CoC for the Contractor.</li> </ul>
Construction Phase	<ul style="list-style-type: none"> <li>○ Implementation of mitigation measures, through development of contractors E&amp;S Management Plan (C-ESMP) that shall include an elaborate approach on how to handle the following aspects: OH, HIV/AIDS management, labor management, update of health facility, Waste Management, Emergency Preparedness and Response, among others.</li> <li>○ The contractor should prepare an occupational/community safety and health plan and a C-ESMP for use during project construction, operation and decommissioning to be reviewed and</li> </ul>

Phase	Activities/actions
	<p>approved by the NSPA PIU and HCF prior to start of any construction works.</p> <ul style="list-style-type: none"> <li>○ Enforcement of Environmental and OHS requirements (conditions at the contractor’s yard, materials storage, condition of equipment, use of PPE, etc.) by the HSE Expert; as provided in the ESMP.</li> <li>○ Environmental monitoring on air quality by hired Air Quality, noise and vibration levels by air quality, noise and vibration levels consultant.</li> <li>○ Treatment and disposal of construction solid, liquid and sanitary wastes in an acceptable manner and in conformance with regulations.</li> <li>○ Ensuring that the contractor is following the CoC and environmental health and safety specifications as provided in ESMP and C-ESMP.</li> <li>○ Training the contractor’s workforce in environmental and social awareness and responsibility.</li> <li>○ Liaison with local administration and community leaders in matters of disturbance to the public, security issues, and other matters arising from the project.</li> <li>○ Ensure engagement with the key stakeholders</li> <li>○ Undertake monitoring to ensure that requisite contractor/facility systems are in place to mitigate against inherent social risks (GBV/SEA/SH, Insecurity, child labour influx, child labour, grievance relating to the sub-project).</li> </ul>
Operation Phase	<ul style="list-style-type: none"> <li>○ Development (or updating existing) and implementation of Health Safety and Environmental Management Plan, Waste Management Plan (for all center wastes), and Emergency Response Plan;</li> <li>○ Operation and maintenance, calibration and checking of all equipment as specified in respective manuals or as required by the regulations;</li> <li>○ Monitoring of emissions, discharges, waste management (generation, treatment, disposal), HSE incidents ( leakages and spills, accidents, etc.;</li> <li>○ Treatment and disposal of solid and sanitary wastes in an acceptable manner and in conformance with the regulations;</li> <li>○ Compliance with OHS manual to be prepared by project proponent/ center management during the project operational phase;</li> </ul>

Phase	Activities/actions
	<ul style="list-style-type: none"> <li>○ Observing Standard Operating Procedures (SOP) designed for the proposed construction of installation of center equipment, including incinerators for waste management;</li> <li>○ Monitoring the implementation of the ESMP including monitoring to ensure that requisite systems are in place to mitigate against inherent social risks (GBV/SEA/SH, Insecurity, child labor influx, child labor, grievance relating to the sub-project).; and</li> <li>○ Observing and implementing all the guidelines in Health care Waste Management (HCWM) and guidelines on infections spread control and other facets of human interactions vis a vis environmental bearing of these interactions.</li> </ul>
Decommissioning	<ul style="list-style-type: none"> <li>○ Decommissioning is an important phase in the project cycle and comes last to wind up the operational activities of a particular project. It refers to the final disposal of the project and associated materials at the end of the project lifespan. During this phase the contractor will be required to prepare a decommissioning management plan that will guide the decommissioning process and seek approvals/ permits from all the relevant government agencies such as NEA, NSPA, MoH, among others.</li> <li>○ Any concerns/grievances from stakeholders that may emanate from the decommissioning activities must be monitored and addressed appropriately.</li> </ul>

To minimize adverse impacts during different phases of project lifecycles, mitigation measures and responsibilities for its implementation and supervision of the project intervention are given in **Table 44**.

**Table 44: Summary of impacts and proposed project measures**

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
<b>Pre-Construction/Renovation Phase</b>				
Site preparation and mobilization of equipment/machinery movements	Air (dust & gaseous emissions) and noise pollution affecting health and property Traffic accidents due increase traffic of trucks and light vehicles	Medium	<ul style="list-style-type: none"> <li>○ Water spraying within the facility to suppress dust</li> <li>○ Cover or wet construction materials such as sand, gravel to prevent dust pollution during transportation.</li> <li>○ Ensure that all vehicles involved in the transport of construction material and staff, and machinery used in construction is properly maintained and services.</li> <li>○ Reduce the idling of vehicles that may occur and thus reduce the gaseous emission from vehicles in the area.</li> <li>○ Reduce vehicle speed within the facilities.</li> </ul>	Contractor and NEA
<b>Construction/Renovation Phase</b>				
Site clearing	Interference with the physical setting	Medium	<ul style="list-style-type: none"> <li>○ Ensure there is minimal disturbance to the topography of the facility area; including the local drainage Restoration shall be undertaken to ensure that the original setting is as much as possible retained;</li> <li>○ Ensure proper demarcation of the health facility area to be affected by the new construction/renovation works to limit vegetation removal from the health facilities,</li> </ul>	Contractor

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
			<ul style="list-style-type: none"> <li>○ Ensure retention of trees close to the site to the extent possible and</li> <li>○ Re-vegetate the facility area in the disturbed sections and surrounding environment after completion of works.</li> </ul>	
Renovation/construction activities (All components)	Air pollution affecting health and property	Medium	<ul style="list-style-type: none"> <li>○ Access to pre-construction sites by the public must be prohibited by placing appropriate signs, barriers and security attendance.</li> <li>○ Workers must be provided with personal protective gear.</li> <li>○ Trucks transporting earth material must be covered to prevent dust and flying debris.</li> <li>○ Provide appropriate PPE (dust masks, gloves etc.) to workers and enforce on use,</li> <li>○ All works must be carried out during daytime to reduce noise nuisance.</li> </ul> <p>Contractors must be warned in their agreement clauses to address the ESMP.</p>	
Use of equipment and machinery	Noise emissions from machineries and vibration from construction activities	Medium	<ul style="list-style-type: none"> <li>○ Contractor must determine the time in the day to engage in activities that will likely cause very loud and prolong noise nuisance in the neighborhood.</li> <li>○ Noise suppression measures must be applied to all construction equipment such as;</li> <li>○ Install portable barriers to shield compressors and other small stationary</li> </ul>	Contractor

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
			<p>equipment, cover engine of generators where necessary;</p> <ul style="list-style-type: none"> <li>○ Use of quiet equipment (i.e. equipment designed with noise control elements such as those that utilize electricity as opposed to those which utilize diesel or petrol) and ensure all the equipment used on site are well maintained and in good working condition,</li> <li>○ Limit pickup trucks and other small equipment to a minimum idling time and observe a common-sense approach to vehicle use, and encourage workers to shut off vehicle engines whenever possible;</li> <li>○ Provision of appropriate PPE (hearing protection - ear muffs/plugs) to the workers and any other person visiting the construction and renovation site especially in work areas with heightened noise levels,</li> <li>○ Limit construction activities causing extreme noise during day time, between 8am and 7pm;</li> <li>○ Consider manual labour-based construction methodologies; and</li> <li>○ Construction workers should be made aware of the sounding residents and advised to limit verbal and other forms of noise.</li> </ul>	
	Visual disturbance from unpleasing landscape	Low	<ul style="list-style-type: none"> <li>○ Sites must be cleared off equipment and machinery after all Project activities.</li> </ul>	

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
			<ul style="list-style-type: none"> <li>○ All waste and unused material will be removed for management according to the waste management plan in the C-ESMP.</li> <li>○ Stockpiles of materials should be organized and located at strategic locations within the specified facility properties where the works will be.</li> </ul>	
	Effects of public health and safety risks	Medium	<ul style="list-style-type: none"> <li>○ Install warning and safety signs - Integrate staff training, especially drivers on defensive driving</li> <li>○ Forbid access to the sites</li> <li>○ Ensure supervision of workers</li> <li>○ Do not employ children</li> <li>○ Create awareness on GBV, SEA/H, VAC and penalties for non-compliance</li> <li>○ Provide information on the use of the GRM</li> </ul>	Contractor
	Effects of Occupational health and safety risks	Medium	<ul style="list-style-type: none"> <li>○ Comply with OSH rules and regulations as stipulated in the Labour Act, 2007</li> <li>○ Provide training and safety information to all workers and visitors</li> <li>○ Provide on-the-job training and knowledge on procedures to reduce risks</li> <li>○ Workers should be trained in good practices and contingency measures prior to the start of works.</li> </ul>	Contractor, Labour Department

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
			<ul style="list-style-type: none"> <li>○ Provide proper conditions of work, including access to toilets, drinking water and waste disposal facilities.</li> <li>○ Implement a health and safety program to effectively identify and correct risky conditions routinely, protect the workers and public from hazards, provide personal protective equipment and emergency equipment such as fire extinguishers and first aid kits plus training on their use.</li> <li>○ Record and report incidents and near-misses</li> <li>○ Where possible, use local workers</li> <li>○ Educate workers on the risks and prevention methods of communicable diseases; carry out surveillance.</li> </ul>	
	Interruption of the services	Medium	<ul style="list-style-type: none"> <li>○ Healthcare services disruption during the renovation activities will be mitigated by making advanced arrangements for spaces for the continuity of services</li> </ul>	NSPA, Regional Health Directorate, Contractor
	Effects of renovation/construction-related wastes	Medium	<ul style="list-style-type: none"> <li>○ Prepare waste management plan as part of the C-ESMP to be implemented at the site (storage, provision of bins, site clean-up, bin clean-out schedule, etc.) before commencement of any works, which should promote waste minimization and recycling.</li> </ul>	Contractor, Kuntaur Area Council, NEA

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
			<ul style="list-style-type: none"> <li>○ Encourage efficient use of materials to avoid and minimize waste production as much as possible.</li> <li>○ Ensure waste is recycled/reused before opting to dispose of</li> <li>○ Reuse waste plastic materials (deform bottle containers) as feedstock for plastic product production.</li> <li>○ Organic waste generated can be composted and use as manure.</li> <li>○ Designate temporal waste/garbage holding areas at site.</li> <li>○ Appropriate storage, handling and management of clinical waste</li> <li>○ Use of waste receptacles that encourage segregation to hold waste on site before its collection</li> <li>○ Use of durable, long-lasting materials that shall not need to be replaced often.</li> <li>○ Engage the Area Council to dispose of hazardous waste and have waste destruction certificate and waste transfer notes.</li> <li>○ Waste disposal by burning shall not be encouraged/permitted and signage should be erected.</li> <li>○ NEA to identify waste disposal sites with strict adherence to health and safety of the environment</li> </ul>	

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
			<ul style="list-style-type: none"> <li>○ Prohibit burning of solid waste material at project site ( to identify designated dump site).</li> </ul>	
	Accidental spills and leakages	Low	<ul style="list-style-type: none"> <li>○ Temporal storage on site of all hazardous /toxic substance will be in safe containers, labelled with details of composition, properties and handling information including safety data sheets</li> <li>○ Ensure proper storage of chemicals / materials, and if possible, in secondary containers just in case of accidental puncturing and away from storm water runways or exposure to weather elements such rains</li> <li>○ Ensure proper handling, storage and disposal of waste oil, lubricants, oil filters and fuel from vehicles. Hazardous waste would be contained and properly disposed by licensed hazardous waste handler</li> <li>○ Provide and use appropriate PPE (medical mask, gowns, heavy duty gloves, eye protection and boots) to workers on site</li> <li>○ Have spill prevention and response procedure including all necessary equipment and that of workers are trained.</li> </ul>	Contractor, and NEA
	Noise emissions from machineries and vibration from construction activities	Medium	<ul style="list-style-type: none"> <li>○ Contractor must determine the time in the day to engage in activities that will likely cause very loud and prolong noise nuisance in the neighborhood.</li> </ul>	Contractor Safeguard Officer,

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
			<ul style="list-style-type: none"> <li>○ Noise suppression measures must be applied to all construction equipment such as;</li> <li>○ Install portable barriers to shield compressors and other small stationary equipment, cover engine of generators where necessary;</li> <li>○ Use of quiet equipment (i.e. equipment designed with noise control elements such as those that utilize electricity as opposed to those which utilize diesel or petrol) and ensure all the equipment used on site are well maintained and in good working condition,</li> <li>○ Limit pickup trucks and other small equipment to a minimum idling time and observe a common-sense approach to vehicle use, and encourage workers to shut off vehicle engines whenever possible;</li> <li>○ Provision of appropriate PPE (hearing protection - ear muffs/plugs) to the workers and any other person visiting the construction and renovation site especially in work areas with heightened noise levels,</li> <li>○ Limit construction activities causing extreme noise during day time, between 8am and 7pm;</li> <li>○ Consider manual labour-based construction methodologies; and</li> </ul>	

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
			<ul style="list-style-type: none"> <li>Construction workers should be made aware of the sounding residents and advised to limit verbal and other forms of noise.</li> </ul>	
	Extraction and use of construction materials	Low	<ul style="list-style-type: none"> <li>Construction materials should be sourced from registered and NEA licensed quarry and sand mining within the project area</li> <li>Designate a place for the extraction of building materials within the region</li> </ul>	Contractor, NEA Regional Officer
	Effects of increased water demand for mixing materials, wetting surfaces or cleaning/curing completed structures	Low – Medium	<ul style="list-style-type: none"> <li>Ensure that water is used efficiently at the site by sensitizing construction staff to avoid irresponsible water use. Alternatively, the contractor should source own water by drilling a borehole specifically for the construction/ renovation works;</li> <li>Encourage prompt maintenance of water pipeline leaks, and</li> <li>Upon commissioning, the health center management will be required to supply water to the facility at its cost for normal operations. The area is not connected to the national water grid. It is recommended that water conserving taps that turn-off automatically when water is not being used be installed at the facility coupled with waterless urinals and cisterns of low water volume use.</li> </ul>	Contractor, Department of Water resources and Chamen Health Center Management
Recruitment of workers	Labour influx	Medium	<ul style="list-style-type: none"> <li>Implement a no hiring ‘at the gate’ policy when hiring construction workforce: It will</li> </ul>	Contractor, NSPSASafeguard

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
			<p>be made clear that there will be no recruitment of workforce and people “at the gate”, and the formal recruitment process will be clearly advertised, so as to discourage settlement of opportunistic demands and tension.</p> <ul style="list-style-type: none"> <li>○ Hire from within the locality, hence will limit movement or very short distances from their homes;</li> <li>○ Effective contractual obligations for the contractor will be done with workers to adhere to the mitigation of risks against labour influx,</li> <li>○ Keep proper and updated records of the labourers on site (including Age, Gender, and Resident Community) while avoiding child and forced labour;</li> <li>○ Fair treatment, non-discrimination and equal opportunity for all labourers.</li> <li>○ All workers are to sign a code of conduct that clearly discourages labour influx</li> <li>○ Ensure that workers and the community are informed about the Grievance Redress Mechanism (GRM)</li> <li>○ GBV focal person at Chamen district centers should be part of the GBV team</li> </ul>	Officer and Regional Social Welfare Officer.
	Human rights and gender inequalities / violation	Low – Medium	<ul style="list-style-type: none"> <li>○ During the recruitment of workers, there will be no discrimination against one gender either by design or oversight;</li> </ul>	Contractor, Health Social Welfare Officer

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
			<ul style="list-style-type: none"> <li>○ Ensure the provision of the necessary basic sanitary facilities for gender – provide separate sanitary facilities for each gender;</li> <li>○ Ensure mechanisms are in place for reporting and addressing gender discrimination incidences and other human rights violations.</li> <li>○ Treat women, children and men with respect;</li> <li>○ Report any violations of the CoC to workers' representative, HR or grievance redress committee and ensure that no employee who reports a violation of the CoC in good faith will be punished in any way; and</li> <li>○ Comply with the National Gender and Equality Act, 2011.</li> </ul>	
	Gender-based violence (GBV), Sexual exploitation and abuse (SEA), Violence against Children (VAC)	Medium	<ul style="list-style-type: none"> <li>○ Develop a code of conduct that encompasses clear warning to workers on any SEA/SH, to be signed by all contractor workers on site</li> <li>○ project staff must adhere to project CoC, which encompasses clear warning to workers on any SEA/SH and to be signed by every worker on site;</li> <li>○ Mechanisms to be in place where workers are free to report any sexual advances and abuse to the senior management without fear of intimidation;</li> </ul>	Contractor, NSPA, Health Social Welfare Office

