**FINAL REPORT**

# *ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT*

***FOR***

***THE REHABILITATION OF FATOTO HEALTH CARE FACILITY***

**Submitted to:**

**National Social Protection Secretariat**

**Office of the Vice President**

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# Executive Summary

## i. Overview of the project

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

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

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

The overall objective of conducting an ESIA which will generate an ESMP & BMWMP is to determine the potentially adverse environmental effects of the renovation/construction of Fatoto Health Care Center and develop mitigation measures that can be adopted to reduce or eliminate these adverse effects as well as maximise the potential benefits of the project.

The following are specific objective of the ESIA study:

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

This ESIA study will focus on the rehabilitation of the Fatoto Health Center in URR. Fatoto Health Care Center is a manor health care located in the administrative town of Basse in the district called Kantora.

This health rehabilitation comprises of multiple structures (Maternal Word, OPD Unit, RCH Unit, Public Health Block, Staff Quarters One, Mortuary, Staff Room for OIC, Junior Staff Room Block, Perimeter Fencing, Female Staff Room Block).

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

a. Conduct field visits to the selected health facilities to observe the existing environment, assess the proposed development and identify potential impacts.
b. Consultations with relevant stakeholders using suitable data collection methods such as focus group discussions, key informant interview etc.
c. Prepare ESMP and BWMP report for the renovation/construction of the selected facilities.

**ii. Alternatives to the project**

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

*Alternative 1: "No-Action" Alternative*
If the "No Action" Alternative is opted, then all the existing challenges such as poor healthcare services, unmotivated healthcare workers and long waiting hours will persist or might even worsened. Furthermore, the socio-economic improvements associated with the implementation of the project will all cease to take place.

*Alternative 2: Building completely new structures on other areas within the facility premises*
This alternative has both positive and negative environmental and social impacts but its adverse impacts will be worst than the impacts associated with the renovation of the facility.

*Alternative 3: Building new structures in place of existing ones*

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

iii. **Brief description of the project site and the major environmental and social stakes/challenges**

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

**Rainfall:** Like other regions in The Gambia, Fatoto 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 Fatoto (Basse LGA) is 921.7. The month with the highest rainfall is August (314.6mm).

**Temperature:** The maximum average temperature experienced in Fatoto area (2010 - 2017) is 43.9°C in the month of April, whereas the minimum average temperature is 10.4°C in January. The average annual minimum temperature in Fatoto is 17.73°C while the maximum is 39.5°C. Basse LGA is considered as the hottest region in The Gambia.

**Humidity:** The highest humidity between the period 2010 - 2017 in Fatoto was reported in August and September (78%) but the lowest humidity was in February (31%). Fatoto scored about 52.6% as the average annual relative humidity (2010 - 2017) which is lower than the average relative humidity in The Gambia.

**Air Quality:** The air quality in Fatoto Health Center during the time of the assessment was classified as good with ambient levels typically below World Health Organization (WHO) air quality standards and specifications. According to the perception survey, on average 98% of the respondents perceived that the air quality at the facility is clean.

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

**Flora:** There are only neem trees observed in the premises of the health facility and the rest were all grasses and shrubs. The total number of neem trees counted in the facility is 16. No endangered plant species were observed within the facility premise.

**Fauna:** There are problems of animal intrusion at Kuntaur Major health centre. There were lots of donkeys, cows and goats present within the health centre at the time of the assessment. 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.

**Demography:** Overall, the mean household size for the country was 6.9 persons, ranging from 6.0 in the urban areas to 8.4 in the rural areas. Basse has scored 7 as the mean household size. Fatoto has a population of about 2000 people residing within Fatoto and about 90 households.

**Educational level:** The residents in Fatoto had 34.9% recorded as school attendance which is higher than Kuntaur and Janjanbureh LGAs. Majority (23.1%) of those who attended school (now and past) stopped in Primary or lower basic school as their highest level of education completed.

**Economic activities:** s report in the Gambia HIS 2015/16, the main economic activity in The Gambia is agriculture and 77.2% of population in Basse LGA engaged in agricultural activities. Basse are into rice farming, small scale petty trading, fishing and civil service.

**Access to health care services:** 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.

**Prevalence of diseases:** Fatoto health centre registered **Non-Communicable Diseases** such **as hypertension, diabetes and urinary tract infections** as the most prevalent diseases for the past quarter.

**Waste management:** Waste management at the health centre is generally poor. There are visible animal droppings in the facility as well as perishable waste materials especially around the staff quarters. Biological waste in red bags, infectious waste in yellow bags and as well as general wastes in the wheely bins left within the facility at Fatoto because the area council failed to collect them for a month.

**Institutional and legal framework for implementation of the project**

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

| Policy | Relevance to the Project |
|---|---|
| National Policy for the Advancement of Gambian Women and Girls (1999-2009) | Relevant to this Project since the focus of the project is on vulnerable youth and women. |
| National Youth Policy (2009–2018) | Successful project implementation will provide ease access to social services such as health care services to the youth |
| Gambia Environment Action Plan, GEAP (2009-2018) | Provides guidance in general environmental planning and natural resources management. |
| The National Health Policy, 2012-2020 | Relevant to this Project since dust, noise and other health risks can be associated with the project activities.<br><br>Successful implementation of the policy measures will result in reducing morbidity and mortality of major diseases, reduce health risks and exposures associated with negative environmental consequences. |
| National Healthcare Waste Management Policy (2012-2020) | This policy will guide the development of the biomedical waste plan in this ESIA. |
| The National Biodiversity Strategy and Action Plan (NBSAP), 2015 | The biodiversity within the premises of the proposed selected health care facilities for renovation may be impacted. |
| National Climate Change Policy (2016 – 2025) | Some of the proposed project activities might result in the emission of greenhouse gases (GHGs) which contributed to climate change and hence, this Policy is promoting low emission activities. |
| National Development Plan (2018-2021) | The NDP has eight strategic priorities, among which the fourth priority area is to invest in the citizens through improved education and health services, and building a caring society. This plan is envisaged to strengthen Quality Health Service Delivery which is related to the current proposed project. |
| Public Health Act, 1990 | Relevant to Project since dust, noise, and other health risks (COVID-19, HIV, can be associated with the Project. |
| Physical Planning and Development Control Act, 1991 | The project construction activities shall be in line with national land use and planning rules. |
| National Environment Management Act, 1994 | This Project falls under Schedule A which requires an ESIA to manage environmental and social risks and impacts. |

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|---|---|
| Environmental Quality Standards Regulations 1999 | Project implementation has potential to generate dust, and to pollute surface fresh waters as are found along some of the project corridors. |
| Biodiversity and Wildlife Act, 2003 | The project does not affect any of the protected areas in URR. However, there is need to always keep the provisions in this Act in view. |
| Labor Act (2007) | The project will abide by the minimum age for hiring (18 years old). Contractors will be required to verify age and keep a record. Forced labor is expressly prohibited and will be clearly posted on the worksite and how workers can grieve if worker's rights are violated. The rights of the workers, OHS, workers contracts, vacation, hours, holidays, regulatory schedules, etc. will be included in contracts and workers will receive training on working conditions, worker's rights, etc. |

- ***Institutional framework***
  - project implementation entity (PIE)

The National Social Protection Secretariat (NSPS) is the executor of this Project in The Gambia coordinates and monitors the Project ESMP implementation. NSPS is therefore invited to set up a project management unit and to recruit E&S specialists to monitor the implementation of the ESMP generated by this ESIA.

  - Stakeholder in the Project's ESMP implementation
    - ✓ Stakeholder

*Table 1~~2~~: Institutional framework relevant to project*

| **Institutions** | **Specific Responsibilities** | **Interests and roles in this Project implementation** | **Level of intervention** |
|---|---|---|---|
| National Environment Agency (NEA) | The NEA enforces the NEMA,1994 and ESIA Regulations 2014 | -Evaluation of the ESIA report<br>-Grant Environmental Approval for the Project Disclosure and publication of the ESIA,<br>Issuance and renewal of environmental certificates/permits - Monitoring the environmental aspects of the ESMP implementation | All phases of the Project from planning and design to the renovation and operation |
| Ministry of Environment, Climate Change and Natural Resources | Oversees the NEA and implementation of environmental laws and policies of The Gambia | Policy guidance oversees the Department of Forestry and Department of Parks and Wildlife Management that are key to this Project | All phases of the Project from planning and design to the renovation and operation |

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|---|---|---|---|
| Ministry of Lands and Regional Administration | Oversees all the local government authorities. Its regional representatives are the TACs located in the offices of the Regional Governors. | The Ministry will support in the coordination of involuntary settlement as it enforces all legal regulations on land administration and land use | Pre-renovation, renovation, and operation phases |
| Governors Offices (URR and CRR) | Oversee the Regional Technical Advisory Committees (TACs) for URR and CRR | The TACs will support the implementation and monitoring processes at Regional levels | Pre-renovation and renovation phases |
| Ministry of Health | Responsible for overall formulation and direction of the national health agenda, planning and health infrastructural development | Provides guidance on transmissible diseases to consider during sensitization<br>promotes safe and healthy environments at projects sites<br>responding to accidents | Pre-renovation, renovation, and operation phases |
| National Social Protection Secretariat (NSPS) | | NSPS is the executor of this Project in The Gambia coordinates and monitors the Project ESMP implementation. | All phases of the Project |
| Women's Bureau | Under the Ministry of Women, Children and Social Welfare, the Women's Bureau specifically promotes gender equity and women's empowerment in The Gambia. | -Ensures the rights women affected by the Project are protected<br>-Participates in sensitization on gender issues. | Pre-renovation, renovation, and operation phases |
| 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-renovation, renovation, and operation phases |
| Department of Labor | Enforces employment laws and combats child labor | Protection of employee rights; Protection against child labor; Response to complaints and reports such as accidents, abuse, and discrimination at work | Pre-renovation, renovation, and operation phases |
| Health center managers/ Headmasters | Responsible for the day-to-day operation of the healthcare facilities | Oversight responsible of all the activities carried out during the rehabilitation in consultation with the PIU, Regional Health Directorate and Contractor. | All phases of the project |
| Construction companies in charge of the rehabilitation works | In charge of the implementation of the rehabilitation work in accordance with the signed contract. | Execute the project as designed and agreed, keeping in view the environmental and social safeguards | Pre-renovation, renovation, |
| NGOs and civil society | These voluntary groups or organizations are determined to protect the rights of the | Support the community to ensure that the right thing is done in terms of project implementation as well as | All phases of the project |

| | | | |
|---|---|---|---|
| | community and promote awareness creation. | advocate for zero incidents, no environmental degradation and social disorder. | |

**Consultations and Stakeholder Engagement**

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

- 57% of the total respondents were not aware of the proposed renovation activities at the health facility. However, the project awareness level was higher (91%) among the facility staff respondents compared to the patient respondents. The results of the survey manifested that none of the patients was aware of the project.
- 14% of the respondents were very satisfied and 68% satisfied with their involvement in the project. This implies that the stakeholder engagement for the proposed project were satisfactory to most (82%) of the respondents.
- The perception of respondents on the current healthcare services at the Fatoto Health Care Facility, 91% of the staff stated that the healthcare services at their facility was good, whereas 9% of them indicated that the services were fair. On the other hand, majority (50%) of the facility users manifested that the healthcare service received were not good rather the services provided were considered fair in their view.
- The greatest challenge posed by the poor conditions of the healthcare facility were long waiting hours (41%) and unmotivated healthcare workers (20%).
- 93% of the respondents indicated that both in-patient and out-patient services will be affected.
- The most significant positive impact of the project is said to be the improvement of public health (91%), enhancement of the performance of health workers (48%), better health care facility (37%) and improve health care services.
- The most dominant negative health safety and environmental impacts obtained from the survey were noise pollution (91%), accidents and injuries to workers (43%), waste generation (20%) and dust pollution (20%).
- 83% of interviewees responded that the renovation of these health facilities will improve quality of health services; 74% of them reported that the renovation will improve physical conditions of the health infrastructures; and 26% of them expressed that the facility will be able to provide new services.
- 56% of respondents think the renovation activities at the healthcare facility will increase the congestion at the facility, and will increase the waiting time (44%) and 33% of them belief it may lead to the unavailability of of some service.

- All (100%) of the respondents were of the opinion that the renovation should be implemented in phases.
- The proposed project is anticipated to create employment opportunities (75%), increase accessibility to services (67%), improve business opportunities (20%) and reduce cost of using healthcare services (4%) .
- 59 percent of the respondents expressed that the project is anticipated to have an excellent impact on their livelihood, whereas 41% of them thinks the project will have a good impact on their livelihood.

**Major and moderate impacts**

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

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

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

| Phase/Activities | IMPACTS | Scope of negative impacts (low, medium, high) | MEASURES |
|---|---|---|---|
| **Pre-renovation and renovation phase**<br>● Excavation and digging activities,<br>● Site clearing and removal of vegetation,<br>● Movement of machinery and vehicles,<br>● Transportation of construction raw materials (I.e. sand, gravel etc) | Air pollution (dust and gaseous emissions) | Medium | • Minimize cleared vegetation areas to those that are needed to be used.<br>• Area should be dampened within suitable intervals (4 – 6 hours) to prevent a dust nuisance and this frequency should be increased during hotter days.<br>• Cover or wet construction materials such as sand, gravel to prevent dust pollution.<br>• Where unavoidable, construction workers working in dusty areas should be provided and fitted with dust mask (N95 respirators)<br>• Vehicles carrying earth materials should be covered.<br>• Facility users and service providers should wear face mask.<br>• Movement of facility users should be restricted and visitors controlled during the renovation activities<br>• Proper housekeeping to cleanse dust particles that settled on the medical equipment and in wards/labs/offices.<br><br>Gases emissions<br>• Ensure that all vehicles involved in the transport of construction material and staff, and machinery used in construction is properly maintained and services.<br>• Reduce the idling of vehicles that may occur and thus reduce the gaseous emission from vehicles in the area.<br>• Reduce vehicle speed within the facilities.<br>• Promote the use of fuel-efficient vehicles with the proper emission standards and more eco-friendly fuel type. |
| **Pre-renovation and renovation phase**<br>• Civil works<br>• Recruitment and presence of workers<br>• Waste generation<br>• Consumption of resources (water, energy etc)<br>• Repair of equipment and machinery | Water Pollution | Medium | • Environmentally sound management of land development activities especially near wetlands and ecologically sensitive areas.<br>• In wetlands, work must be subject to ongoing supervision and environmental and social monitoring, and the contractor must ensure that construction and mitigation measures comply with the ESMP-Contractor<br>• Limit equipment access into wetlands, where possible.<br>• Collection of waste oil for recycling<br>• Avoid placing spoil on drainage paths.<br>• In the event of a spill on water bodies, the contractor in charge of the work shall immediately notify the person responsible for the environmental monitoring of the work and take measures to stop the leak, contain the product and recover it. |

| Phase/Activities | IMPACTS | Scope of negative impacts (low, medium, high) | MEASURES |
|---|---|---|---|
| | | | • The contractor will be required to have emergency equipment on site in the event of an accidental spill.<br>• Appropriate solid and liquid waste storage to limit the risk of pollution. |
| Waste generated from workers campsite, presence of workers on sites, disposal of waste on site, construction waste, domestic waste | Waste Generation | Medium | • Preparation of waste management plan following the waste hierarchy and ensure proper implementation, supported by staff training.<br>• Adequate skips and bins should be strategically placed within the campsite and construction site.<br>• The skips and bins at the construction and operation phase should be adequately designed and covered to prevent access by vermin and minimize odor.<br>• Waste segregation in different bins should be practiced and ensure that workers adhere to the practice.<br>• The skips and bins at both the construction and operation phase should be emptied regularly to prevent overfilling.<br>• Disposal of the contents of the skips and bins should be done at an approved disposal site.<br>• Reuse waste plastic materials (deform bottle containers) as feedstock for plastic product production.<br>• Organic waste generated can be composted and use as manure.<br>• Appropriate storage, handling and management of clinical waste |
| Activities that impact air and water quality; presence of asbestos | Public Health | Medium | • Ensure the mitigation for the impact on air and water quality as well as waste generation are implemented. This will reduce the impact on public health negligent.<br>• Safe removal of asbestos in accordance with the Asbestos Abatement and Removal Action Plan<br>(*See mitigation of air quality, water quality and waste generation above*) |
| • All civil works,<br>• Material transportation and handling,<br>• working conditions,<br>• workers' behaviour | Occupational Health and Safety | Medium | • Staff or workers should be given adequate training on occupational health and safety issues during the construction of storage facilities and land development at the paddy fields.<br>• Induction training should be held for new workers on Health and Safety.<br>• The workforce should conduct daily toolbox meetings.<br>• The Project should hire a Qualified Environment Health and Safety (EHS) officer. |

| Phase/Activities | IMPACTS | Scope of negative impacts (low, medium, high) | MEASURES |
|---|---|---|---|
| | | | • The project proponent should develop a Health and Safety Management System if there is none.<br>• Personnel Protective Equipment (PPE) should be provided to workers and ensure that they use them accordingly.<br>• There should be onsite first aid kits and arrangement for a local nurse and/or doctor from the nearest health facility to be on call for the construction site.<br>• Provide adequate working conditions for the workforce, including adequate toilets, clean water, rest and meal areas, lighting (for camps), and waste disposal facilities.<br>• Regularly maintain the equipment<br>• Limit the speed of machines and trucks involved in the work.<br>• Securing the areas for maneuvering the machines<br>• Train workers in best practices and emergency procedures before civil work begins.<br>• Conduct a Risk Analysis for all activities during the construction phase and propose mitigation measures. |
| • Recruitment,<br>• All works onsite<br>• Presence of workers | In-migration of workforce | Medium | • Recruit local labor for unskilled jobs as a priority to ensure local ownership of the project.<br>• Organize the work of unskilled employees in a task-oriented manner.<br>• Post the internal rules of the work site.<br>• 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)<br>• Training for all staff in acceptable behaviour with respect to community interactions.<br>• 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<br>• Sensitize the personnel of project sites on the respect of the habits and customs of the populations.<br>• Establish a conflict prevention and management mechanism.<br>• Respect the labor code regarding the recruitment of labor. |

| Phase/Activities | IMPACTS | Scope of negative impacts (low, medium, high) | MEASURES |
|---|---|---|---|
| | | | • Ensure all workers on site sign the protocols, as well as get sensitized and their awareness raised on challenging issues such as HIV-AIDS, COVID-19 protocols, STIs, etc.<br>• Ensure continuity of consultation and participation of the beneficiary communities throughout the project (with women consulted in small, separate groups facilitated by a woman).<br>• Establish and publicize grievance procedure |
| Presence of workers | Gender-based violence (GBV), Sexual exploitation and abuse (SEA), Violence against Children (VAC) | Medium | • Ensure that code of conducts (CoC) are developed and signed by all personnel and workers and that they attend regular training on SEA/SH, content of CoC and sanctions.<br>• 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.<br>• Ensure that SEA/SH Action Plan is developed and implemented prior to the physical start of civil works. Develop and implement a complaint/grievance mechanism (GM) sensitive to GBV, SEA/SH, VAC, and other forms of discrimination with accessible entry points to submit complaints, referral to GBV service providers and confidential, survivor-centered procedures for verification and managing of complaints.<br>• Conduct regular awareness raising campaigns about the project and the risks of GBV, SEA/SH, VAC with workers and community members (and with women in separate groups with a woman facilitator)<br>• Include provisions in the site's internal regulations to discourage employees from abusing the trust of food vendors/stallholders, and the use of GBV, SEA/SH, VAC<br>• Report and sanction all forms of GBV related to the project activities.<br>• Formally prohibit child labor<br>• Monitor changes in the status of women and the potential impacts of the project on them by conducting regular focus groups consultations with women in a sample of villages (in small groups facilitated by a woman). |

