

Republic of The Gambia



Ministry of Health

The Gambia Essential Health Services Strengthening Project (P173287)

ASBESTOS ABATEMENT REMEDIAL ACTION PLAN For Health Care Facilities Renovation and Installation

September 9, 2022

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Acronyms

AARAP	Asbestos Abatement Remedial Action Plan
ACM	Asbestos-containing material
CERC	Contingent Emergency Response Component
COVID-19	Coronavirus Disease 2019
CRR	Central River Region
EPA	Environment Protection Authority
ESCP	Environment and Social Commitment Plan
ES COP	Environmental and Social Codes of Practice
ESDD	Environmental & Social Due Diligence
ESF	Environmental and Social Framework
ESHS	Environmental Safety and Health System
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plan
ESMF	Environmental and Social Management Framework
ESRS	Environmental and Social Review Summary
ESSs	Environmental and Social Standards
E&S	Environment and Social
GBV	Gender-Based Violence
GEAP	Gambia Environment Action Plan
GIIP	Good international industry practice
GMD	Gambian Dalasi
GRM	Grievance Redress Mechanism
HCFs	Healthcare Facilities
HCWM	Health Care Waste Management
H/C	Health Center
HEPA	High-efficiency Particulate Air
HSE	Health, Safety and Environment
ICWMP	Infection Control and Waste Management Plan
IDA	International Development Association
IPC	Infection Prevention and Control
LMP	Labor Management Procedures
LRR	Lower River Region
MoH	Ministry of Health
M&E	Monitoring and Evaluation
NBR	North Bank Region
NDP	National Development Plan
NEA	National Environment Agency
NEMA	National Environment Management Act
PCU	Projects Coordination Unit
POPs	Persistent Organic Pollutants
PPE	Personal Protective Equipment
PVA	Polyvinyl Alcohol
OHS	Occupational Health and Safety

RHD	Regional Health Directorate
RFP	Request for Proposal
RPE	Respiratory Protective Equipment
SEA	Sexual Exploitation and Abuse
SEA/H	Sexual Exploitation and Abuse/Harassment
SEP	Stakeholder Engagement Plan
SOP	Standard Operating Procedures
VAC	Violence against Children
WBG	World Bank Group
WHO	World Health Organization
WMP	Waste Management Plan
UN	United Nations
URR	Upper River Region
µm	Microms

1. Introduction and Background

This Asbestos Abatement Remedial Action Plan (AARAP) is developed to ensure safe removal, handling, temporary storage, transport and disposal of all hazardous asbestos materials during the Ministry of Health (MOH) Healthcare renovation and rehabilitation program that is part of The Gambia Essential Health Services Strengthening Project (P173287) financed under the World Bank (WB). This AARAP is on the basis of the Environmental and Social Management Framework (ESMF) that was completed and approved by the WB in June 2020 and updated on May 6, 2021 as part of the Additional Financing (AF)¹.

The Parent Project includes three components: (1) Improving the Delivery and Utilization of Quality Essential Primary Health Care (PHC) Services; (2) Project Management; and (3) Contingent Emergency Response Component (CERC); as part of the new Implementation Management and Monitoring and Evaluation. The AF increased funding to support new activities which includes the renovation, equipment and construction supervision of selected health facilities including safe removal of damaged asbestos in the healthcare facilities (HCFs).

The ESMF already developed and approved under the project has clearly presented the risk of asbestos exposure for the renovation activities of some health facilities and has recommended the development of an AARAP to be used as a reference for the management of these hazardous materials.

The MOH is the implementing agency for the project and has a Projects Coordination Unit (PCU) that is coordinating all current WB project activities. The PCU is now fully staffed with a PCU coordinator, senior operations officer, and environmental and social focal points. The implementation arrangements as stipulated in the Financing Agreement of the parent project (that is, National Health Emergency Committee [NHEC], MOH, and PCU) are in place and functional. This document has been produced by a team from the MOH, Masterplan Architects + Engineers, the National Environment Authority (NEA) and the World Bank E&S Team.

2. Objective of the Asbestos Abatement Remedial Action Plan

The objective of this AARAP is to mitigate negative environment and social (E&S) risks and impacts of the hazardous asbestos materials to be removed in the renovation of The Gambia MOH health care facilities in line with national regulations and guidelines, the Environmental and Social Standards (ESSs) of the WB Environmental and Social Framework (ESF) as required in the ESMF and also aligned with the Environmental and Social Review Summary (ESRS)², Environmental and Social Commitment Plan (ESCP)³, and the Stakeholder Engagement Plan (SEP)⁴ and other specific plans (such as Labor Management Procedures [LMP]; Environmental, Social, Health and Safety [ESHS], etc.) that have been prepared for the Project.

3. Overview of the detailed survey of healthcare facilities

As part of the new activities of renovation and equipment of selected health facilities, a detailed assessment survey and inventory of the selected health facilities to determine the amount of asbestos in the health care facilities was conducted for the MOH which indicated the presence of asbestos in each of the 13 selected HCFs. The survey provided the locations, conditions and further revealed that asbestos was present in various locations in the buildings such as roofs, floor tiles, drainage pipes, walls and fencing (*see Annex 1*).

¹<http://documents.worldbank.org/curated/en/143311635256180636/Environmental-and-Social-Management-Framework-ESMF-The-Gambia-Essential-Health-Services-Strengthening-Project-P173287>

²<https://www.moh.gov.gm/wp-content/uploads/2021/12/Appraisal-Environmental-and-Social-Review-Summary-ESRS-The-Gambia-Essential-Health-Services-Strengthening-Project-P173287-1.pdf>

³<https://www.moh.gov.gm/wp-content/uploads/2021/12/Environmental-and-Social-Commitment-Plan-ESCP-The-Gambia-Essential-Health-Services-Strengthening-Project-P173287-1.pdf>

⁴<https://www.moh.gov.gm/wp-content/uploads/2021/12/Stakeholder-Engagement-Plan-SEP-The-Gambia-Essential-Health-Services-Strengthening-Project-P173287-1.pdf>

The survey found a significant number of HCFs where asbestos is found, and they are in a very poor state, badly damaged. In Basse District Hospital, the maternity ward, chest/tuberculosis clinic and waiting sheds, the asbestos fibers in the roofing are exposed. In Mansakonko, all the roofing sheets in the staff quarters had holes and cracks with exposure to fibers. In other areas, asbestos was found in the kitchens, offices, fencing and drainage pipes of toilets.



Figure 1. Waiting shed



Figure 2. Asbestos in plumbing pipework



Figure 3. Old asbestos roofing sheet for fencing

Following the survey by the consultant for MOH, the NEA in October 2021 conducted a verification exercise in 28 health facilities across the five regions, and quantities in each of the 13 selected HCFs in this project is presented in Annex 2.

According to the *NEA report* some of the asbestos removed from buildings were found to be reused for fencing for gardens or outdoor bathing areas while others are left lying abandoned which poses more health risks.

4. Policy, Legal and Regulatory Framework

The relevant national legislation, policies, legal and institutional frameworks, as well as the WB's Environment Safeguards Framework requirements that will govern the implementation of this project are summarized below:

Table 1. National Policies Relevant to the Project

Policy	Relevance to the Project
Gambia Environment Action Plan, GEAP III (2021-2030)	Provides a general framework for environmental planning and natural resources management through a multi-sectoral approach.
National Development Plan (2018-2021)	The NDP provides a strategic and comprehensive plan for The Gambia specifically contributing to achieving environmental protection for all as stated in Outcome 4.7.
National Health Policy (2012-2020)	Relevant to this sub-project since dust, smoke and other risks can be associated with the project activities. This Project will be implemented within the context of this Policy.