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
			<ul style="list-style-type: none"> <li>○ Share information with the community on the GRM;</li> <li>○ Share information on GBV/SEA/SH services around/near the facility for survivors' support</li> <li>○ Ensure that staff are sensitized on GBV/SEA/SH risk management.</li> </ul>	
	Grievances arising from construction activities	Medium	<ul style="list-style-type: none"> <li>○ Putting in place grievance mechanisms</li> <li>○ Assigning a contractor-based GRM Focal Person</li> <li>○ Putting in place channels to allow people to the complaint- e.g. Telephone, Email, registers, WhatsApp platform for workers, suggestion box, among others</li> <li>○ Raising awareness among all stakeholders on the existing GRM and sensitizing them to the need to register their dissatisfaction with the contractor or the facility.</li> <li>○ Resolving complaints within the project timeline (acknowledging within seven days and resolving within 21 days or as soon as possible</li> <li>○ Immediately after reception of GBV/SEA/SH complaints refer the survivors to GBV services for assistance and inform the PIU and the World bank within 24 hours of reception of GBV/SEA/SH complaints</li> </ul>	Contractor, NSPA and Regional Health Directorate

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
			<ul style="list-style-type: none"> <li>○ Ensure that complaints reports using the annexed formats are reported to the PMT monthly</li> </ul>	
	Child labour	Low	<ul style="list-style-type: none"> <li>○ Develop and implement a Children Protection Strategy that will ensure minors are protected against negative impacts associated with the Project, including on SEA/SH.</li> <li>○ All staff must sign, committing themselves to protecting children, a contract that clearly defines what is and is not acceptable behavior</li> <li>○ Children under the age of 18 years should not be hired on-site as provided by the Child Rights Act (Amendment) 2014.</li> <li>○ Wherever possible, ensure that another adult is present when working in the proximity of children.</li> <li>○ Not to invite unaccompanied children to workers' homes, unless they are at immediate risk of injury or in physical danger.</li> <li>○ Refrain from physical punishment or discipline of children).</li> <li>○ Refrain from hiring children for domestic or other labor, which is inappropriate given their age or developmental stage, which interferes with their time available for education and recreational activities, or</li> </ul>	Contractor, Health Social Welfare Office and Regional Health Directorate

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
			<p>which places them at significant risk of injury.</p> <ul style="list-style-type: none"> <li>○ Comply with all relevant local legislation, including labor laws about child labor,</li> </ul>	
	Labor disputes	Low	<ul style="list-style-type: none"> <li>○ Fair terms and conditions shall be applied for project workers (guided by relevant labour laws), and the project LMP</li> <li>○ The project shall also have GRMs for project workers (direct workers and contracted workers) to address their workplace grievances promptly;</li> <li>○ Project shall abide by the provision of the project LMP, and</li> <li>○ The project shall respect the workers' right to labor unions and freedom of association;</li> <li>○ Ensure equal compensation for excess working hours</li> </ul>	Contractor, NSPA and Department of Labour
<b>Operational Phase</b>				
Health care Facility Operation	Improper Healthcare waste management	Medium	<ul style="list-style-type: none"> <li>○ The health center shall prepare, operate, and maintain a Health Care Waste Management Plan (HWMP) that is adequate for the scale and type of activities and identifies hazards consistent with the AfDB OS guidelines for Health Facilities and WHO guidelines (section 4.5.2).</li> <li>○ Waste should be identified and segregated at the point of generation. Non-hazardous waste, such as paper, cardboard, glass,</li> </ul>	Chamen Health Center Management, Kuntaur Area Council and Regional Health Directorate

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
			<p>aluminum, and plastic, should be collected separately and recycled. Food waste should be segregated and composted. Infectious and/or hazardous wastes should be identified and segregated according to their category using the colour-coded system.</p> <ul style="list-style-type: none"> <li>○ Prevention and minimization of waste production (integrating systems and practices to avoid waste creation into facility design and management, equipment and consumables purchasing).</li> <li>○ Reuse or recycling of wastes to the degree feasible</li> <li>○ Seal and replace waste bags and containers when they are approximately three-quarters full. Full bags and containers should be replaced immediately.</li> <li>○ Identify and label waste bags and containers properly before removal.</li> <li>○ Transport waste to storage areas on designated trolleys/carts, which should be cleaned and disinfected regularly. Never transport infectious and non-infectious waste together.</li> <li>○ Instructions on handling infectious waste from isolation and treatment centers should be made available to the waste handlers.</li> <li>○ Ensure the safety and health of the healthcare waste handlers through the</li> </ul>	

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
			<p>provision of appropriate PPEs, vaccination against Hepatitis B and tetanus, and post-exposure prophylaxis (PEP).</p> <ul style="list-style-type: none"> <li>○ Waste storage areas should be located within the center and sized to the quantities of waste generated,</li> <li>○ Unless refrigerated storage is possible, storage times between generation and treatment of waste should not exceed 48 hours during cool season, and 24 hours during the hot season.</li> <li>○ Packaging containers for sharps should be puncture-proof</li> <li>○ Ensure microwaved and shredded waste are secured to prevent pieces of shredded waste from scattering as particles during transportation to the final disposal site.</li> <li>○ Routine monitoring of shredded waste for quality assurance of the de-contamination.</li> <li>○ Properly transport treated waste to a disposal facility (i.e. the inert waste to a sanitary landfill)</li> </ul>	
	Risk of fire outbreak	Medium	<ul style="list-style-type: none"> <li>○ Provide sand buckets and fire extinguishers at strategic positions within the center and ensure servicing.</li> <li>○ Stand-by generator operators shall have basic training in fire control.</li> </ul>	Chamen Health Center Management, and the Fire and Rescue Department

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
			<ul style="list-style-type: none"> <li>○ Fire alarm cards containing emergency telephone numbers should be well displayed at the hospital.</li> <li>○ Undertake regular fire drills targeting all center staff to gauge the levels of preparedness, test emergency response, and use the results to improve the response mechanism.</li> <li>○ Provision of a fire assembling point</li> </ul>	
	Occupational Safety and Health Risks for Healthcare Workers	Medium	<ul style="list-style-type: none"> <li>○ Update and implement center emergency response plan.</li> <li>○ Ensure identification of risks (Job Risk Assessment) and instituting proactive measures,</li> <li>○ Train the healthcare workers on the potential OHS risks relevant to their work; of particular interest are the operators of the generators and equipment, who must be trained on the contents of the health and safety plan, including on the general functioning of the treatment facility, including heat recovery and flue-gas cleaning technologies, where appropriate; Health, safety and environmental implications of treatment operations; Technical procedures for operation of the plant; Recognition of abnormal or unusual conditions; Emergency response, in case of equipment failures and alarms; Maintenance</li> </ul>	Chamen Health Center Management, and Regional Health Directorate

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
			<p>of the plant and record keeping; Surveillance of the final waste treated product.</p> <ul style="list-style-type: none"> <li>○ Provision of adequate and required personal protective equipment (PPE) to health workers and enforce on use. This includes a single-use medical mask, gown, Apron, eye protection, boots or closed shoes.</li> <li>○ Provision of a system for disinfection of the multi-use PPE if not available.</li> <li>○ Implement a systemic risk management plan comprising risk prevention, evacuation of accident victims, evaluation and improvement measures.</li> <li>○ Limit access to the waste treatment area only to authorized persons;</li> <li>○ Warning and safety signage to be placed at the areas within the microwave site;</li> <li>○ All personnel involved with the HCWM process should be subjected to medical surveillance;</li> <li>○ The waste holding area/chambers should be well sheltered from direct rainfall, sunlight, and strong winds but should be adequately aired;</li> <li>○ All machinery and equipment involved in the waste treatment and disposal process</li> </ul>	

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
			<ul style="list-style-type: none"> <li>○ should be washed and disinfected before leaving site;</li> <li>○ Thorough, complete and up to date records on healthcare waste management, incidents and accidents and grievances should be kept.</li> <li>○ Provide adequately stocked first aid kit to be placed at strategic locations to allow ease of access by workers on-site;</li> </ul>	
	Environment pollution due to solid waste generation	Low – Medium	<ul style="list-style-type: none"> <li>○ The Chamen Health Center Management, and Regional Health Directorate shall prepare a waste management plan to be implemented at the health facility (storage, provision of bins, site clean-up, bin clean-out schedule, etc.) to promote waste minimization and recycling.</li> <li>○ The Chamen Health Center Management, and Regional Health Directorate shall be responsible for handling and disposal of all waste originating from the waste treatment microwave area,</li> <li>○ Encourage efficient use of materials to avoid and minimize waste production as much as possible.</li> <li>○ Designate temporal waste/garbage holding areas at the site.</li> <li>○ Use of waste receptacles that encourage segregation to hold waste on-site before collection.</li> </ul>	Chamen Health Center Management, and Regional Health Directorate

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
			<ul style="list-style-type: none"> <li>○ Use durable, long-lasting materials that do not need to be replaced often.</li> <li>○ Engage NEMA registered waste contractor to dispose of hazardous waste and have waste destruction certificate and waste transfer notes.</li> <li>○ Waste disposal by burning shall not be permitted, and signage should be erected.</li> <li>○ Depending on the service level and tasks of the hospital, the wastewater might contain chemicals, pharmaceuticals and contagious biological agents, and might even contain radioisotopes. A major part of liquid chemical waste is disposed of via the sink. The most important chemicals in center wastewater are anesthetics, disinfectants, chemicals from laboratory activities, developer and fixer solutions from photographic film processing, and iodinated X-ray contrast media. Note that sludge and sewage from healthcare facilities generated by a basic wastewater-management system should never be used for agricultural or aquaculture purposes. Effluents from the basic treatment should not be discharged into water bodies used nearby to irrigate fruit or vegetable crops, produce drinking water, or for recreational purposes.</li> </ul>	

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
	Improper waste disposal	Medium	<ul style="list-style-type: none"> <li>○ Ensure regular monitoring of solid-liquid waste management practices and waste treatment;</li> <li>○ Ensure proper management of pharmaceutical waste by engaging a consultant to develop measures and guidelines for the hospital;</li> <li>○ To ensure proper sewage management;</li> <li>○ Install appropriate drainage channels within the health facility;</li> <li>○ The center management should undertake regular assessments of waste generation quantities and categories to facilitate waste management planning and investigate opportunities for waste minimization continuously,</li> <li>○ Separate residual chemicals from containers and dispose of the containers to reduce the generation of secondary contamination, especially wastewater;</li> <li>○ Ensure the healthcare waste generated in the center are disinfected, treated, and safely disposed of appropriately</li> </ul>	Chamen Health Center Management, and Regional Health Directorate
	Increased energy use	Medium	<ul style="list-style-type: none"> <li>○ Use load shedding on the lighting system and other equipment to avoid creating peaks in demand,</li> <li>○ Turn lights off using automated sensors or a building automation system,</li> </ul>	Chamen Health Center and NAWEC

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
			<ul style="list-style-type: none"> <li>○ Install a sub-meter throughout to monitor its power usage and</li> <li>○ Install solar energy resources to provide for additional security lighting within the waste management area in case of power outages</li> </ul>	
	GBV/SEA/SH	Medium	<ul style="list-style-type: none"> <li>○ Continuous sensitization of staff on SEA/SH risk management</li> <li>○ Provision of GRM channels for reporting SEA/SH cases</li> <li>○ Ensuring that the GBV/SEA/SH one pager is placed on strategic points of the facility</li> <li>○ Document available GBV/SEA/SH referral pathways for survivors' information and support</li> <li>○ Develop an Action plan of all GBV/SEA/SH incidences to avoid presence</li> <li>○ Ensure the facility is well light to avoid hiding places for SEA/SH perpetrators</li> <li>○ Provision of separate helping places for men and women</li> <li>○ To include prohibition of GBV/SEA in Employees Code of conduct e.g. discouraging the use of inappropriate language or behavior, harassing, abusive, sexually provocative, demeaning or culturally inappropriate language towards women or children.</li> </ul>	Chamen Health Center Management, and Regional Health Directorate

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
			<ul style="list-style-type: none"> <li>Prohibiting sexual activity with children under 18 years—including through digital media and promoting respect to the rule of law in respect to children’s rights.</li> </ul>	
	Security and conflict	Low	<ul style="list-style-type: none"> <li>Ensuring that security personnel undertake adequate surveillance</li> <li>Stock taking of the equipment and accessories to ensure there is no loss</li> <li>Ensuring proper fencing and lighting arrangement.</li> <li>Improve security surveillance e.g. by installing CCTV cameras at a strategic point to enhance security, ensuring proper check-in and check-out arrangements.</li> <li>Consider public police reinforcement in incidences of escalated insecurity.</li> </ul>	Chamen Health Center Management, and Regional Health Directorate
<b>Decommissioning Phase</b>				
Equipment/ Machine decommissioning				
Demolition Wastes	Soil pollution/air pollution/water resources pollution	Medium	<ul style="list-style-type: none"> <li>Use an integrated solid waste management system i.e. through the hierarchy of options 1. Source reduction 2. Recycling, 3 Composting and reuse 4. Combustion. 5 Sanitary landfilling</li> <li>Provide appropriate waste skips that encourage waste segregation</li> <li>Ensure proper waste collection, storage, treatment and disposal of waste generated</li> </ul>	Chamen Health Center Management, and Regional Health Directorate, and NEA

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
			<ul style="list-style-type: none"> <li>○ Donate reusable demolition waste to charitable organizations, individuals and institutions</li> <li>○ Properly dispose of the demolition debris when it is no longer considered useful</li> </ul>	
	OHS/ Public Safety	Medium	<ul style="list-style-type: none"> <li>○ The decommissioning contractor should have a well-developed EHS plan for the decommissioning exercise with supervision of an EHS Officer.</li> <li>○ A qualified EHS officer should be stationed at the decommissioning site during the entire decommissioning period to ensure compliance with the health and safety plan.</li> <li>○ Ensure the workers are provided with adequate and appropriate PPE (dust mask, ear plugs, helmets, gloves) on-site and enforce the use</li> <li>○ While working at height, provide safety harnesses and scaffolding equipment</li> <li>○ Fence off/ barricade the site before demolition to minimize health and safety risks</li> <li>○ Restrict demolition activities during daytime between 0080hrs to 1600 hrs.</li> <li>○ Provide a well-stocked first aid kit and ensure one of the workers can administer first aid.</li> </ul>	Chamen Health Center Management, and Regional Health Directorate, and NEA

Key Activities/Issues	Potential Impacts	Impact level	Proposed Mitigation Measures	Responsible part(ies)
	Grievances arising from project decommission	Medium	<ul style="list-style-type: none"> <li>○ Ensuring that there is an operational GRM that is responsive to stakeholders' concerns</li> <li>○ Inclusive stakeholder engagement to raise awareness of the project decommissioning and clarify issues and consider the input of the affected and interested parties in the process</li> <li>○ The center should continue to create awareness about the GRM mechanism in place to all workers and patients.</li> <li>○ Ensure appropriate and mutually acceptable redress actions are identified and implemented to the satisfaction of complainants.</li> <li>○ Ensuring that there is a workable mechanism for opening complaints reported through suggestion boxes</li> <li>○ Document and report on all sub-project-related grievances</li> </ul>	Chamen Health Center Management, and Regional Health Directorate