**Environmental and social management plan (ESMP):**

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

| Activities | Impacts | Indicators | Means of verification | Timelines ((preparation, construction, exploitation, Closing phases) | Responsible for | | | Cost of implementation (US$) |
|---|---|---|---|---|---|---|---|---|
| | | | | | Execution | Monitoring | Aftercare | |
| ○ Site clearing and preparation.<br>○ Civil during renovation.<br>○ Removal of vegetation<br>○ Movement of machinery and vehicles | Air Quality | • Systematic watering of site and spoil (at least twice a day in the dry season)<br>• Number of covered trucks<br>• Up-to-date maintenance booklet for machinery<br>• Waste tracking form<br>• Number of cases where speed limits were exceeded<br>• Percentage of staff wearing the correct PPE | Report of air sample analysis | Renovation and operation phase | Project contractor | PIU, NEA ESIA Working Group | Health Facility Management | 2,000 |
| ○ Use of sanitary facilities by staff<br>○ Run-off water<br>○ Oil spill<br>○ Solid waste and effluent discharge | Water Quality | • Level of compliance of discharges (pH, COD, BOD, SS, coliforms, etc.) with the applicable water quality standard<br>• Existence of an HSE manual and its implementation<br>• Level of compliance with World Bank | Reports of water sample analysis | Renovation and operation phase | Project contractor | PIU, NEA ESIA Working Group, Department of Water Resources Regional Officer | Health Facility Management | 2000 |

| Activities | Impacts | Indicators | Means of verification | Timelines ((preparation, construction, exploitation, Closing phases) | Responsible for | | | Cost of implementation (US$) |
|---|---|---|---|---|---|---|---|---|
| | | | | | Execution | Monitoring | Aftercare | |
| | | Group EHS guidelines<br>• Existence of an approved and implemented waste | | | | | | |
| ○ Presence of workers on site<br>○ Onsite civil work/floor concrete<br>○ Painting and coating<br>○ Disposal of construction / renovation waste<br>○ Domestic and sanitary waste generated by workers<br>○ Biomedical waste | Waste generation | • Existence of an approved and implemented WMP<br>• Waste tracking slip<br>• Existence of labelled bins for waste collection<br>• Existence of clean-up kit on site<br>• Effectiveness of the waste recovery and treatment contract | Records on waste management | Renovation and operation phase | Project contractor | PIU, NEA ESIA Working Group, Regional Health Directorate | Health Facility Management | 4000 |
| ○ All civil works<br>○ Material transportation and handling<br>○ Working conditions<br>○ Workers' behaviour | Occupational Health and Safety (increased accident potential) | • Existence of a Workforce Management Plan<br>• Number of awareness campaigns conducted among the population<br>• Number of accident cases involving site activities<br>• Number of workers equipped with PPE | Report on work related accidents, injuries, near misses and illnesses. | Renovation and operation phase | Project contractor | PIU, NEA ESIA Working Group, Regional Health Directorate | Health Facility Management | 4000 |

| Activities | Impacts | Indicators | Means of verification | Timelines ((preparation, construction, exploitation, Closing phases) | Responsible for | | | Cost of implementation (US$) |
|---|---|---|---|---|---|---|---|---|
| | | | | | Execution | Monitoring | Aftercare | |
| | | • Number of workers made aware of safety measures<br>• Level of compliance with health and safety requirements of the labor code<br>• Level of compliance of collective protection equipment with project risks<br>• Effectiveness of the implementation of mitigation measures | | | | | | |
| | | • Number of training and awareness sessions on occupational health and safety<br>• Existence of first aid kits at work sites<br>• Effectiveness of posting of safety instructions<br>• Existence of an HSE agent on site | | | | | | |

| Activities | Impacts | Indicators | Means of verification | Timelines ((preparation, construction, exploitation, Closing phases) | Responsible for | | | Cost of implementation (US$) |
|---|---|---|---|---|---|---|---|---|
| | | | | | Execution | Monitoring | Aftercare | |
| ○ Recruitment, All works onsite.<br>○ Presence of workers | In-migration (Risk of conflicts related to the use of labor ) | • Number of local community workers recruited<br>• Number of skilled workers from the community recruited by the project<br>• Conflict prevention and management committee established and functioning<br>• Number of workers with PPE<br>• Level of compliance with the requirements of the labor code in terms of health and safety at work<br>• Number of workers who have benefited from capacity building | Record of employees hired | Renovation and operation phase | Project contractor | PIU, NEA ESIA Working Group, Regional Health Directorate | Health Facility Management | 8000 |
| ○ Interaction of workforce with community members | Gender-based violence (GBV), Sexual exploitation and abuse (SEA), Violence against Children (VAC) | • Existence of a complaint management mechanism that is sensitive to GBV, SEA, SH | GBV, SEA, SH Complaint report | Renovation and operation phase | Project contractor | PIU, NEA ESIA Working Group, Civil Society | Health Facility Management | 10,000 |

| Activities | Impacts | Indicators | Means of verification | Timelines ((preparation, construction, exploitation, Closing phases) | Responsible for | | | Cost of implementation (US$) |
|---|---|---|---|---|---|---|---|---|
| | | | | | Execution | Monitoring | Aftercare | |
| | | • Number of people sensitized on GBV (disaggregated by sex)<br>• Number of awareness sessions for staff on SEA/SH and the content of the code of conduct<br>• Number of awareness raising campaign for communities in GBV/SEA/SH/VAC<br>• Number of complaints received and treated<br>• Percentage of SEA/SH related complaints that had been referred to GBV service providers for assistance<br>• Percentage of all staff and workers who signed the code of conduct | Report on GBV/SEA/SH sensitization | | | | | |
| | | • Existence of a complaint management mechanism that is | | | | | | |

| Activities | Impacts | Indicators | Means of verification | Timelines ((preparation, construction, exploitation, Closing phases) | Responsible for | | | Cost of implementation (US$) |
|---|---|---|---|---|---|---|---|---|
| | | | | | Execution | Monitoring | Aftercare | |
| | | sensitive to GBV, SEA, SH<br>• Number of people sensitized on GBV (disaggregated by sex)<br>• Number of awareness sessions for staff on SEA/SH and the content of the code of conduct<br>• Number of awareness raising campaign for communities in GBV/SEA/SH/VAC<br>• Number of complaints received and treated<br>• Percentage of SEA/SH related complaints that had been referred to GBV service providers for assistance<br>• Percentage of all staff and workers who signed the code of conduct<br>• Number of consultations with women done in | | | | | | |

| Activities | Impacts | Indicators | Means of verification | Timelines ((preparation, construction, exploitation, Closing phases) | Responsible for | | | Cost of implementation (US$) |
|---|---|---|---|---|---|---|---|---|
| | | | | | Execution | Monitoring | Aftercare | |
| | | separate groups led by a woman. | | | | | | |

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

a) Air quality management programme

b) Water quality management programme

c) Waste management programme

d) Occupational Health and Safety management programme

e) GBV, SEA and SH Prevention Programme

f) Socio-cultural management programme

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

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

The essential objectives are:

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

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

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

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

The proposed budget for implementation of the ESMP is $US 173,800 including capacity building for relevant stakeholders as indicated in Table below.

| N° | Designation | Cost (US$) | Responsibility |
|---|---|---|---|
| 1. | Mitigation measures | 30,000 | Contractor |
| 2. | Environmental and Social Monitoring Programe | 35,000 | PIU/NEA/RHD |
| 3. | Environmental and Social after care Program | 10,000 | PIU/NEA/RHD |
| 4. | Biomedical waste management plan | 10,000 | RHD/NEA |
| 5. | Capacity-building measures | 30,000 | PIU/NEA/RHD |
| 6. | Information and awareness-raising of stakeholders | 28,000 | Public/CSO |
| 7. | Complaints Management Mechanism (PMM) | 5,000 | Local community/PIU |
| 8. | Annual audits | 10,000 | PIU/Consultant |
| | **Total** | 158,000 | |
| | Unexpected (10 %) | 15,800 | |
| | **Overall cost** | **173,800** | |

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

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

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

***Consultant: Dr. Muhammed Lamin Sanyang - SKM Environmental Co. Ltd.***

# 1. Background and Objective

## 1.1. Project Background

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

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

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

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

## 1.2. Objective of ESIA/ESMP

The overall objective of conducting an ESIA which will generate an ESMP & BMWMP is to determine the potentially adverse environmental effects of the renovation/construction of Fatoto Health Care Facility and develop mitigation measures that can be adopted to reduce or eliminate these adverse effects as well as maximise the potential benefits of the project. The

assessment and management plan will be a key component to developing a sustainable intervention that has minimal environmental and social impact. The results of the assessment will also provide an evidence base to inform policy makers and project actors.

The following are specific objective of the ESIA study:

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

### 1.3. Rationale for ESIA/ESMP for the Project

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

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

Development of an Environment and Social `Impact Assessment (ESIA) report and submission of a report thereof is one of the essential requirements, which the Agency rely 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.

However, it is required that the proponents look for the services of a private consultancy firm or individual to develop the ESIA, the draft report of which will be sent to the National Environment Agency (NEA) in consideration of reviewing and granting of environmental approval for the proposed development.

### 1.4. Scope of ESIA/ESMP

This ESIA study will focus on the rehabilitation of the Fatoto Health Center in URR. Fatoto Health Care Center is a manor health care located in the administrative town of Basse in the district called Kantora (see Figure 1.1). It was built in 1974 and serves as one of the oldest minor health care

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

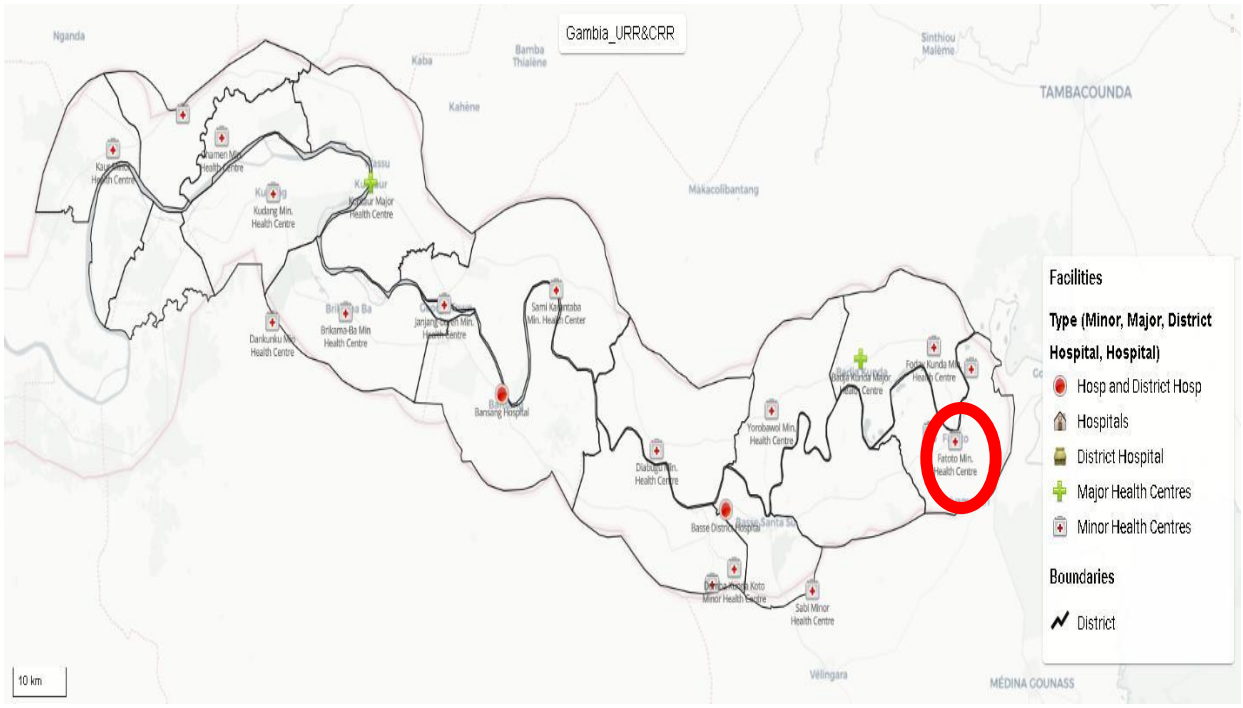


Figure 1.1: Location of Fatoto Minor Health Center

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

1) Delimitation of the site (around the building)
2) Preparatory work (scaffolding, mobilization of personnel, site base, site supply)
3) Dismantling of equipment and storage
4) Dismantling of roof and framework
5) Dismantling of installations (electricity, plumbing etc.)
6) Management of rubble and site waste
7) Masonry, electrical, plumbing and carpentry work.

The proposed infrastructures to be rehabilitated are as follows:

1) Matenity ward
2) Outpatient health block
3) Public Health Block

4) Staff quarters block 1
5) Staff quarters (female block)
6) Junior staff quarters block
7) Reproductive child health block
8) Outside toilet blocks
9) Mortuary block

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

a) Conduct field visits to the Kuntaur health facilities to observe the existing environment, assess the proposed development and identify potential impacts.
b) Consultations with relevant stakeholders using suitable data collection methods such as focus group discussions, key informant interview etc.
c) Prepare ESMP and BWMP report for the renovation/construction of the selected facilities.

## 1.5. Description of alternatives considered

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

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

### 1.5.1. Alternative 1: "No-Action"

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

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

### 1.5.2. Alternative 2: Building completely new structures on other areas within the facility premises

The second alternative identified is the construction of completely new structures for the maternity ward, theatre and other selected structures but the available empty space within the facility can be utilized. However, this alternative has both positive and negative environmental and social impacts as presented in Table 1.

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

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

### 1.5.3. Alternative 3: Building new structures in place of existing ones

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

## 2. Project Description

### 2.1. Project overview

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

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

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

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

The project has three main components but component two of the project ("**Support for better and inclusive access to basic social services")** is the primary focus of this consultancy assignment. One of the sub-components is on Improving access to quality healthcare and nutrition infrastructure. Under this sub-component, the project will finance the rehabilitation and equipment of Fatoto Health Center, focusing on maternity, paediatric and nutrition care. The rehabilitation will seek to renovate the health centre (HC) up to national standards. The project will also rehabilitate doctors and nurses' accommodation in health structures to increase retention rate, which is currently low. WASH infrastructures (latrines, access to water, etc.), washing area, biomedical waste management areas, incinerators, and electricity (connection to government electricity network or solar) will be developed where they do not exist. To improve daily health data management in the health center and maintain a dynamic interaction with the health district level, the project will provide IT materials such as computers and modems to the HC. Medical equipment, including Basic, Emergency, Obstetric and Newborn care (BEmONC) materials and supplies, in line with the MSP standard for the technical platform of this level of health structures, will be acquired. Depending on the need and budget availability, ambulances will be procured. In addition to rehabilitation and equipment, health workers, including nurses and midwives, will be trained to provide quality healthcare to the beneficiaries.

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

The Gambia has a three-tier system for the delivery of public health services (see Figure 2.1). Despite the high priority given to basic health care services in the national strategies, budgetary

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

allocations are skewed towards tertiary health care provision and core activities through the central level. Only 20% is allocated to basic health services (Public Expenditure Review 2020).

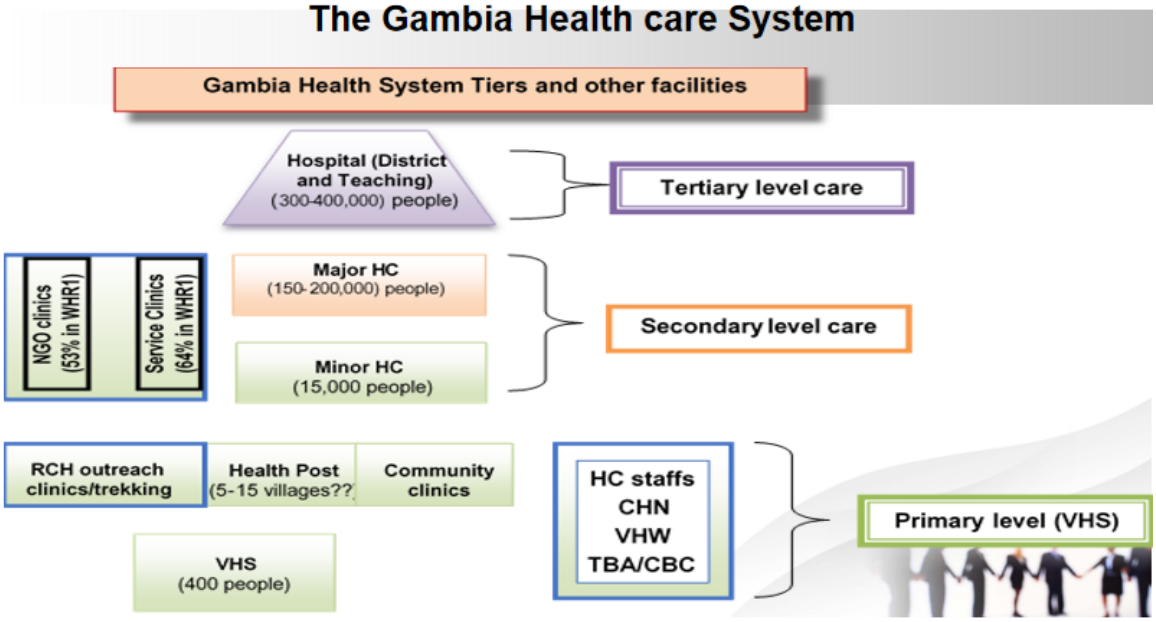


Figure 2.1: Health care system in The Gambia

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

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

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

Tertiary health care centers consist of the hospitals (District and General), including the teaching hospital, which is the highest level of the referral system. Some of the hospitals are

semi-autonomous and are not supervised by RHDs but are responsible for providing them with patient usage data. Figure 2.2 presents the various types of health facilities in The Gambia.

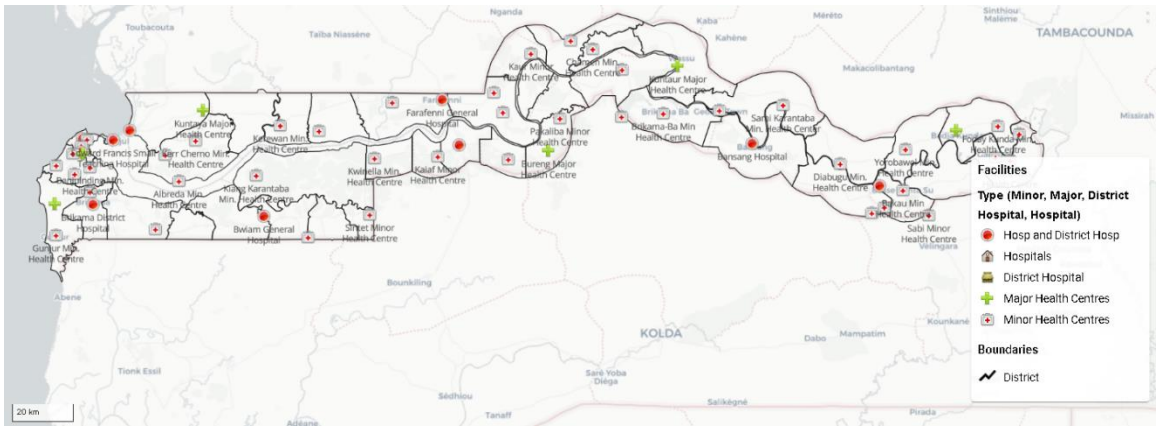


Figure 2.2: Map of health facilities in The Gambia

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

The coordination and regulation of personnel equally pose a challenge as professional councils do not have adequate capacity to fulfill their regulatory roles. Though legislation provides the statutory authority for regulation and licensing, however these councils do not have adequate technical and financial resources to enforce regulations on health providers and that some health providers are often unaware of the relevant regulations for their profession. However, MOH has put a mechanism in place to license all the private and NGO health facilities and their personnel.

## 2.3. The Identified health facilities for renovation under the project

The National Social Protection Secretariat (NSPS) in consultation with the Ministry of Health selected Fatoto Health Facility to be renovated under the Vulnerable Women and Youth Project.

Fatoto Minor Health Center is one of the three health centers selected for the project in URR. It is situated along the highway going to Koina and Nyamanarr border. Fatoto is 36km away from Basse which is the administrative canter of Upper River Region, and the health centre is located within Fatoto village. Figure 2.3 shows the google map of Fatoto health care facilities.


Figure 2.3: Google map of Fatoto Health Care Facility

## 2.4. Primary beneficiaries of the Project

Fatoto health centre covers about 20 communities of which some are border communities and others coming from Senegal. It is having a catchment area population of about 47,671. It also has three key primary health care villages overseen by community health nurses.

## 3. Methodology/ Approach

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

The ESIA report informs NEA and all relevant stakeholders of the significant environmental and social impacts that may occur due to the Project and the measures identified to mitigate against those significant impacts. This assessment was completed in consultation with the relevant stakeholders.

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

### 3.1. Data Collection

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

#### 3.1.1. Secondary Data Collection

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

The following legal documents were reviewed:

- National Policies and Regulations
- National Legislations
- Relevant Environmental and Social Standards (i.e. ESS1, ESS2 etc.)
- Relevant International Instruments /Conventions
- As part of the secondary information gathering to identify existing environmental conditions, proposed developments at the selected facilities and predicting potential impacts, consultative meetings were organized with key actors of the project. Results from this exercise informed the primary data collection.

#### 3.1.2. 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 will be carried out: Survey; Expert Discussion; Focus Group Discussion (FGDs); and Key Informant Interviews (KIIs). 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 Fatoto Health Center per day was

an average of 35 patients. The distribution of the average service users per day in each facility is reported and that of Fatoto is in bold in Table 3.1:

Table 3.1: Population of service users in each facility

| Facility | Region | Population In Catchment area | Av. Patient per day |
|---|---|---|---|
| Fatoto | URR | 47,671 | 35 |

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

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

Using this formula and with the values for d, X, and p maintained at values proposed by the authors (0.05, 3.814, and 0.5, respectively) a representative sample size for the survey 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:

Table 3.2: Sample Size (Service Users/Patient)

| S/N | Facility | Population | Sample Size |
|---|---|---|---|
| 1 | Fatoto | 35 | 24 |

Data on the population of staff of the health facility project were obtained from the Ministry of Health. Using the sample size determination criteria given above with the restriction that d=1 (due to less variability in the respondent type), a sample size of 22 respondents was calculated out of a total population of 28 health service providers in the selected health facility (See Table 2.3) . Again, PPS is used to apportion the sample to the health facility.

Table 3.3: Sample size Service providers

| S/N | Facility | Population | Sample Size |
|---|---|---|---|
| 1 | Fatoto | 28 | 22 |

TThe following category of respondents were targeted for the qualitative data collection: Regional Health Directorate Officer in-charge/Chief Medical Director/Chief Executive Officer in project communities; Alkalos of project sites; VDC Chairman; Women head; Youth head; Doctor; Nurse; Public health officers; Community health nurses; Area Councils &

Governors; CSO (Health). Overall, the target was to do 8 KIIs and 4 Focus Group Discussions – one in each community of the facility.

Table 3.4: Target Group for each Data Collection Type

| # | Data Collection Type | Target Group |
|---|---|---|
| 1. | Perception Survey | 1. Users (patients)<br>2. Providers (doctors, public health & nurses) |
| 2. | FGD/KII | 1. Regional Health Directorate<br>2. Officer in-charge/Chief Medical Director/Chief Executive Officer<br>3. Alkalo<br>4. VDC Chairman<br>5. Women head<br>6. Youth head<br>7. Doctor<br>8. Nurse<br>9. Public health<br>10. Community health nurse<br>11. Area Council<br>12. Office of the Governor<br>13. Regional Technical Advisory Committee |

Source: Based on mapping of key stakeholders by consultant

For elicitation of information from respondents regarding the project activities and their environmental and social impacts, three main tools were developed and used: a questionnaire for quantitative survey and FGD and KII guides for qualitative data collection. The tools developed by the consultant team for the primary data collection (questionnaires, FGD and KII guides) is attached as an annex to this report for review by the project team to ensure that they are fit for purpose. The survey tools (i.e., questionnaires) were developed using the Survey Solution Designer App and any changes suggested by the client were easily integrated in the tool, which was available online.

The survey questionnaire was 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 via the African Development Bank (AfDB) Environment and Social safeguard. The qualitative tools were also developed to collect similar type of information from the targeted participants.

