



ENVIRONMENT AND SOCIAL MANAGEMENT PLAN

FOR THE

PROPOSED RENOVATION AND OPERATION OF OFFICE AND STAFF HOUSING AT KASHOHA KITOMA CENTRAL FOREST RESERVE

Site points	Easting	Northing	Elevation
Bihanga staff accommodation renovation	205463	9969954	1438
Katerera renovation	186220	9979213	1088
Kasyoha-kitomi sector office	177622	9968409	1367
	177681	9968375	1371

Consultant

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LIST OF ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
AQG	Air Quality Guideline
AQI	Air Quality Index
Cap	Caption
CO	Carbon dioxide
NOx	Nitrogen Oxides
SO ₂	Sulphur Dioxide
COVID-19	Corona Virus Disease
DIZ	Direct Impact Zone
EA	Environmental Assessment
EHS	Environmental, Health and Safety
EHS	Environment Health and Safety
EHSG	Environment Health and Social Safe Guards
EIA	Environmental Impact Assessment
ESIA	Environmental Social Impact Assessment
ESMP	Environmental and Social Management Plan
FGDs	Focus Group Discussions;
GBV	Gender Based Violence
GoU	Government of Uganda
GPS	Global Positioning System
H & S	Health and Safety
HIV	Human Immuno-deficiency Virus
hrs	hours
HSE	Health Safety and Environment
IIZ	Indirect Impact Zone
IPF	Investment Project Financing
IUCN	International Union for Conservation of Nature
IWRM	Integrated Water Resources Management
KII	Key Informant Interviews

LC	Local Council
LTD	Limited
MGLSD	Ministry of Gender Labour and Social Development
mi	mile
MLHUD	Ministry of Lands, Housing and Urban Development
mm	millimeter
MoU	Memorandum of Understanding
MoWE	Ministry of Water and Environment
NDP	National Development Plan
NEA	National Environment Act
NEMA	National Environment Management Authority
OSH	Occupational Safety and Health
PPEs	Personal Protective Equipment
PA	Protected Area
Sn	Serial number
STDs	Sexually-Transmitted Diseases
ToR	Terms of Reference
UAC	Uganda AIDs Commission
UGP	Uganda Gender Policy
VES	Visual Encounter Surveys
VIP	Ventilated Improved Pit
VOL	Volume
WCS	World Conservation Status
Zol	Zone of Influence

1 INTRODUCTION

1.1 Background

The National Forest Authority (NFA) is an implementing arm under the Investing in Forests and Protected Areas for Climate-Smart Development Project (IFPA-CD Project), supported by financing from the World Bank. The primary goal of this initiative is to bolster forest and wildlife preservation for the betterment of local communities and the national economy. With the project's support, the NFA is spearheading various infrastructure endeavors across 13 specified protected regions. Kasyoha-kitomi CFR has been selected as one of the recipients of the IFPA-CD project. To enhance infrastructure within the reserve, the NFA has contracted Infrastructure Development and Management Limited (IDML) to plan the renovation of the office and staff accommodation for Kasyoha-kitomi CFR.

The main aim of the project is to renovate both the office and staff accommodation, ensuring efficient reserve management and visitor contentment. The project encompasses renovations across three (3) sites: Bihanga, Katerera and Kasyoha Kitomi site.

The specific project objectives include:

- Improving the on-site accommodation for field staff, so it provides decent housing for NFA.
- The comfort of the NFA field staff with their families at their workplaces, with inclusion of such features as, for example, water born toilets, ceiling, and rainwater harvesting systems will be installed under this project.
- Safety and compliance to ensuring that the renovated structure complies with building codes, safety regulations, and industry standards. This involves addressing any structural deficiencies.

1.2 Renovation objective

To enhance the functionality, aesthetics, and sustainability of the National Forestry Authority's staff accommodation and office spaces. Through thoughtful design and implementation, the goal is to create an environment that fosters productivity, comfort, and environmental responsibility.

1.3 Objective of the ESMP

The main objective of the environmental and social management plan is to identify the environmental and social risks and impacts related to the development and propose mitigation measures that will ensure that the project will be implemented sustainably.

1.3.1 Specific Objectives

- To study the baseline environmental and socio-economic conditions of the project area and its surroundings and to assess how these conditions will be affected by the proposed development.
- To identify relevant legislation and policy framework that needs to be complied with for the proposed project activities, and presentation of recommendations as to how they should be addressed under the proposed project.
- Carry out consultations with relevant stakeholders to obtain their views and suggestions regarding the environmental and social impacts
- To identify and assess the likely positive and negative environmental and social impacts of the proposed project and to recommend feasible measures to enhance positive impacts and mitigate the negative impacts.
- To prepare an Environmental and Social Management Plan (ESMP) that will guide the implementation and monitoring of the mitigation measures for the anticipated project risks.