**Table 45: ESMP Guidelines for Mitigation Measures Implementation Phases**

Activities	Impacts	Indicators	Means of verification	Timelines (preparation, construction, exploitation, Closing phases)	Responsible for			Implementation Cost (US\$)
					Execution	Monitoring	Aftercare	
<ul style="list-style-type: none"> <li>○ Site clearing and preparation.</li> <li>○ Civil during renovation.</li> <li>○ Removal of vegetation</li> <li>○ Movement of machinery and vehicles</li> </ul>	Air Quality	<ul style="list-style-type: none"> <li>● Systematic watering of site and spoil (at least twice a day in the dry season)</li> <li>● Number of covered trucks</li> <li>● Up-to-date maintenance booklet for machinery</li> <li>● Waste tracking form</li> <li>● Number of cases where speed limits were exceeded</li> <li>● Percentage of staff wearing the correct PPE</li> </ul>	Report of air sample analysis	Renovation and operation phase	Project contractor	NSPA PIU, NEA ESIA Working Group	Health Facility Management	2,000
<ul style="list-style-type: none"> <li>○ Use of sanitary facilities by staff</li> <li>○ Run-off water</li> <li>○ Oil spill</li> <li>○ Solid waste and effluent discharge</li> </ul>	Water Quality	<ul style="list-style-type: none"> <li>● Level of compliance of discharges (pH, COD, BOD, SS, coliforms, etc.) with the applicable water quality standard</li> <li>● Existence of an HSE manual and its implementation</li> <li>● Level of compliance with World Bank Group EHS guidelines</li> <li>● Existence of an approved and implemented waste</li> </ul>	Reports of water sample analysis	Renovation and operation phase	Project contractor	NSPA 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			Implementation Cost (US\$)
					Execution	Monitoring	Aftercare	
<ul style="list-style-type: none"> <li>○ Presence of workers on site</li> <li>○ Onsite civil work/floor concrete</li> <li>○ Painting and coating</li> <li>○ Disposal of construction / renovation waste</li> <li>○ Domestic and sanitary waste generated by workers</li> <li>○ Biomedical waste</li> </ul>	Waste generation	<ul style="list-style-type: none"> <li>● Existence of an approved and implemented WMP</li> <li>● Waste tracking slip</li> <li>● Existence of labelled bins for waste collection</li> <li>● Existence of clean-up kit on site</li> <li>● Effectiveness of the waste recovery and treatment contract</li> </ul>	Records on waste management	Renovation and operation phase	Project contractor	NSPA PIU, NEA ESIA Working Group, Regional Health Directorate	Health Facility Management	3,000

Activities	Impacts	Indicators	Means of verification	Timelines (preparation, construction, exploitation, Closing phases)	Responsible for			Implementation Cost (US\$)
					Execution	Monitoring	Aftercare	
<ul style="list-style-type: none"> <li>○ All civil works</li> <li>○ Material transportation and handling</li> <li>○ Working conditions</li> <li>○ Workers' behaviour</li> </ul>	Occupational Health and Safety (increased accident potential)	<ul style="list-style-type: none"> <li>• Existence of a Workforce Management Plan</li> <li>• Number of awareness campaigns conducted among the population</li> <li>• Number of accident cases involving site activities</li> <li>• Number of workers equipped with PPE</li> <li>• Number of workers made aware of safety measures</li> <li>• Level of compliance with health and safety requirements of the labor code</li> <li>• Level of compliance of collective protection equipment with project risks</li> <li>• Effectiveness of the implementation of mitigation measures</li> </ul>	Report on work related accidents, injuries, near misses and illnesses.	Renovation and operation phase	Project contractor	NSPA PIU, NEA ESIA Working Group, Regional Health Directorate	Health Facility Management	3,000
		<ul style="list-style-type: none"> <li>• Number of training and awareness sessions on occupational health and safety</li> <li>• Existence of first aid kits at work sites</li> <li>• Effectiveness of posting of safety instructions</li> <li>• Existence of an HSE agent on site</li> </ul>						

Activities	Impacts	Indicators	Means of verification	Timelines (preparation, construction, exploitation, Closing phases)	Responsible for			Implementation Cost (US\$)
					Execution	Monitoring	Aftercare	
<ul style="list-style-type: none"> <li>○ Recruitment, All works onsite.</li> <li>○ Presence of workers</li> </ul>	In-migration (Risk of conflicts related to the use of labor )	<ul style="list-style-type: none"> <li>● Number of local community workers recruited</li> <li>● Number of skilled workers from the community recruited by the project</li> <li>● Conflict prevention and management committee established and functioning</li> <li>● Number of workers with PPE</li> <li>● Level of compliance with the requirements of the labor code in terms of health and safety at work</li> <li>● Number of workers who have benefited from capacity building</li> </ul>	Record of employees hired	Renovation and operation phase	Project contractor	NSPA PIU, NEA ESIA Working Group, Regional Health Directorate	Health Facility Management	5,000

Activities	Impacts	Indicators	Means of verification	Timelines (preparation, construction, exploitation, Closing phases)	Responsible for			Implementation Cost (US\$)
					Execution	Monitoring	Aftercare	
<ul style="list-style-type: none"> <li>○ Interaction of workforce with community members</li> </ul>	Gender-based violence (GBV), Sexual exploitation and abuse (SEA), Violence against Children (VAC)	<ul style="list-style-type: none"> <li>• Existence of a complaint management mechanism that is sensitive to GBV, SEA, SH</li> <li>• Number of people sensitized on GBV (disaggregated by sex)</li> <li>• Number of awareness sessions for staff on SEA/SH and the content of the code of conduct</li> <li>• Number of awareness raising campaign for communities in GBV/SEA/SH/VAC</li> <li>• Number of complaints received and treated</li> <li>• Percentage of SEA/SH related complaints that had been referred to GBV service providers for assistance</li> <li>• Percentage of all staff and workers who signed the code of conduct</li> </ul>	GBV, SEA, SH Complaint report  Report on GBV/SEA/SH sensitization	Renovation and operation phase	Project contractor	NSPA PIU, NEA ESIA Working Group, Civil Society	Health Facility Management	8,000

Activities	Impacts	Indicators	Means of verification	Timelines (preparation, construction, exploitation, Closing phases)	Responsible for			Implementation Cost (US\$)
					Execution	Monitoring	Aftercare	
		<ul style="list-style-type: none"> <li>• Existence of a complaint management mechanism that is sensitive to GBV, SEA, SH</li> <li>• Number of people sensitized on GBV (disaggregated by sex)</li> <li>• Number of awareness sessions for staff on SEA/SH and the content of the code of conduct</li> <li>• Number of awareness raising campaign for communities in GBV/SEA/SH/VAC</li> <li>• Number of complaints received and treated</li> <li>• Percentage of SEA/SH related complaints that had been referred to GBV service providers for assistance</li> <li>• Percentage of all staff and workers who signed the code of conduct</li> <li>• Number of consultations with women done in separate groups led by a woman.</li> </ul>						

## 8.1. Monitoring and Reporting Arrangements

Monitoring is a tool to ensure adherence to agreed actions, to assess 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. Key monitoring issues proposed include:

- Vegetation loss and remedial restoration measures instituted;
- Air pollution and noise pollution control measures in place and how they operate;
- Erosion control measures;
- Control measures for traffic accidents;
- OHS measures for workers and the center staff;
- Community health and safety;
- Public health observance;
- Waste management measures and performance;
- Water Supply and Wastewater;
- Energy Use;
- Material storage;
- Employment opportunities;
- STI interventions and related sexual behaviors among workers;
- Labour recruitment by gender and age;
- GRM including number of complaints received and resolved within the project timeline;
- Number of stakeholders consulted during the sub-project period;
- Number of staff inducted on safeguards requirements and those who have signed the CoC;
- Security incidences and systems; and
- GBV/SEA/SH prevalence reported in the facility.

**Table 46 Monitoring Plan**

Potential Impact	Indicator Parameter	Monitoring Method and Location	Timeline/ Frequency	Responsibility	Cost for Monitoring (US\$)
<b>Air Pollution</b>	Dust and particulate matters (PM <sub>2.5</sub> & PM <sub>10</sub> )	Use of Air-sampling instrument/ Point measurements at the project sites	Quarterly	ESIA – Working Group (WG); Project Environmental Officer; Consultant	2,000
	Gaseous emissions (CO, SO <sub>2</sub> , Nox)	Outdoor air quality monitoring measurements and analysis	Quarterly	ESIA – Working Group (WG); Project Environmental Officer; Consultant	2,000
<b>Noise and vibration</b>	Noise level in dB(A) (Leq, Leq day, Leq night, and hourly Leq) ≤49.2 dB(A) daytime (7am-10pm)	Onsite measurement of noise level and frequency of vibration	Quarterly	ESIA – Working Group (WG); Project Environmental Officer; Consultant	2,000
<b>Soil Contamination</b>	Soil properties - Soil pH within 6.0-8.5 range; heavy metals (As, Pb, Cd, Hg) below WHO limits at all test location	Collection of soil sample from sites and analysis	End of Project Audit	ESIA – Working Group (WG); Project Environmental Officer; Consultant	3,000

Potential Impact	Indicator Parameter	Monitoring Method and Location	Timeline/ Frequency	Responsibility	Cost for Monitoring (US\$)
<b>Water Pollution</b>	Temp., Turbidity, pH, EC, TDS, Salinity, Color, Odor, Taste, TSS, PO <sub>4</sub> <sup>3-</sup> , NO <sub>3</sub> <sup>-</sup> , NO <sub>2</sub> <sup>-</sup> , Fe, Cl <sup>-</sup> , Alkalinity, Hardness, Ca, Mn, DO, As, F <sup>-</sup> , SO <sub>2</sub> -4, NH <sub>4</sub> , TC and FC	Sample collection (and analysis) from water sources (of closest surface waterbody or borehole)	Quarterly	ESIA – Working Group (WG); Project Environmental Officer; Consultant	8,000
<b>Waste</b>	Types, quality, quantity, collection system, and disposal locations.	Visual checks to assess the situation and record-keeping including photographs if applicable.	Quarterly	ESIA – Working Group (WG); Project Environmental Officer; Consultant ESIA – Working Group (WG); Project Environmental Officer; Consultant	3,000
<b>Social life impact/Socio-cultural conflict</b>	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 Engagement Plan in the host community	Quarterly	ESIA – Working Group (WG); Project Environmental Officer; Consultant	5,000

Potential Impact	Indicator Parameter	Monitoring Method and Location	Timeline/ Frequency	Responsibility	Cost for Monitoring (US\$)
<b>Influx of people</b>	Number of workers from outsider the host community -	Monitor and record the number of workers employed	Quarterly	ESIA – Working Group (WG); Project Environmental Officer; Consultant	2,000
<b>Occupational health and safety</b>	Frequent illness of workforce, workplace accident, medical fitness	Observation, interviews, and the use of Job-Hazard-Analysis report, and reports from nearby healthcare facilities	Quarterly	ESIA – Working Group (WG); Project Environmental Officer; Consultant	2,000
<b>Community Health Impact</b>	Common/prevalent diseases in the host communities	Use of questionnaires within the host communities as well as collection of health statistics from the nearest healthcare centre (Chamen)	Annual Environmental and Social Performance Audit	ESIA – Working Group (WG); Project Environmental Officer; Consultant	4,000
<b>Hazard-exposure to workforce</b>	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	2,000
<b>Gender Impacts (GBV, SEA/SH)</b>	Report of GBV, SEA/SH cases - reported cases resolved within 30 days	Investigation of reported cases, interview with affected and non-affected victims	Quarterly	ESIA – Working Group (WG); Project Environmental Officer; Consultant	10,000
<b>TOTAL</b>					<b>45,000</b>

## 8.2. Waste Management Plan

The generation of waste is anticipated during the implementation and operation phases of Chamen Health Center. Thus, a Waste Management Plan (WMP) is important for sustainable waste management, including proper collection, storage, transportation, treatment, and disposal. It addresses the management of healthcare waste and all solid and liquid refuse, including hazardous and non-hazardous waste, produced as a result of project activities at the Chamen Health Center.

As per the renovation/construction activities, some waste will always be generated regardless of the project's scope and size. Thus, a Waste Management Plan (WMP) is key to sustainable waste management. It addresses the management of Healthcare Wastes and all solid and liquid refuse, including hazardous and non-hazardous waste, produced as a result of Project activities.

## 8.3. Healthcare Waste Management Plan

A detailed Infection Control and Waste Management Plan (ICWMP) have been developed for The Gambia and are detailed in **Table 47**. 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 (CRRN), 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 47: Health Care Waste Management Procedures**

General Instructions	○ All health care waste produced during the care of patients must be considered as infectious waste and should be segregated and collected
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	<p>safely in designated containers and bags, treated, and then safely disposed (WHO).</p> <ul style="list-style-type: none"> <li>○ Train the staffs who are assigned in handling, treatment, and disposal of waste management</li> <li>○ Train staff on how to put on and remove PPE.</li> <li>○ Ensure necessary PPE (Gown, gloves, face mask, goggles or face shield, gumboots) is provided to all staffs, as required.</li> <li>○ Ensure staffs wear PPE when handling and disposing waste according to HCW guideline.</li> <li>○ Undertake proper segregation at source including: <ul style="list-style-type: none"> <li>✓ Ensure all staff are provided training on color coding and handling of infectious and hazardous waste</li> <li>✓ All departments, laboratories and service delivery areas should be provided with appropriate equipment (needle cutters; sharps boxes) and color-coded bins</li> </ul> </li> </ul>
General Waste – Food waste, paper, disposable cups, plates, spoons etc.	<ul style="list-style-type: none"> <li>○ Collect in black bag</li> <li>○ Close and tie when 2/3rd full</li> <li>○ 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</li> <li>○ Transport to landfill away from facility</li> </ul>
Infectious Waste – Gown, gloves, apron, shoe cover, disposable items, mask etc.	<ul style="list-style-type: none"> <li>○ Collect in small biohazard red bags</li> <li>○ Close, seal the bag with cable ties and tie lose when 2/3 full</li> <li>○ 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</li> <li>○ Securely transfer to approved and professionally managed MOH incinerators</li> <li>○ Transport other infectious waste according to general medical waste protocols</li> </ul>
Sharp Waste and needles	<ul style="list-style-type: none"> <li>○ Put in puncture proof plastic container</li> <li>○ Close the lid and seal the container when 2/3 full</li> <li>○ Put in the red bag and tie lose</li> <li>○ 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</li> <li>○ Securely transfer out for incinerating or appropriate disposal</li> </ul>

#### 8.4. Legislative Requirements

Although there is no detailed general Waste Management Plan developed for The Gambia, this Waste Management Plan (WMP) is based on several legislations in the Gambia, including:

- **National Environment Management Act 1994**

The act specifies that “waste includes any matter prescribed to be waste and any rejected matter, whether liquid, solid, gaseous, or radioactive, which is discharged, emitted, or deposited in the environment in such volume, composition or manner likely to **adversely affect** the environment”;

- **Anti-Littering Regulations, 2007**

The regulation states that waste "includes any substance or object, whether or not intended as waste that, when deposited in a place other than a litter receptacle or other place lawfully designated for the deposit, is or is likely to become unsightly, nauseous or unsanitary, whether by itself or with any other substance or object and regardless of its size or volume or the extent of the deposit;"<sup>7</sup>

## 8.5. Waste Management Principles

The waste principle presents a waste management hierarchy commencing with the preferable option to the least preferable option. Waste prevention is the most preferred option for reducing volumes of waste is a priority, followed by reuse, recycling, and recovery, including energy recovery, and the last option is safe disposal. This Plan is the primary tool to guide employees toward waste management.

An integrated waste management flow on site is needed. Such a waste management flow is presented in table 48 below.