### Recruitment, Training, and Pre-testing of Tools

Before the start of data collection, qualified and experienced data collectors were recruited and trained on administration of the relevant tools. For the survey, 2 experienced data collectors (including 1 supervisor) were hired for 4 days; each enumerator was required to complete minimum of 10 interviews per day. The enumerators were in a team of two and were supervised by one supervisor. The consultant team conducted the FGDs in the healthcare facility host communities, which lasted for 2 days as well as the KIIs concurrently. A day training and a day pretesting of tools was conducted. The training was focus on reviewing

tools with data collectors and introducing them to the study methodology and on mock interviews with the data collection tool and pre-test of the instruments. Pretesting was done with respondents that were similar to those targeted and were done in the urban area where the training was conducted. After pre-test, a debriefing session was held with data collectors to collect issues identified during the exercise, which shall be corrected before the actual data collection

*Fieldwork*

Once the tools were pilot-tested and corrected, the deployment of data collectors for the various data collection exercises outlined above were followed. For the survey, 46 individuals were sampled and surveyed in the targeted facility. The survey data collection were done using the Survey Solution CAPI tool, which was used for the overall management of the survey. The administration of survey questionnaires were done using the tool's interviewer App via tablets. The interviews were in-person from 14th to 16th March 2023 in the location of the target respondents. Mobilization of participants for FGD were done and for each FGDs, 8 to 10 participants were mobilized. KIIs were administered using the guide developed. The moderators of the KII employed the note taking approach using the guide developed. In addition, the consultant team conducted observation visits to the site to gather information on the environmental baseline and status of the health facility etc. Since the consultant team had no devices to determine the air quality of the site as well as considering the short timeline for the study, secondary data were utilized and questions on the environmental (air and soil) quality were asked during the perception survey. For the water quality, samples were collected at the facility and sent to the Department of Water Resources Laboratory at Abuko for physio-chemical and bacteriological analysis. Furthermore, the team used their expert judgement to describe the environmental quality. As for the flora and fauna, all the plant and animal species observed during the field visits at the site were recorded and reported accordingly.

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 were determined to assist in preparing recommendations for the proposed Project evaluation.

### 3.1.3. Impact Identification

The description of the planned project activities helped 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 were 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.

### 3.1.4. Impact Characterization and Evaluation

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 were based on the nature, characteristics and duration

of the different project activities on the physiochemical and biological component of the environment as well as the socio-economic, cultural, human health and safety.

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

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

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

**Table 3.5: Impact Significance Rubric**

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

Source: CHEMAS Consulting Group

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

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

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

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

### 3.2. 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;

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

Table 3.6: Summary of impacts

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

Source: CHEMAS Consulting Group

### 3.3. Risk Assessment

The health, safety and environmental risks associated with the proposed project were assessed and ranked as "Low", "medium" or "high", using the Risk Assessment Matrix (RAM) as shown in Table 3.7.

Table 3.7: Risk Assessment Matrix

| | | | Likelihood | | | | |
|---|---|---|---|---|---|---|---|
| | | | A | B | C | D | E |
| | | | Remote | 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 3.7 and the weighting used was as follows:

- **Low Risk** : 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** : 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** : 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).

## 3.4. Environnemental and Social Management Plan

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

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

Table 3.8: The ESMP matrix is presented as above:

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

## 3.5. Complaint and Grievance Mechanism

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

### 3.6. Health Care waste management Plan

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

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

### 3.7. Preparation and Submission of ESIA/ESMP report

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

# 4. Legal Framework and Institutional Analysis

This Chapter provides the information's regarding the various national and international policies, legal and institutional frameworks to implement the ESMP, as well as the African Development Bank safeguard operational safeguards 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 beneath.

## 4.1. Relevant National Policies

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

Table 4.1 : Relevant national policies

| Policy | Description | Relevance to the Project |
|---|---|---|
| National Policy for the Advancement of Gambian Women and Girls (1999-2009) | Policy provides a legitimate point of reference for addressing gender inequalities at all levels of government and all stakeholders | Relevant to this Project since the focus of the project is on vulnerable youth and women. |
| National Youth Policy (2009–2018) | Policy aims to mainstream youth issues into the advancement of all sectors | Successful project implementation will provide ease access to social services such as health care services to the youth |
| Gambia Environment Action Plan, GEAP (2009-2018) | Integrated environment and natural resources management | Provides guidance in general environmental planning and natural resources management. |
| Forestry Policy (2010-19) | Promotes state and community forest development and management | Although the project is not located in a forested area or in a riparian area of a forest, it's important to precise that sixty-six gazetted forest parks are located in various parts of the country, some of which are in the project intervention region (URR). |
| Gambia National Gender & Women Empowerment Policy (2010–2020) | To mainstream gender in national and sectoral planning and programming to ensure equity and equality | Women will be consulted during the stakeholder consultation and they are expected to be the largest beneficiaries. |
| The National Health Policy, 2012-2020 | Protects public, especially women and most vulnerable groups, and environmental health including nuisance | Relevant to this Project since dust, noise and other health risks can be associated with the project activities. |

| | | |
|---|---|---|
| | and other risks associated with this Project | 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.<br>Indeed, in the context of the rehabilitation of healthcare centers, the issue of biomedical waste management is very sensitive and the provisions of this policy will therefore apply to this project |
| 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 selected health care facilities for renovation may be impacted. |
| National Climate Change Policy (2016 – 2025) | Policy provides the framework for managing climate risks, building institutions, capacities, and opportunities for climate-resilient development | Some of the proposed project activities might result in the emission of greenhouse gases (GHGs) which contributed to climate change and hence, this Policy is promoting low emission activities. |
| National Strategic Environmental Assessment Policy (2017-2021) | Aims to ensure environmental sustainability | Applies to this project because it allowed the NSA to make the environmental categorization of the project and to indicate the completion of this ESIA of the project. |
| National Development Plan (2018-2021) | Policy proposes to increase the national coverage of electricity | The NDP has eight strategic priorities, among which the fourth priority area is to invest in the citizens through improved education and health services, and building a caring society. This plan is envisaged to strengthen Quality Health Service Delivery which is related to the current proposed project. |

### 4.2. The National Legal Framework

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

Table 4.2 : The 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 the URR fall under this Act. Potential project site is held and administered under this Act. However, the selected site is existing health facilities and the owned by MoH. |
| Public Health Act, 1990 | Health including abatement of nuisances and any condition that may be injurious to health. Protects public and environmental. | Relevant to Project since dust, noise, and other health risks (COVID-19, HIV, can be associated with the Project. |
| Physical Planning and Development Control Act, 1991 | Ensures developments in The Gambia are in line with land use planning and construction standards. | The 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. | Applies to this project because it allowed the NEA to make the project E&S categorization and indicate the completion of this ESIA of the project. This Project falls under Schedule A which requires an ESIA to manage environmental and social risks and impacts. |
| 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. |
| 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 | Project implementation has potential to discharge potentially polluting liquids into surface water bodies as may be found |

| | | |
|---|---|---|
| | onto the ground (i.e., to groundwater) or into surface waters (such as rivers or streams). | with the project's Area of Influence (AoL) |
| Local Government Act, 2002 | Act makes provisions for decentralized administrative structures including devolution of functions, powers, and duties to local authorities | Implementation of the Project will require the participation of decentralized institutions including the Offices of the Governors of URR, as well as their respective Technical Advisory Committees (TACs). |
| Biodiversity and Wildlife Act, 2003 | Provides for the protection of biodiversity and the establishment of protected areas | The project does not affect any of the protected areas in URR. However, there is need to always keep the provisions in this Act in view. |
| The Children's Act 2005 | Act sets out the rights and responsibilities of children and provides for their care, protection, and maintenance | Rights of children need to be protected by prohibiting violence against children and child labor and will be enforced through monitoring of code of conduct of workers during renovation phase of the project. |
| Mines and quarries Act, 2005 | Act makes provision for prospecting for minerals, for carrying out mining and quarrying operations including gravel, sand, and for connected matters | The proposed renovation activities involve use of sand and gravel aggregates mined in designed areas or with the permission of authorities. |
| Labor Act (2007) | 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) as well as his Contractors who will be required to verify age and keep a record. Forced labor is expressly prohibited and will be clearly posted on the worksite and how workers can grieve if worker's rights are violated. The rights of the workers, OHS, workers contracts, vacation, hours, holidays, regulatory schedules, etc. will be included in contracts and workers will receive training on working conditions, worker's rights, etc. |

| | | |
|---|---|---|
| Anti-littering Regulations, 2007 | 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) during renovation phase of the project |
| 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. |
| Sexual Offences Act, 2013 | Updates the law and procedures regarding the trial of rape, sexual offences, and related matters | This Act is relevant to the Project due to the need for protection of vulnerable persons within the Project sites against sexual offences, which is defined in the Act |

### 4.3. Relevant International and Regional Conventions and Agreements

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

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

| Agreement/Convention | Date of signature / ratification | Objective | Relevance to the Project Activities |
|---|---|---|---|
| United Nations Convention on Biological Diversity (CBD) | Ratified 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 is 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 1996 | Protection of forests to avoid desertification | The project activities may lead to the vegetation destruction and the stripping of soil (use of |

| Agreement/Convention | Date of signature / ratification | Objective | Relevance to the Project Activities |
|---|---|---|---|
| | | | quarry for the renovation works). |
| United Nations Framework Convention on Climate Change (UNFCCC) | Ratified 1996 | Relates to sustainable sourcing | The loss of trees and vegetation will mean loss of "green cover" and loss of carbon capture footprint |
| Convention on the Eights of Persons with Disabilities (CRPD) 2006 | Ratified 2013 | The Convention intends to protect the rights and dignity of people with disabilities; to promote, protect, and ensure the full enjoyment of human rights by people with disabilities | Persons with disabilities could potentially be impacted negatively by the project activities at the health facilities |
| Convention on Migratory Species (CMS Convention) | Signed 2001 | Also known as the Bonn Convention, aims to conserve terrestrial, aquatic, and avian migratory species throughout their range | Niumi National Park, which hosts migratory birds, is located within the project's extended area of influence but is not crossed by any project infrastructure |
| UN convention on the rights of the child (CRC)(1989 | Signed 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 2001 and 2000 respectively | The Convention asserts that children must be protected by States from treatment or activities which can be very harmful for their physical and mental health through child labor | No child (14 years or younger) will be hired for employment for civil works in accordance with these Conventions and national law. |

### 4.4. Institutional Framework

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

Table 4.4 : The institutional framework relevant to project

| titutions | Specific Responsibilities | Interests and roles in this Project implementation | Level of intervention |
|---|---|---|---|

| | | | |
|---|---|---|---|
| National Environment Agency (NEA) | The NEA enforces the NEMA,1994 and ESIA Regulations 2014 | -Evaluation of the ESIA report<br>-Grant Environmental Approval for the Project<br>Disclosure and publication of the ESIA,<br>Issuance and renewal of environmental certificates/permits -<br>Monitoring the environmental aspects of the ESMP implementation | All phases of the Project from planning and design to the renovation and operation |
| Ministry of Environment, Climate Change and Natural Resources | Oversees the NEA and implementation of environmental laws and policies of The Gambia | Policy guidance oversees the Department of Forestry and Department of Parks and Wildlife Management that are key to this Project | All phases of the Project from planning and design to the renovation and operation |
| Ministry of Lands and Regional Administration | Oversees all the local government authorities. Its regional representatives are the TACs located in the offices of the Regional Governors. | The Ministry will support in the coordination of involuntary settlement as it enforces all legal regulations on land administration and land use | Pre-renovation, renovation, and operation phases |
| Governors Offices (URR) | Oversee the Regional Technical Advisory Committees (TACs) for URR | The TACs will support the implementation and monitoring processes at Regional levels | Pre-renovation and renovation phases |
| Ministry of Health | Responsible for overall formulation and direction of the national health agenda, planning and health infrastructural development | Provides guidance on transmissible diseases to consider during sensitization promotes safe and healthy environments at projects sites responding to accidents | Pre-renovation, renovation, and operation phases |
| National Social Protection Secretariat (NSPS) | | NSPS is the executor of this Project in The Gambia | All phases of the Project |

| | | | |
|---|---|---|---|
| | | coordinates and monitors the Project ESMP implementation. | |
| Women's Bureau | Under the Ministry of Women, Children and Social Welfare, the Women's Bureau specifically promotes gender equity and women's empowerment in The Gambia. | -Ensures the rights women affected by the Project are protected<br>-Participates in sensitization on gender issues. | Pre-renovation, renovation, and operation phases |
| 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-renovation, renovation, and operation phases |
| Department of Labor | Enforces employment laws and combats child labor | Protection of employee rights; Protection against child labor; Response to complaints and reports such as accidents, abuse, and discrimination at work | Pre-renovation, renovation, and operation phases |
| Health center managers/ Headmasters | Responsible for the day-to-day operation of the healthcare facilities | Oversight responsible of all the activities carried out during the rehabilitation in consultation with the PIU, Regional Health Directorate and Contractor. | All phases of the project |
| Construction companies in charge of the rehabilitation works | In charge of the implementation of the rehabilitation work in accordance with the signed contract. | Execute the project as designed and agreed, keeping in view the environmental and social safeguards | Pre-renovation, renovation, |
| NGOs and civil society | These voluntary groups or organizations are determined to protect the rights of the community and | Support the community to ensure that the right thing is done in terms of project implementation as well as advocate for | All phases of the project |

| | | | |
|---|---|---|---|
| | promote awareness creation. | zero incidents, no environmental degradation and social disorder. | |

### 4.5. The Bank's Operational Safeguards Policies

In line with the AfDB's Integrated Safeguards System (ISS -2013), and based on the fact that the proposed project will not trigger involuntary resettlement, only OS1, OS3, OS4, and OS5 out of the five Operational Safeguards (OS) embedded in the ISS are considered and triggered. These are indicated in Table 4.5 below.

Table 4.5: AfDB Environmental and Social Safeguards Triggered by the proposed project.

| **AfDB Safeguards Instruments** | **Triggered by the project** | **Remarks** |
|---|---|---|
| Integrated Safeguards Systems (ISS) | Yes | Overarching operational safeguard mainstreams environmental and social considerations in all Bank operations |
| Environmental Assessment (OS1) | Yes | As a Category II Project, environmental and social assessment is required |
| Biodiversity and Ecosystem Services (OS3) | Yes | Reflects the objectives of the CBD: conservation of biodiversity, renewable resources and ecosystem services and promote the sustainable management and use of natural resources |
| Pollution Prevention and Control, Hazardous Materials and Resource efficiency (OS4) | Yes | Policy intended to achieve high quality environmental performance, efficient and sustainable use of natural resources |
| Labour Conditions, Health and Safety (OS5) | Yes | Reflects appropriate labor conditions, health and safety that basically protect workers' rights |
| Disclosure and Access to Information (DAI) | Yes | Reflects need for public 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. As the project is classified as Category 2, and In view of this, all E&S safeguard documents (ESIA) must be validated by the NEA after review and approval by the Bank and must be published by the Client at the national level (central, regional, departmental, communal, villages) in accordance with national legislation and on its website. The Client shall then send proof of such publication to the Bank and authorize the Bank to also publish them on its site in accordance with the ISS, in accordance with the Bank's information access policy.

This publication will take place prior to the appraisal mission, and at least 30 days prior to the date of the project's passage through the Board.

### 4.6. Point of convergence of legislation and ADB Operational Safeguards

The operational safeguards of AfDB and the national legislation has many measures in common and thus, this section highlights the point of convergence of these two legal tools as shown in Table 4.6.

Table 4.6: Point of convergence of legislation and ADB Operational Safeguards

| ADB Operational Safeguards | National Legislation | Points of Convergence |
|---|---|---|
| **OS1 : Environmental and social assessment** | • National Environment Management Act, 1994<br>• Environmental Impact Assessment Regulations, 2014 | 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 |
| **OS3: Biodiversity and ecosystem services –** | • Biodiversity and Wildlife Act, 2003 | These safeguards aim to conserve biological diversity and promote the sustainable use of natural resources. |
| **OS4: Pollution prevention and control, hazardous materials and resource efficiency** | • Environmental Quality Standards Regulations 1999<br>• Environmental Discharge (Permitting) Regulations 2001<br>• Anti-littering Regulations, 2007 | These safeguards cover the prevention and minimization of a range of key impacts of pollution, waste, and hazardous materials. |
| **OS5: Labour conditions, health and safety** | • Labor Act (2007)<br>• Public Health Act, 1990 | These safeguards covers workers' conditions, rights and protection from abuse or exploitation. |

# 5. Description of the initial state of the environment

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

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

## 5.1. Biophysical Environment

The Gambia also has a sub-tropical climate like other neighboring West African countries with two distinct seasons, a short rainy season, and an extensive dry season. The rainy season is from mid-June to early October, whereas the dry season continuous from October to mid-June.

### 5.1.1. Rainfall

Rainfall is an essential factor that determines the climate of area to a large extend. 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 5.1 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[2] as presented in Figure 5.1. 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.

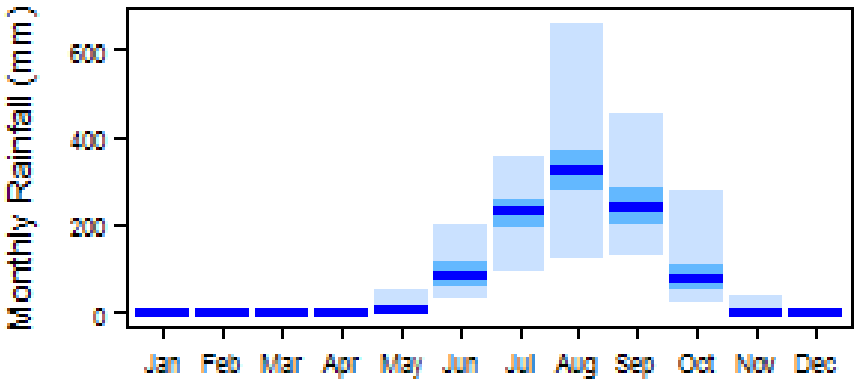


Figure 5.1: Mean Total Rainfall by Month[8]

2 *www.weather-and-climate.com @ 2019*

Like other regions in The Gambia, Fatoto 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 Fatoto (Basse LGA) is 921.7 (see Table 5.1). The month with the highest rainfall is August (314.6mm).

Table 5.1: Fatoto (Basse LGA) yearly rainfall (2010 - 2017)

| Year | Average rainfall (mm) |
|---|---|
| **2010** | **1116.4** |
| **2011** | **889.5** |
| **2012** | **808** |
| **2013** | **943.8** |
| **2014** | **818.2** |
| **2015** | **994** |
| **2016** | **890** |
| **2017** | **897.8** |
| **Total average** | **921.7** |

Source: Department of Water Resources

### 5.1.2. Temperature

Temperatures in The Gambia increases from the coast towards the east. Kuntaur health facility is located in that part of the country that experiences the highest temperature during the dry season compared to the coastal area in the western region.

The mean maximum temperature during daytime ranges from 30 °C to 34 °C for the entire year in The Gambia[6] as shown in Figure 5.2. Whereas, the daily temperatures in the project intervention zone range from 40 $^{0}$C to 44 $^{O}$C during the dry season, and 32 $^{O}$C to 36 $^{O}$C during the rainy seasons.

From late November to February is the time these places experienced cold weather and the temperature range from 25 $^{O}$C to 18 $^{O}$C at early hours of the day.

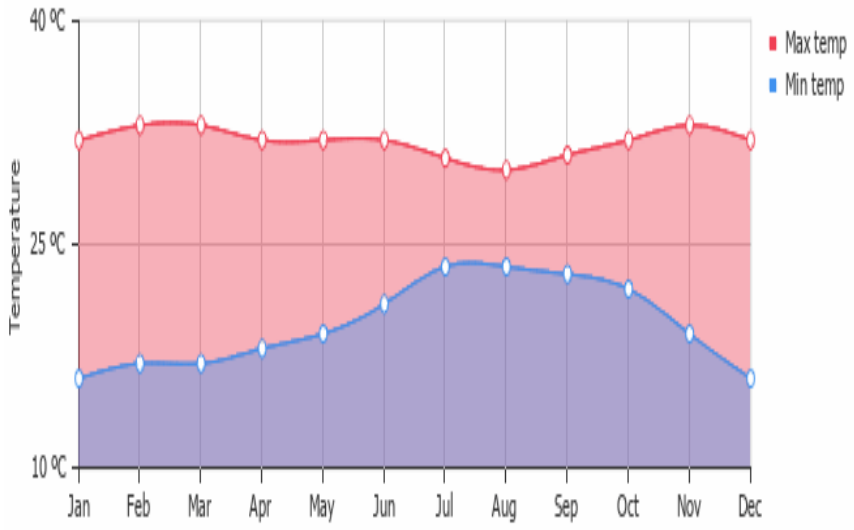


Figure 5.2: Average minimum and maximum temperatures in The Gambia[8]

Figure 5.3 shows the average minimum and maximum temperature in Fatoto from 2010 to 2017. The temperature curve for both the average minimum and maximum in Fatoto is a mirror of that total average temperature illustrated in Figure 5.2. 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 Fatoto area (2010 - 2017) is 43.9oC in the month of April, whereas the minimum average temperature is 10.4oC in January. According to the data in Figure 5.3, the average annual minimum temperature in Fatoto is 17.73oC while the maximum is 39.5oC. Basse LGA is considered as the hottest region in The Gambia.