Table 2. National Acts and Regulations Relevant to the Project

Legislation	Relevance to the Project
National Environment Management Act, NEMA, 1994	This Project falls under Schedule A requiring environmental and social evaluation.
Hazardous Chemicals and Pesticides Control and Management Act, 1994	Provides regulations for the use of hazardous chemicals and pesticides, making it compulsory to register all hazardous chemicals and pesticides sold and used in The Gambia. Since asbestos is highly hazardous, the regulation should be complied with.
Environmental Discharge (Permitting) Regulations, 2001	Protects against pollution; the project implementation has potential to discharge hazardous waste during transportation or operation.
Environmental Impact Assessment Regulations, 2014	Provides the legal framework for the conduct of EIA procedure. It clearly spells out the EIA process, the Categorization of projects and sub-projects (A, B, C); Environmental Assessment, the procedure for technical assessment of the reports; the competencies required in the EIA field etc.
Anti-littering Regulations, 2007	The Project must ensure that all waste produced during all phases is well managed.
Environmental Quality Standards Regulations, 1999	This regulation provides for proposing and periodically reviewing the environmental quality standards. Applicable to ambient air, saline waters, surface fresh waters and groundwater.
Public Health Act, 1990	Make provisions for health risks associated with the Project must be prevented or reduced.
Labor Act, 2007	Protects the rights of the employee. The hiring and management of the labor force for this project should comply with this Act.
The Children's Act 2005	Children should be protected against potential impacts of the sub-project including prohibition of access to the site, use of child labor and other violence against children.
Women's Act 2010	Relevant to this project in view of the need to mitigate risks of gender-based violence (GVB), including sexual exploitation and abuse (SEA).
Sexual Offences Act, 2013	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.
*Waste Management Bill, 2007 ⁵	Provides specific legal framework for waste management including the licensing, collection, disposal and treatment of waste.

Table 3. International policies and treaties ratified by The Gambia that are most relevant to this project

Agreement/Convention	Relevance to Project
Stockholm Convention on Persistent Organic Pollutants (POPs)	Protects human health and the environment from POPs that remain intact in the environment for long periods, become widely distributed geographically, accumulate in the fatty tissue of humans and wildlife, and have harmful impacts on human health or on the environment.

5. Applicable World Bank Environmental and Social Standards

In all the 13 HCFs, the asbestos containing material are in existing compounds, and project activities will not directly alter or cause destruction to any critical or sensitive natural habitats. However, all activities will be guided by the WB's ESF mandates defined in the ESMF. Five of the ten ESSs of the WB's ESF have been screened as relevant in the project. In addition, all activities financed through the project are subject to the WBG

⁵ **not yet enacted but is considered by virtue of its relevance.*

Environmental, Health and Safety (EHS) Guidelines including those on “healthcare facilities”, “waste management”, “hazardous materials management”, and “construction and decommissioning”. All appropriate current World Health Organization (WHO) Guidance is also being adhered to by the MOH and its contractors. The required environmental and social standards, measures and actions for the safe removal and disposal of asbestos is highlighted below:

Table 4. Required Environmental and Social Standards Measures and Actions for Asbestos Remediation

Relevant Environmental & Social Standard (ESS)	Required Measures and Actions
ESS1 Assessment and Management of Environmental and Social Risks and Impacts	The EMSF has made provisions for an AARAP for the safe removal of asbestos to serve as a guide. MOH will assign national environment institutions with qualified staff and resources to support the management of ESHS risks and impacts anticipated in the asbestos removal.
ESS2 Labor and Working Conditions	The LMPs were established in the ESMF and are being followed that includes how project workers will be managed in accordance with the requirements of national laws and legislation as well as terms and conditions of employment, nondiscrimination and equal opportunity, and establishing/managing worker’s organizations for construction companies. Restrictions on child labor and forced labor are to be followed. The Occupational Health and Safety (OHS) measures to ensure the health and safety of workers, especially women, are in line with the ESMF, LMP, IPC & WMP. The Grievance Mechanism for workers and the roles and responsibilities for monitoring such workers has been incorporated into the contract requirements. Provisions to prevent SEAH/VC , including specific Codes of Conduct for contracted workers in line with relevant national laws and legislation are observed.
ESS3 Resource Efficiency and Pollution Prevention and Management	The IPC & WMP measures in the ESMF are incorporated in this AARAP which provides further details on how asbestos will be safely removed, handled, transported and disposed of to avoid or minimize adverse impacts on human health and the environment.
ESS4 Community Health and Safety	During the process of asbestos removal, measures will be taken to restrict movement and access to work areas to mitigate risk to workers, patients and communities. The transportation of the asbestos waste to the designated site in LRR will follow the guidelines and protocols established by the NEA and the AARAP. These measures have been incorporated into the contractors ToR.
ESS10 Stakeholder Engagement and Information Disclosure	The MOH will undertake appropriate community and stakeholder outreach for the safe removal of asbestos following the SEP .

6. Impacts of asbestos on health

Studies have shown that the exposure to asbestos over a long duration can lead to health effects such as asbestosis, lung cancer, mesothelioma and other related diseases. Asbestos has been recognized as a leading cause of various pulmonary diseases and considered a health hazard if inhaled (World Bank Group, 2009). There is also evidence that asbestos is linked to other cancers (WHO, 2018). Tiny traces of asbestos fibers can be trapped in the human body through inhalation or swallowed and whereas the body may get rid of some fibers, many remain permanently stuck in the body’s digestive or respiratory tissue leading to deadly diseases such as cancer. No level of asbestos exposure is proven to be safe and recent studies (ILO, 1990) indicate that the longer-term exposure can be a hazard.

In The Gambia, there is no clear policy or regulation on the asbestos use or disposal, however the NEA has been engaging stakeholders and awareness is being raised on the hazardous effects of asbestos. A guideline for the removal, transportation and disposal of asbestos has been recently prepared.

Where hazardous materials (such as asbestos) are parts of existing project infrastructure or components, the WB's ESF recommends exercising due care in construction and implementation of the project to avoid exposure to the workers and the community. The use of Good international industry practice (GIIP) is recommended to ensure a safe management and disposal of hazardous materials where national legislation and regulations are absent.

The WHO (2014) strongly recommends public health actions for the elimination of asbestos-related diseases: stopping the use of asbestos, replacing it with safer substitutes, taking adequate measures to prevent exposure to asbestos in place and during asbestos removal, and improving early diagnosis and treatment amongst others.

Given the structures surveyed are mainly public buildings and health facilities, it is imperative that urgent action be taken to remedy this situation. All the 13 sites are HCFs and living quarters of health workers, hence the potential risks and impacts on the health of the patients and health workers are high. The deteriorated structures may imperatively pose serious health implications to residents and patients.

7. Relevant institutions to be involved in the implementation and monitoring of the AARAP

The table below indicates the institutions that are responsible for guiding the removal and disposal of asbestos waste.