**Table 48: Waste Flow Management Options**

Stages	Waste Management Options	Description
1	<b>Prevention</b>	Minimize the production of waste materials in the construction process by <ul style="list-style-type: none"> <li>○ Assessing and taking into consideration the resultant waste from different design and construction options</li> <li>○ Purchasing materials that will result in less waste and minimal packaging are pre-cut or fabricated.</li> <li>○ Not over-ordering products and materials</li> </ul>
2	<b>Reuse</b>	Ensure that, wherever possible, materials are reused either onsite or offsite. <ul style="list-style-type: none"> <li>○ Identify all waste products that can be reused</li> <li>○ Put systems in place to separate and store reusable items</li> <li>○ Identify the potential applications for reuse both onsite and offsite and facilitate reuse</li> </ul>
3	<b>Recycling</b>	Identify all recyclable waste products to be produced on site <ul style="list-style-type: none"> <li>○ Provide systems for separating and stockpiling recyclables</li> <li>○ Provide clear signage to ensure recyclable materials are separated</li> <li>○ Process the material for recycling either onsite or offsite</li> </ul>
4	<b>Recovery</b>	Recovery of waste is usually most successful when done in bulk. Therefore, a centralized recovery facility is preferable. Forms of recovery include: <ul style="list-style-type: none"> <li>○ anaerobic digestion,</li> <li>○ incineration with energy recovery,</li> <li>○ gasification and pyrolysis produce energy (fuels, heat, and power) and materials from waste.</li> </ul>
5	<b>Disposal</b>	Waste products that cannot be reused or recycled will be removed and disposed of. The following will need to be considered: <ul style="list-style-type: none"> <li>○ Ensure the chosen waste disposal contractor complies with OEH requirements</li> <li>○ Implement regular collection of bins</li> </ul>

<sup>6</sup> National Environment Management ACT. 1994. <https://faolex.fao.org/docs/pdf/gam6275.pdf>

<sup>7</sup> The Gambia Anti-Littering Regulations, 2007. <https://faolex.fao.org/docs/pdf/gam173305.pdf>

## **8.6. Analysis of Waste Generation by the Chamen Health Center Renovation and Construction Project**

Throughout the cycle, including site preparation, renovation, exploitation and closure phases, different categories of reusable and recyclable wastes will be generated from every construction process in connection with temporary or permanent works. Solid waste generation from project activities will generally include domestic waste, commercial waste, construction and demolition debris, sanitation residue, and street waste. These wastes will be in solid or semi-solid form and potentially include very low quantities of industrial hazardous wastes. Solid waste generation in the project will include domestic waste, commercial waste, construction and demolition debris, and sanitation residue. The major waste generation anticipated will include:

- Biodegradable waste (food and kitchen waste, green waste (vegetables, flowers, leaves, fruits), etc.;
- Recyclable material (Plastic, paper, and cartons from pre-formed products and packaging, cardboard, wood, glass, bottles, cans, metals, certain plastics, etc.);
- Inert waste (construction and demolition waste, dirt, rocks, housekeeping, debris, etc.)
- Scrap metals from off-cuts, rebar, steel pipes, unusable/surplus concrete/grout etc.
- Chemical waste - engine oils, hydraulic fluids, cleaning fluids, used oil filters and car batteries etc., and
- General refuse - generated from the onsite workforce.

## **8.7. Waste Assessment / Inventory**

- The NSPA Environmental Safeguard specialist must develop, implement and maintain a waste inventory reflecting all waste generated during construction for general and hazardous waste streams.
- Given waste reduction, reuse, and recycling opportunities, construction methods and materials should be carefully considered.
- Once a waste inventory has been established, targets for waste recovery (minimization, reuse, recycling) should be set.

## **8.8. Waste Collection, Handling, and Storage**

- The project contractor must implement the waste recycling system, i.e., separate bins for food waste, plastics, paper, wood, glass, cardboard, metals, etc.
- In the case of fixed and portable toilets, they must be monitored and maintained daily.
- Below-ground storage of septic tanks must withstand the external forces of the surrounding environment. The area above the tank must be demarcated to prevent vehicles or heavy machinery from driving around the area.
- The project contractor must provide waste collection bins and hazardous waste containers and place in various areas around the site to store organic, recyclable, and hazardous waste.
- A dedicated waste area must be established onsite to store all waste streams before removal.
- Signage/ colour coding of waste bins must be used to differentiate disposal areas for the various waste streams (i.e., paper, cardboard, metals, food waste, glass etc.).
- The location of all temporary waste storage areas must aim to minimize the potential for impact on the surrounding environment, including prevention of contaminated runoff, seepage, and vermin control.

- Waste storage shall be in accordance with all Regulations and best-practice guidelines, and under no circumstances may waste be burnt on site.
- Vegetation removed from the site must be chipped, removed, and disposed of at an appropriate waste disposal facility or used as mulch onsite.
- A dedicated waste management person/team must be appointed and responsible for ensuring the continuous sorting of waste and maintenance of the area. They must be trained in all areas of waste management and monitored by the project contractor.

## 8.9. Management of waste storage areas

- The position of all waste storage areas must be located away from water courses and ensure minimal degradation to the environment. The main waste storage area must have a suitable stormwater system separating clean and dirty stormwater.
- Waste storage areas must be under the roof, or the waste storage containers must be covered with tarpaulins (or similar material) to prevent water ingress.
- Collection bins placed around the site and at subcontractors' camps must be maintained and emptied regularly by the principal contractor.
- Waste must be stored in designated containers and not on the ground.
- Inspections and maintenance of bunds must be undertaken daily. Bunds must be inspected for leaks or cracks in the foundation and walls.

The Project Contractor will practice necessary design, proper planning, and good site management to minimize specific waste generated during the project cycle. Table 49 presents proposed waste management strategies for specific waste types.

**Table 49: Specific Waste Management Strategies**

Waste Type	Management
Chemical Waste	<ul style="list-style-type: none"> <li>○ Repair and maintenance of plants and vehicles on site are not encouraged but minimized as far as practicable to reduce the generation of chemical waste on site.</li> <li>○ Plants in poor condition will not be deployed onsite.</li> <li>○ Chemical wastes expected from the Contract include engine oils, hydraulic fluids, waste fuel, spent solvent, spent cleaning fluids, spent lubricating oil, contaminated sawdust/sandbags, paint residual, and used oil filters.</li> <li>○ All chemical waste generated by the construction works should be properly labelled, packaged, and temporarily stored at designated chemical waste storage areas within the construction site.</li> </ul>
Solid/General Refuse	<ul style="list-style-type: none"> <li>○ Enclosed bins for general refuse other than construction and chemical wastes should be provided at convenient locations within the site to collect general refuse from the workforce.</li> <li>○ The bins and their storage areas should be cleaned regularly. Refuse should be removed from the site by a reputable waste hauler regularly. Burning of refuse on site is strictly prohibited.</li> <li>○ Suppose volumes are large enough to warrant such collection. In that case, outside waste recycling companies will provide three-colored recycling bins to collect and segregate aluminum cans, plastic bottles, and paper waste onsite for subsequent collection.</li> </ul>
Packaging Materials	<ul style="list-style-type: none"> <li>○ Construction materials will be ordered as far as practicable in bulk quantity or in a container that requires the least packaging or wrapping.</li> <li>○ For materials delivered to the site, reusable and recyclable cardboard, packaging materials, and pallets will be reused, recycled or returned to the supplier. Suppliers who accept the</li> </ul>

	<p>return of pallets and reusable and recyclable cardboard and packaging materials should be identified and given priority for the business.</p> <ul style="list-style-type: none"> <li>○ Sufficient space will be provided for a proper stockpile of such recovered materials in dry condition and with cover to prevent cross-contamination by other Renovation/Construction materials.</li> <li>○ The recovered materials will be arranged to be collected by or delivered to recycling contractors on a regular basis.</li> </ul>
Plastic	<ul style="list-style-type: none"> <li>○ As plastic is now considered a highly recyclable material, much of the plastic generated during construction will be diverted from landfill and recycled.</li> <li>○ The plastic will be segregated at the source, kept clean, and stored in a dedicated skip.</li> </ul>
Timber	<ul style="list-style-type: none"> <li>○ Timber waste will be generated from the construction work as off-cuts or damaged pieces of timber or from demolished buildings. Timber that is uncontaminated, i.e., free from paints, preservatives, glues etc., will all be recycled. It will be collected onsite in a designated area and collected recycled.</li> </ul>
Scrap Metal	<ul style="list-style-type: none"> <li>○ Steel is highly recyclable, and numerous companies will accept waste steel and other scrap metals.</li> <li>○ A segregated skip will be available onsite for steel/metal storage, pending recycling.</li> </ul>
Bedrock, Blocks and Concrete	<ul style="list-style-type: none"> <li>○ Most of the renovation/construction waste will be clean, inert material and it is proposed to reuse it for construction purposes where possible. If bedrock is encountered during excavations, it will either be crushed onsite and used for infill during construction or be removed from the site by appropriately permitted waste collectors. Rock recovered from the site will be recovered at an authorized site locally.</li> </ul>

## 8.10. Disposal

The strategy for management and disposal of all renovation/construction materials arising from the project will be based on the principle of avoidance, minimizing, segregation, and salvage for reuse or recycling on or offsite, wherever practicable, followed by the last resort of disposal to landfill as appropriate. The following approach should be adopted.

- Waste generated on site must be removed regularly, as determined by the Project Contractor. This frequency may change during construction depending on waste volumes generated at different stages of the construction process.
- Waste must be removed by a suitably qualified contractor and disposed of at an appropriately licensed landfill site. The contractor must provide proof of appropriate disposal.

## 8.11. Training

Although designated individuals shall be assigned to manage waste to ensure commitment, operational efficiency and accountability during the renovation/construction phases of the project, training and awareness regarding waste management shall be provided to all employees and contractors as part of the toolbox talks or onsite awareness sessions. All site employees and sub-contractors will be required to attend a site-specific induction that will outline the components of the WMP and explain the site-specific practicalities of the waste reduction and recycling strategies outlined in the WMP. All employees must clearly understand which products are being reused/recycled onsite and where they are stockpiled. They are also to be made aware of waste

reduction efforts in regard to packaging. The site manager will post educational signage in relation to the recycling activities on site in breakout areas, lunch rooms, etc

### 8.12. Record Keeping

Records will be kept for all waste material that leaves the site, either for reuse on another site, recycling, or disposal. A system will be put in place to record the construction waste arising onsite. The waste manager or delegate will record the following:

- Waste taken offsite for reuse
- Waste taken offsite for recovery
- Waste taken offsite for recycling
- Waste taken offsite for disposal
- Waste (soil & stone) accepted onsite for recovery

For each movement of waste offsite, a signed waste collection docket will be obtained by the waste manager (or delegate) from the contractor. This will be carried out for each material type. This system will also be linked with the delivery records.

### 8.13. Monitoring of Waste Management Activities

Records must be kept of the volumes/ mass of the different waste streams collected from the site throughout the project's life. The appointed waste contractor is to provide monthly reports to the operator containing the following information:

- Monthly volumes/ mass of the different waste streams collected;
- Monthly volumes/ mass of the waste that is disposed of at a landfill site;
- Monthly volumes/ mass of the waste that is recycled; and
- Data illustrating progress compared to previous months.

This report will aid in monitoring the progress and relevance of the waste management procedures.

### 8.14. Responsibilities

The roles and responsibilities inherent to the WMP are presented in Table 50 below.

**Table 50: Roles and Responsibilities**

Entity	Responsibilities
Local Government Area Council/NEA/NSPS	<ul style="list-style-type: none"> <li>○ Enforce the Waste Management Plan.</li> <li>○ Contractually obligate the Enterprises to meet the requirements of the Waste Management Plan.</li> <li>○ Manage the Solid Waste Management Area or appoint an appropriate contractor.</li> </ul>
Contractor	<ul style="list-style-type: none"> <li>○ Provide a minimum of two garbage receptacles for wet and dry waste segregation. An additional bin for hazardous waste is highly recommended.</li> <li>○ Develop a site-specific Waste Management Plan for the Contractor's activities.</li> <li>○ Site-specific Waste Management Plan must be aligned with the full site WMP and approved by the NSPA OS before work commences.</li> <li>○ Educate all members of staff on the waste hierarchy.</li> <li>○ Educate all staff members on site-specific WMP and the Waste Management Plan for the Chamen Health Center renovation/construction project.</li> <li>○ Education is to be provided to each staff member before the commencement of work. Regular refresher sessions will be undertaken through toolbox talks or training sessions throughout the contract period.</li> </ul>

## 8.15. Institutional Arrangements

### 6.3.1. Institutional Structure and Responsibilities

#### 6.3.1.1. Roles and Responsibilities of Stakeholders

Various Government Ministries, Departments and Agencies have different mandates and thus, their roles and responsibilities towards the implementation and monitoring of the environmental and social impacts of this project differ based on their mandates. Table 51 presents relevant stakeholders together with the description of their unique role and responsibilities in terms of the implementation of mitigation measures and monitoring plan.

The NSPA Safeguard Team is responsible for the implementation of this ESMP. The key roles include:

- Review consultants' reports for compliance with the ESMP;
- Monitoring implementation of mitigation actions by contractors
- Coordinating training and capacity building where planned
- If required through NSPA Executive Director, report to the AfDB

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**Table 51. 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
<b>National Social Protection Agency (NSPA)</b>	The Agency 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 NSPA	It is the responsibility of NSPA to ensure that the enhancement and mitigation measures in the ESMP are implemented  The Agency will work with other stakeholders to monitor the E& S safeguards.  They will shoulder the E&S monitoring of the project.	NSPA does not currently have an Social Specialist who can help in the monitoring of the implementation of the ESMP.	Hire a competent Social Specialist
<b>Ministry of Health</b>	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 NSPA to ensure the project is successfully implemented while adhering to E&S safeguards	The ministry also supports all initiatives that gear towards health care service delivery  The Ministry through the Regional Health Directorate ensures the project is implementing 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
<b>National Environment Agency</b>	The NEA through the EIA working group is mandated government Agency for ensuring	Project has the potential of generating negative environmental and social effects if proposed	Direct monitoring of the implementation of the enhancement and mitigation measures and submission of	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.

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
	compliance of projects with national environmental management laws	surveillance activities are not properly implemented.	quarterly monitoring reports to PMU. To advise the PIU on required adjustments to the enhancement and mitigation programs.  Quarterly environmental monitoring with key stakeholders		
<b>Ministry of Transport, Works and Infrastructure</b>	The Ministry is mandated for planning and constructing essential infrastructure, such as roads and utilities that benefit communities, promoting integration, and collaborating with other governmental bodies and NGOs to align social and infrastructure initiatives for sustainable development	The Project in line with policy goals for the sustainable social and infrastructural development	Supervise technical implementation of ESMP during construction and  Monitor mitigation measures and advise NSPA and other stakeholders	Most of the staff are overwhelmed with many assignments	Identify a focal person to work closely with the PIU NSPA and ESIA working group on the project
<b>Ministry of Environment, Climate Change and Natural Resources</b>	This Ministry oversees implementation of the environment policies adopted by the National	The Project in line with policy goals in the sound management of the environment and	The Ministry co-opted in the monitoring to ensure adopted policies are in line with our national environmental laws	Most of the staff are overwhelmed with many assignments	Identify a focal person to work closely with the ESIA working group on the project.

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
	Environment Management Council (NEMC)	conservation of natural resources	Support in the monitoring of greenhouse gases (i.e. methane) and waste management in intervention sites		
<b>Department of Water Resources</b>	Responsible for dealing with water resources and hydrological issues	Support in the design, installation and operationalization of the irrigation system and effective use of water resources	Ensure water resources are used wisely Support in preventing water contamination and monitoring water quality	Lack hand-held water quality testing tools	Provide hand-held water quality testing tools that can collect and analyse samples onsite.
<b>Regional Governor's Office</b>	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.
<b>Department of Public Health Services</b>	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 facility	Train staff and regularly supervise the management of healthcare different types of waste.
<b>Healthcare center</b>	Provide health care services to the facility users	Ensure that the renovation work is done	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

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
		properly according to the contract and standards			attached to health care center during the construction/renovation phase of the project
<b>Beneficiaries' communities of Nianija District</b>	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	<ul style="list-style-type: none"> <li>○ in-kind contributions, especially free labour towards plan implementation</li> <li>○ Record keeping aiding monitoring program.</li> <li>○ Provide relevant information during project monitoring</li> </ul>	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
<b>Health Focus Non-governmental Organizations</b>	Those organizations working with beneficiary communities in the area health care	Project complements efforts in supporting RHD in providing basic health care services	<ul style="list-style-type: none"> <li>○ Share and provide expertise in the implementation of the mitigation and monitoring programs.</li> <li>○ Share expertise and resources in building capacity of the beneficiaries.</li> </ul>	Lack financial support to conduct training and sensitization of project beneficiaries and construction workforce on GBV, SEA, SH and Child labour	Provide support for training and sensitization of project beneficiaries.

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
<b>Contractors</b>	Carry out the environmental and social measures and respect the directives and other environmental prescriptions contained in the works contracts.	Ensure that the renovation/construction works are done properly according the contract and standards	<ul style="list-style-type: none"> <li>○ Prepare and submit the (C-ESMP) including all the site-specific plans for each activity of the project 30 days before the physical start of the civil works.</li> </ul>	Inadequate knowledge and expertise in environmental and social safeguards	Must have a Health, Safety and Environment Manager who will be responsible for implementing the various safeguard documents and drafting reports on the implementation of the said ESMP

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## 8.16. Capacity Development and Training

To strengthen environmental and social sustainability, targeted capacity building is essential. This will involve training stakeholders to understand their roles in managing environmental and social impacts, with a focus on collaboration between actors and other stakeholders, integration of safeguards into project design.