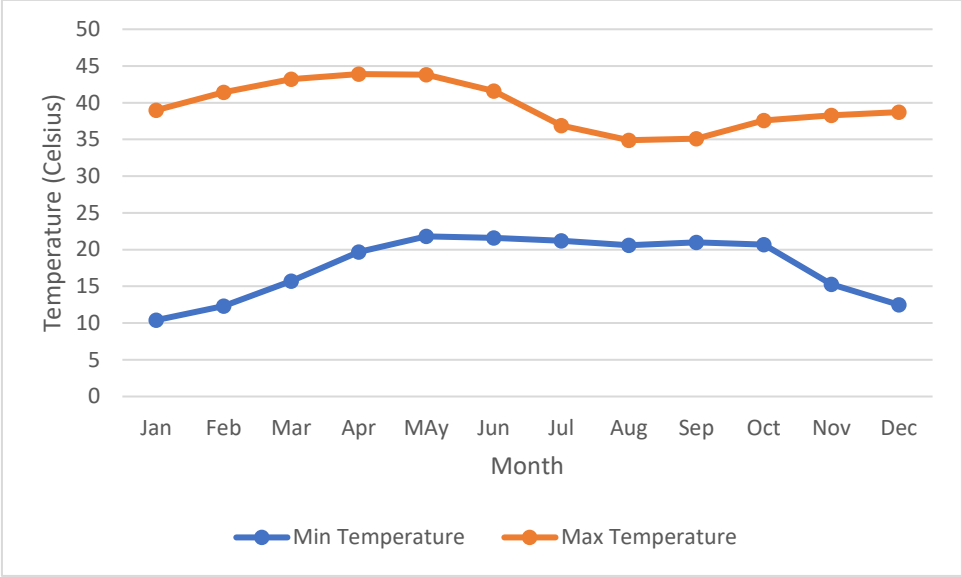


Figure 5.3: Average minimum and maximum temperatures in Fatoto area (2010 - 2017) Source: Department of Water Resources

### 5.1.3. Humidity

On average, August is the most humid throughout the entire year whereas February is known to be the least humid (see Figure 5.4). 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 %.

The highest humidity between the period 2010 - 2017 in Fatoto was reported in August and September (78%) but the lowest humidity was in February (31%). Fatoto scored about 52.6% as the average annual relative humidity (2010 - 2017) which is lower than the average relative humidity in The Gambia.

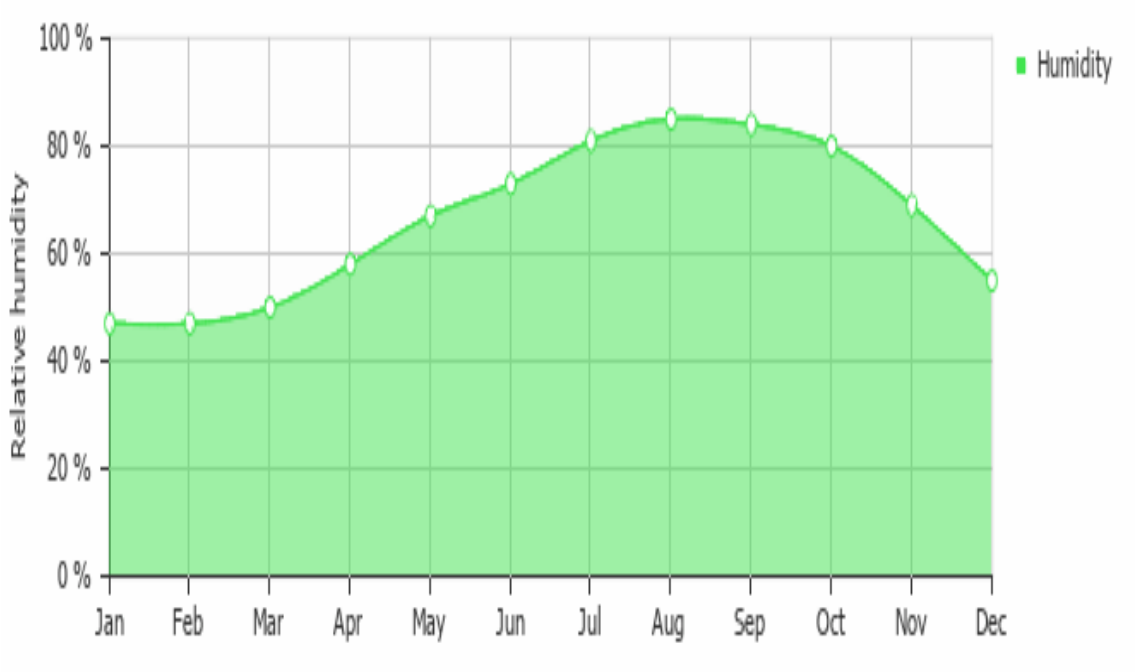


Figure 5.4: Average relative humidity in The Gambia[8]

### 5.1.4. Air quality

The air is clean and dry during the dry season and become dusty and windy during the rainy season. The air quality in Fatoto Health Center during the time of the assessment was classified as good with ambient levels typically below World Health Organization (WHO) air quality standards and specifications (see Table 5.2).

Table 5.2: World Health Organisation (WHO) air quality Standards (WHO Guidelines, 2006)

| Parameter | Averaging Period | Air Quality Standard ($\mu g/m^3$) |
|---|---|---|
| $NO_2$ | Year | 40 |
| | 24 hrs | 200 |
| $SO_2$ | 24 hrs | 20 |
| | 10 minutes | 500 |
| $PM_{25}$ | Year | 10 |
| | 24 hrs | 25 |
| $PM_{10}$ | Year | 20 |
| | 24 hrs | 50 |

During this assessment, a perception survey was conducted among the Kuntaur Healthcare center users (patients) and service providers (staff) on air quality of the site as shown in Figure 5.5. On average 96% of the respondents perceived that the air quality at the facility is clean. In fact, all the patients interviewed stated that the air is clean at the facility.

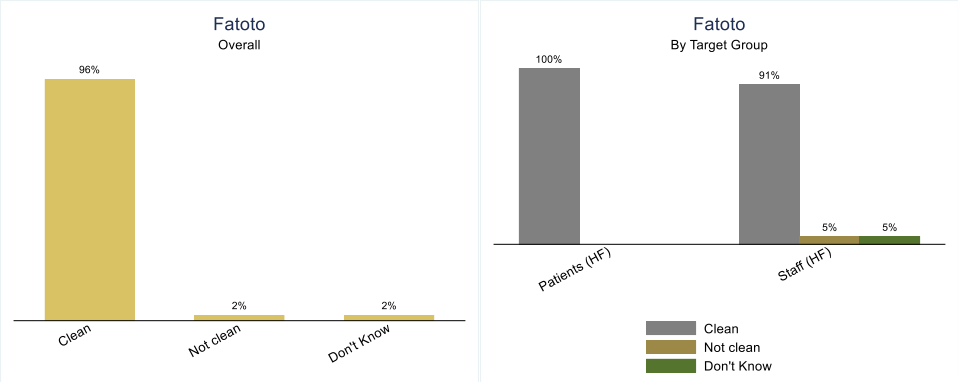


Figure 5.5: Perception on air quality in Fatoto health care facility

### 5.1.5. Water quality

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

Figure 5.6 presents the results of the perception of respondents on water quality at the Kuntaur health care facility. 100 percent of the respondents believed that the water quality at the facility is clean and fit for human consumption.

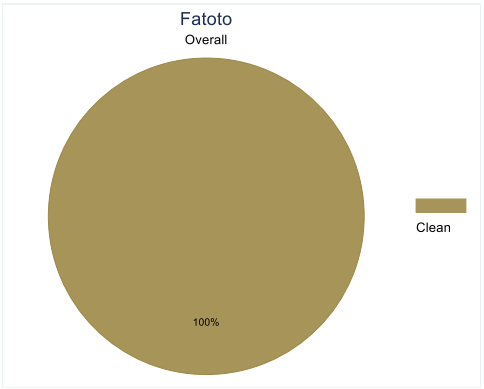


Figure 5.6: Perception on air quality in Kuntaur health care facility

Table 5.3 presents the results of water quality carried out from the proposed project site at Kuntaur Health Center on the 5th May 2023. The samples were physico-chemically, chemically and bacteriologically tested.

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

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

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

Table 5.3: Water characterization results from proposed project site

| Date of Analysis: 03rd to 5th May 2023. | | Weather Conditions: - Sunny |
|---|---|---|
| Parameter | Fatoto HC | WHO Guideline Values |
| Temperature (°C) | 30.5 | Acceptable |
| Turbidity (NTU) | <5 | <5 |
| pH | 5.96 | 6.5 - 8.5 |
| pH after aeration (A.pH) | 6.11 | 6.5 - 8.5 |
| Electrical Conductivity (mS/cm) | 89 | 1300 |
| Total Dissolved Solids (mg/l) | 57 | 1000 |
| Salinity (promile) | 0.04 | NS |
| Colour | Absent | Absent |
| Odour | Normal | Normal |
| Taste | Normal | Normal |
| Suspended Solids(mg S.S./l) | 0 | NS |
| Phosphate (mg $PO_4^{3-}$/l) | 0.14 | NS |
| Nitrate (mg $NO_3^-$-N/l) | 0.7 | 10 |
| Nitrite (mg N-$NO^-_2$/l) | 0.003 | 0.03 |
| Total Iron (mg $Fe^{+2/3}$/l) | 0.15 | 0.3 |
| Sodium (mg $Na^+$/l) | 3 | 150 |
| Chloride (mg $Cl^-$/l) | 7.6 | 250 |
| Alkalinity (mg $CaCO_3$/l) | 29 | >20 |
| Hardness (mg $CaCO_3$/l) | 33.2 | 200 |
| Calcium (mg $Ca^{+2}$/l) | 7.1 | 200 |
| Manganese (mg $Mn^{+2}$/l) | 1.3 | 0.5 |
| Magnesium (mg $Mg^{+2}$/l) | 0.17 | 150 |
| Fluoride (mg $F^-$/l) | 0.15 | 1.5 |
| Sulphate (mg $SO_4^{-2}$/l) | 2 | 250 |
| Ammonia (mg $NH_4^+$/l) | 0.11 | 0.5 |
| Total Coliform (No./100ml) | 0 | nil |
| Faecal Coliform (No./100ml) | 0 | nil |
| Sanitary Survey | Clean Bottle | Clean, dry with good drainage |

## 5.2. Socio economic Environment

### 5.2.1. Demography (population, approximation of households)

The results of Integrated Household Survey (IHS) 2015/16 reveals that the population of The Gambia has increased by 3.5 per cent since 2013 with the male and female populations being 47.6 per cent and 52.4 percent respectively. Most of the population lives in the urban centres (55.0%). Basse as a local government area (LGA) has a population of 243,791 with 47.6% male and 52.4% female.

Overall, the mean household size for the country was 6.9 persons, ranging from 6.0 in the urban areas to 8.4 in the rural areas. Basse has scored 7 as the mean household size.

Fatoto has a population of about 2000 people residing within Fatoto and about 90 households.

### 5.2.2. Tribes present and the prevalent tribes

Fatoto consist of mainly of Fulas and Mandinkas. Fulas are the dominant tribe in Fatoto.

### 5.2.3. Education level

Of the total 1,73 million respondents, aged 3 years and above, 52.8 per cent reported having ever attended school. Of these, 28.4 per cent were attending school at the time of the survey; while 24.4 per cent reported having attended school in the past. Among the males with a history of school attendance (now and past) were 55.9 per cent compared to 50.0 per cent among the females.

The residents in Fatoto had 34.9% recorded as school attendance which is higher than Kuntaur and Janjanbureh LGAs. Majority (23.1%) of those who attended school (now and past) stopped in Primary or lower basic school as their highest level of education completed (Gambia IHS 2015/16).

### 5.2.4. Economic activities the people undertake

The economically active population is higher for males in the urban than females with 62.1 per cent and 37.9 per cent respectively; while in the rural area; females (53.9%) recorded the highest proportion of the economically active than males (46.1%). Hence, the female dominated (55.3%) the economically active population than male (44.7%) in the Basse LGA.

It was report in the Gambia HIS 2015/16, the main economic activity in The Gambia is agriculture and 77.2% of population in Basse LGA engaged in agricultural activities. Basse are into rice farming, small scale petty trading, fishing and civil service.

### 5.2.5. Access to health care services

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.

### 5.2.6. Prevalence of diseases

Record review was conducted for the past three months on the registers for both under 5 years population and above 5 years population. It was observed from the record review.

Fatoto health centre registered **Non-Communicable Diseases** such **as hypertension, diabetes and** urinary **tract infections** as the most prevalent diseases for the past quarter.

### 5.2.7. Who visit the health center for services .

Fatoto health centre is visited by the people of Fatoto village and as well as the neighbouring communities within their catchment areas. The health centre is also closer to the border between The Gambia and Senegal and therefore, the neighbouring communities from Senegal also visit the health centre to access health care services.

### 5.2.8. Services at Kuntaur Health Facility

The Services offered in Kuntaur health center are as follows:

- Laboratory analysis
- Pharmacy
- Public health,
- Outpatient consultation
- RCH services
- Admission
- Maternity and Labor

### 5.2.9. Number of staffs per cadre

At the time of this assessment, Fatoto health care center had a total of 26 staff, of which 17 are male and 9 female. Table 5.4 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.
Table 5.4: Number of staff per cadre in the identified health facilities

| H/C Name | Public Health Officers | Nurses And Midwifes | Lab Assistants | Pharmacy Assistants | Supports Staffs | Security Officers |
|---|---|---|---|---|---|---|
| Fatoto | 4 | 6 | 2 | 1 | 11 | 2 |

## 5.3. Utility Facilities

### 5.3.1. Electricity

The health centre has electricity supply from the national grid (NAWEC). It also has a standby generator in case of electricity failure.

### 5.3.1. Water supply

Fatoto minor health centre has a borehole erected within the health centre to be supplying water to all the different units and departments within the health centre and as well as to the staff quarters. Figure 5.10 presents the water storage tank in the health facility.

### 5.3.2. Waste management of the facility

Waste management at the health centre is generally poor. There are visible animal droppings in the facility as well as perishable waste materials especially around the staff quarters. Biological waste in red bags, infectious waste in yellow bags and as well as general wastes in the wheely bins left within the facility at Fatoto because the area council failed to collect them for a month. Segregation of waste is practiced to some extend in the health facility, most especially clinical wastes.

*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).
- 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 type of waste bins available in the health facility are:

- Wheely bins
- Big buckets
- Cartons
- Safety boxes

*Waste disposal methods (incineration)*

The local area councils are responsible to collect and dispose general wastes from the health facilities. However, due to the poor waste management experienced in the health facility, open burning of the general waste is the most practiced disposal method.

## 5.4. The Local Government of Fatoto

**Fatoto** is a small town in eastern Gambia on the Gambia River. It is located in Kantora District in the Upper River Division. At one point Kantora was a province of the Kabu Empire but it probably had different boundaries then. The name derives from the Mandinka phrase "kana-ntoro," meaning "do not trouble me," referring to the disputes that Tiramakhan Traore's expedition struggled with there. They founded the village of Songkunda, meaning "place of agreement," to commemorate the re-establishment of peace. The name of the area is first recorded from 1456. Kantora District has 288.4 km² Area and 38,354 Population (2013)

## 5.5. Description of the initial situation of the environment fo site of

Fatoto is 36km away from Basse which is the administrative canter of Upper River Region, and the health centre is located within Fatoto village. Figure 5.3 shows the google map of Fatoto health care facilities.

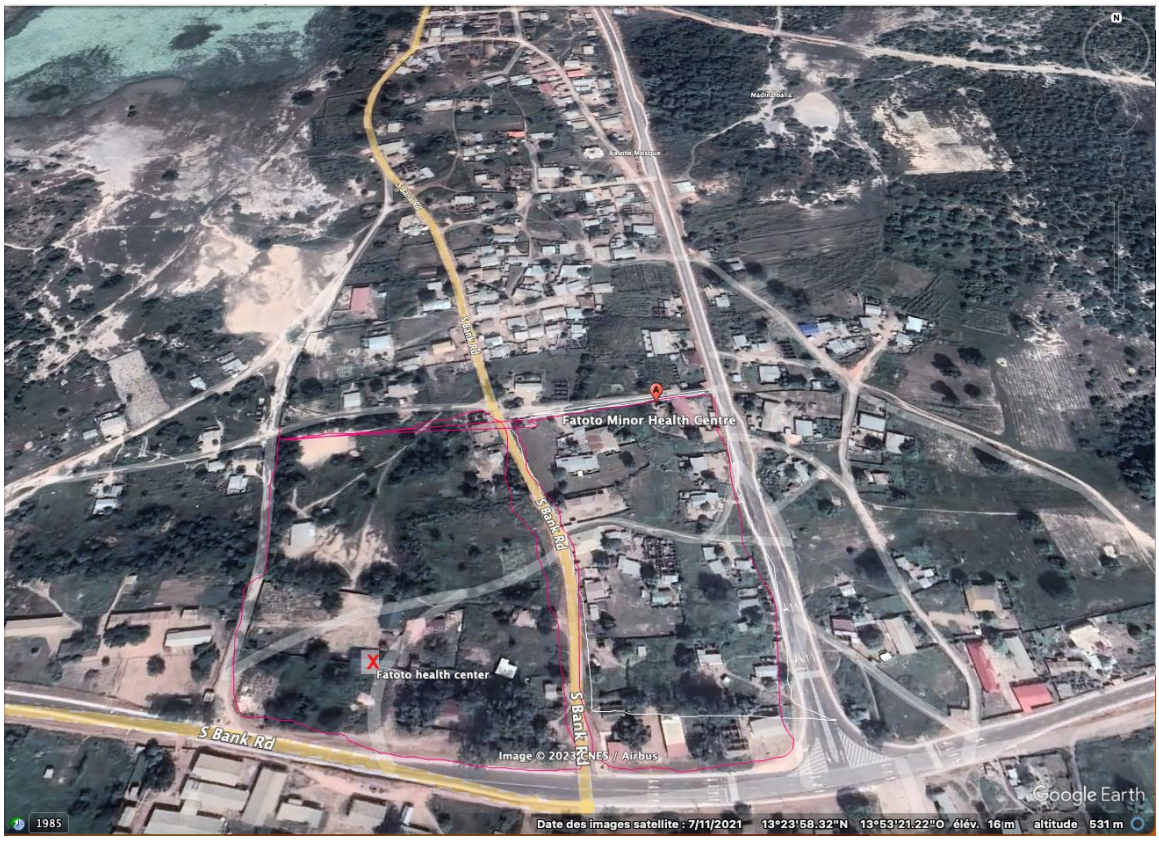


Figure 5.3 Map of Fatoto minor Health center and Fatoto Health center CEnter.

Fatoto Minor Health Center is one of the three health centers selected for the project in URR. It is situated along the highway going to Koina and Nyamanarr border.

### 5.5.1. Flora

There are only neem trees observed in the premises of the health facility and the rest were all grasses and shrubs. The total number of neem trees counted in the facility is 16 (see Figure 5.7). No endangered plant species were observed within the facility premise.

Figure 5.7: Photo of neem trees in Fatoto HC

### 5.5.2. Fauna

There are problems of animal intrusion at Kuntaur Major health centre. There were lots of donkeys, cows and goats present within the health centre at the time of the assessment (see Figure 5.8). 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 5.8: Goats found inside the Fatoto Health Center

### 5.5.3. waste management in the Fatoto healthcare center

- Solid-and liquid waste management

Fatoto health center has cleaners as support staff who are responsible for keeping the premises and inside the wards clean. Numerous varieties of solid waste are generated in the facility that are different from the biomedical waste. The main types of waste generated by both the patients, visitors and staff are but not limited to :

- Food waste
- Plastics
- Papers
- Aluminium cans
- Old textiles

Waste collection bins were available at different locations of the center to help segregate and collect waste for onward disposal.

- Biomedical waste management

Local councils are normally responsible for the collection and disposal of general waste from health facilities. However, due to some difficulties, the Fatoto Health Centre uses open-air incineration of general waste in their own backyard. This facility does not have an adequate incinerator for infectious waste and sharps.

### 5.5.4. Condition of the Infrastructures in the selected healthcare facilities

The structures within Fatoto Health Center were built with cement blocks as well as their staff quarters. The facility has n perimeter fence for privacy and security. Fatoto health centre has some buildings roofed with asbestos which poses serious public health concern for both health workers and patients. The buildings within the facility comprises of In-Patient Wards, Out Patient Department, Pharmacy, Lab, Maternity Ward Leprosy and Tuberculosis Unit and Public Health Office.

The general conditions of the structures in the health facility are not quite good and not ideal to house patients and key personnel of the Health Center (see Figure 2.4). Most of the buildings developed some defects which are as follows:

- inor 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
- Faulty doors and window
- 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

Figure 2.4: Internal and external photo of Kuntaur Health Care Center

## 5.6. Renovation works required at the Fatoto Health Center

Table 2.1 presents the infrastructures within the Health Center that were identified to be renovated and the proposed specific renovation activity.

Table 2.1: Identified infrastructures in Fatoto HC and the proposed renovation works

| Name of Infrastructure | Proposed renovation work |
|---|---|
| Matenity ward | 1. Painting<br>2. Roofing<br>3. Tiling<br>4. Installation of doors and windows<br>5. Plumbing and electrical work |
| Outpatient health block | 1. Painting<br>2. Installation of doors and windows<br>3. Plumbing and electrical work<br>4. Roofing<br>5. Tiling |
| Public Health Block | 1. Painting<br>2. Ceiling<br>3. Tiling<br>4. Installation of doors and windows<br>5. Plumbing and electrical work |
| Staff quarters block 1 | 1. Painting<br>2. Installation of doors and windows<br>3. Plumbing and electrical work<br>4. Roofing<br>5. Tiling |
| Staff quarters (female block) | 1. Painting<br>2. Roofing<br>3. Tiling<br>4. Ceiling<br>5. Installation of doors and windows<br>6. Plumbing and electrical work |
| Junior staff quarters block | 1. Painting<br>2. Roofing<br>3. Tiling<br>4. Installation of doors and windows<br>5. Plumbing and electrical work |
| Reproductive child health block | 1. Painting<br>2. Roofing<br>3. Tiling<br>4. Installation of doors and windows<br>5. Plumbing and electrical work |
| Outside toilet blocks | 1. Painting<br>2. Installation of doors<br>3. Plumbing |

## 6. Stakeholder and Public Consultation

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

1) Perception survey
2) Focus group discussion with project host communities
3) Relevant stakeholder key informant interview

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

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

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

### 6.1. Key Findings

The survey respondents were asked about their awareness of the renovation activities in Fatoto health facility and the results are presented in Figure 6.1. The results revealed that 57% of the total respondents were not aware of the proposed renovation activities at the health facility. However, the project awareness level was higher (91%) among the facility staff respondents compared to the patient respondents. The results of the survey manifested that none of the patients was aware of the project. It became clear from the FGDs with staff that the technical team from the Ministry of Transport, Works and Infrastructure visited the health facility for the assessment of the infrastructures to be renovated and thus, in the process briefed the staff on the proposed project. Secondly, the RHD in CRR disseminated the project information to the staff of the facility.