Table 5. Relevant Institutional Framework

Institution	Role / Responsibility	Relevance to Project
National Environment Agency (NEA)	National regulatory authority in charge of coordinating all multi-sector environmental matters, responsible for issuing environmental guidelines and approvals.	Ensures compliance with environmental legislation and recommendations of this AARAP Key authority for approving and inspecting asbestos removal as hazardous materials
Ministry of Health (MOH)	Responsible for overall formulation and direction of the national health agenda, planning and health infrastructural development	Provides policy oversight and Project Implementation
Department of Labour	Enforces employment laws	Protection of employee rights; Protection against child labour; Response to complaints and reports such as accidents, abuse and discrimination at work
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.
Mansakonko Area Council	Responsible for the waste management in LRR	Supports the regional NEA office in the coordination of waste disposals.
National Disaster Management Agency	Responsible for disasters and disaster risk reductions	Supports NEA and their regional offices in the disposal of hazardous waste.

8. Environmental Evaluation and Screening

The Gambian Environmental Impact Assessment (EIA) Regulations clearly spell out the EIA process including the Categorization of projects and sub-projects (A, B, C) and the procedure for technical assessment and contents of the EIA. To facilitate rapid screening, all Gambia COVID-19 related activities were classified as Tier 1, Tier 2 or Tier 3 based on the list of Project components. Tier 1 activities have low or no E&S risk or impact, as determined using the checklist to confirm they are Tier 1. These activities can proceed with all procurement and approvals

immediately applying specific environmental and social management provisions as indicated in the table under risks and impacts and mitigation measures.

Tier 2 activities have moderate to low E&S risks and impacts and are managed through practical provisions also listed in the table. These Tier 2 activities include upgrading medical facilities such as laboratories, treatment centers, expanding and upgrading quarantine, isolation centers and screening posts, and installation and operation of the incinerators. The ESMF screening table is provided in Table 6.

Table 6. Screening for list of goods, services and works for the Project from the full ESMF for Tier 2 subprojects

Renovation and Upgrading Facilities – Tier 2	
<p>Safe Removal of Asbestos -</p> <ol style="list-style-type: none"> 1. Bansang General Hospital Staff quarters Bansang 2. Regional Health Directorate Office and Staff Quarters 3. Bansang School for Enrolled Nurses and Midwives 4. Basse District hospital 5. Brikama District hospital 6. Bwiam General Hospital (old health center) 7. Farafenni Old Health Center 8. Kaur Health Center 9. Kiang Karantaba Health Center 10. Kudang Health Center and Staff Quarters 11. MansaKonko Staff Quarters 12. North Bank East Regional Health Directorate Office and Staff Quarters 13. Yorro Bawol Staff Quarters 	<p>Moderate to Low</p> <ul style="list-style-type: none"> ● Apply ESCOP Checklist 2a Asbestos Removal ● Apply ESCOP Checklist 4 Small Scale Construction Upgrades, Rehab and Expansion ● Apply ESCOP Checklist 5 Codes of Conduct ● ICWMP ● LMP ● SEP ● GRM ● ESMP if needed ● Apply AARAP

The MOH PCU has confirmed that the activities financed under the project are NOT on the Prohibited List. The PCU has verified the preliminary environmental and social screening of proposed procurement for HCF renovation and rehabilitation by using the E&S risk and impacts classification checklist in the full ESMF as a Tier 2 subproject. NEA has confirmed the classification under the EIA Regulation 2014.

The full ESMF also included ESCOP checklists covering seven major themes including COVID-19 OHS, waste management and labor management measures following WHO and GIIP, WB guidance and national requirements. For this AARAP, the ESCOP Checklist 1 - Waste Management Procedures and ESCOP Checklist 2 - Codes of Conduct are applicable and are found in Annex 4. More details around these provisions and specific ESS alignment are highlighted below.

9. MOH Infection Prevention Control and Waste Management

A detailed Infection Control and Waste Management Plan (ICWMP) has been developed for The Gambia and was detailed in Annex 4 of the ESMF. The MOH is responsible for providing the legal framework managing environmental and social risks in the health sector and developing 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 Policy⁶. 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,

⁶ The Gambia - National Health Care Waste Management Standard Operating Procedure, 2015
<http://documents.worldbank.org/curated/en/764301468024555870/National-health-care-waste-management-standard>

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.

The HCWM Plan developed by the MOH was detailed in the ESMF for handling and disposal of health care waste. Special attention was directed at asbestos remediation as part of the Environmental, Health and Safety concerns for health care facility rehabilitation. Under The Gambia’s NEMA and environmental assessment requirements, an environmental assessment is not required for health care facility rehabilitation. As stated earlier, all civil works planned to be executed under this project will be located on the public lands within the compound of health centers or referral hospitals. These rehabilitations/upgrades/renovations of HCFs may generate limited adverse impacts such as dust, noise, vibration, building waste, wastewater, traffic obstruction, safety issues, construction workers hygiene and sanitation to the environment and surrounding residents. These impacts are assessed to be site-specific, temporary and can be mitigated with good design and construction practices. For Tier 2 subprojects, a generic environmental management plan checklist (which include ESCOPs) will be followed to avoid/minimize impacts from these minor civil works.

A generic concern with such minor construction upgrades is exposure to asbestos if such materials were used in past building programs. As part of the ESMF requirements, the MOH has to verify that when asbestos is present in existing structures all appropriate occupational health and environmental mitigation measures will be undertaken.

10. Details of the AARAP

The removal and disposal exercise will be undertaken with due regard to minimizing any potential effects to the health of the people as well as the environment. A removal control Plan that complies with NEA guidelines and other relevant occupational and environmental legislation is discussed in this document and reflects the recent collaborative partnership across NEA, MOH and the WB. The Plan documents appropriate procedures for removal and disposal of asbestos and the required capabilities of contractors.

It is scientifically proven that asbestos has effects when it is in motion or has cracks. As such, only qualified personnel should be engaged to conduct the removal, transportation and disposal of asbestos and should be equipped with specialized gears, and respiratory equipment should be provided to prevent exposure. The International Labor Office (ILO) guidelines specify some measures for asbestos removal and disposal. In view of the current regulations surrounding hazardous chemicals, the NEA should also be notified and or involved in the process as the regulatory authority.

Below are considerations and procedures to be applied:

10.1 Asbestos identification and facility inventory

The survey has clearly identified the locations of asbestos in all the 13 HCFs. The site where the asbestos is found will have proper control measures during the removal process to avoid further contamination that may pose a

human health risk. As these facilities are currently being used, it is recommended to have the occupiers or users vacate during the exercise to protect. Notice to vacate should be issued and the grievance redress mechanism (GRM) communicated through the stakeholder engagement prior to the project start to provide avenues for logging and resolving any and all complaints and grievances in a timely manner.

The key considerations below need to be fully adhered to in preparing the sites for the removal process by the approved contractors and their workers:

- **Personnel safety on site** - Site workers or site users should be protected with the right PPE (personal protective equipment) and RPE (respiratory protective equipment) at all times to protect them from exposure to airborne fibers during activities.
- **Limiting access** - Restrictions on use and entrance should also be placed and agreed by all parties. A strict permit to only workers and inspectors. Where there are no fences, access can be limited by installing barricades around the site.
- **Barricades** - The use of barricades is recommended; the location will depend on the physical environment and the level of risk. A prior assessment of the asbestos removal work site by the contractor should determine the appropriate placement of barricades and the type of barrier used, the distance between barriers and the activity around the area (health facility open to public, residential, etc.).
- **Warning signs** - Adequate warning signs should be displayed at the entry points at sites during the exercise. These should be clearly visible, weatherproof and properly secured in noticeable locations. In addition, pictures and posters showing that SEA/SH are prohibited should also be displayed in the area.