During the development, renovation or upgrading phase of the project, induction training will be conducted for every worker to be engaged in the project. The training will be provided by the Project Contractor(s). The training will include but is not limited to:

- Planned tasks for new workers
- Safe work procedures at the work site
- Use, of personal protective equipment on the site
- Emergency responses and warning notices
- Personal hygiene and site sanitation
- First Aid training
- Environmental protection
- Occupational and incident reporting
- Occupational Health and Safety
- Community Health and Safety issues
- GBV, SEA/SH, VAC
- Grievance mechanism, etc.

The Project Contractor's Environmental and Social Development Specialist will train employees in environmental, social, health, and safety issues management programs, plans, and procedures. The training will educate employees on the occupational and environmental hazards associated with the work. Training will include induction training for the appointment, specialist training, and refresher training as required. All the staff will be trained in the following issues but not limited:

- National legislation, policies, and guidelines relevant to the proposed project operation
- Relevant Environmental and Social Framework guidelines
- Screening and preparation of Environmental and Social Impact Assessment
- Specific roles and procedures
- Implementation of Environmental and Social Management Plans
- Efficient use of resources and prevention of pollution
- Environmental compliance monitoring and audit
- Stakeholder mapping and engagement including Grievance Mechanism
- Emergency Procedure and Response Plan
- Labor Management Plans
- Community and Occupational Health and Safety
- GBV and SEA/SH risk in the project and its implementation, need to understand and sign the Code of Conduct
- Construction waste management.

In addition, special training regarding the environment, social, health, and safety will be given to the HSE personnel. The following training is proposed for them but is not limited to:

- Day-to-day monitoring activities

- Use of monitoring equipment, operation, and maintenance
- Collection and analysis of environmental attributes (air, noise, water, etc.) samples
- Monitoring of water effluents
- Industrial hygiene
- Occupational health and safety
- Emergency procedures
- Grievance Mechanism
- Monitoring report preparation

Furthermore, a tailor-made training will be conducted for project beneficiaries based on the area of project intervention. The following training is proposed for them but not limited to:

- Road safety
- Implementation of Environmental and Social Management Plans
- Monitoring environmental and social impacts
- Understand the emergency management plan
- Waste management
- GBV, SEA/SH & VAC

**Table 52. Information/Sensitization Measures & Capacity Building**

No	Identified activities	Themes	Beneficiary	Budget (USD)
<b>Institutional Capacity - Technical Skills Development and Awareness Raising</b>				
1	Workshops and meetings to strengthen the human resource capacity of relevant stakeholders to manage ESIA and ESMP.	<ul style="list-style-type: none"> <li>• Workforce management and incidents and accidents risk prevention and procedure for reporting</li> <li>• Implementation and monitoring environmental and social issues of project intervention sites.</li> </ul>	ESIA Technical working group. PCU Other vital stakeholders	10,000 USD
2	Capacity building of relevant staff PIU and IPs	<ul style="list-style-type: none"> <li>• Understanding of environmental and social safeguard issues</li> <li>• Understanding of the roles and responsibilities of PCU and NEA staff in the implementation of the ESMP</li> <li>• Workforce management and incidents and accidents risk prevention and procedure for reporting</li> <li>• Role and functioning of the GM.</li> </ul>	Project Safeguard Team Project Coordinator M & E Officer Other vital stakeholders	6,000 USD

No	Identified activities	Themes	Beneficiary	Budget (USD)
3	Information/ Awareness of the contractor's personnel	<ul style="list-style-type: none"> <li>• Implementation and monitoring of an HSE plan</li> <li>• Prevention of construction site accidents and implementation of an emergency evacuation plan</li> <li>• Prevention and management of GBV/SEA/SH/VAC, GM</li> <li>• Raising awareness about diseases (HIV-AIDS, STI).</li> </ul>	Construction Manager  Works managers  HSE expert Workers	4,000 USD
<b>Public Awareness - Education, Communication and Information Provision</b>				
4	Beneficiary Communities Awareness Raising Campaign	<ul style="list-style-type: none"> <li>• Raising public awareness on project issues (environmental and social issues, GBV, SEA/SH, VAC and GM, Emergency preparedness, etc.)</li> <li>• Assessment and prevention of accidents related to civil works and the movements of machines.</li> <li>• Prevention and management of GBV/SEA/SH/VAC, GM</li> <li>• Public awareness on diseases (HIV-AIDS/STI).</li> </ul>	Local communities, CSOs/NGOs  The public, especially the communities where the project will be implemented	5,000 USD
<b>TOTAL:</b>				<b>25,000 USD</b>

### 8.17. Grievance and Redress Mechanism

It should be expected that grievances or disputes/complaints could arise in the implementation of the measures. The ESIA studies recognized three types of disputes and grievances during the implementation of feeder road activities and as such proposed the mechanism to redress any grievance or complaint that may arise.

The first type refers to the dispute between the project and/or the contractor and the local community, the second one refers to the dispute between the contractor and its workforce and the third to the dispute between the contractor and the client.

The project should establish GRM committees at Community level and Project Level. The said committees should receive trainings on GRM matters related to project including reporting, registering, and investigating grievance or disputes/complaints among others.

The composition of the said structures could be assessed to observe the adequacy of members where necessary add those relevance personnel to the team and provide more training/sensitizations specifics to feeder roads.

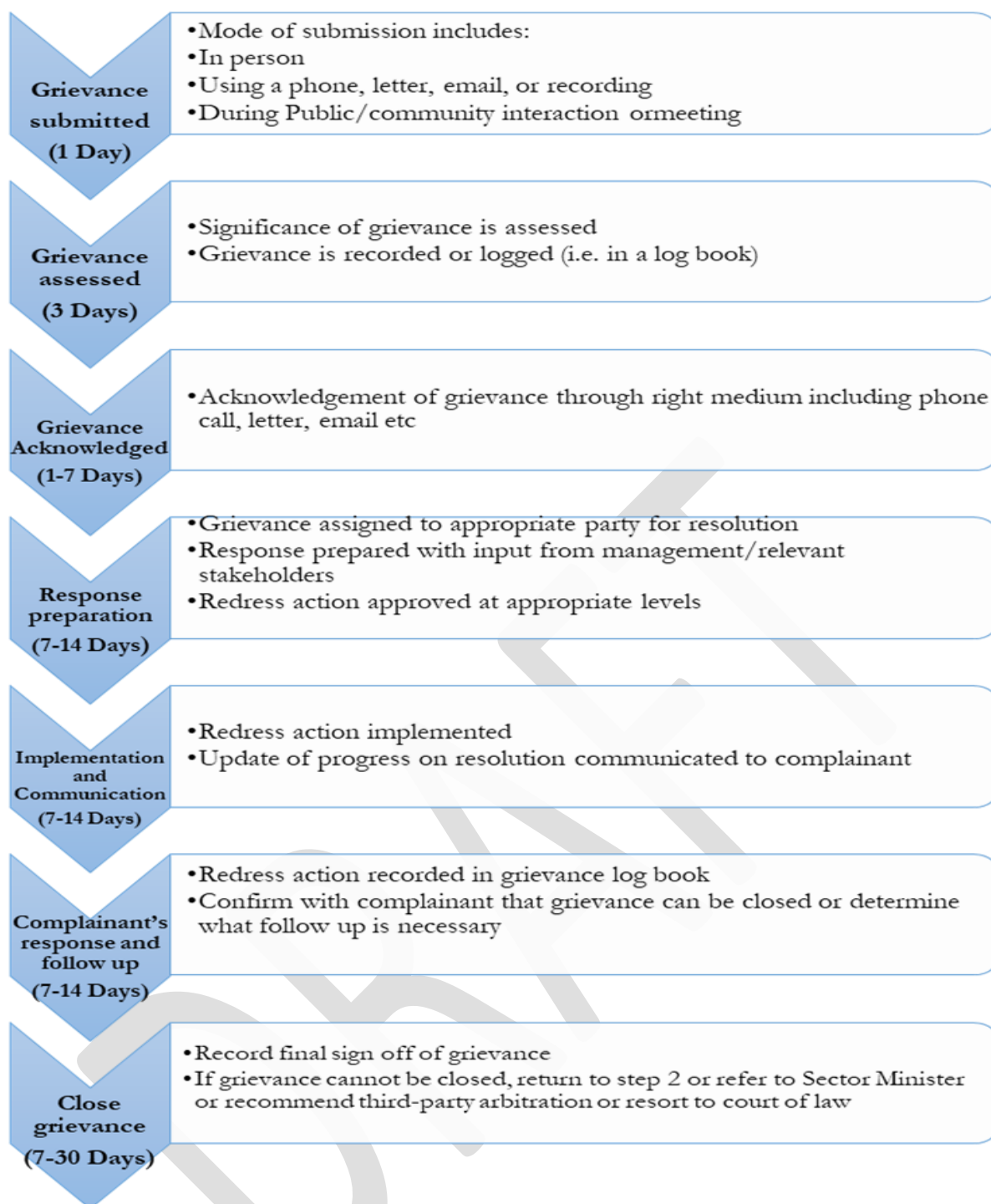
1. The following process should be followed in receiving and responding to grievances.
  - i. the grievance is received by Chairperson of the Committee and recorded in a grievance register by the Secretary.
  - ii. the Chairperson summons a meeting within seven calendar days of receiving the grievance, 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 NSPA PIU.
- The NSPA PIU will constantly engage project-affected people 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, records and ensure grievances are resolved.
- Alternative Dispute Resolution Mechanisms will also be used as a key element of GRM.

Grievances are expected to be communicated either verbally (in a language of choice) or in writing to the GRMC through a Short Code called (Toll free Number) which will be shared with all the committees for ease of communication. 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 PIU and monthly. A grievance management procedure indicating activities and timeframe for resolution of issues is shown in **Figure 24**.



**Figure 24: Procedure for Grievance Redress**

Table 53 presents the operating budget of the GRM. This budget is estimated at USD 26,000.

**Table 53. GRM Implementation Budget Summary**

Headings	Unit	Quantity	Unit cost (USD)	Total cost (USD)
Reproduction and distribution of forms	Lump sum	1	1,000	1,000
Organization of GRM awareness and public campaigns in project area	Session	6	2,000	12,000

Headings	Unit	Quantity	Unit cost (USD)	Total cost (USD)
Training of GRMC on the GRM specific to center construction/renovation.	Session	1	3,000	3,000
Support for the operating of complaints management committees	Lump sum	1	10,000	10,000
<b>Total cost of the implementation of GRM</b>				<b>26,000</b>

### Implementation Schedule and Cost Estimates

The environmental and social management plans will be implemented in line with the finalized project schedule, as well as activities integrated into the project design. There would be a need for the contractor to update the safeguards instruments based on the final design of the construction, renovation or upgrading works. The estimated cost for implementation of the mitigation measures and monitoring plan proposed in the ESMP for the project is approximately US\$ 160,000 as shown in Table 54

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**Table 54. Implementation Cost of the ESMP for the Proposed Project**

Activities	Impacts	Indicators	Means of Verification	Timelines (Preparation / Construction / Exploitation / Closing phases)	Responsible			Funding Source	Implementation Cost (US\$)
					Execution	Monitoring	Aftercare		
Mitigation Measures	Address Environment and Social impacts	Number of impacts mitigated	Monitoring reports	All phases	Contractor	NEA	MOH	Govt/Project budget / AfDB	23000
Capacity building of PIU, contractors, workers, and stakeholders	Improved capacity for ESMP implementation	Number of trainings conducted; number of staff trained	Training reports; attendance sheets	Preparation & Construction phases	NSPA PIU	NEA	RHD	Govt/Project budget / AfDB	25000
Environmental & Social Monitoring Implementation	Enhanced compliance and mitigation effectiveness	Frequency of site visits and audits	Monitoring reports; audit findings	All phases	NSPA PIU NEA	NEA NSPA PIU	RHD NEA	Govt/Project budget / AfDB	45000
GRC reinforcement and operations	Improved grievance redress system	Number of grievances received/resolved	Grievance logs; GRC meeting minutes	Preparation & Construction phases	Local Community	NSPA PIU	GRC	Govt/Project budget / AfDB	26000
Environmental and Social Aftercare Programmes	Sustainability of ESMP outcomes	Number of post-project activities maintained	Aftercare reports; beneficiary feedback	Decommission phase	NSPA PIU	NEA	RHD	Govt/Project budget / AfDB	11000
Development of Waste Management Plan	Safer waste management practices	Availability and implementation of plan	Waste management plan document	Preparation & Exploitation phases	RHD	NEA	Health Facility Management	Govt/Project budget / AfDB	10000
Annual Environmental Audit	Ensures ESMP compliance and adaptive management	Completion of annual audit	Audit reports	Exploitation & Closing phases	NSPA PIU	Consultant	NEA	Govt/Project budget / AfDB	20000

Total									160,000
-------	--	--	--	--	--	--	--	--	---------

Please note that the ESMP budget estimates is based on similar assignments for the Vulnerable Youth and Women Support Project (VYWoSP) and expert knowledge

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## **8.18. 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 and Quarterly reporting of ESMP implementation and monitoring is recommended from the Project Contractor and NEA and the project safeguard team, respectively; NEA shall evaluate the reports and coordinate immediate improvement, where necessary. An annual monitoring report shall be submitted to the Project for consideration.

## **8.19. ESMP Disclosure**

After this ESIA /ESMP report is approved, the NSPA will ensure it is published on the NSPA and Ministry of Health websites. NEA will also publish it on its website, including its Library at its head office in Kanifing and the NEA Regional office in WCR, where the project is located. The Africa Development Bank will disclose it on its website. Additionally, hard copies of the report will be made available at designated locations for review by members of the general public. This will enable all interested stakeholders to read and understand how they stand to be affected by the project

A key element of sustaining stakeholders' support in any project execution is to consult and communicate with the stakeholders effectively and to engage them as early as possible with the project, which has been done in the course of preparation of the intervention work and further enhanced during the preparation of the ESMP.

## **8.20. Environmental and social aftercare programmes**

To reduce and manage the impacts of the proposed project, the surrounding local communities and the environment, the following are recommended for implementation as environment and social aftercare programmes in line with the ESMP for sustainability:

Community and environmental education programme

Water quality management programme

Waste management programme

Air quality management programme

Occupational Health and Safety management programme

Gender, SEA/SH& Social Management Programme

It should be noted that the proposed ESMP under this assessment will form the benchmark for any upcoming management programmes and related plans as well as addressing the monitoring factor in line with relevant laws and good practices for sustainable development.

### **8.21. 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.

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## 9. Conclusion and Recommendations

This ESIA study report has been conducted to equip the Project and its stakeholders such as the NSPA, Ministry of Health, and the National Environment Agency with relevant and sufficient information about the intended activities of the Project and their potential environmental and social impacts. It is hoped that the project will use the findings in this assessment to address the environmental and social impacts during the proposed Chamen Health Center site preparation, construction/renovation, and operation and decommission phases.

The potential negative environmental impacts that have been identified and are associated with the implementation of this project can be addressed by implementing the mitigation measures proposed to ensure that they pose no threat to the environment and to the communities. Some of these measures are part of the responsibilities of the NSPA PIU, potential contractor and will bring no added cost to the implementation process. The benefits of implementing the project are enormous and will address persistent problems of the health sector in Gambia and subsequently address the access to quality health care services for the people of this district and region at large.

In general, the overall potential negative environmental and social impacts that were anticipated because of project activities would develop as result of site preparation, mobilization of construction materials, civil works and operation of heavy machinery/equipment etc. that may cause dust pollution,, soil pollution, water contamination, loss of flora and fauna, noise and vibration, and socio-cultural conflict due to the influx of worker, gender-based violence, sexual exploitation and abuse and violence against children.