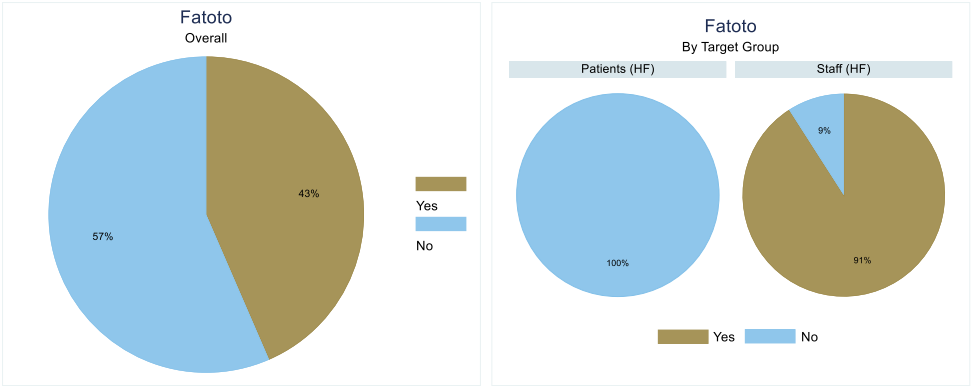


Figure 6.1: Awareness of project

Figure 6.2 presents the results of satisfactory level of respondents in terms of their involvement in the project. The results on Figure 6.2 shows that 14% of the respondents were very satisfied and 68% satisfied with their involvement in the project. This implies that the stakeholder engagement for the proposed project were satisfactory to most (82%) of the respondents.

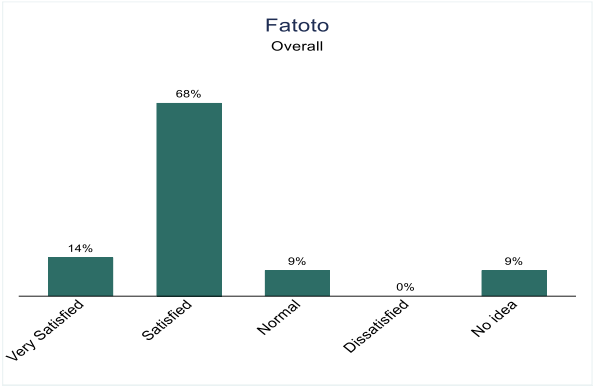


**Figure 6.2:** How satisfied are you with your or other stakeholders involvement in the project

In response to the question about the perception of respondents on the current healthcare services at the Fatoto Health Care Facility, 91% of the staff stated that the healthcare services at their facility was good, whereas 9% of them indicated that the services were fair. On the other hand, majority (50%) of the facility users manifested that the healthcare service received were not good rather the services provided were considered fair in their view as shown in Figure 6.3.

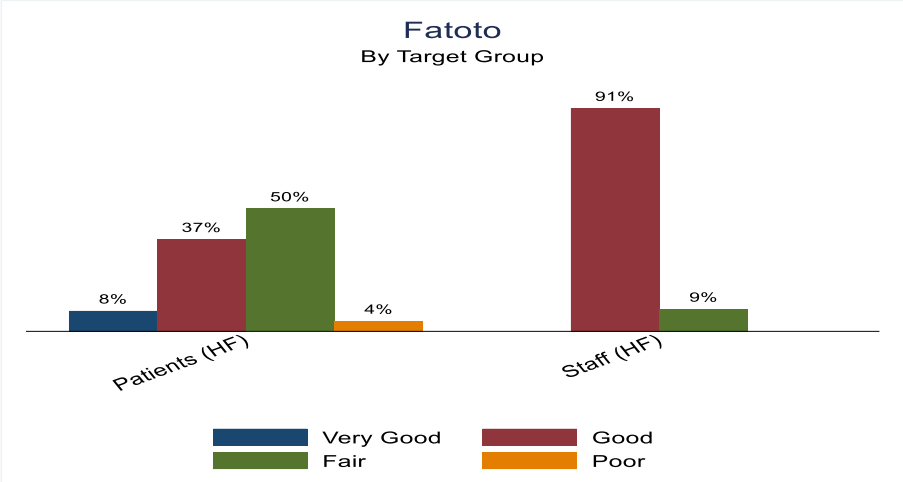


Figure 6.3: How do you best describe the current healthcare services?

Since the healthcare facility is considered to be in a poor condition by the respondents, an attempt was made to understand the constraints patients and staff in the health center were confronted with. The results shown in Figure 6.4 indicates that the greatest challenge posed by the poor conditions of the healthcare facility were long waiting hours (41%) and unmotivated healthcare workers (20%). Hence, it was not a surprise that majority of the patient respondents experienced long waiting hours at the health center (75%) whereas majority of the staff respondents compliant that they were unmotivated (41%) due to the poor state of the healthcare facilities.

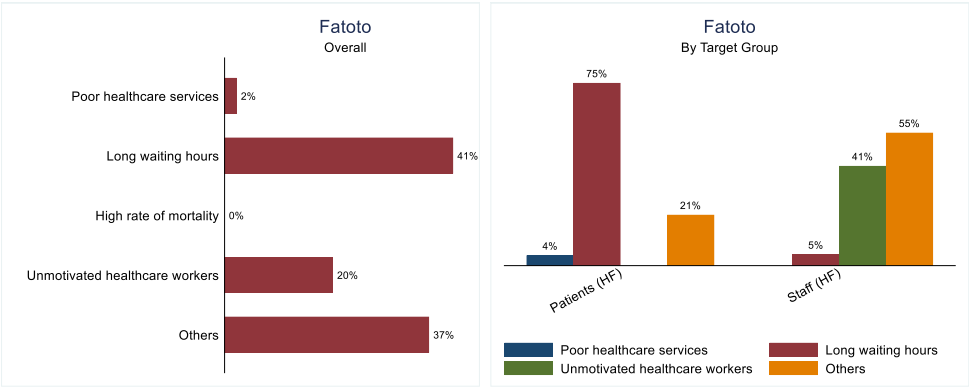


Figure 6.4. What constraints do you face due to the poor condition of the healthcare facilities?

During the FGDs with host community of the health facility, it became clear that the healthcare services offered to facility users will be affected to some extend. Thus, the respondents were asked about their perception on the type of services that will be mostly affected by the renovation activities. The findings in Figure 6.5 revealed that 93% of the respondents indicated that both in-patient and out-patient services will be affected. However, comparison between the two services, most of the respondents were of the view that the in-patient will be more affected by the renovation than the out-patient services.

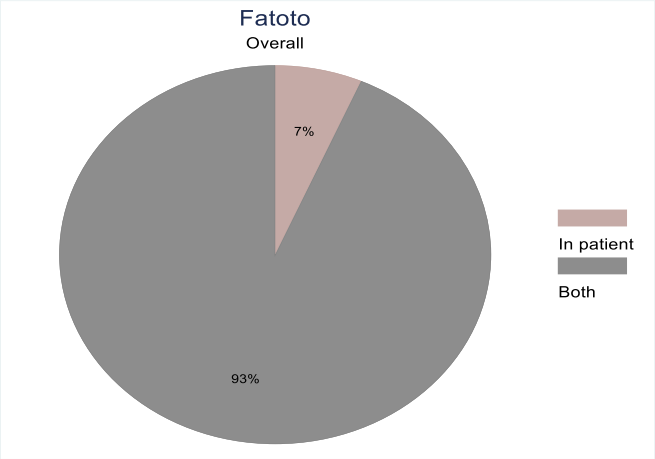


**Figure 6.5:** What type of Care is likely to be affected the most by the renovation?

The numerous positive impacts of the proposed project were highlighted during consultation meetings with various relevant stakeholders. However, Figure 6.6 presents the quantitative data of the perception of patient and staff respondents at the health facility on the beneficial impact of the project. The most significant positive impact of the project is said to be the improvement of public health (91%), enhancement of the performance of health workers (48%), better health care facility (37%) and improve health care services. Even though, income generation and employment creation were among the positive impact but scored the lowest points. This may imply that the direct and most apparent benefit of the project has to do with the improvement of healthcare services.

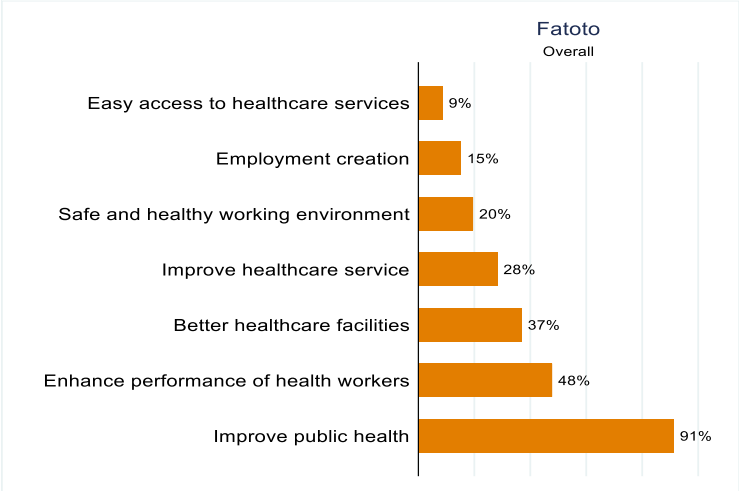


Figure 6.6. Positive social impacts that will be associated with the project implementation

The most dominant negative health safety and environmental impacts obtained from the survey were noise pollution (91%), accidents and injuries to workers (43%), waste generation (20%) and dust pollution (20%) as shown in Figure 6.7. These three negative impacts are

normal expected impacts associated with construction and renovation works. With proper mitigation measures in place, these impacts can be minimized to low impact significance.

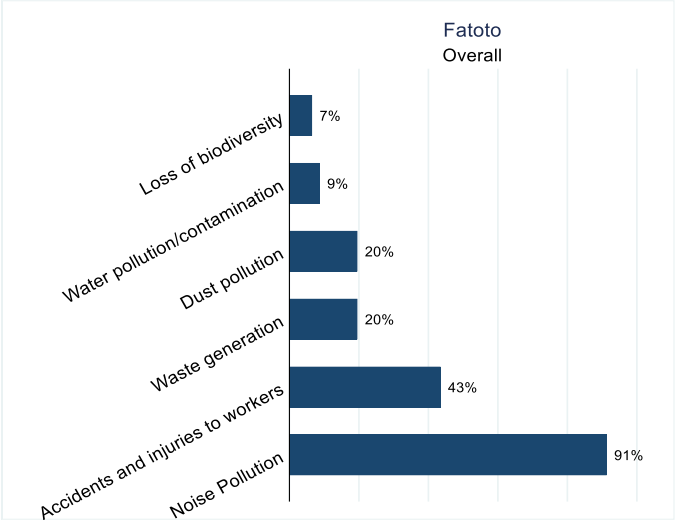


Figure 6.7: Potential negative health safety and environmental impacts that will be associated with project implementation.

Figure 6.8 manifests that 83% of interviewees responded that the renovation of these health facilities will improve quality of health services; 74% of them reported that the renovation will improve physical conditions of the health infrastructures; and 26% of them expressed that the facility will be able to provide new services.

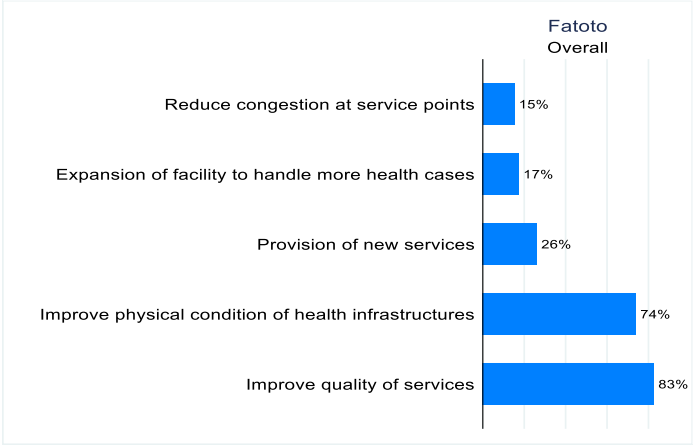


Figure 6.8: How will the renovation affect health service delivery in the community?

Figure 6.9 presents that 56% of respondents think the renovation activities at the healthcare facility will increase the congestion at the facility, and will increase the waiting time (44%) and 33% of them belief it may lead to the unavailability of of some service. These findings implies that the renovation of the facilities will temporarily inconvenient both facility users and service providers before enjoying the long-term benefit of the project in terms of quality health service delivery.

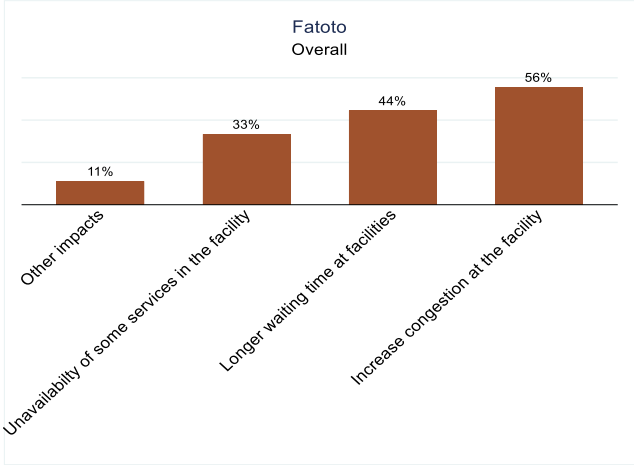


**Figure 6.9:** How will the renovation negatively affect health care delivery?

As far as the renovation activities were perceived to affect services at the health facility services, there is need for the management of the facility to device temporal measures that will allow continuation of services while renovation works progress. All (100%) of the respondents were of the opinion that the renovation should be implemented in phases. This was the also suggested by most of the stakeholders consulted. The findings in Figure 6.10 also projects that 22% recommended early communication, 15% suggested reschedule of some activities and 2% proposed minimize users per day.

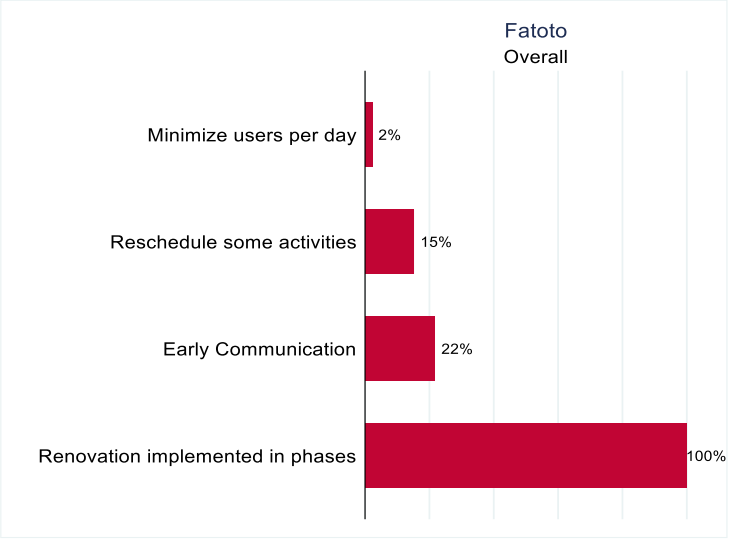


**Figure 6.10:** Temporal measures that should be adopted by the management of the facility to continue delivery of services during the renovation works

According to the survey respondents, the proposed project is anticipated to create employment opportunities (75%), increase accessibility to services (67%), improve business opportunities (20%) and reduce cost of using healthcare services (4%) as illustrated in Figure 6.11. This is a clear indication that once the proposed project is implemented, it will successfully satisfy the objective of project component 2.

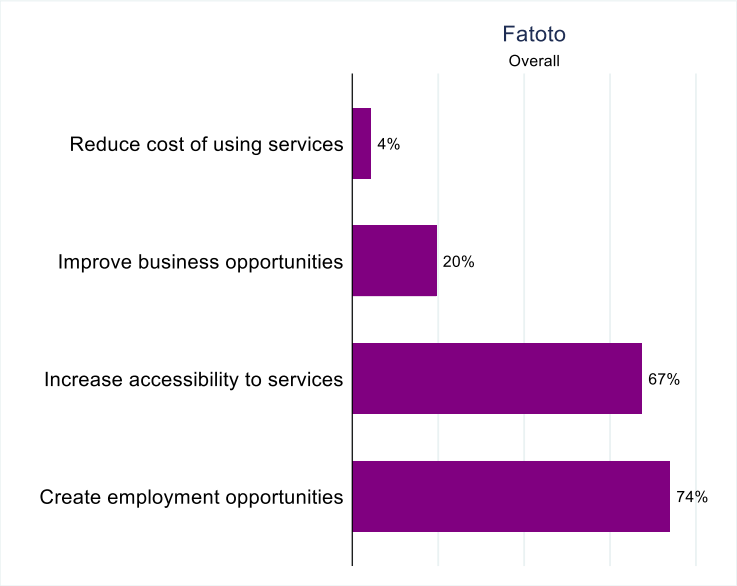


**Figure 6.11: E**xpectation concerning this project in terms of contributing to the socioeconomic wellbeing of users of the facility

The respondents were informed of the proposed project and were then asked about their perception of the overall impact of this project on their livelihood. 59 percent of the respondents expressed that the project is anticipated to have an excellent impact on their livelihood, whereas 41% of them thinks the project will have a good impact on their livelihood. Furthermore, the results manifested that the facility staff respondents were more optimistic about the overall impact of this project on their livelihood because 64% of them stated that the project's impact on their livelihood will be excellent, while 54% of the patients reported that the project will have an excellent impact on their livelihood (see Figure 6.12). Overall, the findings indicates that all the respondents were convinced that the project will at least have a good impact on their livelihood. This finding concurs with the viewpoint of the key stakeholders of the project, who also believes that the project will have a positive impact on the livelihood of both staff and facility users.

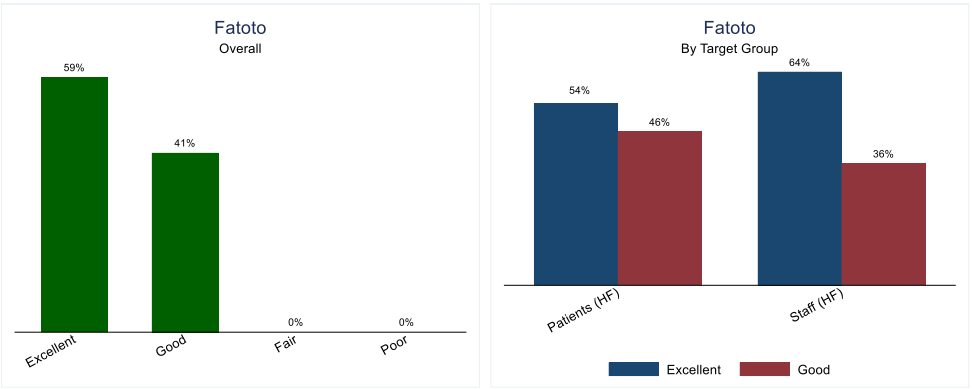


Figure 6.12: Overall impact of this project on livelihood of respondents

# 7. Potential Impacts and Mitigation Measures

This chapter focuses on the identification and assessment of the planned renovation activities on the physical, biological, and socio-economic environment of the project intervention sites.

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

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

During operational activities, sources of impacts are related to:

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

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

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

Table 7.1: Environmental Indicators interaction matrix of the project activities

| Project Stage | Pre-renovation and Renovation | | | | | | | | | Operation | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Project activities | Site clearing | Recruitment and presence of | Movement of machinery and | Civil works | Transportation of construction | Waste generation | Use of construction equipment | Consumption of resources | Repair of equipment and | Waste generation, storage, | Maintenance of facilities | Repair of equipment | Consumption of resources | Presnce of facility users | Movement of vehicles in and out |
| **Air Quality** | | | | | | | | | | | | | | | |
| Dust and particulates | ✓ | | ✓ | ✓ | ✓ | | | | | | | | | | ✓ |
| Gaseous emissions ($NO_X$, $SO_X$, $CO_X$, GHGs etc) | | | ✓ | | ✓ | | ✓ | | | | | | | | ✓ |
| **Water Quality** | | | | | | | | | | | | | | | |
| Surface water contamination/pollution | | ✓ | | ✓ | | ✓ | | | ✓ | ✓ | | | | | |
| Underground water contamination/pollution | - | - | | - | - | - | - | - | - | - | - | - | - | - | - |
| Depletion of groundwater | | | | | | | | | | | | | | | |
| **Soil Quality** | | | | | | | | | | | | | | | |
| Soil contamination | | | | ✓ | | | | | ✓ | | | | | | |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Soil erosion and siltation | | | | | | | | | | | | | | | |
| Change in topography/ natural drainage | | | | ✓ | | | | | | | | | | | |
| **Sensory Perceptions** | | | | | | | | | | | | | | | |
| Noise Disturbance | | | | ✓ | | | ✓ | | | | | | | | |
| Vibration Disturbance | | | | ✓ | | | ✓ | | | | | | | | |
| **Terrestrial Ecology-Flora** | | | | | | | | | | | | | | | |
| Forested areas (removal) | ✓ | | | | | | | | | | | | | | |
| Habitat fragmentation | | | | | | | | | | | | | | | |
| **Terrestrial Ecology - Fauna** | | | | | | | | | | | | | | | |
| Avifauna (degradation and removal of habitat) | | | | | | | | | | | | | | | |
| Rodents and mammals (degradation and removal of habitat) | ✓ | | | | | | | | | | | | | | |
| **Socio-economic/Cultural/Human Health** | | | | | | | | | | | | | | | |
| Traffic congestion | | | ✓ | | ✓ | | | | | | | | | | ✓ |
| Waste generation | ✓ | ✓ | | ✓ | | ✓ | | ✓ | ✓ | ✓ | | | | | |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (solid and liquid) | | | | | | | | | | | | | | | |
| Public health (air and water quality) | ✓ | | ✓ | ✓ | | ✓ | | | | ✓ | | | | | |
| Occupational Health and Safety (increased accident potential) | | ✓ | ✓ | ✓ | ✓ | | ✓ | | ✓ | | | | | | ✓ |
| Employment opportunities | | ✓ | | | | | | | | | | | | | |
| Impact on livelihood | | | | | | | | | | | | | | | |
| In-migration | | ✓ | | | | | | | | | | | | | |
| Gender-based violence; Sexual Exploitation and Abuse; Sexual and communicable diseases | | ✓ | | | | | | | | | | | | | |

### 7.1.1. Impact on Air Quality

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

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

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

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

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

**The impact significance is assessed as high to medium.**

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

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

### 7.1.2. Impact on Water Quantity and Quality

With the exception of Kuntaur Major Health Center, the local communities close to all the other facilities depends heavily depends on the water supply from those facilities. Thus, the renovation activities may cause competitive demand on the limited water source and it may possibly lead to water scarce for domestic consumption.