10.2 Asbestos Removal and Handling

As asbestos cement sheets age they become brittle, so any removal work on roofs should address possible risks of them falling. The asbestos cement roofing sheets have been present in the surveyed health facilities for decades, and as a result, the removal must be performed in accordance with the NEA *Guideline for the removal, transportation and disposal of asbestos in The Gambia*. It is recommended for the contractor to also prepare a waste disposal plan in advance before starting the removal so that fiber release at the source will be minimized. Listed below are the removal measures to be considered:

- **Wet Spraying** - Spraying the entire roof with a water based PVA solution (if available) or use wet cloths, rags, or mops to pick up asbestos fibers. This practice of wetting will cause asbestos fibers to be significantly suppressed. Note that wetting does not entirely eliminate the risks so the use of proper RPE is essential. They should not be allowed to dry out, because the collected fibers might be released at some later time when disturbed. All wet mops, rags or clothes should be properly discarded as asbestos waste while still wet.
- **The use of special vacuum cleaners** – commonly referred to as High Efficiency Particulate Air (HEPA) vacuums, is preferable to wet cleaning in certain situations. These vacuums are equipped with HEPA filters designed to remove very small asbestos fibers by filtering them from the air passing through the vacuum. Clean the existing ceiling and roof space, rafters, purlins, and ceiling joists with the vacuum cleaners.
- **Removal** – carefully remove the roof sheeting by unscrewing (not breaking) the roof sheets. All roof sheets are to be stacked onto plastic sheeting sitting on bearers for ease of removal. As much as possible, the asbestos cement sheets should be removed as a whole. If some sections have been damaged prior to removal, these may be strengthened by applying duct tape. The contractor should identify the most suitable method to ensure that the cement product is held in place, then use a method that would minimize airborne dust generation in removing the product.

- **Use of scaffolding** – As all the asbestos-containing material (ACM) found in the surveyed HCFs are present in the roof, a scaffolding to both sides of the building should be used to assist in removal of roof sheeting and to remove asbestos guttering from the building. These must be subjected to daily checks to avoid any risks of fall in height.
- **Protection of Floors** – Floors and other workplace surfaces should be adequately cleaned to prevent the escape of asbestos dust to the environment.
- **Handling of Asbestos** – the asbestos sheets should be fully wrapped in plastic and taped. The recommended minimum thickness of 200 µm polythene sheeting bags should be used. To avoid manual injuries, the waste bags should not be more than 900x1200mm in size and should be sealed with adhesive tape and labeled. Controlled wet spraying is to be done to prevent escape of dust particles escaping during the process.

Other considerations to be made are controls to identify hazards and prevent or minimize their occurrences. Where they cannot be prevented, there should be a safe system for working in confined spaces and under heat stress. The use of proper PPEs for all personnel engaged in the safe removal of asbestos is a key prerequisite.

Personal Protective Equipment

Anyone involved in the asbestos removal will need to use PPE and RPE in combination with other effective controls to minimize exposure to airborne asbestos fibers.

The following PPEs should be provided:

- **Coveralls** - personnel should wear full-body protective coveralls (including hood) preferably disposable ones and the quality of material should be able to prevent tearing or penetration of asbestos fibers. Used coveralls should not be taken home but disposed of after the removal.
- **Respiratory Protective Equipment** - It is recommended to use Class 2 respirators or N95 which have filters that can protect against the tiny fibers. However, note that they should not be worn for a long period of time.
- **Gloves** - It is recommended to use powder free latex gloves, but also single-use disposable gloves can be worn.
- **Safety boots** - Use of safety boots preferably without laces are recommended and should be properly cleaned after use. Safety boots should be cleaned and decontaminated and sealed in bags after the asbestos removal work and each time the worker leaves the asbestos removal area.
- **Protective glasses** - The use of protective glasses to prevent dust particles from entering the eyes. Used glasses should be cleaned and decontaminated for reuse on site and treated as asbestos waste after exercise.

All disposable PPEs should be treated as asbestos waste.

10.3 Storage and Transportation

Once the asbestos has been removed from the work area, a waste skip should be made available for temporal storage on site and should be completely sealed with the plastic sheeting. A waste disposal truck should be available for the transportation to the disposal site. While being transported, the containers or vehicle should be clearly marked with a health warning as containing asbestos.

Where the vehicle will be required to use ferry services, an advance clearance for priority crossing should be obtained from Gambia Ports Authority to avoid long waiting time in crowded areas. Vehicles used in the transportation of asbestos should be properly cleaned after they have been unloaded (where there is no vacuum cleaner it is recommended that surfaces should be thoroughly wetted before being swept).

10.4 Disposal

Disposal of asbestos waste is the final step in the process of asbestos removal. However, it can be where the most exposure to risks of asbestos is likely to occur. Asbestos wastes are hazardous and must be disposed of properly. Both the National Environment Management Act of 1994 and the Hazardous Chemicals and Pesticides Control and Management Act (1999), prohibit individuals from the handling, storage, distribution and disposal of hazardous chemicals and their containers except with the approval of the NEA. The asbestos waste must be disposed of as soon as possible to the designated asbestos disposal site.

Site for disposal

The designated dumpsite for asbestos disposal is located in Jarra Soma - Seno Angalleh, in the Lower River Region. This is not open to the general public, only under strict supervision by the National Environmental Agency. In order to protect the environment and to prevent the community from scavenging and reuse of the removed ACM it is recommended for a proper disposal and for the ACM to be transported to the disposal site in leak-tight containers (WB, 2009).

The disposal site will be clearly marked and secured with fencing or barbed wire fencing to prevent unauthorized access by animals and people, especially children.

Methods of disposal

In reference to the guideline prepared by the NEA, the following procedures and recommendations for disposal are required:

- Note that prior to disposal, approval must be obtained from the NEA.
- The disposal site must have all weather access to the separate area or the dedicated trench for asbestos disposal. It is not recommended to handle asbestos waste in windy conditions.
- The bagged asbestos from the sites should be buried immediately upon arrival. Asbestos waste shall not be stockpiled at the dumpsite for burial at a later date.
- The contractor or their assigned hauler must ensure that equipment for burying asbestos is available before any asbestos waste is hauled to the dumpsite.
- An initial layer of cover material or fill must be placed over the asbestos waste before heavy equipment passes over the asbestos waste.
- A minimum of two meters of compacted fill is required by the end of the working day. If asbestos waste is deposited in the active area, up to 50% of the fill may consist of sand.
- Caution should be exercised to ensure that bags or containers are not broken open before they are covered. If an asbestos container is ruptured, it should be re-packed by trained personnel prior to burial.
- Detailed location and maps must be recorded and maintained to minimize the risk of exposing asbestos waste during future activities at the dumpsite.

- Any environmental emergency or a release of a pollutant or contaminant to the environment must be reported immediately to the NEA.

10.5 Decontamination

Decontamination is essential when working on asbestos removal work. It is important to highlight the decontamination of the work area, PPE, workers, tools and equipment used in asbestos removal work will eliminate or minimize exposure to airborne asbestos fibers. It is recommended to set up special areas for decontamination near the work area. The decontamination area should be marked with a “no entry” sign to ensure no unauthorized entry to the site.