Based on the above, the envisaged potential negative impacts with respect to project activities could be addressed through the application of mitigation measures recommended as clearly detailed out in this ESIA document. When implemented according to strict adherence to this ESIA, there shall be controlled negative impacts that shall not compromise the project benefits or resources for future generations. Thus, it is concluded that implementation of activities could be very successful if considered in a holistic manner and potential impacts managed.

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GoTG (1999) Environmental Quality Standards Regulations

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GoTG (2005) The Children's Act (2005)

GoTG (2007) Anti-littering Regulations

GOTG (2007) Labour Act

## Appendices

### Appendix A: Interview Guide – Local Communities (Including Women and Youth)

The preferred methodology is focused group discussions with (i) a mixed group, (ii) women only group and (iii) men only group. Information will be collected from all three groups. Note: questions can be asked in groups and/or on an individual basis. This form is a guide to relevant questions.

Name of community			
For groups: Type of Group	Mixed	Women	Men
For individuals: Name of interviewee(s)			
Gender			
Position in the community group			
Place			
Date / time			
Interviewer(s)			

#### **Introduction:**

*The Government of The Gambia received funding from the African Development Bank to provide vulnerable groups, particularly out-of-school youth and women, with market-oriented skills and access to a range of services (financial and nonfinancial, basic social services) to tackle the multidimensional aspect of poverty and vulnerability. A portion of the grant was allocated for the renovation of Chamen Health Center and Chamen Health as Lot 1.*

*The development is anticipated will 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. The ESIA study is to identify and assess potential impacts of project activities and develop enhancement and mitigation measures.*

*Stakeholder consultation is a core activity in the ESIA process. Thus, this consultation is initiated to determine public awareness about the proposed project development and to assess public views and perceptions about the project as well as get their recommendations for the improvement of the project.*

To develop a robust Environmental and Social Management Plan (ESMP), this questionnaire is geared towards finding out your view/opinion on the proposed project activities. The information you provide will assist the study team to understand your concerns/fears and also proffer better operating procedures and ensure sound environmental and social management practice in the course of the execution of the project.

Please, kindly answer honestly and complete the question contained herein. Please, be assured that all information provided will be kept strictly confidential and used in combination with other opinions gathered.

If you have any concern about privacy, please contact Mrs Ndey Sireng Bakurin (3331719) or Dr. Paul Bass (5327279).

Thank you for taking time to do this interview.

**1. Please tell us briefly about your background.**

✓ For individuals: social background and areas of responsibilities in your community

- i. Age:
- ii. Marital status:
- iii. Education level:
- iv. Economic activity/Employment:
- v. Role in the community:

✓ For community group: about the community:

- i. Population size:
- ii. Number of households:
- iii. Language/ethnicity:
- iv. Religion (Majority and minority):
- v. Economic activities/Employment:
- vi. Social amenities (School, health facility, playground etc.):
- vii. Source of domestic water (borehole or NAWEC):
- viii. Source of electricity (NAWEC, generator, solar system):

**Transcript:**

2. What is the state of the environment in your community now?

- i. Air quality (i.e. clean air or polluted air):.....
- ii. Water quality (i.e. clean or polluted water):.....
- iii. Water quantity (scarce or abundant):.....
- iv. Soil quality (fertile or infertile soil, contaminated soil):.....
- v. Vegetation (rich or poor vegetation; dominant types of trees):.....
- vi. Animal species (wildlife, livestock animals):.....

3. What do you think about the construction or renovation of the healthcare facilities and its expected results/outcomes?

i. *Project Perception (Give your perception about the project: support or not in support):*

.....  
.....

*Give reasons:*

<i>Good/ Support</i>	<i>Bad/ Not in support</i>

ii. *What are the potential positive impacts the project might bring to your community?*

.....  
.....

*How do you think the project can potentially enhance the above positive impacts for the benefit of the community?*

.....  
.....

iii. *What are the potential negative impacts the project might bring to your community?*

.....  
.....

*How do you think the project can potentially mitigate the above negative impacts to minimize the effect on the community?*

.....  
.....

4. Do you think the project activities (pre-construction, construction, operation) will have impact on the physical and biological environment of the community?

i. *Air Quality (yes/ no):*

*If no, explain why?*

.....  
.....

*If yes, explain how?*

.....  
.....

i. *Water Quality and quantity (yes/ no):*

*If no, explain why?*

.....  
.....

*If yes, explain how?*

.....  
.....

i. *Soil quality (yes/ no):*

*If no, explain why?*

.....  
.....

.....  
.....

*If yes, explain how?*

.....  
.....

*i. Biological environment (vegetation and animal species) (yes/ no):*

*ii. If no, explain why?*

*iii.*

.....  
.....

*iv. If yes, explain how?*

*v.*

.....  
.....

*vi. Waste generation (yes/ no):*

*If no, explain why?*

.....  
.....

*If yes, explain how?*

.....  
.....

5. Do you think the project activities (pre-construction, construction, operation and decommissioning) will potentially have impact on the socio-economic condition of the community?

*i. Employment opportunities (yes/ no):*

*If no, explain why?*

.....  
.....

*If yes, explain how?*

.....  
.....

*ii. Public health (yes/ no):*

*If no, explain why?*

.....  
.....

*If yes, explain how?*

.....  
.....

*iii. Improve livelihood and income earning (yes/ no):*

*If no, explain why?*

.....  
.....

*If yes, explain how?*

.....  
.....

iv. *Incidents and accidents (yes/ no):*

*If no, explain why?*

.....  
.....

*If yes, explain how?*

.....  
.....

v. *Social stability/ cohesion (yes/ no):*

*If no, explain why?*

.....  
.....

*If yes, explain how?*

.....  
.....

vi. *In-migration of workforce (yes/ no):*

*If no, explain why?*

.....  
.....

*If yes, explain how?*

.....  
.....

vii. *Change in lifestyle and culture (yes/ no):*

*If no, explain why?*

.....  
.....

*If yes, explain how?*

.....  
.....

viii. *Increase traffic congestion & road accidents (yes/ no)*

*If no, explain why?*

.....  
.....

*If yes, explain how?*

.....  
.....  
*Gender-based violence (yes/ no)*

*If no, explain why?*

.....  
.....  
*If yes, explain how?*

.....  
.....  
viii. *Child labor (yes/ no)*

*If no, explain why?*

.....  
.....  
*If yes, explain how?*

.....  
.....  
6. Do you have structures to address grievance? If yes, please explain the grievance mechanism structure and how grievances are received and managed.

7. Is there anything important you think we have forgotten to ask about?

Transcript:

8. Do you have any questions feedback or concern you want to raise?

Transcript:

*Thank you for taking time for the interview. Please feel free to contact us if any other issues come to mind that you think we should be aware of.*

## Appendix B: Interview Guide – Experts (Government, NGOs, Private Sector)

The preferred methodology is individual semi-structured interviews.

Name of institution	
For individuals: Name of interviewee(s)	
Gender	
Position	
Place	
Date / time	
Interviewer(s)	

### **Introduction:**

*For the Government of The Gambia to improve quality and utilization of essential health services in the country, funds were provided by the World Bank in support of the proposed Gambia Essential Health Services Strengthening Project (P173287). The financial support from the Bank was geared towards supporting the implementation of The Gambia National Health Strategic Plan (2021 – 2025). A portion of the grant was allocated for the construction of the new Chamen Health Hospital.*

*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. The ESIA study is to identify and assess potential impacts of project activities and develop enhancement and mitigation measures.*

*Stakeholder consultation is a core activity in the ESIA process. Thus, this consultation is initiated to enhance public awareness about the proposed project development and to assess public views and perceptions about the project as well as get their recommendations for the improvement of the project.*

*To develop a robust Environmental and Social Management Plan (ESMP), this interview is meant to elicit information on your view/opinion on the impact of the proposed project activities will have on the environment and society. The information you provide will assist the study team to understand your concerns/fears and also proffer better operating procedures and ensure sound environmental and social management practice in the course of the execution of the project.*

*Please, kindly answer honestly and complete the question contained herein. Please, be assured that all information provided will be kept strictly confidential and used in combination with other opinions gathered.*

*If you have any concern about privacy, please contact Dr. Muhammed Lamin Sanyang (7930099).*

*Thank you for taking time to do this interview.*

1) What do you think about the construction of the new center and its expected results/outcomes?

○ *Project perception*

.....  
.....

2) What are the positive impacts the project might pose on the environment and socio-economic condition of the host community and the country?

.....  
.....

3) How do you think the project can potentially enhance the above positive impacts for the benefit of the host community and the country?

.....  
.....

4) What are the potential negative impacts the project might pose on the environment and socio-economic condition of the host community and the country?

.....  
.....

5) How do you think the project can mitigate the above potential negative impacts to minimize the effect on the host community and the country?

.....  
.....

6) What do you think of the current state of the healthcare facilities?

.....  
.....  
.....

7) What would be the role of your institution in the implementation of this proposed project ?

.....  
.....

8) What Capacity Building needs should be addressed to enable other partners and your active participation in the implementation of the proposed project ?

.....  
.....

9) How can your Institution support to enhance the positive impacts and mitigate the negative impacts of the proposed project activities?

.....  
.....

10) Do your Institution have any legal document (Policies, Regulations, Acts etc.) that is relevant to the implementation of the proposed project?

.....  
.....

11) Are there anything more you would like to share on issues related to the proposed project and the way forward (Projects Impacts/Concerns and Recommendations)?

.....  
.....

*Thank you for taking time for the interview. Please feel free to contact us if any other issues come to mind that you think we should be aware.*

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## **Appendix C: Perception Survey – Individual Questionnaire (Including Patient, Staff, Medical/Nursing/Public Health Students)**

### **SURVEY IDENTIFICATION INFORMATION QUESTIONNAIRE DESCRIPTION**

#### **COVER**

No sub-sections, No rosters, Questions: 8.

#### **CONSENT**

No sub-sections, No rosters, Questions: 1, Static texts: 2.

#### **DEMOGRAPHIC CHARACTERISTICS OF THE RESPONDENT**

No sub-sections, No rosters, Questions: 15.

#### **PROJECT AWARENESS AND SUSTAINABILITY**

No sub-sections, No rosters, Questions: 11.

#### **ENVIRONMENTAL IMPACT OF PROJECT**

No sub-sections, No rosters, Questions: 17.

#### **SOCIAL IMPACT OF PROJECT**

No sub-sections, No rosters, Questions: 21.

#### **APPENDIX C — CATEGORIES LEGEND**

# Perception Survey - Individual\_Questionnaire (Including Patient and Staff) V2

## SURVEY IDENTIFICATION INFORMATION QUESTIONNAIRE DESCRIPTION

### COVER

No sub-sections, No rosters, Questions: 8.

### CONSENT

No sub-sections, No rosters, Questions: 3, Static texts: 2.

### DEMOGRAPHIC CHARACTERISTICS OF THE RESPONDENT

No sub-sections, No rosters, Questions: 17.

### PROJECT AWARENESS AND SUSTAINABILITY

No sub-sections, No rosters, Questions: 7.

### ENVIRONMENTAL IMPACT OF PROJECT

No sub-sections, No rosters, Questions: 18.

### SOCIAL IMPACT OF PROJECT

No sub-sections, No rosters, Questions: 21.

### APPENDIX A — CATEGORIES

### LEGEND

## SURVEY IDENTIFICATION INFORMATION QUESTIONNAIRE DESCRIPTION

### Basic information

<i>Title</i>	Perception Survey - Individual_Questionnaire (Including Patient and Staff) V2
<i>Version identifier</i>	version 1
<i>Version notes</i>	This is the first draft of questionnaire

### Survey data information

<i>Study type</i>	Household Survey
<i>Kind of data</i>	Sample survey data [ssd]
<i>Mode of Data Collection</i>	Face-to-Face

### Survey information

<i>Country</i>	Gambia, The
<i>Year</i>	2025
<i>Languages</i>	English
<i>Unit of analysis</i>	Individual/Group/Community
<i>Coverage</i>	Nationwide
<i>Universe</i>	All those affected by construction activities of The Gambia health strengthening project

## COVER

Respondent's ID #	TEXT	id_num
Region	SINGLE-SELECT 01 <input type="radio"/> WCR 02 <input type="radio"/> CRR North	region
District Name	SINGLE-SELECT: CASCADING 01 <input type="radio"/> Kombo Central 02 <input type="radio"/> Nianija	district
Settlement	TEXT	sett1
Supervisor	TEXT	supervisor
Enumerator	TEXT	enumerator
Date	DATE: CURRENT TIME	Date
GPS	GPS N W A	gps

## CONSENT

STATIC TEXT

The Government of The Gambia received funding from the African Development Bank to provide vulnerable groups, particularly out-of-school youth and women, with market-oriented skills and access to a range of services (financial and nonfinancial, basic social services) to tackle the multidimensional aspect of poverty and vulnerability. A portion of the grant was allocated for the renovation of Brikama District Hospital and Chamen Health as Lot 1. The development is anticipated will 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. The ESIA study is to identify and assess potential impacts of project activities and develop enhancement and mitigation measures. Stakeholder consultation is a core activity in the ESIA process. Thus, this consultation is initiated to determine public awareness about the proposed project development and to assess public views and perceptions about the project as well as get their recommendations for the improvement of the project. To develop a robust Environmental and Social Management Plan (ESMP), this questionnaire is geared towards finding out your view/opinion on the proposed project activities. The information you provide will assist the study team to understand your concerns/fears and also proffer better operating procedures and ensure sound environmental and social management practice in the course of the execution of the project. Please, kindly answer honestly and complete the question contained herein. Please, be assured that all information provided will be kept strictly confidential and used in combination with other opinions gathered. If you have any concern about privacy, please contact Mrs Ndey Sering Bakurin (3331719) or Dr. Paul Bass (5327279). Thank you for taking time to do this interview.

STATIC TEXT

Hello, my name is Mr./Ms %enumerator% We are conducting a survey on Environmental & socio-economic Impact Assessment of the Constructions Works being implemented by Ministry of Health under the Health Strengthening Project funded by the World Bank. This survey will assess the current levels of environmental impact and what mitigation measures can be adopted to reduce or eliminate these adverse effects and maximise the potential benefits of the action. The assessment will be a key component to developing a sustainable intervention that has minimal environmental impact. The results of the assessment will also provide an evidence base to inform policy makers and other value chain actor. I would like to seek your consent to participate in the survey. The interview will take about 40 to 45 minutes. All the answers you provide will be kept confidential and will not be shared with anyone other than members of the survey team.