Considering the short duration and moderate magnitude of run-off water and flooding on the project intervention sites the significance of the impacts are expected to be medium during the land development and operational phase of the rice fields.

In addition, release of hazardous substances (e.g. spilled cements, accidental diesel spills and leaks) leading to surface or groundwater contamination. During machinery maintenance engine oil may accidentally spill causing water contamination. Also, the repair of equipment has the potential to leak hydraulic fuels, oils, etc. and thereby has the potential to contaminate the water. Kuntaur is the most vulnerable in terms of water contamination because it is situated in a wetland and often experience surface water logging.

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

| **Table 7.3; Impact Assessment Summary for water pollution** | |
|---|---|
| Types of impacts | Water Pollution |

| | |
|---|---|
| Project activities | Usage of water, oil spill, cement spillage |
| Impact characterization | Adverse, Indirect, Abnormal, Medium-term, Accumulative |
| Impact Significance | Medium |
| Mitigation Measures/ Improvement | • Environmentally sound management of land development activities especially near wetlands and ecologically sensitive areas.<br>• In flood-prone areas of the site, work must be subject to ongoing supervision and environmental and social monitoring, and the contractor must ensure that construction and mitigation measures comply with the ESMP-Contractor<br>• Limit equipment access into flood-prone areas of the site, where possible.<br>• Collection of waste oil for recycling<br>• Avoid placing spoil on drainage paths.<br>• In the event of a spill on water bodies, the contractor in charge of the work shall immediately notify the person responsible for the environmental monitoring of the work and take measures to stop the leak, contain the product and recover it.<br>• The contractor will be required to have emergency equipment on site in the event of an accidental spill.<br>• Appropriate solid and liquid waste storage to limit the risk of pollution. |

### 7.1.3. Waste Generation

During the renovation phase of the proposed project, solid and liquid waste generation may occur mainly from the construction campsite. The presence of workers on site will necessitate the need to provide temporal sanitary facilities. Without those facilities the workers might answer the "call of nature" openly which may affect the environment. Furthermore, the workers generated solid waste such as waste papers, aluminum cans, food which may affect the environment when directly disposed.

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

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

**The impact significance is rated as medium to low.**

| Table 7.4: Impact Assessment Summary for waste generation | |
|---|---|
| Types of impacts | Waste |
| Project activities | Waste generated from workers campsite, presence of workers on sites, disposal of waste on site, construction waste, domestic waste |
| Impact characterization | Adverse, Direct, Normal, Short-term, |
| Impact Significance | Medium |
| Mitigation Measures/ Improvement | • Preparation of waste management plan following the waste hierarchy and ensure proper implementation, supported by staff training.<br>• Adequate skips and bins should be strategically placed within the campsite and construction site.<br>• The skips and bins at the construction and operation phase should be adequately designed and covered to prevent access by vermin and minimize odor.<br>• Waste segregation in different bins should be practiced and ensure that workers adhere to the practice.<br>• The skips and bins at both the construction and operation phase should be emptied regularly to prevent overfilling.<br>• Disposal of the contents of the skips and bins should be done at an approved disposal site.<br>• Reuse waste plastic materials (deform bottle containers) as feedstock for plastic product production.<br>• Organic waste generated can be composted and use as manure.<br>• Appropriate storage, handling and management of clinical waste |

### 7.1.4. Public Health

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

The significance of the impact is ranked as medium.

| Table 7.5: Impact Assessment Summary for Public Health | |
|---|---|
| Types of impacts | Public Health |
| Project activities | Activities that impact air and water quality; presence of asbestos |
| Impact characterization | Adverse, Indirect, long-term |
| Impact Significance | Medium |

| | |
|---|---|
| Mitigation Measures/ Improvement | • Ensure the mitigation for the impact on air and water quality as well as waste generation are implemented. This will reduce the impact on public health negligent.<br>• Safe removal of asbestos in accordance with the Asbestos Abatement and Removal Action Plan<br>(*See mitigation of air quality, water quality and waste generation*) |

### 7.1.5. Impact on Occupational Health and Safety

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

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

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

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

| | |
|---|---|
| Mitigation Measures/ Improvement | • Staff or workers should be given adequate training on occupational health and safety issues during the construction of storage facilities and land development at the paddy fields.<br>• Induction training should be held for new workers on Health and Safety.<br>• The workforce should conduct daily toolbox meetings.<br>• The Project should hire a Qualified Environment Health and Safety (EHS) officer.<br>• The project proponent should develop a Health and Safety Management System if there is none.<br>• Personnel Protective Equipment (PPE) should be provided to workers and ensure that they use them accordingly.<br>• There should be onsite first aid kits and arrangement for a local nurse and/or doctor from the nearest health facility to be on call for the construction site.<br>• Provide adequate working conditions for the workforce, including adequate toilets, clean water, rest and meal areas, lighting (for camps), and waste disposal facilities.<br>• Regularly maintain the equipment<br>• Limit the speed of machines and trucks involved in the work.<br>• Securing the areas for maneuvering the machines<br>• Train workers in best practices and emergency procedures before civil work begins.<br>• Conduct a Risk Analysis for all activities during the construction phase and propose mitigation measures. |

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

The project is expected to attract the inflow of workforce from other areas for job opportunities. The successful implementation of the renovation activities is anticipated to increase labor demand in the project sites. Some of the labor workforce are provided by laborers from neighboring communities or countries. The physical presence or staying of workforce in the local communities may cause the following negative impacts:

- Interaction between workforce and local communities may increase occurrence of communicable diseases, including HIV/AIDS and sexually transmitted diseases (STDs). Influx of resident and non-resident workers into the project area also increases the risks of sexually transmitted diseases (STDs) and could impact adversely on the spread of these illnesses especially relating to acquired immunodeficiency syndrome (AIDS). This impact, if left unmanaged may result in long term health issues which may eventually lead to fatality. Impact arising from this is ranked high.
- Real or perceived disruption to normal community life, through the domestic activities of a workforce. Imported workers have the tendency to introduce new lifestyle and activities that may be foreign to the host communities.
- Individuals are likely to permanently migrate into the area which may cause conflict with resident communities and put pressure on resources and infrastructure. This

challenge increases demand on existing infrastructures and resources such as water supply, electricity, health facilities and many others due to influx of people to the project influence communities.

- Differences in nationality, ethnicity, religion, etc. may lead to discrimination and harassment, and differences (perceived or real) in working conditions between workers may lead to resentments.
- The presence of such workers may also increase the risk of COVID-19 transmission given proximity. In the context of the COVID-19 pandemic, the risk of contamination must be taken very seriously into consideration.

| **Table 7.7: Impact Assessment Summary for In-migration of workforce** | |
|---|---|
| Types of impacts | In-migration of workforce |
| Project activities | Recruitment, All works onsite and presence of workers |
| Impact characterization | Adverse, Indirect, Abnormal, long-term |
| Impact Significance | Medium |
| Mitigation Measures/ Improvement | • Recruit local labor for unskilled jobs as a priority to ensure local ownership of the project.<br>• Organize the work of unskilled employees in a task-oriented manner.<br>• Post the internal rules of the work site.<br>• 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)<br>• Training for all staff in acceptable behaviour with respect to community interactions.<br>• 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<br>• Sensitize the personnel of project sites on the respect of the habits and customs of the populations.<br>• Establish a conflict prevention and management mechanism.<br>• Respect the labor code regarding the recruitment of labor.<br>• Ensure all workers on site sign the protocols, as well as get sensitized and their awareness raised on challenging issues such as HIV-AIDS, COVID-19 protocols, STIs, etc.<br>• Ensure continuity of consultation and participation of the beneficiary communities throughout the project (with women consulted in small, separate groups facilitated by a woman).<br>• Establish and publicize grievance procedure |

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

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

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

Women may also endure various forms of violence on and off the project sites. The presence of a large male population may encourage the practice of prostitution- including human trafficking of women and children to project areas for this purpose, expose women to sexual violence, harassment and discriminatory practices or violations of fundamental rights (lack of employment contracts or blackmail/request for sexual favors to obtain a job, abusive dismissal, underpayment, lack of leave). The Labour Act, 2007 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 risks of domestic violence.

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

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

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

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

## 7.2. Potential Risk and risk management measures

### 7.2.1. Disaster risk assessment

Figure 7.1 presents the natural hazards mapping which shows that the common natural disaster hazards identified in The Gambia were flood, drought, bush fire, disease outbreak, windstorms, lightning storms, coastal erosion, soil erosion, salt intrusion and mangrove depletion. As for the proposed project intervention region (CRR), the most prevalent natural disaster hazard was found to be floods.

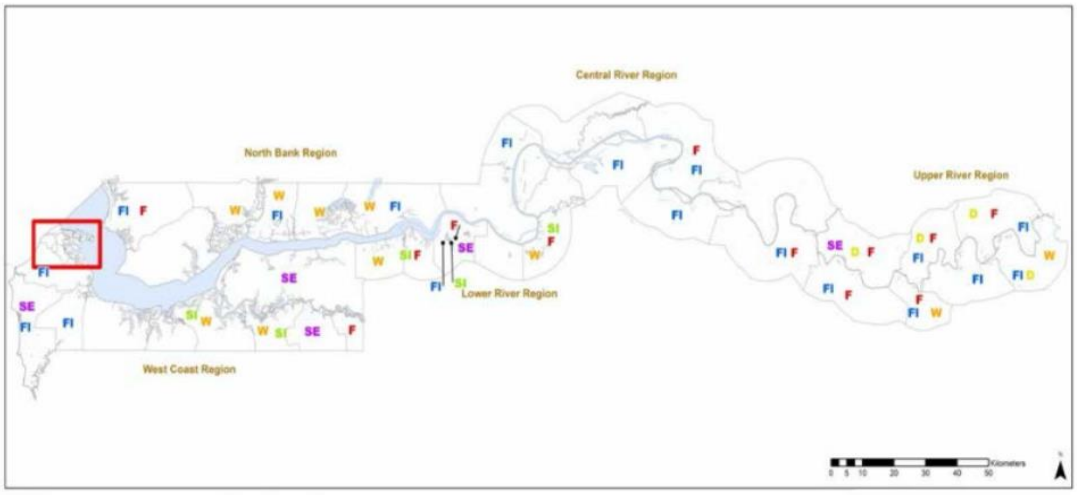


Figure 7.1: Local hazard and risk zoning in The Gambia (UNDP and NDMA, 2014)

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

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

| Hazard | Assignment of Probabilities | | Impact levels | | Risk Ranking |
|---|---|---|---|---|---|
| | Probability Level | Descriptor | Consequence Level | Descriptor | |
| Floods | B | Unlikely | 3 | Minor | Low Risk |
| Windstorms | C | Possible | 3 | Moderate | Moderate Risk |
| Bush fires | A | Remote | 3 | Moderate | Low Risk |
| Disease Epidemic | B | Unlikely | 4 | Major | Moderate Risk |

### 7.2.2. Technical risks

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

## Analysis of hazards related to the equipment used and the processes

**During the pre-renovation and renovation phase**

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

There is also another potential danger related to manual or mechanical handling work which could result in open wounds, musculoskeletal disorders, etc. during the work.
During the work of the renovation many risks can also occur. This is the case for risks related to:

- An increase in vehicle traffic that can increase the risk of accidents with local residents and livestock on their own
- The use and handling of heavy equipment and machinery that can lead to accident risks for workers
- Handling sharp objects used to cut can lead to accidents with serious injuries
- Hot equipment such as chalimus[3] can also promote accidents for workers

**In the operation phase**

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

a) biomedical waste

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

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

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

[3] Welding equipment

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

- Raising awareness of the risks associated with healthcare waste and practices to ensure safety.
- Selecting safe and environmentally sound solutions to protect those who handle, store, transport, treat or dispose of waste from hazards.
- ensuring that biomedical waste is never compacted or mixed with other types of waste.
- If waste is not packaged appropriately, ensure that it is placed in a biomedical waste overpack.

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

b) Short circuit

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

c) Hazards related to work at height

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

d) Hazards related to night work

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

e) Impacts with cement and concrete spill

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

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

h) Hazards related to maintenance and servicing operations

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

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

*Table 7.10: Probabilities, likelihoods, and risk levels of operation phase in project sites*

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

### 7.2.3. Professional risks

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

**Prevention and protection against occupational risks**

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

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

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

Table 7.10 presents the overview of impact analysis and proposed mitigation and maximization measures

Table 7.10: Summary of impacts and proposed project measures

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

| Phase/Activities | IMPACTS | Scope of negative impacts (low, medium, high) | MEASURES |
|---|---|---|---|
| | | | • Reduce vehicle speed within the facilities.<br>• Promote the use of fuel-efficient vehicles with the proper emission standards and more eco-friendly fuel type. |
| **Pre-renovation and renovation phase**<br>• Civil works<br>• Recruitment and presence of workers<br>• Waste generation<br>• Consumption of resources (water, energy etc)<br>• Repair of equipment and machinery | Water Pollution | Medium | • Environmentally sound management of land development activities especially near wetlands and ecologically sensitive areas.<br>• In flood-prone areas of the site, work must be subject to ongoing supervision and environmental and social monitoring, and the contractor must ensure that construction and mitigation measures comply with the ESMP-Contractor<br>• Limit equipment access into wetlands, where possible.<br>• Collection of waste oil for recycling<br>• Avoid placing spoil on drainage paths.<br>• In the event of a spill on water bodies, the contractor in charge of the work shall immediately notify the person responsible for the environmental monitoring of the work and take measures to stop the leak, contain the product and recover it.<br>• The contractor will be required to have emergency equipment on site in the event of an accidental spill.<br>• Appropriate solid and liquid waste storage to limit the risk of pollution. |
| Waste generated from workers campsite, presence of workers on | Waste Generation | Medium | • Preparation of waste management plan following the waste hierarchy and ensure proper implementation, supported by staff training. |

| Phase/Activities | IMPACTS | Scope of negative impacts (low, medium, high) | MEASURES |
|---|---|---|---|
| sites, disposal of waste on site, construction waste, domestic waste, biomedical or healthcare waste | | | • Adequate skips and bins should be strategically placed within the campsite and construction site.<br>• The skips and bins at the construction and operation phase should be adequately designed and covered to prevent access by vermin and minimize odor.<br>• Waste segregation in different bins should be practiced and ensure that workers adhere to the practice.<br>• The skips and bins at both the construction and operation phase should be emptied regularly to prevent overfilling.<br>• Disposal of the contents of the skips and bins should be done at an approved disposal site.<br>• Reuse waste plastic materials (deform bottle containers) as feedstock for plastic product production.<br>• Organic waste generated can be composted and use as manure.<br>• Appropriate storage, handling and management of clinical waste<br>• Implementation of a comprehensive system for assigning responsibility, handling and disposing of waste.<br>• Raising awareness of the risks associated with healthcare waste and practices to ensure safety.<br>• Selecting safe and environmentally sound solutions to protect those who handle, store, transport, treat or dispose of waste from hazards. |

| Phase/Activities | IMPACTS | Scope of negative impacts (low, medium, high) | MEASURES |
|---|---|---|---|
| | | | • ensuring that biomedical waste is never compacted or mixed with other types of waste.<br>• If waste is not packaged appropriately, ensure that it is placed in a biomedical waste overpack.<br>• If household waste is mixed with biomedical waste, ensure that it is considered biomedical waste. |
| Activities that impact air and water quality; presence of asbestos | Public Health | Medium | • Ensure the mitigation for the impact on air and water quality as well as waste generation are implemented. This will reduce the impact on public health negligent.<br>• Safe removal of asbestos in accordance with the Asbestos Abatement and Removal Action Plan<br>(*See mitigation of air quality, water quality and waste generation above*) |
| • All civil works,<br>• Material transportation and handling,<br>• working conditions,<br>• workers' behaviour | Occupational Health and Safety | Medium | • Staff or workers should be given adequate training on occupational health and safety issues during the construction of storage facilities and land development at the paddy fields.<br>• Induction training should be held for new workers on Health and Safety.<br>• The workforce should conduct daily toolbox meetings.<br>• The Project should hire a Qualified Environment Health and Safety (EHS) officer.<br>• The project proponent should develop a Health and Safety Management System if there is none.<br>• Personnel Protective Equipment (PPE) should be provided to workers and ensure that they use them accordingly. |

| Phase/Activities | IMPACTS | Scope of negative impacts (low, medium, high) | MEASURES |
|---|---|---|---|
| | | | • There should be onsite first aid kits and arrangement for a local nurse and/or doctor from the nearest health facility to be on call for the construction site.<br>• Provide adequate working conditions for the workforce, including adequate toilets, clean water, rest and meal areas, lighting (for camps), and waste disposal facilities.<br>• Regularly maintain the equipment<br>• Limit the speed of machines and trucks involved in the work.<br>• Securing the areas for maneuvering the machines<br>• Train workers in best practices and emergency procedures before civil work begins.<br>• Conduct a Risk Analysis for all activities during the construction phase and propose mitigation measures. |
| • Recruitment,<br>• All works onsite<br>• Presence of workers | In-migration of workforce | Medium | • Recruit local labor for unskilled jobs as a priority to ensure local ownership of the project.<br>• Organize the work of unskilled employees in a task-oriented manner.<br>• Post the internal rules of the work site.<br>• 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)<br>• Training for all staff in acceptable behaviour with respect to community interactions. |

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

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

# 8. Environmental and Social Management Plan (ESMP)

## 8.1. Introduction

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

The overarching objective of ESMP is to:

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

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

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

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

Table 8.1: ESMP Guidelines for Mitigation Measures Implementation

| Activities | Impacts | Indicators | Means of verification | Timelines (preparation, construction, exploitation, Closing phases) | Responsible for | | | Cost of implementation (US$) |
|---|---|---|---|---|---|---|---|---|
| | | | | | Execution | Monitoring | Aftercare | |
| ○ Site clearing and preparation.<br>○ Civil during renovation.<br>○ Removal of vegetation<br>○ Movement of machinery and vehicles | Air Quality | • Systematic watering of site and spoil (at least twice a day in the dry season)<br>• Number of covered trucks<br>• Up-to-date maintenance booklet for machinery<br>• Waste tracking form<br>• Number of cases where speed limits were exceeded<br>• Percentage of staff wearing the correct PPE | Report of air sample analysis | Renovation and operation phase | Project contractor | PIU, NEA ESIA Working Group | Health Facility Management | 2,000 |
| ○ Use of sanitary facilities by staff<br>○ Run-off water<br>○ Oil spill<br>○ Solid waste and effluent discharge | Water Quality | • Level of compliance of discharges (pH, COD, BOD, SS, coliforms, etc.) with the applicable water quality standard<br>• Systematic pre-employment medical check-up during recruitment<br>• Existence of an HSE manual and its implementation<br>• Level of compliance with World Bank Group EHS guidelines<br>• Existence of an approved and implemented waste | Reports of water sample analysis | Renovation and operation phase | Project contractor | PIU, NEA ESIA Working Group, Department of Water Resources Regional Officer | Health Facility Management | 2,000 |

| Activities | Impacts | Indicators | Means of verification | Timelines (preparation, construction, exploitation, Closing phases) | Responsible for | | | Cost of implementation (US$) |
|---|---|---|---|---|---|---|---|---|
| | | | | | Execution | Monitoring | Aftercare | |
| ○ Presence of workers on site<br>○ Onsite civil work/floor concrete<br>○ Painting and coating<br>○ Disposal of construction / renovation waste<br>○ Domestic and sanitary waste generated by workers<br>○ Biomedical waste | Waste generation | • Existence of an approved and implemented WMP<br>• Existence of an approved and implemented Biomédical Waste MP<br>• Waste tracking slip<br>• Existence of labelled bins for waste collection<br>• Existence of clean-up kit on site<br>• Effectiveness of the waste recovery and treatment contract | Records on waste management<br><br>Complaint registry<br><br>Complaint Management Committee Report | Renovation and operation phase | Project contractor | PIU, NEA ESIA Working Group, Regional Health Directorate | Health Facility Management | 4,000 |
| ○ All civil works<br>○ Material transportation and handling<br>○ Working conditions<br>○ Workers' behaviour | Occupational Health and Safety (increased accident potential) | • Existence of a Workforce Management Plan<br>• Number of awareness campaigns conducted among the population<br>• Number of accident cases involving site activities<br>• Number of workers equipped with PPE<br>• Number of workers made aware of safety measures<br>• Level of compliance with health and safety requirements of the labor code<br>• Level of compliance of collective protection equipment with project risks<br>• Effectiveness of the implementation of mitigation measures<br>• Number of training and awareness sessions on occupational health and safety<br>• Existence of first aid kits at work sites<br>• Effectiveness of posting of safety instructions<br>• Existence of an HSE agent on site | Periodic reports on work related accidents, injuries, near misses and illnesses.<br><br>Complaint registry<br><br>Complaint Management Committee Report | Renovation and operation phase | Project contractor | PIU, NEA ESIA Working Group, Regional Health Directorate | Health Facility Management | 4,000 |

| Activities | Impacts | Indicators | Means of verification | Timelines (preparation, construction, exploitation, Closing phases) | Responsible for | | | Cost of implementation (US$) |
|---|---|---|---|---|---|---|---|---|
| | | | | | Execution | Monitoring | Aftercare | |
| ○ Recruitment, All works onsite.<br>○ Presence of workers | In-migration (Risk of conflicts related to the use of labor ) | • Number of local community workers recruited<br>• Number of skilled workers from the community recruited by the project<br>• Conflict prevention and management committee established and functioning<br>• Number of workers with PPE<br>• Level of compliance with the requirements of the labor code in terms of health and safety at work<br>• Number of workers who have benefited from capacity building | Record of employees hired | Renovation and operation phase | Project contractor | PIU, NEA ESIA Working Group, Regional Health Directorate | Health Facility Management | 8,000 |
| ○ Interaction of workforce with community members | Gender-based violence (GBV), Sexual exploitation and abuse (SEA), Violence against Children (VAC) | • Existence of a complaint management mechanism that is sensitive to GBV, SEA, SH<br>• Number of people sensitized on GBV (disaggregated by sex)<br>• Number of awareness sessions for staff on SEA/SH and the content of the code of conduct<br>• Number of awareness raising campaign for communities in GBV/SEA/SH/VAC<br>• Number of complaints received and treated<br>• Percentage of SEA/SH related complaints that had been referred to GBV service providers for assistance<br>• Percentage of all staff and workers who signed the code of conduct | GBV, SEA, SH Complaint report<br><br>Report on GBV/SEA/SH sensitization complaints received by the complaint management committees<br><br>complaint received from the police station | Renovation and operation phase | Project contractor | PIU, NEA ESIA Working Group, Civil Society | Health Facility Management | 10,000 |

| Activities | Impacts | Indicators | Means of verification | Timelines (preparation, construction, exploitation, Closing phases) | Responsible for | | | Cost of implementation (US$) |
|---|---|---|---|---|---|---|---|---|
| | | | | | Execution | Monitoring | Aftercare | |
| | | • Existence of a complaint management mechanism that is sensitive to GBV, SEA, SH<br>• Number of people sensitized on GBV (disaggregated by sex)<br>• Number of awareness sessions for staff on SEA/SH and the content of the code of conduct<br>• Number of awareness raising campaign for communities in GBV/SEA/SH/VAC<br>• Number of complaints received and treated<br>• Percentage of SEA/SH related complaints that had been referred to GBV service providers for assistance<br>• Percentage of all staff and workers who signed the code of conduct<br>• Number of consultations with women done in separate groups led by a woman. | | | | | | |