Work area

- Wet decontamination which involves the use of damp rags to wipe down contaminated areas. If a bucket of water is used, the rags should not be re-wetted in the bucket as this will contaminate the water.
- Dry decontamination involves carefully folding and sealing plastic sheeting and vacuuming the asbestos removal area with an asbestos vacuum cleaner. However, this method should only be used if the wet method poses a risk due to other hazards such as slipping or electricity.
- All contaminated clothing, PPEs, tools and equipment must be decontaminated before removal from the work area or contained (sealed polythene bags) for disposal as the asbestos waste.

Self-decontamination

- It is important that self-decontamination be done each time a worker leaves the work area to avoid transporting the asbestos fibers. This should be done by ensuring coveralls and footwear and other PPEs are vacuumed thoroughly or wet wiping down with damp rags.
- Careful removal of all disposable clothing in polythene bags while still wearing the RPE is important to avoid exposure.
- All the protective clothing used during the removal and decontamination should be considered hazardous materials and thus should be properly disposed of in an environmentally sound way.
- Personal hygiene should also be practiced.

Tools

All tools used in the removal process should be dismantled and decontaminated using the dry or wet methods prior to them being removed from the work area. Tools that are intended for use in another removal should be laced in polythene bags and sealed. Asbestos equipment include: Scaffolding, temporary storage bins, waste skip, PPEs, cleaning rags, bucket of water, misting spray bottle, sealant, barricades, sign posts, etc.

10.6 Training

Any person/contractor involved in the Asbestos removal and disposal exercise should be adequately trained on the nature of risks associated with asbestos and also be aware on the Code of Conduct the SEA/SH GRM.

It is recommended to have training before the exercise commences and further Toolbox talk done daily, **prior to the start of each removal** and should be made mandatory for all personnel.

These training should include the following topics:

- the purpose of training,
- nature of hazards and health risks associated to asbestos,
- the identification of asbestos,
- use of equipment, safe handling and removal,
- site control and management plan
- correct use of PPEs,
- control measures for the safe removal
- handling and waste disposal procedures
- decontamination
- emergency response plan (what to do in case of exposure) etc.

The training records should be kept by the HSE officer and handed over to the Client (MOH) after the exercise.

10.7 Monitoring & Reporting

In order to establish a good implementation of the asbestos removal, the NEA with the support PCU shall be responsible for overall monitoring and reporting.

It is important therefore that the baseline information is established. An incident report log is maintained as well as the GRM log. A daily monitoring report is filled out at the end of each exercise.

Figure 4. Asbestos Identification, Removal, Storage, Transport, Disposal, Monitoring and Reporting Actions

Asbestos Identification	Asbestos Removal and Handling	Storage and Transportation	Disposal	Monitoring and Reporting
<ul style="list-style-type: none"> ✓ Identify the specific locations of asbestos in HCFs ✓ Ensure space is evacuated and safe for the removal operation ✓ Confirm areas for temporary waste storage ✓ Estimate waste volume and the duration to complete the asbestos removal ✓ Identify the personnel and complete training. ✓ Identify decontamination areas 	<ul style="list-style-type: none"> ✓ Establish safety procedures and protocol (PPEs, tools, etc.) to manage, control and monitor E&S risk ✓ Ensure adequate PPEs for all personnel engage ✓ Establish removal and handling schedule ✓ Create operation schedule and prevention procedures ✓ Maintain log book 	<ul style="list-style-type: none"> ✓ Confirm mode of transport to be used for transporting asbestos waste from the HCFs ✓ Ensure adequate PPEs for all personnel ✓ Confirm bagging system for temporary storage in bags. ✓ Confirm labeling and storage for the asbestos waste ✓ Waste transportation routes. ✓ Create a schedule for pick up and transportation of asbestos waste to 	<ul style="list-style-type: none"> ✓ Ensure adequate PPEs for all personnel ✓ Ensure time is adequate for asbestos disposal ✓ Ensure prior notice to NEA is issued ✓ Method of disposal to follow control measures and safety protocols ✓ Decontamination after disposal 	<ul style="list-style-type: none"> ✓ Establish baseline information for the AARAP monitoring form ✓ Keep incident report log ✓ Log any grievances or ✓ Call in any malfunctions or breakdowns ✓ Maintain GRM log book ✓ Have incinerator operators and Facility manager present during monitoring visit ✓ Fill out Monitoring Report ✓

		<p>the designated disposal site in LRR.</p> <p>✓ Maintain waste log at each HCF</p>		
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11. Community Health and Safety

All transport of asbestos materials will follow the same protocols established in the MOH precaution measures established for Medical Equipment and Supplies ESMP (developed in May 2020). These measures will be followed by all private transport contractors as part of the MOH delivery contract for HCF renovation and asbestos transport and disposal (see ESCOP Checklist 2 in the annex).

The full ESMF describes under ESS 10, the provisions for widespread engagement with communities to disseminate information related to community health and safety associated with HCF renovation. These measures are applicable to this AARAP. The MOH authorities will continue engaging in communication with relevant stakeholders within the regions and at each HCF.

The project’s LMP also includes provisions to prevent SEAH and/or VAC. Training on safe community interaction and SEAH/VAC key concepts will be provided for all renovation workers and staff (as stipulated previously in HCF Renovation ESMPs) employed for the collection of asbestos removal, transport and disposal.

The overall project Grievance Mechanism applies to this AARAP and all aspects of removal, storage, transport and disposal.

12. Labor Management Procedures

The potential risks under this topic cover HCF renovation already presented in the main ESMF and earlier ESMPs. These risks are considered moderate and will be mitigated in accordance with national labor and OHS policies as well adhering to appropriate ESCOP actions listed at the end of this document. The main piece of labor legislation in The Gambia is the Labour Act of 2007. However, the Labour Act is silent on working hours and the LMP in the full ESMF proposes a 40-hour work week (eight hours per day). The employees will have an additional break of one hour each workday for prayers and lunch. The duration of rest between working days shall not be less than 12 hours. Restrictions on child labor and forced labor are to follow the ESMF requirements.

The PCU will inform the Bank about any significant labor issues in relation to the HCF renovations and especially asbestos removal as soon as reasonably practicable, but no later than five calendar days after the incident. The PCU will prepare an incident report and the corrective action and submit it to the Bank within 30 calendar days of the event.

Any grievances and complaints arising out of these activities can be addressed through the project’s grievance mechanism (described in the full ESMF). The PCU will register and deal with any labor-related complaint under HCF renovation and asbestos handling and removal through its grievance mechanism. If there is not a satisfactory solution in using the grievance mechanism, alternative informal or formal labor dispute resolution procedures will be considered following national legislation.

13. Implementation Arrangements and Responsibilities

Ministry of Health

The MOH, RHDs shall be responsible for the day-to-day installation and operation of the incinerators. The MOH Environmental Health Unit (under the Directorate of Public Health) coordinates the implementation of healthcare waste management. In addition, the MoH Environmental Health and Social Safeguards focal points are designated to monitor the project activities along with the PCU contracted environment and social specialists. This team will oversee the Environmental and Social Commitment Plan and ensure the project is carried out in accordance with the WB ESSs. The Senior Operations Officer is also responsible for the Project monitoring and evaluation and dissemination.