Would you like to participate in this survey?	SINGLE-SELECT 01 <input type="radio"/> Yes 02 <input type="radio"/> No	consent
Name of facility E consent==1 v1 (self==1 && region==1)    (self==2 && region==2) A1 You selected the wrong health centre, cross check the region!	SINGLE-SELECT 01 <input type="radio"/> Brikama HC 02 <input type="radio"/> Chamen HC	facility
Target Group of Respondent (at %facility%) E consent==1	SINGLE-SELECT 01 <input type="radio"/> Users (HF) 02 <input type="radio"/> Staff (HF)	target_HC

## DEMOGRAPHIC CHARACTERISTICS OF THE RESPONDENT

g Scorent

1. Telephone Numbers	TEXT <span style="float: right;">tele_num_1</span> <hr/>
2. Gender of respondent	SINGLE-SELECT <span style="float: right;">gender</span> 01 <input type="radio"/> Male 02 <input type="radio"/> Female
3. Marital Status	SINGLE-SELECT <span style="float: right;">marital_status</span> 01 <input type="radio"/> Never married 02 <input type="radio"/> Married 03 <input type="radio"/> Divorced 04 <input type="radio"/> Separated 05 <input type="radio"/> Widow
4. Employment Status	SINGLE-SELECT <span style="float: right;">empl_status</span> 01 <input type="radio"/> Employed 02 <input type="radio"/> Self-employed 03 <input type="radio"/> Unemployed
5. What is the respondent's occupation g empl_status.InList(1,2)	SINGLE-SELECT <span style="float: right;">occupation</span> 01 <input type="radio"/> Agricultural farming 02 <input type="radio"/> Non-agricultural labor 03 <input type="radio"/> Large/Medium business/Small business 04 <input type="radio"/> Industrial worker/factory worker 05 <input type="radio"/> Transport worker 06 <input type="radio"/> Service (Govt./NGO/Private) 07 <input type="radio"/> Fisherman 08 <input type="radio"/> Others
5_Others, please specify g occupation=99	TEXT <span style="float: right;">occupation_oa</span> <hr/>
6. Have been to school (Convention or madarasa)?	SINGLE-SELECT <span style="float: right;">been_to_school</span> 01 <input type="radio"/> Yes 02 <input type="radio"/> No
7. If yes, which convention or madarasa? g been_to_school=1	SINGLE-SELECT <span style="float: right;">conv_madrasa</span> 01 <input type="radio"/> Convention 02 <input type="radio"/> Madarasa

<p>8. Highest Educational Attainment (Conventional and Madrassa)</p> <p>g conv_madrssa.Inclist(1,2)</p>	<p>SINGLE-SELECT <span style="float: right;">education_level</span></p> <p>01 <input type="radio"/> Early Childhood Development</p> <p>02 <input type="radio"/> Primary</p> <p>03 <input type="radio"/> Lower Secondary</p> <p>04 <input type="radio"/> Upper Secondary</p> <p>05 <input type="radio"/> Technical/Vocational</p> <p>06 <input type="radio"/> Tertiary</p>
<p>9. What is the average monthly Income level in your household?</p> <p>1 self&gt;0 &amp;&amp; self&lt;200000</p> <p>1 Value entered seem to be too high or low!</p>	<p>NUMERIC INTEGER <span style="float: right;">monthly_income</span></p> <p>-----</p>
<p>10. What is your household size?</p> <p>1 Household size should include respondent and all children</p> <p>1 self&gt;0 &amp;&amp; self&lt;200</p> <p>1 Value entered seem too be too high or low!</p>	<p>NUMERIC INTEGER <span style="float: right;">hhsize</span></p> <p>-----</p>
<p>11. Do you have any member of your household who is into any of the following occupations?</p> <p>1 Tick all that apply!</p>	<p>MULTI-SELECT <span style="float: right;">hh_occup</span></p> <p>01 <input type="checkbox"/> Farming</p> <p>02 <input type="checkbox"/> Trading</p> <p>03 <input type="checkbox"/> Civil servant</p> <p>04 <input type="checkbox"/> Service, Shop and Market Sales Workers</p> <p>05 <input type="checkbox"/> Technician/Carpentry/Welding or related fields</p> <p>06 <input type="checkbox"/> Student</p> <p>07 <input type="checkbox"/> Unemployed</p> <p>08 <input type="checkbox"/> Others</p>
<p>11_Others, please specify</p> <p>g hh_occup.Contains(9)</p>	<p>TEXT <span style="float: right;">hh_occup_o9</span></p> <p>_____</p>
<p>12. Which health centre do you frequently seek health care?</p>	<p>SINGLE-SELECT <span style="float: right;">hc_freq_sk_hc</span></p> <p>01 <input type="radio"/> Brikama HC</p> <p>02 <input type="radio"/> Basse HC</p> <p>03 <input type="radio"/> Other HC</p>
<p>12_ Other health centre please specify</p> <p>g hc_freq_sk_hc=3</p>	<p>TEXT <span style="float: right;">hc_freq_sk_hc_o3</span></p> <p>_____</p>
<p>13. How frequently do you seek health care in this health care?</p>	<p>SINGLE-SELECT <span style="float: right;">freq_visit_HF</span></p> <p>01 <input type="radio"/> Rarely</p> <p>02 <input type="radio"/> Sometimes</p> <p>03 <input type="radio"/> Often</p> <p>04 <input type="radio"/> Always</p>

## PROJECT AWARENESS AND SUSTAINABILITY

E consent=1

<p>1. Are you aware any construction of a new hospital in Manduar/Giroba?</p>	<p>SINGLE-SELECT <span style="float: right;">aware_project</span></p> <p>01 <input type="radio"/> Yes</p> <p>02 <input type="radio"/> No</p>
<p>2. From whom did you first learn about the project?</p>	<p>MULTI-SELECT <span style="float: right;">sour_info</span></p> <p>01 <input type="checkbox"/> Ministry of Health</p> <p>02 <input type="checkbox"/> Health worker</p> <p>03 <input type="checkbox"/> Members of the community</p> <p>09 <input type="checkbox"/> Others</p>
<p>2_Others, Please Specify</p>	<p>TEXT <span style="float: right;">sour_info_os</span></p> <hr/>
<p>3. At what stage did you know that there will be construction work of an new hospital at Manduar/Giroba?</p>	<p>SINGLE-SELECT <span style="float: right;">kne_constr_wk</span></p> <p>01 <input type="radio"/> When project was approved</p> <p>02 <input type="radio"/> Before the project was approved</p> <p>03 <input type="radio"/> After the project was approved</p>
<p>4. How satisfied are you with your or other stakeholders involvement in the project?</p>	<p>SINGLE-SELECT <span style="float: right;">satis_involment</span></p> <p>01 <input type="radio"/> Satisfied</p> <p>02 <input type="radio"/> Normal</p> <p>03 <input type="radio"/> Dissatisfied</p>
<p>5. Do you think users/staff of the facility are well informed of plans to undertake construction Manduar/Giroba?</p>	<p>SINGLE-SELECT <span style="float: right;">com_men_infor</span></p> <p>01 <input type="radio"/> Yes</p> <p>02 <input type="radio"/> No</p> <p>03 <input type="radio"/> Can't tell</p>
<p>6. Are you aware of any management structure in place to ensure the sustainability of the project?</p>	<p>SINGLE-SELECT <span style="float: right;">mgt_pln_sustainbt</span></p> <p>01 <input type="radio"/> Yes</p> <p>02 <input type="radio"/> No</p> <p>03 <input type="radio"/> No Idea</p>

## ENVIRONMENTAL IMPACT OF PROJECT

g consent=1

<p>1. How do you best describe the current health care services in your community/area?</p>	<p>SINGLE-SELECT <span style="float: right;">des_he1t_serv</span></p> <p>01 <input type="radio"/> Good</p> <p>02 <input type="radio"/> Fair</p> <p>03 <input type="radio"/> Poor</p> <p>05 <input type="radio"/> I don't know</p>
<p>2. How do you best describe the status of current healthcare facilities in this community/area?</p>	<p>SINGLE-SELECT <span style="float: right;">des_he1_fac</span></p> <p>01 <input type="radio"/> Good</p> <p>02 <input type="radio"/> Fair</p> <p>03 <input type="radio"/> Poor</p> <p>05 <input type="radio"/> I don't know</p>
<p>3. What constraints do you face due to the poor condition of the healthcare facilities?</p> <p>1 Tick all that apply!</p>	<p>MULTI-SELECT <span style="float: right;">const_face</span></p> <p>01 <input type="checkbox"/> Healthcare services</p> <p>02 <input type="checkbox"/> Long waiting hours</p> <p>03 <input type="checkbox"/> High rate of mortality</p> <p>04 <input type="checkbox"/> Unmotivated healthcare workers</p> <p>05 <input type="checkbox"/> Others</p>
<p>3_Others, Please Specify</p> <p>g const_face.Contains(X)</p>	<p>TEXT <span style="float: right;">const_face_os</span></p> <hr/>
<p>4. Do you think the project activities will follow best environmental practices?</p>	<p>SINGLE-SELECT <span style="float: right;">pro_act_ff_EP</span></p> <p>01 <input type="radio"/> Yes</p> <p>02 <input type="radio"/> No</p>
<p>5. What are the positive environmental and social impacts that you think will be associated with the project implementation in your community/area?</p> <p>1 Tick all that apply</p>	<p>MULTI-SELECT <span style="float: right;">env_soc_impact</span></p> <p>01 <input type="checkbox"/> Improve healthcare service</p> <p>02 <input type="checkbox"/> Enhance performance of health workers</p> <p>03 <input type="checkbox"/> Improve public health</p> <p>04 <input type="checkbox"/> Employment creation</p> <p>05 <input type="checkbox"/> Income generation</p> <p>06 <input type="checkbox"/> Better healthcare facilities</p> <p>07 <input type="checkbox"/> Easy access to healthcare services</p> <p>08 <input type="checkbox"/> Safe and healthy working environment</p> <p>09 <input type="checkbox"/> Others</p>

<p>5_Others, Please Specify</p> <p>E env_soc_impact.Contains(9)</p>	<p>TEXT</p> <p>environ_impact_os</p>
<p>6. What are the potential negative health safety and environmental impacts that you think will be associated with project implementation in your community/area?</p> <p>I Tick all that apply</p>	<p>MULTISELECT</p> <p>health_saf_env_imp</p> <p>01 <input type="checkbox"/> Noise Pollution</p> <p>02 <input type="checkbox"/> Dust pollution</p> <p>03 <input type="checkbox"/> Gaseous emission from vehicles and heavy machineries</p> <p>04 <input type="checkbox"/> Waste generation</p> <p>05 <input type="checkbox"/> Water pollution/contamination</p> <p>06 <input type="checkbox"/> Soil pollution/contamination</p> <p>07 <input type="checkbox"/> Accidents and injuries to workers</p> <p>08 <input type="checkbox"/> Road congestion</p> <p>09 <input type="checkbox"/> Loss of biodiversity</p> <p>10 <input type="checkbox"/> None</p> <p>11 <input type="checkbox"/> I don't know</p> <p>99 <input type="checkbox"/> Others</p>
<p>6_Others, Please Specify</p> <p>E health_saf_env_imp.Contains(99)</p>	<p>TEXT</p> <p>hth_saf_envn_os</p>

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<p>7. What do you think can be done to avoid / reverse the potential negative environmental impacts?</p> <p>I: Tick all that apply!</p> <p>E: health_saf_env_imp.ContainsAny(1,2,3,4,5,6,7,8,9,99)</p>	<p>MULTI-SELECT <span style="float: right;">reves_neg_env_imp</span></p> <p>01 <input type="checkbox"/> Use modern equipment with less emission</p> <p>02 <input type="checkbox"/> Dust control and suppression measures</p> <p>03 <input type="checkbox"/> Soil conservation</p> <p>04 <input type="checkbox"/> Proper water management</p> <p>05 <input type="checkbox"/> Proper Waste management</p> <p>06 <input type="checkbox"/> Minimization of vegetation removal</p> <p>07 <input type="checkbox"/> Re-vegetation/Planting of native trees</p> <p>08 <input type="checkbox"/> Use of organic manure</p> <p>09 <input type="checkbox"/> Avoid ecological sensitive areas</p> <p>10 <input type="checkbox"/> Health training and awareness for workforce</p> <p>11 <input type="checkbox"/> Drought resistance seed varieties</p> <p>12 <input type="checkbox"/> Early maturing crop varieties</p> <p>13 <input type="checkbox"/> Fencing of gardening with trees (Agro-forestry)</p> <p>99 <input type="checkbox"/> Other (specify)</p>
<p>7_Please specify</p> <p>E: reves_neg_env_imp.Contains(99)</p>	<p>TEXT <span style="float: right;">reves_neg_env_imp_oa</span></p> <hr/>
<p>8. To what extent do you agree or disagree that the Project Implementation Organization will do enough to address your main environmental concern?</p>	<p>SINGLE-SELECT <span style="float: right;">do_engh_ith_cons</span></p> <p>01 <input type="radio"/> Agree</p> <p>02 <input type="radio"/> Neither Agree nor Disagree</p> <p>03 <input type="radio"/> Disagree</p>
<p>9. What is your observation on the quality of the air within the facility/community/area?</p>	<p>SINGLE-SELECT <span style="float: right;">qual_air_com</span></p> <p>01 <input type="radio"/> Clean</p> <p>02 <input type="radio"/> Not clean</p> <p>03 <input type="radio"/> Don't Know</p>

<p>10. What do you think could be responsible for polluting the air?</p> <p>I: Tick all that apply! E: qual_air_com=2</p>	<p>MULTI-SELECT <span style="float: right;">air_pollutant</span></p> <p>01 <input type="checkbox"/> Bush fires</p> <p>02 <input type="checkbox"/> Dust from construction activities</p> <p>03 <input type="checkbox"/> Smoke generated from vehicle</p> <p>04 <input type="checkbox"/> Smoke from burning agricultural by-products</p> <p>05 <input type="checkbox"/> Open burning of waste</p> <p>06 <input type="checkbox"/> Household smoke/Cooking</p> <p>07 <input type="checkbox"/> Smoking</p> <p>08 <input type="checkbox"/> Others</p>
<p>10_Others, please specify</p> <p>E: air_pollutant.Contains(9)</p>	<p>TEXT <span style="float: right;">air_pollutant_o8</span></p> <hr/>
<p>11. How do you find the quality of the water within the facility/area/community?</p>	<p>SINGLE-SELECT <span style="float: right;">qual_water_com</span></p> <p>01 <input type="radio"/> Clean</p> <p>02 <input type="radio"/> Not clean</p> <p>03 <input type="radio"/> Don't Know</p>
<p>12. What do you think could be responsible for polluting the water in your community?</p> <p>I: Tick all that apply! E: qual_water_com=2</p>	<p>MULTI-SELECT <span style="float: right;">water_pollutant</span></p> <p>01 <input type="checkbox"/> Dumping of solid waste in water bodies</p> <p>02 <input type="checkbox"/> Discharge of liquid waste into water bodies</p> <p>03 <input type="checkbox"/> Oil spillage</p> <p>04 <input type="checkbox"/> Agrochemicals</p> <p>05 <input type="checkbox"/> Others</p>
<p>12_Others, please specify</p> <p>E: water_pollutant.Contains(9)</p>	<p>TEXT <span style="float: right;">water_pollutant_o8</span></p> <hr/>

<p>10. What do you think could be responsible for polluting the air?</p> <p>I Tick all that apply! E qual_air_com=2</p>	<p>MULTI-SELECT <span style="float: right;">air_pollutant</span></p> <p>01 <input type="checkbox"/> Bush fires</p> <p>02 <input type="checkbox"/> Dust from construction activities</p> <p>03 <input type="checkbox"/> Smoke generated from vehicle</p> <p>04 <input type="checkbox"/> Smoke from burning agricultural by-products</p> <p>05 <input type="checkbox"/> Open burning of waste</p> <p>06 <input type="checkbox"/> Household smoke/Cooking</p> <p>07 <input type="checkbox"/> Smoking</p> <p>08 <input type="checkbox"/> Others</p>
<p>10_Others, please specify</p> <p>E air_pollutant.Contains(8)</p>	<p>TEXT <span style="float: right;">air_pollutant_os</span></p> <hr/>
<p>11. How do you find the quality of the water within the facility/area/community?</p>	<p>SINGLE-SELECT <span style="float: right;">qual_water_com</span></p> <p>01 <input type="radio"/> Clean</p> <p>02 <input type="radio"/> Not clean</p> <p>03 <input type="radio"/> Don't Know</p>
<p>12. What do you think could be responsible for polluting the water in your community?</p> <p>I Tick all that apply! E qual_water_com=2</p>	<p>MULTI-SELECT <span style="float: right;">water_pollutant</span></p> <p>01 <input type="checkbox"/> Dumping of solid waste in water bodies</p> <p>02 <input type="checkbox"/> Discharge of liquid waste into water bodies</p> <p>03 <input type="checkbox"/> Oil spillage</p> <p>04 <input type="checkbox"/> Agrochemicals</p> <p>05 <input type="checkbox"/> Others</p>
<p>12_Others, please specify</p> <p>E water_pollutant.Contains(8)</p>	<p>TEXT <span style="float: right;">water_pollutant_os</span></p> <hr/>