## 8.2. Environmental and Social Management Plan Programmes

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

g) Air quality management programme

h) Water quality management programme

i) Waste management programme

j) Occupational Health and Safety management programme

k) GBV, SEA and SH Prevention Programme

l) Socio-cultural management programme

m) Health care waste management plan

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

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

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

| ESMP | Objective | Target | Action | Monitoring and reporting | Responsibility | |
|---|---|---|---|---|---|---|
| Air Quality Management Plan | To minimise the release of emissions (combustion products and particulate/dust) to air during renovation phase of the project | Limit emissions of pollutant gases like NOx, SOx, CO, in addition to dust, smoke, and fumes, within acceptable standards through the renovation phase of the project work activities | •Maintenance programme shall be developed and implemented for all associated power generators and heavy-duty equipment<br>• Controlling fuel consumption for all equipment and vehicles through prudent work execution and effective journey management<br>• Implement basic environmental awareness management program<br>• Limit use of diesel-powered generators to minimum required to sustain uninterrupted operation.<br>• Vehicle speeds in construction area and unpaved areas of the health facility shall be | Visual inspection shall be undertaken by the HSE focal person/Contractors to check for evidence of excessive dust generation.<br>If necessary, dust monitoring shall be undertaken using air quality monitoring devices in areas likely to generate dust that would affect nearby residents and workplaces to determine whether controls are being applied effectively. Maintenance schedule and records shall be kept.<br>Maintain a logbook for site fuel consumption and estimate emission from consumption. All | Project Environmental Officer | |

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| | | | limited to a maximum of 30km/h.<br>• Where practicable, vehicles and machinery that are used intermittently should not be left idling for long periods of time.<br>• Re-vegetate disturbed areas as soon as possible.<br>• Wet areas that have the potential of raising significant dusts during work activities<br>• No open burning of waste to be undertaken.<br>• During renovation, particulate matter (dust generation) will be controlled using water sprays and dust suppressants, as required. | issues shall be documented, acted on and reported in accordance with site procedures. | | |
| Water Quality Management Plan | Avoid the contamination of surface and underground water | Surface and underground water is not contaminated during | • Avoid discharging waste in water bodies.<br>• Clean up all spillages to prevent | Regular collection of water samples and analyses to know the status of the water | Project Environmental Officer | |

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| | during renovation and operation. | renovation and operational activities | contamination of surface and underground water.<br>• Regular maintenance of the water system in the facility<br><br>Avoidance of areas liable to flooding and instability | quality using water quality testing device. If necessary the samples will be sent to a Laboratory for advance analysis.~~.~~<br><br>All complaints shall be documented, acted on and reported in accordance with site procedures.<br>• Incidents of water contamination or spills<br>• Results of inspections<br>• Results of any corrective actions | | |
| Waste Management Plan | To ensure that all the various generated waste streams during the renovation and operation phase of the project are well managed in line with best practice | Practice standard waste management to protect public health and the environment | See Annex ?? | • Existence of an approved and implemented WMP<br>• Waste tracking slip<br>• Existence of labelled bins for waste collection | | |

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|---|---|---|---|---|---|---|
| | | | | • Existence of clean-up kit on site<br>• Effectiveness of the waste recovery and treatment contract | | |
| Socio-cultural Management Plan | To ensure that there are no adverse effects on the region's cultural values.<br><br>• Minimise social and/or community impacts associated with all work activities.<br>• Maximise opportunities for local engagement and businesses opportunities during the various project phases especially during the construction period. | Cultural values understood and protected by project proponent.<br>• Receive and respond to complains about social or community management issues | Develop and implement community relations and engagement plan.<br><br>No unauthorised disturbance of cultural activities by the proposed project<br>• Plan activities in recognition of indigenous cultural activities.<br>• Continue to consult with the indigenous communities.<br>• Accommodation shall be provided for some construction workers (not from surrounding communities) to minimise pressure on existing infrastructure | Review feedback from the *Alkalo* and the village development committee and related Government/non-Governmental Organisations.<br><br>Monitoring shall be by stakeholder feedback and by review of complaints.<br><br>All complaints received shall be reported to the project manager. Monthly reports shall be prepared on social and cultural management issues and any corrective actions undertaken | Project Environmental Officer | |

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|---|---|---|---|---|---|---|
| | | | • Basic health and medical services (first level assist, first aid) shall be available to reduce the demand on existing health facilities.<br>• Specify and implement the behaviour standards expected from all construction workers. This shall be formalised in a code of conduct that shall be agreed to and signed by every employee and sub-contractor.<br>• Complaints about unacceptable behaviour from construction workers shall be investigated and, appropriate action taken. • Use a wide range of communication tools to ensure that community is kept informed of project progresses.<br>• Offer opportunities for the involvement of | | | |

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| | | | local businesses and for the employment of residents | | | |
| Security, Health and Safety Management Plan | To ensure that the project does not adversely affect the security, health, safety of the employees, contractors or the general public as well as the environment. | Zero reportable injuries, spills, and work-related illnesses | The contractor shall be required to prepare a project specific Security, Health, Safety, and environmental Management Plan in accordance with the requirements of project proponent's management system.<br>• Site specific Environmental Management Plan to be prepared by the contractors will be developed prior to construction activities, after specific areas have been determined for project activities to ensure appropriate environmental management strategies.<br>• All workers on the project shall go through a compulsory | The security, safety, health, and environmental performance shall be monitored in accordance with the project and corporate procedures and reported to the project management team.<br>Monthly/Quarterly audits shall be executed<br>Monthly reports shall be prepared on health, security, environment and safety performance along incidents and corrective actions undertaken | Project Environmental Officer | |

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| | | | orientation programme before they start work.<br><br>• Environmental, Health, Safety, and Security plans, programs, and regulations governing the project would be implemented and complied with.<br><br>• Every worker would be made to sign a personal commitment to individual and corporate safety while at work.<br><br>• Health, Security, Safety, and environmental awareness programs e.g. AIDS, and malaria awareness) shall be organized for personnel. Public health risks present significant issues for | | | |

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| | | | project proponent operations.<br><br>Project proponent management as well as employees and contractors will be committed to working actively together to mitigate the impact of infectious diseases such as HIV/AIDS and of malaria. | | | |

## 8.3. Environmental and Social Monitoring Plan

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

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

The essential objectives are:

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

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

Table 8.3: Monitoring plan

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

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

## 8.4. Healthcare Waste Management Plan

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

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

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

| Table 8.4: Health Care Waste Management Procedures | | |
|---|---|---|
| General Instructions | • All health care waste produced during the care of patients must be considered as infectious waste and should be segregated and collected safely in designated containers and bags, treated, and then safely disposed (WHO).<br>• Train the staffs who are assigned in handling, treatment, and disposal of waste management<br>• Train staff on how to put on and remove PPE.<br>• Ensure necessary PPE (Gown, gloves, face mask, goggles or face shield, gumboots) is provided to all staffs, as required.<br>• Ensure staff wear PPE when handling and disposing waste according to HCW guideline. | • |

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

## 8.5. Grievance and redress Mechanism

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

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

## 8.6. Roles and Responsibilities of stakeholders

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

Table 8.5: 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 | Budget (US$) |
|---|---|---|---|---|---|---|
| **National Social Protection Secretariat (NSPS)** | The Secretariat is mandated to provide social protection including access and use of basic social services such as health care. | This project will be implemented through the NSPS | It is the responsibility of NSPS to ensure that the enhancement and mitigation measures in the ESMP are implemented<br>The Secretariat will work with other stakeholders to monitor the E& S safeguards.<br>They will shoulder the E&S monitoring of the project. | NSPS does not currently have an Environmental and Social Specialist who can help in the monitoring of the implementation of the ESMP. | Hire a competent Environmental and Social Specialist | |
| **Ministry of Health** | Responsible for the policy drive of health in the Gambia<br>The ministry is the implementing partner of this project | The Ministry of Health interface between the benefiting sector and NSPS<br>Works closely with the NSPS 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<br>The Ministry through the Regional Health Directorate ensures the project is implement as planned. | | | |
| **National Environment Agency** | The NEA through the EIA working group is mandated government Agency for ensuring compliance of projects with national environmental management laws | Project has the potential of generating negative environmental and social effects if proposed surveillance activities are not properly implemented. | Direct monitoring of the implementation of the enhancement and mitigation measures and submission of quarterly monitoring reports to PMU. To advise the PIU on required adjustments to the enhancement and mitigation programs. | 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. | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | Quarterly environmental monitoring with key stakeholders | | | |
| **Ministry of Environment, Climate Change and Natural Resources** | This Ministry oversees implementation of the environment policies adopted by the National Environment Management Council (NEMC) | The Project in line with policy goals in the sound management of the environment and conservation of natural resources | The Ministry co-opted in the monitoring to ensure adopted policies are in line with our national environmental laws<br>Support in the monitoring of greenhouse gases (i.e methane) and waste management in intervention sites | Most of the staff are overwhelmed with many assignment | Identify a focal person to work closely with the ESIA working group on the project. | |
| **Department of Water Resources** | Responsible for dealing with water resources and hydrological issues | Support in the design, installation and operationalization of the irrigation system and effective use of water resources | Ensure water resources are used wisely<br>Support in preventing water contamination and monitoring water quality | | | |
| **Local Government Authorities** | Regional authority within whose administrative area the project falls and a potential supporter in both project and post project era | Project compliments responsibilities to the beneficiaries | Potential contributor towards cost of sustainability of the project after implementation and life cycle in terms of technical and human resources as this would not be project's responsibility | Lack expertise to monitor the social aspect of the project | Train key staff on how to monitor social aspect of the project such as GBV/SEA/SH, Child labor etc. | |
| **Department of Public Health Services** | Project has implication on public health issues | Monitor and help in controlling public health issues relating to the project activities | Key stakeholder in the monitoring of controlling public health issues | | | |
| **Healthcare center** | Provide health care services to the facility users | Ensure that the renovation work is done properly according the contract and standards | Monitoring the workforce and the work activities at the health center | Lack expertise in environmental and social safeguards | An environmental and social safeguard specialist should be attached to health care center during the renovation phase of the project | |

| | | | | | | |
|---|---|---|---|---|---|---|
| **Beneficiaries' communities** | communities within the selected health facility's catchment areas or the users of the facilities | Project enhances livelihood of beneficiaries through easy access to quality health care services | • in-kind contributions, especially free labour towards plan implementation<br>• record keeping aiding monitoring program.<br>Provide relevant information during project monitoring | 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 | |
| **Non-governmental Organizations:** | those organizations working with beneficiary communities in the area health care | Project complements efforts in supporting RHD in providing basic health care services | • share and provide expertise in the implementation of the mitigation and monitoring programs.<br>• share expertise and resources in building capacity of the beneficiaries. | | | |
| **TOTAL** | | | | | | **28,000** |

## 8.7. Proposed Institutional Strengthening and Training Activities

### 8.1.1. Institutional responsibilities

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

### 8.1.2. Government Institutions

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

### 8.1.3. NGOs

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

### 8.1.4. Community institutions

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

### 8.1.5. Institutional Arrangements

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

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

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

## 8.8. Capacity Building

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

**Table 8.6: Information/Sensitization Measures & Capacity Building**

| No | Identified activities | Themes | Beneficiary | Budget (USD) |
|---|---|---|---|---|
| **Institutional Capacity - Technical Skills Development and Awareness Raising** | | | | |
| 1 | Workshops and meetings to strengthen the human resource capacity of relevant stakeholders to manage ESIAs and ESMPs. | • Workforce management and incidents and accidents risk prevention and procedure for reporting<br>• Implementation and monitoring environmental and social issues of project intervention sites.<br>• Conduct environmental and social audit | ESIA Technical working group.<br>PIU<br>Other vital stakeholders | 45,000 |
| 2 | Capacity building of relevant staff PIU, NEA and RHD | • Understanding of environmental and social safeguard issues<br>• Understanding of the roles and responsibilities of PIU and NEA staff in the implementation of the ESMP<br>• Role and functioning of the GM.<br>• Purchase of portable air, noise and water testing devices<br>• Support in managing health care waste | Environmental and Social Specialist<br>Project Coordinator<br>M & E Officer<br>RAD | 55,000 |

| | | | | |
|---|---|---|---|---|
| 3 | Information/ Awareness of the company's personnel | • Implementation and monitoring of an HSE plan<br>• Prevention of construction site accidents and implementation of an emergency evacuation plan<br>• Prevention and management of GBV/SEA/SH/VAC, GM<br>• Raising awareness about diseases (HIV-AIDS, STI, COVID-19). | Construction Manager<br>Works managers<br>HSE expert<br>Workers | 8,000 |
| **Public Awareness - Education, Communication and Information Provision** | | | | |
| 4 | Beneficiary Communities Awareness Raising Campaign | • Raising public awareness on project issues (environmental and social issues, GBV, SEA/SH, VAC and GM, Emergency preparedness, etc.)<br>• Assessment and prevention of accidents related to civil works and the movements of machines.<br>• Prevention and management of GBV/SEA/SH/VAC, GM<br>• Public awareness on diseases (HIV-AIDS/STI, COVID-19). | Local communities, CSOs/NGOs<br>The public, especially the communities where the project will be implemented | 20,000 |
| **TOTAL Forty thousand US Dollars** | | | **128,000 USD** | |

## 8.9. Cost of ESMP Implementation

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

**Table 8.7:** Summary of the costs of the environmental and social activities of the Kuntaur health centre rehabilitation project

| N° | Designation | Cost (US$) | Responsibility |
|---|---|---|---|
| 9. | Mitigation measures | 30,000 | Contractor |
| 10. | Environmental and Social Monitoring Programe | 35,000 | PIU/NEA/RHD |
| 11. | Environmental and Social after care Program | 10,000 | PIU/NEA/RHD |
| 12. | Biomedical waste management plan | 10,000 | RHD/NEA |
| 13. | Capacity-building measures | 30,000 | PIU/NEA/RHD |
| 14. | Information and awareness-raising of stakeholders | 28,000 | Public/CSO |
| 15. | Complaints Management Mechanism (PMM) | 5,000 | Local community/PIU |
| 16. | Annual audits | 10,000 | PIU/Consultant |

| N° | Designation | Cost (US$) | Responsibility |
|---|---|---|---|
| | **Total** | 158,000 | |
| | Unexpected (10 %) | 15,800 | |
| | **Overall cost** | **173,800** | |

### 8.10. Reporting Responsibilities of ESMP during Implementation

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

### 8.11. Environmental Audit

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

# 9. Conclusion

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

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

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

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

The proposed development should be allowed to proceed if the project proponent is fully committed to implement the proposed mitigation measures and ESMP whose cost is estimated to be . 173,800..... USD.. An environmental audit is recommended upon the completion of construction works to verify the implementation of the proposed mitigation measures. Any unforeseen project impacts shall be identified and addressed through annual environmental audits.

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

# Annex 1

## Perception Survey - Individual_Questionnaire (Including Patient and Staff)

SURVEY IDENTIFICATION INFORMATIONQUESTIONNAIRE 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 A — CATEGORIESLEGEND

## Basic information

*Title* ESIA_NSPS_Individual_Questionnaire

*Version identificatory* version 1

*Version notes* This is the first draft of questionnaire

## Survey data information

*Study typeKind of data* Household Survey Sample

*Mode of Data Collection* survey data [ssd]Face-to-Face

## Survey information

| | |
|---|---|
| *Country* | Gambia, The |
| *Year* | 2022 |
| *Languages Unit of analysis* | English |
| *CoverageUniverse* | Individual/Group/Community |
| | Nationwide |
| | All those affected by renovation activities of selected health facilities |
| *Primary Investigator* | Dr. Muhammed Lamin Sanyang |
| *Funding* | |

# COVER

| | |
|---|---|
| Respondent's ID # | TEXT id_num<br>_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ |
| Target Group of Respondent | SINGLE-SELECT target<br>01 ○ User/Patients (HF)<br>02 ○ Staff (HF)<br>03 ○ Staff (TF)<br>04 ○ Student (TF) |
| Local Government Area | TEXT lga<br>_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ |
| District Name | TEXT district<br>_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ |
| Settlement | TEXT settl<br>_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ |
| Area | TEXT area<br>_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ |
| Name of facility | TEXT facility<br>_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ |
| Supervisor | TEXT supervisor<br>_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ |

# CONSENT

STATIC TEXT

*For the Government of The Gambia to improve use and access to quality health services in the country, funds were provided by the African Development Bank in support of the Vulnerable Youth and Women Support Project with counterpart funding from the Government. A portion of the grant was allocated for the renovation of selected health facilities in Central River Region and Upper River Region.*
*The development is anticipated to have positive impacts on the health and livelihood of the local community and beyond, as well as attract numerous other developments and opportunities. On the other hand, the project might pose adverse negative impacts and thus there is the need to conduct 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. In order 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 appreciate your concerns/ fears and also proffer better operative 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. Participation is voluntary and you free not to answer any question you are not confortable with. If you have any concern about privacy, please contact Dr. Muhammed Lamin Sanyang (7930099), team leader of this assessment. Thank you for taking time to do this interview.*

STATIC TEXT

*Hello, my name is Mr./Ms  We are conducting a survey on Environmental & socio-economic Impact Assessment of the renovation of selected health facilities. The project is being implemented by the National Social Protection Secretariat under the Vulnerable Youth and Women Support Project which is funded by the African Development 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<br>01 ○ Yes<br>02 ○ No | consent |

# DEMOGRAPHIC CHARACTERISTICS OF THE RESPONDENT

E $COnsent

| | |
|---|---|
| 1. Name of Respondent | TEXT name_respOndent |
| 2. Telephone Numbers | TEXT tele_num_1 |
| 4. Gender of respondent | SINGLE-SELECT gender<br>01 ○ Male<br>02 ○ Female |
| 5. Marital Status | SINGLE-SELECT marital_status<br>01 ○ Never married<br>02 ○ Married<br>03 ○ Divorced<br>04 ○ Separated<br>05 ○ Widow |
| 6. Employment Status | SINGLE-SELECT empl_status<br>01 ○ Child (Age below 6 years)<br>02 ○ Student<br>03 ○ Fully employed<br>04 ○ Partially employed<br>Self- employed<br>05 ○ unemployed |
| 7. What is the respondent's occupation<br>empl_status==2\|\|empl_status==3 | SINGLE-SELECT OCCupatiOn<br>01 ○ Agricultural farming<br>02 ○ Non-agricultural labor<br>03 ○ Large/Medium business/Small business<br>04 ○ Industrial worker/factory Worker<br>05 ○ Health worker<br>06 ○ van puller/transport worker<br>07 ○ Service (Govt./NGO/Private)<br>08 ○ Fisherman<br>99 ○ Others |
| 7_Others, please specify<br>OCCupatiOn==99 | TEXT OCCupatiOn_Os |
| 8. Highest Educational Attainment (Conventional and Madrassa) | SINGLE-SELECT eduCatiOn_level<br>01 None<br>02 ○ Early Childhood Development (ECD)<br>03 ○ Primary/Madrasa<br>04 ○ Lower Secondary<br>05 ○ Upper Secondary<br>06 ○ Technical/Vocational<br>07 ○ Tertiary<br>08 Arabic Informal |

E

E

9. What is the average monthly Income level in your household?

NUMERIC: INTEGER — mOnthly_inCOme

E empl_status.InList(3,4)

10. What is your household size?

TEXT — hhsize

I Household size should include respondent and all children

11. Do you have any member of your household who is into any of the following occupations?

MULTI-SELECT-YES/NO — hh_OCCup

01 Farming
02 Trading Civil servant
03 Service, Shop and Market Sales Workers
04 Technician/Carpentry/Welding orrelated fields
05 Student
06 Unemployed
07 Others
09