The role and responsibilities of the PCU shall include:

- Coordinate internal monitoring and evaluation of the AARAP
- Coordinate Project related grievance redress activities
- Where applicable, facilitate Project related activities of partner stakeholders
- Ensure appropriate funding is allocated for installation and operation

National Environment Agency

As the authority responsible for regulating environmental issues in The Gambia, the NEA shall be responsible for overall monitoring of AARP implementation in accordance with Section 31 of the EIA Regulations, 2014. In this regard, NEA shall routinely monitor, guide and audit the progress of the AARP implementation to ensure compliance with both national and international laws. In addition, NEA shall provide technical support, and participate in training and sensitization of stakeholders to enhance understanding of the national and WB environmental and social safeguard instruments.

Other stakeholders

The implementation of this AARAP will be the overall responsibility of the MOH's PCU, with the support of the Directorate of Public Health Services (DPHS). However, other stakeholders will also play important technical advisory and regulatory roles. The NEA with the support from the Councils and NDMA will work with the Regions (RHDs) and DPHS to ensure removal, transportation and disposal of the asbestos is carried out effectively.

Budget

The MOH is embarking on a series of activities for the safe removal of asbestos in the HCFs. The proposed activities and associated costs are provided in table 7. The budget monitoring and reporting costs.

Table 7. Implementation Budget for the safe removal of Asbestos in HCFs

Activity	Cost (GMD)
Stakeholder Engagement (Workshops and focus Group discussions in all 5 regions)	D250,000
Asbestos awareness and sensitization campaign in all 13 HCFs communities (Radio shows, focus group discussions, Billboards, Posters, newspapers)	D400,000
Training of contractors staff on health care waste management and related area for Environmental Health Staff (Training seminars, Toolbox talk, etc)	D350,000
Mitigation measures during the removal, transportation and disposal (as specified in this AARAP)	D1,050,000
Validation of AARAP	D250,000
Monitoring and Reporting by NEA and regional stakeholder	D396,350
Safe removal, transportation and disposal of Asbestos and Design and Supervision of Renovation Works -Masterplan Lump Sum Revised Contract	D3,185,500
Safe removal, transportation and disposal of Asbestos and Design and Supervision of Renovation Works -Masterplan Time-based Revised Contract	D7,967,000
TOTAL	D13,848,850

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Annex 1. Summary of the survey report

Facility name	Date Visit	Buildings with asbestos at HCF & Condition of asbestos products (Good, Fair, Bad)	Location of the asbestos in the facility	Condition of the asbestos found (Extent of damage)	Recommendation/Comments (priority level)
Bansang General Hospital Staff quarters	1 March 2021	Block C: Staff Quarter (Fair) BLOCK H: Double Unit Staff Quarter (Fair) BLOCK I, J & K: Three similar buildings of staff quarters(Fair)	-Roof cover and drainage pipes to the external toilets are made of asbestos products. -Asbestos was found on one part of the roof along with the other part of Aluzinc roofing. -Asbestos are found on the roof as part covering	Generally, the conditions of the asbestos are intact. However, some part of the roofing is damaged and causing leakage	The asbestos roofing sheets and drainage pipes to the external toilets have to be replaced with non-asbestos. -Remove and replace asbestos materials.
Bansang Regional Health Directorate Office and Staff Quarters	2 March 2021	BLOCK 2: Riders for Health Office and Mechanic Garage (Good) BLOCK 10: Regional Health Directorate head office (good) BLOCK 11: Regional Health Director's quarters (Good) BLOCKS 14: An abandoned quest house (Fair) BLOCK 16: A senior staff quarter (Poor) (Poor) BLOCK 18: Administrator's quarter(Poor) BLOCKS 19, 21 & 22: Also senior staff quarters (Poor) BLOCK 20: an external store(Good)	-The building has a covered asbestos roof. -The parking area roof contains asbestos products -The roof contains asbestos products. -The roof contains asbestos products and part of the floor has asbestos tiles on it. - The roof contains asbestos products. -The roof and floor contain asbestos products. -The roof and floor contain asbestos products. -The roof contains asbestos products.	-The general condition of the Asbestos is good - part of the roof is broken	-Remove and replace existing asbestos roofing -Remove and replace existing asbestos tiles on floors.
Bansang School for Enrolled Nurses and Midwives	2 March 2021	BLOCK 1: old hall (Good) BLOCK 4: Admin block(Good) BLOCK 5: Classroom & Library(Good) BLOCK 6: kitchen block(Good) BLOCK 7: Laboratory(Good) BLOCK 10: Dining room(Good)	-The roof contains asbestos products - The roof contains asbestos products - The roof contains asbestos products. - The roof contains asbestos products.	-The condition of the Asbestos is good - Looks satisfactory - the condition for Vice Principal's quarter is in poor state of repair with potholes on the asbestos roofing sheets	-Remove and replace existing asbestos roofing

Facility name	Date Visit	Buildings with asbestos at HCF & Condition of asbestos products (Good, Fair, Bad)	Location of the asbestos in the facility	Condition of the asbestos found (Extent of damage)	Recommendation/Comments (priority level)
		BLOCK 14: It includes a dormitory, a toilet, shower, generator and meter room (Good) BLOCK 17: Vice Principal's quarter(Poor)	-The roof contains asbestos products -The roof contains asbestos products. - The roof contains asbestos products. -The roof contains an asbestos product		
Basse District hospital	3 March 2021	Block A - Chest/Leprosy/TP Clinic (Poor) BLOCK B – MATERNITY WARD & ADMIN (Poor) BLOCK C – WAITING - SHED AREA AND THE WALKWAY (Poor) BLOCK D – KITCHEN (Good) BLOCK E – LAUNDRY ROOM(Good) BLOCK F – SECURITY HOUSE AND TEMPORAL ASBESTOS FENCE (AT THE REGIONAL DIRECTOR RESIDENT) (Good)	-Asbestos roofing sheet -Asbestos roofing sheets - Asbestos roofing sheets on their roofs with leakages noted - Asbestos roofing sheets - Asbestos roofing sheets are used to the roof -Asbestos roofing sheets are used to the roof however in a good condition.	The condition of the roof material is in a poor state with holes causing leaks and exposing the fibers in most of the structures except the kitchen and laundry room	Remove and replace existing asbestos roofing -Carefully remove asbestos roofing sheets from the security house and from the compound fence.
Brikama District hospital	23 March 2021	BLOCK A & F – STAFF QUARTERS (Poor)	Both Blocks A & F have asbestos roofing sheets	They are badly damaged with holes on the roof	Safely remove asbestos roofing sheets and safely dispose
Bwiam General Hospital (old health centre)	15 February 2021	BLOCK 1: STAFF QUARTERS (Poor) BLOCK 9 DOCTORS QUARTER (Poor)	Asbestos can be found on the roofing sheets and also on floor tiles	The conditions of the asbestos roofing sheets are unsatisfactory. Some of the asbestos roofing sheets have fallen off.	The asbestos roofing sheets and floor tiles have to be replaced with non- asbestos materials because as it wastes with time, it removes little asbestos fiber materials. which goes into the atmosphere and causes health issues.