## SOCIAL IMPACT OF PROJECT

g: consent=1



<p>1. Do you think the construction of the new hospital can cause voluntary resettlement of business activities within or around the facility?</p>	<p>SINGLE-SELECT <span style="float: right;">resettlement</span></p> <p>01 <input type="radio"/> Yes</p> <p>02 <input type="radio"/> No</p>
<p>2. What impacts do you anticipate the construction works will have on economic activity around the facility/community/area?</p> <p>I Tick all that apply</p>	<p>MULTI-SELECT <span style="float: right;">ov_impact_EA</span></p> <p>01 <input type="checkbox"/> Positive</p> <p>02 <input type="checkbox"/> Negative</p> <p>03 <input type="checkbox"/> No Idea</p>
<p>3. Positive impacts will the construction works have on economics activity</p> <p>I Tick all that apply</p> <p>g: ov_impact_EA.Contains(1)</p>	<p>MULTI-SELECT <span style="float: right;">posit_impact_EA</span></p> <p>01 <input type="checkbox"/> Job Creation</p> <p>02 <input type="checkbox"/> Growth of local businesses</p> <p>03 <input type="checkbox"/> Other specify</p>
<p>3_Please specify</p> <p>g: posit_impact_EA.Contains(3)</p>	<p>TEXT <span style="float: right;">posit_impact_EA_os</span></p> <hr/>
<p>4. Negative impacts will the construction works have on economics activity</p> <p>I Tick all that apply</p> <p>g: ov_impact_EA.Contains(2)</p>	<p>MULTI-SELECT <span style="float: right;">nega_impact_EA</span></p> <p>01 <input type="checkbox"/> Disruption to local businesses</p> <p>02 <input type="checkbox"/> Increased traffic congestion</p> <p>03 <input type="checkbox"/> Other specify</p>
<p>4_Please specify</p> <p>g: nega_impact_EA.Contains(3)</p>	<p>TEXT <span style="float: right;">negat_impact_EA_os</span></p> <hr/>
<p>5. What do you think can be done to address the negative impact on Economic Activity?</p> <p>g: IsAnswered(nega_impact_EA)</p>	<p>TEXT <span style="float: right;">adre_negativ_impct</span></p> <hr/>
<p>6. Do you think after completion the construction of the health centre is going to improve health service provision?</p>	<p>SINGLE-SELECT <span style="float: right;">improve_health_prov</span></p> <p>01 <input type="radio"/> Yes</p> <p>02 <input type="radio"/> No</p>
<p>7. How will the construction affect health service delivery in the community?</p> <p>I Tick all that apply</p> <p>g: improve_health_prov=1</p>	<p>MULTI-SELECT <span style="float: right;">hth_service_delivery</span></p> <p>01 <input type="checkbox"/> Reduce congestion at service points</p> <p>02 <input type="checkbox"/> Provision of new services</p> <p>03 <input type="checkbox"/> Improve quality of services</p> <p>04 <input type="checkbox"/> Improve physical condition of health infrastructures</p> <p>05 <input type="checkbox"/> Expansion of facility to handle more health cases</p> <p>06 <input type="checkbox"/> Others</p>

<p>6_Others, Please Specify</p> <p>g hth_service_delivery.Contains(0)</p>	<p>TEXT</p> <p>hth_ser_deivry_os</p> <hr/>
<p>8. Do you think the construction will have negative effect on health service delivery in this community?</p>	<p>SINGLE-SELECT</p> <p>aff_he1_deivry</p> <p>01 <input type="radio"/> Yes</p> <p>02 <input type="radio"/> No</p> <p>03 <input type="radio"/> No idea</p>
<p>9. How will it negatively affect health care delivery?</p> <p>I Tick all that apply!</p> <p>g aff_he1_deivry=1</p>	<p>MULTI-SELECT</p> <p>he_aff_he1_deivry</p> <p>01 <input type="checkbox"/> Unavailability of some services in the community</p> <p>02 <input type="checkbox"/> Increase congestion at the facility</p> <p>03 <input type="checkbox"/> longer waiting time at facilities</p> <p>09 <input type="checkbox"/> Others</p>
<p>9_Please specify</p> <p>g he_aff_he1_deivry.Contains(0)</p>	<p>TEXT</p> <p>he_affct_hlth_os</p> <hr/>
<p>10. What is/are your expectation concerning this project in terms of contributing to the socioeconomic wellbeing of users of the facility?</p> <p>I Tick all that apply!</p>	<p>MULTI-SELECT</p> <p>exp_soc_impact</p> <p>01 <input type="checkbox"/> Improve business opportunities</p> <p>02 <input type="checkbox"/> Create employment opportunities</p> <p>03 <input type="checkbox"/> Increase accessibility to services</p> <p>04 <input type="checkbox"/> Reduce cost of using services</p> <p>09 <input type="checkbox"/> Others</p>
<p>10_Others, Please Specify</p> <p>g exp_soc_impact.Contains(0)</p>	<p>TEXT</p> <p>exp_soc_impact_os</p> <hr/>
<p>11. What will be the overall impact of this project on your livelihood?</p>	<p>SINGLE-SELECT</p> <p>impact_livhd</p> <p>01 <input type="radio"/> Positive</p> <p>02 <input type="radio"/> Neutral</p> <p>03 <input type="radio"/> Negative</p>
<p>12. Do you foresee the project having an impact on land availability and use in your community/area?</p>	<p>SINGLE-SELECT</p> <p>impact_land</p> <p>01 <input type="radio"/> Yes</p> <p>02 <input type="radio"/> No</p>

<p>13. If yes, how does it affect land availability?</p> <p>1 Tick all that apply!</p> <p>2 impact_land=1</p>	<p>MULTISELECT <span style="float: right;">if_yes_land_av1b</span></p> <p>01 <input type="checkbox"/> Reduce land available for farming</p> <p>02 <input type="checkbox"/> Reduce land available for housing</p> <p>03 <input type="checkbox"/> Reduce land available for recreation</p> <p>09 <input type="checkbox"/> Other specify</p>
<p>13_Please specify</p> <p>2 if_yes_land_av1b.Contains(9)</p>	<p>TEXT <span style="float: right;">if_yes_land_av1b_os</span></p> <hr/>
<p>14. What are the potential negative social impacts that you think will be associated with project implementation?</p> <p>1 Tick all that apply</p>	<p>MULTISELECT <span style="float: right;">ove_social_impact</span></p> <p>01 <input type="checkbox"/> Unfair treatment and discrimination to workers</p> <p>02 <input type="checkbox"/> Displacement of businesses</p> <p>03 <input type="checkbox"/> Disruption of healthcare services</p> <p>04 <input checked="" type="checkbox"/> Increase gender-based violence</p> <p>05 <input type="checkbox"/> Increase in communicable diseases and STDs</p> <p>06 <input type="checkbox"/> Promote child or forced labor</p> <p>or</p> <p>07 <input checked="" type="checkbox"/> High In-flux of workforce</p> <p>09 <input type="checkbox"/> Other Specify</p>
<p>14_Other specify</p> <p>2 ove_social_impact.Contains(9)</p>	<p>TEXT <span style="float: right;">ove_social_os</span></p> <hr/>



## Appendix E: Attendance Register






*Environmental and Social Impact Assessments (ESIA) for Lot 1: Brikama Health and Chamen Health Centers  
of  
Vulnerable Youth and Women Support Project (VYWoSP)*

National Social Protection Secretariat

Consultation Register

No	Name	Designation/Department/Community	Date	Contact	Signature/ Thumbprint
kii 1.	Bubacarr Baldah M	EPI-ROO, RHD/CRR	23 <sup>rd</sup> /02/2025	3631962	
" 2.	Jana Sowe M	RHPEO, RHD/CRR	23 <sup>rd</sup> /02/2025	3425571	
" 3.	Sulayman Kenta M	MFO, RHD/CRR	23 <sup>rd</sup> /02/2025	3553263	
" 4.	Seedia Banda M	RDM, RHD/CRR	23 <sup>rd</sup> /02/2025	3787566	
" 5.	Alhassie M'asence M	RLTCO, RHD-CRR	23/02/2025	3095932	
" 6.	Mustapha Sannah M	SCHAST RHD-CRR	23/02/25	3458898	

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National Social Protection Secretariat

Consultation Register

No	Name	Designation/Department/Community	Date	Contact	Signature/ Thumbprint
kvi 1.	Alien Sowe M	Ag. Director, DPMS	10.03.2025	3573133	
" 2.	Ousman Fajir M	Deputy Director (DNMS)	10/03/25	7925591	
" 3.	Hon. Amadou Camara M	NAM - Niawija Constituency	10/03/25	7388680	
" 3.	Dr. Mohammed T. Nyassi M	Director of Health Services	10/03/2025	3113556	
" 4.	Fabunmi Komha P	Coordinator for Partnership	10/3/25	7565251	



AFRICAN DEVELOPMENT BANK GROUP

Environmental and Social Impact Assessments (ESIA) for Lot 1: Brikama Health and Chamen of Vulnerable Youth and Women Support Project (VYWoSP)

National Social Protection Secretariat

Consultation Register -Institutional/Stakeholder Engagement

No	Name of Respondent	Sex	Institution/Department	Contact	Date	Signature
KI	Mr Lamin M. Ouma	M	NEA	9966998	5/3/25	[Signature]
KII	MUSIAPHA S KOLI	M	MOCCSW	7260103	5/03/25	[Signature]



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Environmental and Social Impact Assessments (ESIA) for Lot 1: Brikama Health and Chamen Health Centers of Vulnerable Youth and Women Support Project (VYWoSP)

National Social Protection Secretariat

Consultation Register

No	Name	Designation/Department/Community	Date	Contact	Signature/Thumbprint
KI	1. Buba Khan	m Akolo Sareh Alpha	26/02/25	3144697	[Signature]
KII	2. Yaya Khan	m VDC Chair Sareh Alpha	"	7012057	[Signature]
	3. Gibbie Khan	m Sareh Alpha	"	3354705	[Signature]
	4. Eddrissa Bah	m Sareh Alpha	"	—	[Signature]
	5. Mai Jalloh	F Sareh Alpha	"	—	[Signature]
	6. Kasadija Khan	F Sareh Alpha	"	7413013	[Signature]
	7. Maftie Penda chani	F Sareh Alpha	"	5348000	[Signature]
	8. Ablie Khan	m Sareh Alpha	"	7893831	[Signature]
	9. Samba Khan	m Sareh Alpha	"	2168462	[Signature]
	10. Awa Khan	F Sareh Alpha	"	7623748	[Signature]
	11. Allassan Khan	m Sareh Alpha	"	11	[Signature]
	12. Mariama Jalloh	F Sareh Alpha	"	7816640	[Signature]
KII	13. Haruna Ceesay	F Sareh Alpha Imam	"	2247106	[Signature]



**Environmental and Social Impact Assessments (ESIA) for Lot 1: Brikama Health and Chamen Health Centers  
of  
Vulnerable Youth and Women Support Project (VYWOSP)**

National Social Protection Secretariat

Consultation Register

No	Name	Designation/Department/Community	Date	Contact	Signature/ Thumbprint
1	Mamadi Camara M	Deputy Alkalo Kerevan	25/02/25	7711105	
2	Fatimatta Sey F	Kerevan Sitoko resident	25/02/25	5256177	
3	AAAM Dan SO F	Kerevan Sitoko resident	"	5842646	
4	Mankeding Jaitel F	Kerevan Sitoko resident	"	5832993	
5	Fatimatta Sillah F	Kerevan Sitokoto	"	5142943	
6	Tamiana Conteh F	Kerevan Sitokoto	"	2990383	
7	Binta Sow F	Kerevan Sitokoto	"	3282467	
8	Mai Barrow F	Kerevan Sitokoto	"	—	
9	Fatimatta Camara F	Kerevan Sitokoto	"	7750961	
10	Hadimaton Kanteh F	Kerevan Sitokoto	"	3356359	
11	Yassin Kabbah F	Kerevan Sitokoto	"	—	
12	Bubacarr Saidy M	Kerevan Sitokoto	"	3570094	
13	mamaden kessell M	Kerevan Sitokoto	25/2/25	2312416	

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Environmental and Social Impact Assessments (ESIA) for Lot 1: Brikama Health and Chamen Health Centers  
of  
Vulnerable Youth and Women Support Project (VYWOSP)

National Social Protection Secretariat

## Consultation Register

No	Name	Designation/Department/Community	Date	Contact	Signature/ Thumbprint
kii 1.	Amaden Ceesay M	Alkhalo Sincha Makka	26/02/25	3222630	
2.	Hadijatu Bah F	Sincha Makka	"	2121172	
3.	Tarreh Njie M	Sincha Makka	"	7267101	
4.	Adama Njie F	Sincha Makka	"	9949717	
5.	Aisa Gureh Ceesay F	Sincha Makka	"	7949213	
6.	Nday Ceesay F	Sincha Makka	"	7073029	
7.	Mariam Secka F	Sincha Makka	"	3791301	
8.	Hejira Fane Ceesay F	Sincha Makka	"	7181554	
9.	Tama Ceesay F	Sincha Makka	"	2241254	
10.	Magnet Tabye F	Sincha Makka	"	3870332	
11.	Serign Njamine Ceesay M	Sincha Makka	"	7079128	
12.	Muhammed Basim Jalloh M	Sincha Makka	"	926622	
13.	Bubacarr Ceesay M	Sincha Makka	"	5129275	



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Environmental and Social Impact Assessments (ESIA) for Lot 1: Brikama Health and Chamen Health Centers  
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Vulnerable Youth and Women Support Project (VYWOSP)

National Social Protection Secretariat

## Consultation Register

No	Name	Designation/Department/Community	Date	Contact	Signature/ Thumbprint
kii 1.	Alkhalo Gibbie Chamen M	Alkhalo of Chamen	25/02/25	7075037	
2.	Abdullie Ganno M	Chamen resident	25/02/25	5915442	
3.	Alla Sane Seiden Chamen M	Chamen resident	25/02/25	3721426	
4.	Morr baro Jallow M	Chamen resident	25/02/25	5344287	
5.	Yaya Wurey Chamen F	Chamen resident	25/02/25	3764371	
6.	Kamodan Touray Chamen M	Chamen resident	25/02/25	7436333	
7.	Halimatu Bah F	Chamen resident	25/02/25	7233557	
8.	Jaisanta Jallow F	Chamen resident	25/02/25	5363598	
9.	Muhamma Hurrey Chamen F	Chamen resident	25/02/25	7282700	
10.	Madalga Jallow Chamen F	Chamen resident	25/02/25	3769716	



**Environmental and Social Impact Assessments (ESIA) for Lot 1: Brikama Health and Chamen Health Centers  
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National Social Protection Secretariat

Consultation Register

No	Name	Designation/Department/Community	Date	Contact	Signature/ Thumbprint
1	Dunde York M	Buteh	24/02/25	7581555	
2	Sande York M	Buteh	24/02/25	7287558	
3	Ebrina York M	Buteh	"	7133019	
4	Nhisa York M	Buteh	"	2141201	
5	Assa York M	Buteh	"	7702107	
KII 6	Halimatu Mballow F	Chamen health	24/02/25	3157193	
7	Bitu Am teife P	Chamen H/C	"	7864420	
8	Moderu Lamin Gomez M	Chamen H/C	"	3661202	
9	Awa Bad F	Buteh	26/02/25		
10	Mai Njie F	Buteh	26/02/25		
11	Awa Cham F	See Alpha	26/02/25	2162462	



**Environmental and Social Impact Assessments (ESIA) for Lot 1: Brikama Health and Chamen Health Centers  
of  
Vulnerable Youth and Women Support Project (VYWoSP)**

National Social Protection Secretariat

Consultation Register

No	Name	Designation/Department/Community	Date	Contact	Signature/ Thumbprint
KII 1	Mansa Jallow M	Alhelo Sareh Konteh	26/02/24	2236000	
2	Demba Njie M	Sareh Konteh	"	7209852	
3	Haruna Jallow M	Sareh Konteh	"	3996615	
4	Amadou Njie M	Sareh Konteh	"	7178726	
5	Amadou Robbie Njie M	Sareh Konteh	"	2107071	
6	Allassan Jallow M	Sareh Konteh	"	3639860	
7	Isaton Jallow F	Sareh Konteh	"	7630210	
8	Isaton Jallow F	Sareh Konteh	"	2711174	
9	Julleh Jallow M	Sareh Konteh	"	3247479	
10	Haddy Jallow F	Sareh Konteh	"	7603441	
11	Tainaba Bah F	Sareh Konteh	"	7095201	
12	Salimata Jallow F	Sareh Konteh	"	8360845	
13	Faton Jallow F	Sareh Konteh	"		

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## Appendix F: Selected Pictures Taken During Consultations and Site Visit



**RHD, Bansang, CRR**



**TAC, Governor's Office**



**Chief of Nianija and community in Buduk**



**Chamen Health Center Consultation**



**Chamen Community Consultation**



**Sare Alpha**



**Sinchu Maka**



**Sareh Konteh**

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