- To describe the measures required to implement construction-related management and mitigation commitments made in the Environmental and Social Commitment Plan for the IFPA-CD project.
- To identify the roles and responsibilities of the environmental and social management organization of the project.
- To communicate environmental and social expectations and requirements throughout the project life cycle.

2 PROJECT DESCRIPTION AND BASELINE

2.1 Introduction

The office building and staff accommodation renovation project aims to enhance the working and living conditions of NFA staff by creating a safe, comfortable, and visually appealing environment. This initiative addresses both immediate maintenance needs and comprehensive upgrades to ensure that the facilities meet modern safety and sustainability standards. Key objectives include establishing a healthy and efficient working environment through necessary repairs, improving the aesthetic appeal of the office and living spaces to foster a welcoming atmosphere, and incorporating sustainable practices to minimize environmental impact.

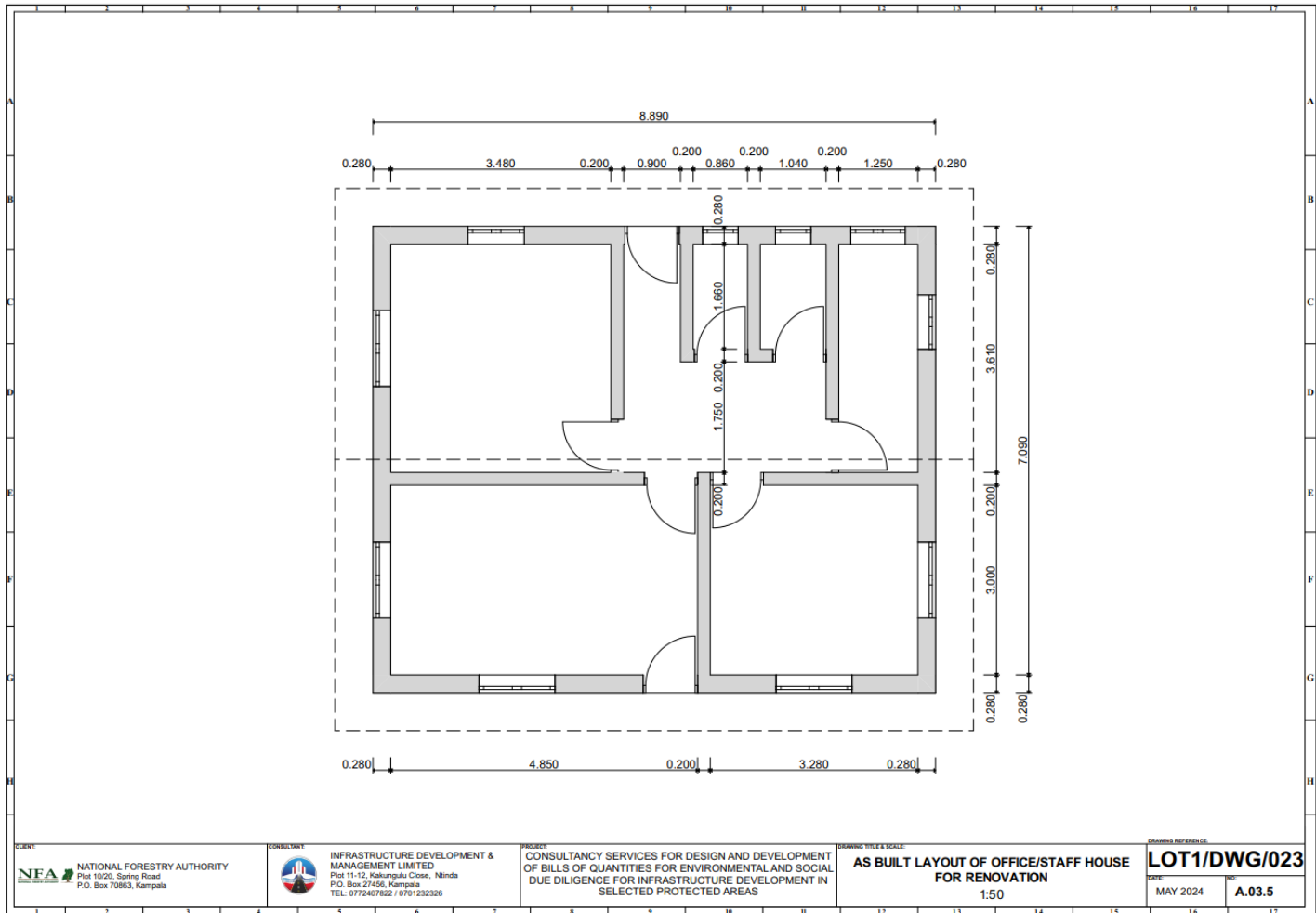
2.2 Project components

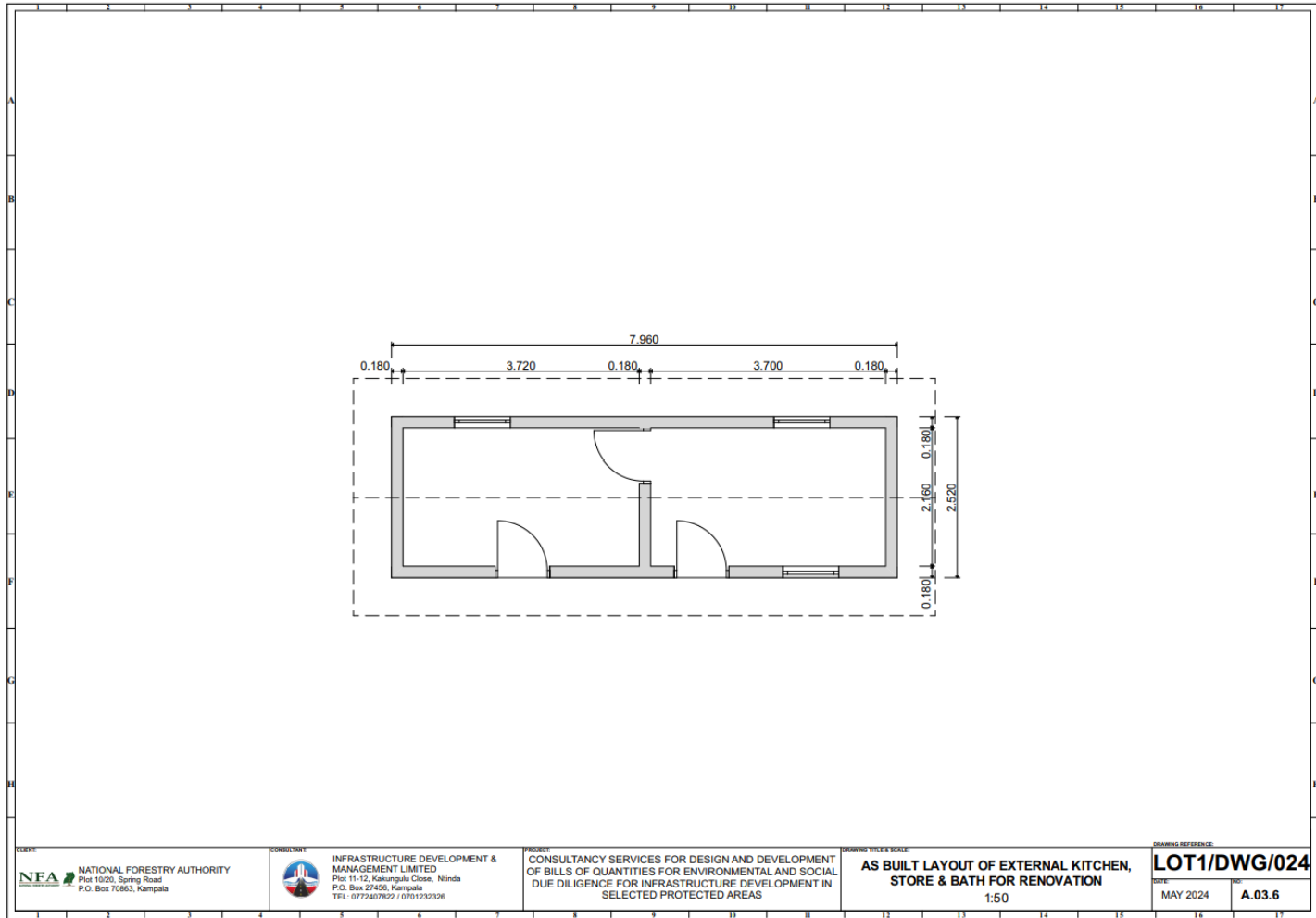
The project encompasses several critical components, starting with immediate maintenance works focusing on structural repairs. Renovations will take place at Bihanga, Katerera and Kasyoha-Kitomi sector. These works will address critical issues such as leaks, damaged roofing, and faulty plumbing, ensuring the safety and functionality of the facilities. Additionally, outdated electrical and plumbing systems will be replaced to improve efficiency and reliability. The full renovation works will upgrade common areas such as kitchens and bathrooms with modern fixtures, enhance energy efficiency through insulation improvements and energy-efficient appliances, and refresh interiors with new paint and refurbishments to create a pleasant and motivating workspace. The activities to be performed during the renovation for all the sites include changing the roof, structural coverings, refurbishing the windows, doors and replacing defective ones, refining the dilapidated ceilings, new floor strides, reconstructing the aprons, repairing the walls by replacing detective plaster with new plaster, installing power supply and fittings, installing rainwater harvest system.