Farafenni Old Health Center	16 February 2021	PERIMETER FENCE (Fair)	Block wall fence has collapsed in areas and has asbestos cement roofing sheets as infilled panels	The state of the asbestos are fairly intact	Demolish the entire perimeter fence, carefully remove the asbestos sheets in the fence and dispose of as recommended.
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Facility name	Date Visit	Buildings with asbestos at HCF & Condition of asbestos products (Good, Fair, Bad)	Location of the asbestos in the facility	Condition of the asbestos found (Extent of damage)	Recommendation/Comments (priority level)
Kaur Health Center	16 February 2021	WAITING FOR SHED (Fair)	The asbestos roof	The general condition is satisfactory with some panels having missing corners	Remove the Asbestos sheet and replace it with the Aluzinc Profile sheet.
Kiang Karantaba Health Center	15 February 2021	BLOCK 1: MAIN HOSPITAL BUILDING (Poor)	The roof contains asbestos material	The conditions of the asbestos roofing sheets are unsatisfactory with holes causing Leakages.	Remove the Asbestos sheet and replace it with the Aluzinc Profile sheet.
Kudang Health Center and Staff Quarters	1 March 2021	MAIN BUILDING (Poor) WAITING SHED (Fair) QUARTERS 1 (Fair) QUARTERS 2 (Fair) QUARTERS 3(Fair) GARAGE. (Fair) MORTUARY. (Fair) FENCE (Poor)	-The roof of the structure contains asbestos roofing sheets - Asbestos cement roofing sheet - The roof is asbestos - Part of the roof is asbestos - Part of the roof is asbestos -Fence with Asbestos	Bad state of repair with seriously leaking due to the holes through the sheets. However, most of it are in fair state of repair	Replace existing asbestos roofing sheets with Aluzinc profile roofing sheets including all the necessary supports. Replace asbestos and galvanize sheet to Aluzinc sheet

Mansa Konko Staff Quarters	16 February 2021	BLOCK A, B, E, I & K (Poor) BLOCK C (Poor) BLOCK F, G (Poor) BLOCK H (Poor) BLOCK L, M (Poor) MANSA KONKO HEALTH STAFF QUARTERS (OLD HEALTH FACILITY) BLOCK A (Poor) BLOCK D (Poor) BLOCK E (Poor) BLOCK F (Poor)	Asbestos was found only on the roofing sheets	The general conditions of the asbestos roofing sheets to most buildings have holes, cracks which exposes the fibers to the environment at the fractured surfaces and are leaking. However, a few of the buildings have their roof intact.	Due to the age of the roof installations, and the physical degradation of the roof surfaces these tend to continually shed a small amount of asbestos fibers.
North Bank East Regional Health Directorate Office and Staff Quarters	16 February 2021	BLOCK 3: Public Health office (Poor) BLOCK 5: Regional Health Directorates head office. (Poor)	Asbestos was found on the roofing sheets	The general conditions of the asbestos roofing sheets to most	Due to the age of the roof installations, and the physical degradation of the roof surfaces

Facility name	Date Visit	Buildings with asbestos at HCF & Condition of asbestos products (Good, Fair, Bad)	Location of the asbestos in the facility	Condition of the asbestos found (Extent of damage)	Recommendation/Comments (priority level)
				buildings are physically intact. However, few of the building is leaking due to holes, cracks or other defects which exposes the fibers to the environment at the fractured surfaces.	these tend to continually shed small amount of asbestos fibers.

Yorro Bawol Staff Quarters	3 March 2021	<p>BLOCK D - GENERATOR HOUSE (Poor)</p> <p>BLOCK E-STORE & KITCHEN AND STORE (Poor)</p> <p>BLOCK F & G - STAFF QUARTERS (Poor)</p> <p>STAFF QUARTERS BLOCK H, I & J (Poor)</p> <p>BLOCK K - STAFF QUARTERS</p>	<ul style="list-style-type: none"> -The roof contains asbestos cement roofing sheets - The roof contains asbestos roofing sheet materials to the store and the kitchen - The fence contains asbestos material - The fence contains asbestos material - Asbestos products present on the external toilet temporal walls and fences 	<ul style="list-style-type: none"> -Its condition is poor -The asbestos sheets are badly broken as well 	Remove the Asbestos sheet and replace it with the Aluzinc Profile sheet.
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Annex 2. Summary of quantities in each of the 13 selected HCFs

HCF	REGION	QUANTITY (M ²)	NO. of SHEETS	MASS (KG)
Brikama Distric Hospital	WCR	717	269	943
Bwiam District Hospital		538	202	707
North Bank Regional Health Directorate	NBR	590	222	776
Public Health Office		50	19	66
Junior Staff Quarters		320	120	421
Fuel Store		44	17	58
Quarters		15	6	20
Staff Quarters Block		414	156	544
Farafenni old Health Center		94	35	124
Mansakonko Staff Quarters	LRR			
Block 1		265	100	348
Block 2		192	72	252
Block 3		168	63	221
Block 4		40	15	53
Block 5		465	175	611
Block 6		65	24	85
Block 7		15	6	20
Block 8	29	11	38	
Kiang Karantaba Health Center		1,033	388	1,358
Kudang Health Center and Staff quarters	CRR	1,299	488	1,708
Bansang Regional Health Directorate		1,983	745	2,607
Bansang Hospital		1,685	633	2,215
Bansang State Enrolled Nurses School		1,383	520	1,818
Kaur Health Center		1,266	476	1,665
Basse Distirct Hospital	URR	1,330	500	1,749
Yorro Bawol staff quarters		192	72	252
		14,192	5,334	18,659

Annex 3. AARAP Matrix for Asbestos Identification, Removal and Handling, Storage and Transportation and Disposal

Potential E&S Impacts	Mitigation Measures	Responsibility	Monitoring Frequency	Reporting Actions
Asbestos Identification				
Occupants present in HCF at risk of infections	HCF to be evacuated prior to works	MOH/PCU , NEA	Before works commences	MOH/PCU to notify occupants
Lack of knowledge on asbestos could pose higher risk to works	Ensure all workers/personnel identified for the removal are trained and aware of health issues of asbestos	MOH/PCU, regional Public Health Officers, NEA, Contractor	Before works and daily during works through toolbox talks	Only workers/personnel trained are allowed to work.
Asbestos Removal and Handling				
Access to the sites during works could lead to expose of asbestos	Restrictions on access to the site and the use of barricades and warning signs	Contractor’s Site foreman/ HSE officer	During works	NEA to monitor and MoH Public Health officers to ensure compliance
Exposure of workers to asbestos dust particles to workers	Ensure adequate PPEs for all workers and a decontamination point set up	HSE officer	During works	Use only qualified contractors. Keep a reporting log of any incidents and report to MOH/PCU
Risk exposures to workers during the operations	Establish safety procedures and protocol (PPEs, tools etc) to manage, control and monitor E&S risk	Contractor	During works	Keep a reporting log of any incidents and report to MOH/PCU
Storage and Transportation				
Risk of exposure during transportation through airborne asbestos	Ensure all asbestos wastes are tight-sealed containers and properly secured. Drivers follow traffic rules and observe speed limits.	HSE Officer, Driver, NEA, MOH/PCU	During transportation	Travel and work log for all vehicles and drivers
Disposal				
High risk of contamination during disposal.	Method of disposal to follow control measures and safety protocols. Ensure decontamination is done	HSE Officer, NEA, MOH/PCU , NDMA, regional Public Health Officers	During disposal	
Potential risk of exposure to stray animals and scavengers	Disposal site adequately secured with warning signs	NEA, NDMA, Mansakonko Area Council	After the disposal	report any signs of trespass to NEA for action.