11_Others, please specify

TEXT — hh_OCCup_Os

E hh_OCCup.Yes.COntains(9)

12. Is this health facility a facility that you frequently visit?

SINGLE-SELECT — freq_vis_faCility

E target==1

01 Yes
02 No

13. How frequently do you visit the facility?

SINGLE-SELECT — freq_visit_HF

E freq_vis_faCility==1

01 Rarely
02 Sometimes
03 Often
04 Always

14. How long have you been using or working in this facility?

SINGLE-SELECT — exp_faCility

01 less than a year
02 1 to 5 years

03 more than 5 years

# PROJECT AWARENESS AND SUSTAINABILITY

E target==1

| | |
|---|---|
| 1. Are you aware of any planned renovation activities on this health facility? | SINGLE-SELECT aware_prOjeCt<br>01 Yes<br>02 No |
| 2. From whom did you first learn about the project?<br>aware_prOjeCt==1 | MULTI-SELECT sOur_infO<br>01 Ministry of Health<br>02 Health worker<br>03 Members of the community<br>04 National Social Protection Secretariat<br>09 Others |
| E<br>2_Others, Please Specify | TEXT sOur_infO_Os |
| 3. Do you think users or staff of the facility are well informed of plans to undertake renovations on the facilitity? | SINGLE-SELECT COm_mem_infOm<br>01 Yes<br>02 No<br>03 Can't tell |
| 4. At what stage did you know that there will be renovation work on this facility? | SINGLE-SELECT knw_COnstr_wk<br>01 Before the project was approved<br>02 When project was approved<br>03 After the renovation started |
| 5. Do you know how long the renovation work will last? | SINGLE-SELECT knw_duratiOn<br>01 Yes<br>02 No |
| 6. Does this community have a management structure in place to ensure the sustainability of the project as a beneficiary? | SINGLE-SELECT mgt_pln_sustainbt<br>01 Yes<br>02 No<br>03 No Idea |
| 6_Why not?<br>mgt_pln_sustainbt==2 | TEXT mgt_pln_sustainbt_wn |
| E<br>7. Do you think the facility has a management structure that is able to ensure that the project is sustainable? | SINGLE-SELECT faC_mgt_sust<br>01 Yes<br>02 No<br>03 No Idea |
| 7_Why not?<br>faC_mgt_sust==2 | TEXT faC_mgt_sust_wn |

E

| | |
|---|---|
| 8. How satisfied are you with your or other stakeholders involvment in the project | SINGLE-SELECT satis_invOlment<br>01 ○ Very Satisfied<br>02 ○ Satisfied<br>03 ○ Normal<br>04 ○ Dissatisfied<br>05 ○ Very Dissatisfied<br>06 ○ No idea |

# ENVIRONMENTAL IMPACT OF PROJECT

E COnsent==1

| | |
|---|---|
| 1. How do you best describe the current healthcare services? | SINGLE-SELECT des_helt_serv<br>01 Very Good<br>02 Good<br>03 Fair<br>04 Poor<br>05 I don't know |
| 2. How do you best describe the status of current healthcare facilities in this community? | SINGLE-SELECT des_hel_faC<br>01 Very Good<br>02 Good<br>03 Fair<br>04 Poor<br>05 Very Poor |
| 3. What constraints do you face due to the current condition of the healthcare facilities? | SINGLE-SELECT COnst_faCe<br>01 Poor healthcare services<br>02 Long waiting hours<br>03 High rate of mortality<br>04 Unmotivated healthcare workers<br>09 Others |
| 3_Others, Please Specify<br>COnst_faCe==9 | TEXT COnst_faCe_Os |
| 4. Do you think the project activities will following best environmental practices? | SINGLE-SELECT prO_aCt_ff_EP<br>01 Yes<br>02 No |
| 5. What are the positive environmental and social impacts that you think will be associated with the project implementation?<br>Tick all that apply | MULTI-SELECT env_sOC_impaCt<br>01 Improve healthcare service<br>02 Enhance performance of health workers<br>03 Improve public health<br>04 Employment creation<br>05 Income generation<br>06 Better healthcare facilities<br>07 Easy access to healthcare services<br>08 Safe and healthy working environment<br>09 Others |
| 5_Others, Please Specify<br>env_sOC_impaCt.COntains(9) | LIST environ_impaCt_Os |

E

I

E

6. What are the potential negative health safety and environmental impacts that you think will be associated with project implementation

Tick all that apply

MULTI-SELECT helth_saf_env_imp

- 01 Noise Pollution
- 02 Dust pollution
- 03 Gaseous emission from vehicles and heavy machineries
- 04 Waste generation
- 05 Water pollution/contamination
- 06 Soil pollution/contamination
- 07 Accidents and injuries to workers
- 08 Road congestion
- 09 Loss of biodiversity
- 99 Others

6_Others, Please Specify

health_saf_env_imp.Contains(9)

LIST hth_saf_evn_Os

7. To what extent do you agree or disagree that the Project Implementation Organization will do enough to address your main environmental concern?

SINGLE-SELECT dO_engh_En_COns

- 01 Strongy Agree
- 02 Agree
- 03 Don't Know
- 04 Disagree
- 05 Strongly Disagree

8. What do you think can be done to avoid / reverse the potential negative environmental impacts?

TEXT reves_neg_env_imp

9. What is your observation on the quality of the air within the health facility?

SINGLE-SELECT qual_air_COm

- 01 Clean
- 02 Not clean
- 03 Don't Know

10. What do you think could be responsible for polluting the air in this health facility?

MULTI-SELECT air_pOllutant

- 01 Bush fires
- 02 Dust from construction activities
- 03 Smoke generated from vehicle
- 04 Smoke from burning agricultural by-products
- 05 Open burning of waste
- 06 Household smoke/Cooking
- 07 Smoking
- 09 Others

10_Others, please specify

air_pOllutant.COntains(9)

TEXT air_pOllutant_Os

11. How do you find the quality of the water within the health facility?

SINGLE-SELECT qual_water_COm

- 01 Clean
- 02 Not clean
- 03 Don't Know

| | |
|---|---|
| 12. What do you think could be responsible for polluting the water in this health faility? | MULTI-SELECT water_pollutant<br>01 ☐ Dumping of solid waste in water bodies<br>02 ☐ Discharge of liquid water into water bodies<br>☐<br>03 ☐ Oil spillage<br>☐ Others |
| 12_Others, please specify<br>E water_pollutant.Contains(9) | TEXT water_pollutant_Os<br>_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ |

# SOCIAL IMPACT OF PROJECT

E COnsent==1

| | |
|---|---|
| 1. Do you have any relative or member of your household that works at the renovation site? | SINGLE-SELECT rel_wOrk_site<br>01 Yes<br>02 No |
| 2. How satisfied are they with the working conditions?<br>rel_wOrk_site==1 | SINGLE-SELECT satis_wOrk_COnd<br>01 Very Satisfied<br>02 Satisfied<br>03 Normal<br>04 Dissatisfied<br>05 Very Dissatisfied<br>06 No idea |
| 2. Do you think the renovation work cause voluntary resettlement of business activities within or around the facility? | SINGLE-SELECT relOCated<br>01 Yes<br>02 No |
| 3. How would you gauge the impact of the renovation works on economic activity around the facility? | SINGLE-SELECT Ov_impaCt_EA<br>01 Positive<br>02 Negative<br>03 No idea |
| 4. Why you think the renovationactivity will have such an impact?<br>Ov_impaCt_EA==1\|\|Ov_impaCt_EA==2 | TEXT why_Ov_EA |
| 5. What do you think can be done to address the negative impact on Economic Activity?<br>Ov_impaCt_EA==2 | TEXT mitigate_impaCt_EA |
| 6. Do you think after completion the new/renovated facility is going to improve health service provision? | SINGLE-SELECT improVe_health_prOv<br>01 Yes<br>02 No |
| 7. How will the renovation affecthealth service delivery in the community?<br>improVe_health_prOv==1 | MULTI-SELECT hth_serviCe_delvry<br>01 Reduce congestion at service points<br>02 Provision of new services<br>03 Improve quality of services<br>04 Improve physical condition of health infrastructures<br>05 Expansion of facility to handle more health cases<br>09 Others |
| 7_Others, Please Specify<br>hth_serviCe_delvry.COntains(9) | TEXT hlth_ser_devry_Os |
| 8. Do you think the renovation will have negative effect on health service delivery in this community? | MULTI-SELECT aff_hel_delvry<br>01 Yes<br>02 No<br>03 No idea |

9. How will it negatively affect health care delivery?

aff_hel_delvry.Contains(9)

MULTI-SELECT hw_aff_hel_devry

- 01 Unavailability of some services in the community
- 02 Increase congestion at the facility
- 03 longer waiting time at facilities
- 04 Deliver of poor services
- 09 Others

10. What type of Care is likely to be affected the most by the renovation?

SINGLE-SELECT type_Care_affeCted

- 01 In patient
- 02 Out patient
- 03 Both

11. How satisfied are you with the temporal measures that will be adopted by the management of thefacility to continue delivery of services during the renovation works?

SINGLE-SELECT satisf_tem_meas

- 01 Very Satisfied
- 02 Somewhat Satisfied
- 03 Not Satisfied
- 04 Very unsatisfied

11_Why are you not satisfied with the measures?

type_Care_affeCted==3||type_Care_affeCted==4

TEXT satisf_tem_meas_wn

12. What is/are your expectation concerning this project in terms of contributing to the socioeconomic wellbeing of users of the facility?

MULTI-SELECT exp_soC_impaCt

- 01 Improve business opportunities
- 02 Create employment opportunities
- 03 Increase accessibility to services
- 04 Reduce cost of using services
- 09 Others

12_Others, Please Specify

exp_soC_impaCt.COntains(9)

TEXT exp_soC_impaCt_Os

13. How do you see the overall impact of this project on your livelihood?

SINGLE-SELECT impaCt_livhd

- 01 Excellent
- 02 Good
- 03 Fair
- 04 Poor

14. Do you forsee the project having an impact on land availability and use in your community

SINGLE-SELECT impaCt_land

- 01 Yes
- 02 No

15. What are the potential negative social impacts that you think will be associated with project implementation?

Tick all that apply

MULTI-SELECT Ove_soCial_impaCt

- 01 Unfair treatment and discrimination to workers
- 02 Displacement of businesses
- 03 Disruption of healthcare services
- 04 Increase gender-based violence
- 05 Increase in communicable diseases and STDs
- 06 Promote child or forced labor
- 07 High in-flux of workforce

| | |
|---|---|
| 16. Does this project violates any of your rights? | SINGLE-SELECT vio_rights<br>01 ○ Yes<br>02 ○ No |
| 16_How does the project violate your rights, please explain? | TEXT vio_rights_hw<br>_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ |

# *APPENDIX A — CATEGORIES*

[1] Likert_scale_good_poor
Categories: 1:Very Good, 2:Good, 3:Fair, 4:Poor, 5:I don't know

[2] likert_scale1_agree_disagree
Categories: 1:Strongy Agree, 2:Agree, 3:Don't Know, 4:Disagree, 5:Strongly Disagree

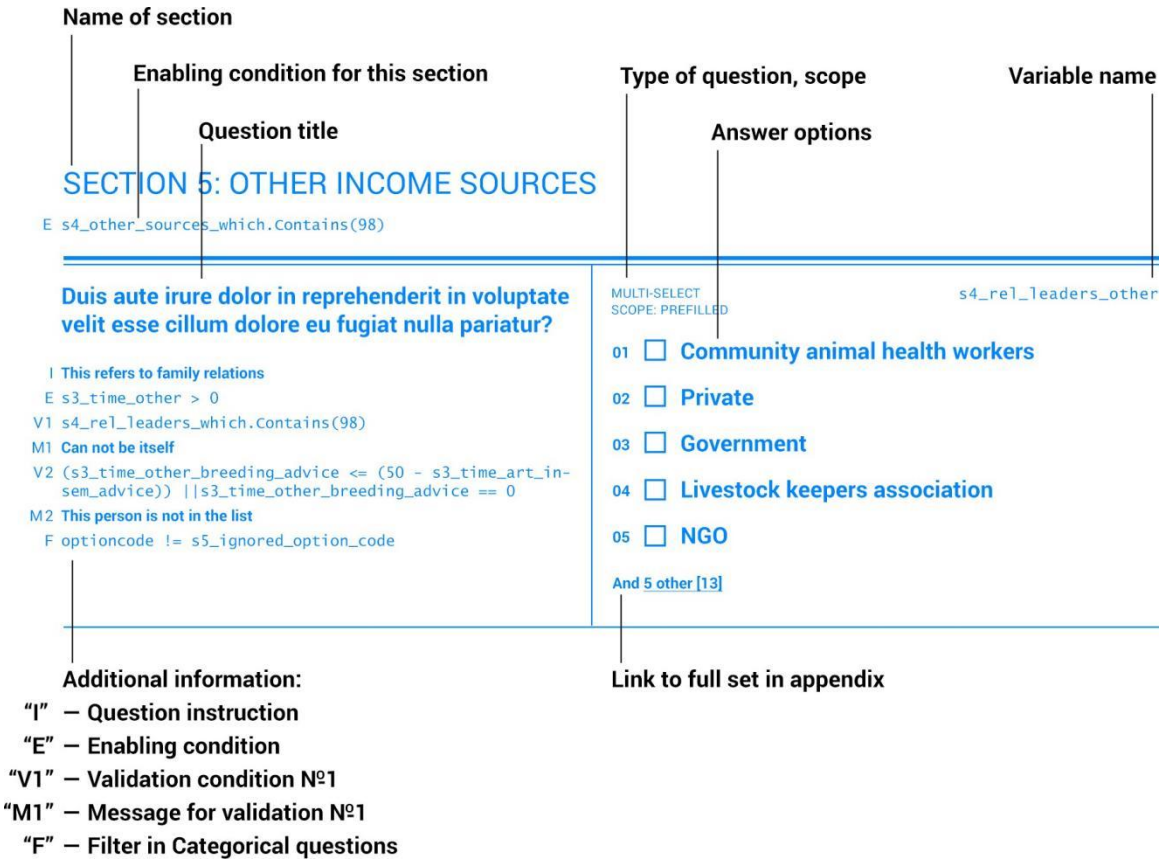
[3] yes_no_noidea
Categories: 1:Yes, 2:No, 3:No Idea

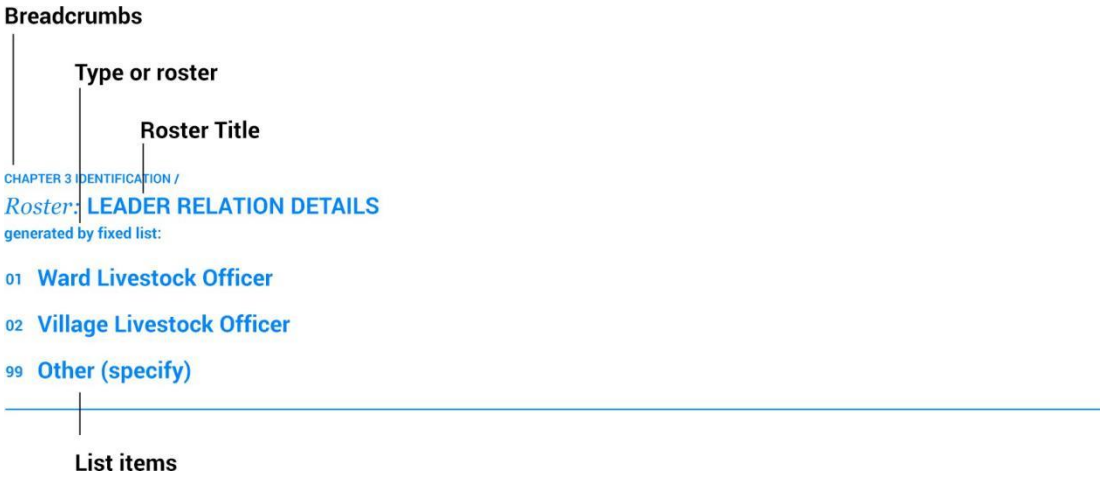
[4] likert_scale_yes_no
Categories: 1:Yes, 2:No

[5] likert_scale3_satisfaction
Categories: 1:Very Satisfied, 2:Satisfied, 3:Normal, 4:Dissatisfied, 5:Very Dissatisfied, 6:No idea

# *LEGEND*

Legend and structure of information in this file




Breadcrumbs
Type or roster
Roster Title
CHAPTER 3 IDENTIFICATION /
Roster: LEADER RELATION DETAILS
generated by fixed list:
01 Ward Livestock Officer
02 Village Livestock Officer
99 Other (specify)
List items

# Annex 2

**Environmental and Social Requirements for renovation of health facilities**

The contractor shall adhere to the following E&S throughout its terms of performance. [4]

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

# Annex 3

**Environmental and Social Codes of Practices**

**CHECKLIST 1 Environmental and Social Codes of Practice –**

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

**Target: Construction Workers OHS/Project Supervisor/Facility Manager**

### Worker Safety

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

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

### General Rehabilitation and/or Construction

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

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

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

**Waste Management**

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

**Wastewater Treatment**

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

**Traffic Management**

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

**Emergency Disaster and Preparedness Plan**

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

REFERENCES


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

# Annex 4

**Selected Photos**

*Abandoned staff quarters roofed with asbestos in Fatoto health centre*

*Participants in Fatoto Community Consultation meeting*

| **1.1. LOCAL COMMUNITY MEMBERS IN CONSULTATION MEETINGS** | | | |
|---|---|---|---|
| **Srl.** | **Name** | **Community Name** | **Designation** |
| 1. | Adama Camara | Fatoto | CAC-Advisor/Council of Elder |
| 2. | Babucarr Sillah | Fatoto | Council of Elder |
| 3. | Alhagie Dambelly | Fatoto | SMC chair |
| 4. | Alieu Camara | Fatoto | Elder |
| 5. | Bokir Sowe | Fatoto | SIS |

| | | | |
|---|---|---|---|
| 6. | Bansa Sarr | Fatoto | Caretaker |
| 7. | Malick Nyang | Fatoto | Mosque Committee |
| 8. | Saidou Sowe | Koli Kunda | Chairman Health Committee |
| 9. | Mariama Jawo | Fatoto | Committee Member |
| 10. | Sarjo Barry | Fatoto | Committee Member |
| 11. | Adama Jallow | Fatoto | Committee Member |
| 12. | Amie Njie | Fatoto | Vdc chairperson |
| 13. | Bubacarr Jawo | Sinchu Gidesy | Vdc chairperson |
| 14. | Mariama Drammeh | Fatoto | Committee Member |
| 15. | Isatou Danso | Fatoto | Committee Member |
| 16. | Fatou Camara | Fatoto | Committee Member |
| 17. | Ida Camara | Fatoto | Committee Member |
| 18. | Fatou Baldeh | Fatoto | Committee Member |
| 19. | Agi Ndure | Fatoto | Committee Member |
| 20. | Jainaba Cham | Fatoto | Committee Member |
| 21. | Mama Jawo | Koli Kunda | Committee Member |
| 22. | Nebi Camara | Fatoto | Committee Member |
| 23. | Gundo Camara | Fatoto | Committee Member |
| 24. | Haja Camara | Fatoto | Member Mothers Club |
| 25. | Yero Sowe | Koli Kunda | Alkalo |
| 26. | Mawdo Sowe | Koli Kunda | Alkalo Comm. |

**WATER QUALITY MONITORING AND CONTROL LABORATORY:**
**DWR, KMC, ABUKO: Tel:4398104/9945050/7379302**

## WATER QUALITY ANALYSIS RESULTS

**Location details**

**Town:** Fatoto Village
**Address:** **C/o SKM Environmental Co Ltd**
**Location:** Fatoto Health Center
**District:** Upper River Region North
**Division:** Upper River Region

**Type of Sample:** Borehole Water
**Sample taken from:** The Borehole outlet

**Date of Analysis:** 03rd to 05th May 2023 **Weather Conditions:-** Sunny

| Parameter | Fatoto H/C | WHO Guideline Values |
|---|---|---|
| Temperature (°C) | 30.5 | **Acceptable** |
| Turbidity (NTU) | <5 | **<5** |
| pH | 5.96 | **6.5 - 8.5** |
| pH after aeration (A.pH) | 6.11 | **6.5 - 8.5** |
| Electrical Conductivity (mS/cm) | 89 | **1300** |
| Total Dissolved Solids (mg/l) | 57 | **1000** |
| Salinity (promile) | 0.04 | **NS** |
| Colour | Absent | **Absent** |
| Odour | Normal | **Normal** |
| Taste | Normal | **Normal** |
| Suspended Solids(mg S.S./l) | 0 | **NS** |
| Phosphate (mg $PO_4^{3-}$/l) | 0.14 | **NS** |
| Nitrate (mg $NO_3^-$-N/l) | 0.7 | **10** |
| Nitrite (mg N-$NO^-_2$/l) | 0.003 | **0.03** |
| Total Iron (mg $Fe^{+2/3}$/l) | 0.15 | **0.3** |
| Sodium (mg $Na^+$/l) | 3 | **150** |
| Chloride (mg $Cl^-$/l) | 7.6 | **250** |
| Alkalinity (mg $CaCO_3$/l) | 29 | **>20** |
| Hardness (mg $CaCO_3$/l) | 33.2 | **200** |
| Calcium (mg $Ca^{+2}$/l) | 7.1 | **200** |
| Magnesium (mg $Mg^{+2}$/l) | 1.3 | **150** |
| Manganese (mg $Mn^{+2}$/l) | 0.17 | **0.5** |
| Fluoride (mg $F^-$/l) | 0.15 | **1.5** |
| Sulphate (mg $SO_4^{-2}$/l) | 2 | **250** |
| Ammonia (mg $NH_4^+$/l) | 0.11 | **0.5** |
| Total Coliform (No./100ml) | NT | **nil** |
| Faecal Coliform (No./100ml) | NT | **nil** |
| Sanitary Survey | *Clean Bottle* | ***Clean, dry with good drainage*** |

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

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

***Officer In Charge:*** *Mr. Badou Saine*
*Senior Lab Technician*