Annex 4. ESCOPs

CHECKLIST 1: ASBESTOS REMOVAL

Target: Collection and Transport of Asbestos: Construction Workers/Drivers/Disposal Site Workers

General Infection Prevention and Control

- ✓ Provide adequate facilities for hand washing – this may mean setting up additional facilities throughout health centers and supply warehouses/stores.
- ✓ Provide soap and/or alcohol-based hand sanitizer (60-95% alcohol), tissues and facemasks to warehouse workers and drivers
- ✓ Establish procedures for delivery truck arrival and unloading at all facilities
- ✓ Prohibit entry into health care facilities

Worker Health and Safety

- ✓ Ensure all workers engaged in removal are trained and aware of health issues
- ✓ Construction supervisor must maintain asbestos removal log for each HCF
- ✓ Designated site with containment prepared at HCF
- ✓ All PPE always used

Hauling Vehicles

- ✓ Only use qualified and approved contractors
- ✓ Log all activities regarding content, weights, types of waste, time of pick up, transport route, time delivery
- ✓ Keep signed Chain of Custody Form for each trip

Vehicle Maintenance and Safety

- ✓ Maintain vehicle inspection log per MOH standards
- ✓ Keep travel and work log for all vehicles and drivers
- ✓ Report on all vehicle accidents or mishaps

Safe Vehicle Operation

- ✓ Operation of vehicles is only by licensed drivers
- ✓ Drivers must obey all traffic laws, speed zones and other conditions

Driver Occupational Health and Safety

- ✓ Ensure transfer, loading and delivery actions by driver and staff adhere to supply/equipment weight and size conditions
- ✓ Loads need to be properly secured
- ✓ Delivery personnel must wear standard back and hand safety measures (back straps, gloves, etc.)
- ✓ Normal working hours adhere to 8-hour day with proper break time and meals

CHECKLIST 2: Environmental and Social Codes of Practice – COVID 19 SMALL SCALE CONSTRUCTION, UPGRADES, REHAB, EXPANSION

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.

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
- ✓ 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.

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.

REFERENCES

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

CHECKLIST 3 Environmental and Social Codes of Practice –CODES OF CONDUCT

Target: Contractors/Subcontractors/Project Personnel

Contractors Code of Conduct Obligations

- ✓ Bidder shall submit its Code of Conduct that will apply to Contractor's Personnel (as defined in Sub-Clause 1.1.17 of the General Conditions of Contract), to ensure compliance with the Contractor's Environmental and Social (ES) obligations under the Contract.
- ✓ The Bidder shall use for this purpose an approved Code of Conduct form
- ✓ No substantial modifications shall be made to this form, except that the Bidder may introduce additional requirements, including as necessary to take into account specific Contract issues/risks.
- ✓ This Code of Conduct is part of overall ESCOP measures to deal with environmental and social risks related to the Construction Works.
- ✓ The Code of Conduct applies to all staff, laborer and other employees at the Works Site or other places where the Works are being carried out.
- ✓ The Code of Conduct also applies to the personnel of each subcontractor and any other personnel assisting in the execution of the Works.
- ✓ All such persons are referred to as "Contractor's Personnel" and are subject to this Code of Conduct.
- ✓ The Code of Conduct has explicit requirements, language and subsequent actions to ensure that the workplace is an environment where unsafe, offensive, abusive or violent behavior will not be tolerated and where all persons should feel comfortable raising issues or concerns without fear of retaliation

Required Conduct for all Employees and Staff in Individual Contracts

- ✓ carry out his/her duties competently and diligently;
- ✓ comply with this Code of Conduct and all applicable laws, regulations, and other requirements, including requirements to protect the health, safety and well-being of other Contractor's Personnel and any other person;
- ✓ ensuring that workplaces, machinery, equipment and processes under each person's control are safe and without risk to health;
- ✓ wearing required personal protective equipment;
- ✓ using appropriate measures relating to chemical, physical and biological substances and agents; and
- ✓ following applicable emergency operating procedures.
- ✓ report work situations that he/she believes are not safe or healthy and remove himself/herself from a work situation which he/she reasonably believes presents an imminent and serious danger to his/her life or health;
- ✓ treat other people with respect, and not discriminate against specific groups such as women, the elderly, people with disabilities, migrant workers or children;
- ✓ not engage in any violence against children, including physical or psychological abuse;
- ✓ not engage in Sexual Harassment, which means unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature with another Contractor's or Employer's Personnel;
- ✓ not engage in Sexual Exploitation, which means any actual or attempted abuse of position of vulnerability, differential power or trust, for sexual purposes, including, but not limited to, profiting monetarily, socially or politically from the sexual exploitation of another;
- ✓ not engage in Sexual Abuse, which means the actual or threatened physical intrusion of a sexual nature, whether by force or under unequal or coercive conditions;
- ✓ not engage in any form of sexual activity with individuals under the age of 18, except in case of pre-existing marriage;
- ✓ complete relevant training courses that will be provided related to the environmental and social aspects of the Contract, including on health and safety matters, SEA/SH;
- ✓ report violations of this Code of Conduct; and
- ✓ not retaliate against any person who reports violations of this Code of Conduct, whether to us or the Employer, or who makes use of the grievance mechanism for Contractor's Personnel or the project's Grievance Redress Mechanism.

Raising Concerns

- ✓ Persons that observe behavior that he/she believes may represent a violation of this Code of Conduct, or that otherwise concerns him/her, he/she should raise the issue promptly by:
 - Contact [enter name of the Contractor's Social Expert with relevant experience in handling sexual exploitation, sexual abuse and sexual harassment cases, or if such person is not required under the Contract, another individual designated by the Contractor to handle these matters] in writing at this address [] or by telephone at [] or in person at []; or- Call [] to reach the Contractor's hotline (if any) and leave a message.
- ✓ The person's identity will be kept confidential, unless reporting of allegations is mandated by the country law.
- ✓ Anonymous complaints or allegations may also be submitted and will be given all due and appropriate consideration.

- ✓ All reports of possible misconduct will be investigated, and appropriate action taken.
- ✓ Referral to service providers are required for support to the person who experienced the alleged incident.
- ✓ There will be no retaliation against any person who raises a concern in good faith about any behavior prohibited by this Code of Conduct.

Consequences of Violating the Code of Conduct

- ✓ All personnel will be notified and acknowledge that any violation of this Code of Conduct may result in serious consequences, up to and including termination and possible referral to legal authorities.

REFERENCES

WHO Risk Communication and Community Engagement (RCCE) Guidance, [https://www.who.int/publications-detail/risk-communication-and-community-engagement-\(rcce\)-action-plan-guidance](https://www.who.int/publications-detail/risk-communication-and-community-engagement-(rcce)-action-plan-guidance)

IFRC, UNICEF, WHO Social Stigma associated with COVID-19: A guide to preventing and addressing social stigma, <https://www.unicef.org/documents/social-stigma-associated-coronavirus-disease-covid-19>

Human Rights Watch COVID-19 A Human Rights Checklist:

https://www.hrw.org/sites/default/files/supporting_resources/202004_northamerica_us_covid19_checklist2.pdf

Annex 5. Examples of safety signs