Effective project management is essential for the success of this renovation. A detailed project plan will be developed, outlining timelines, budgets, and resource allocation, while actively engaging employees in the planning process to understand their needs and preferences.



Figure 2.1: Ndekye beat Site Plan layout





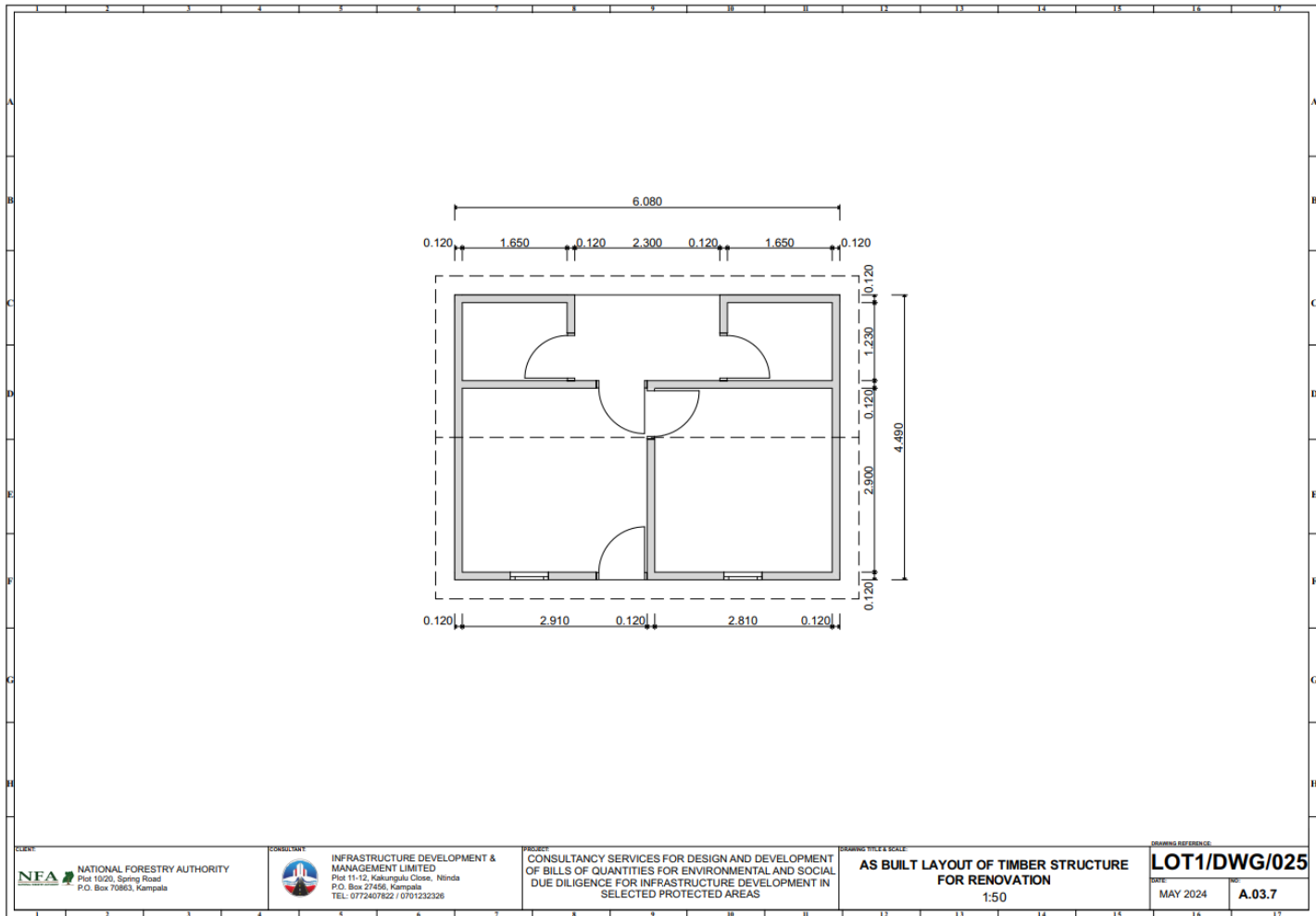
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PROJECT
CONSULTANCY SERVICES FOR DESIGN AND DEVELOPMENT OF BILLS OF QUANTITIES FOR ENVIRONMENTAL AND SOCIAL DUE DILIGENCE FOR INFRASTRUCTURE DEVELOPMENT IN SELECTED PROTECTED AREAS

DRAWING TITLE & SCALE
AS BUILT LAYOUT OF EXTERNAL KITCHEN, STORE & BATH FOR RENOVATION
1:50

DRAWING REFERENCE
LOT1/DWG/024
DATE: MAY 2024
NO: A.03.6



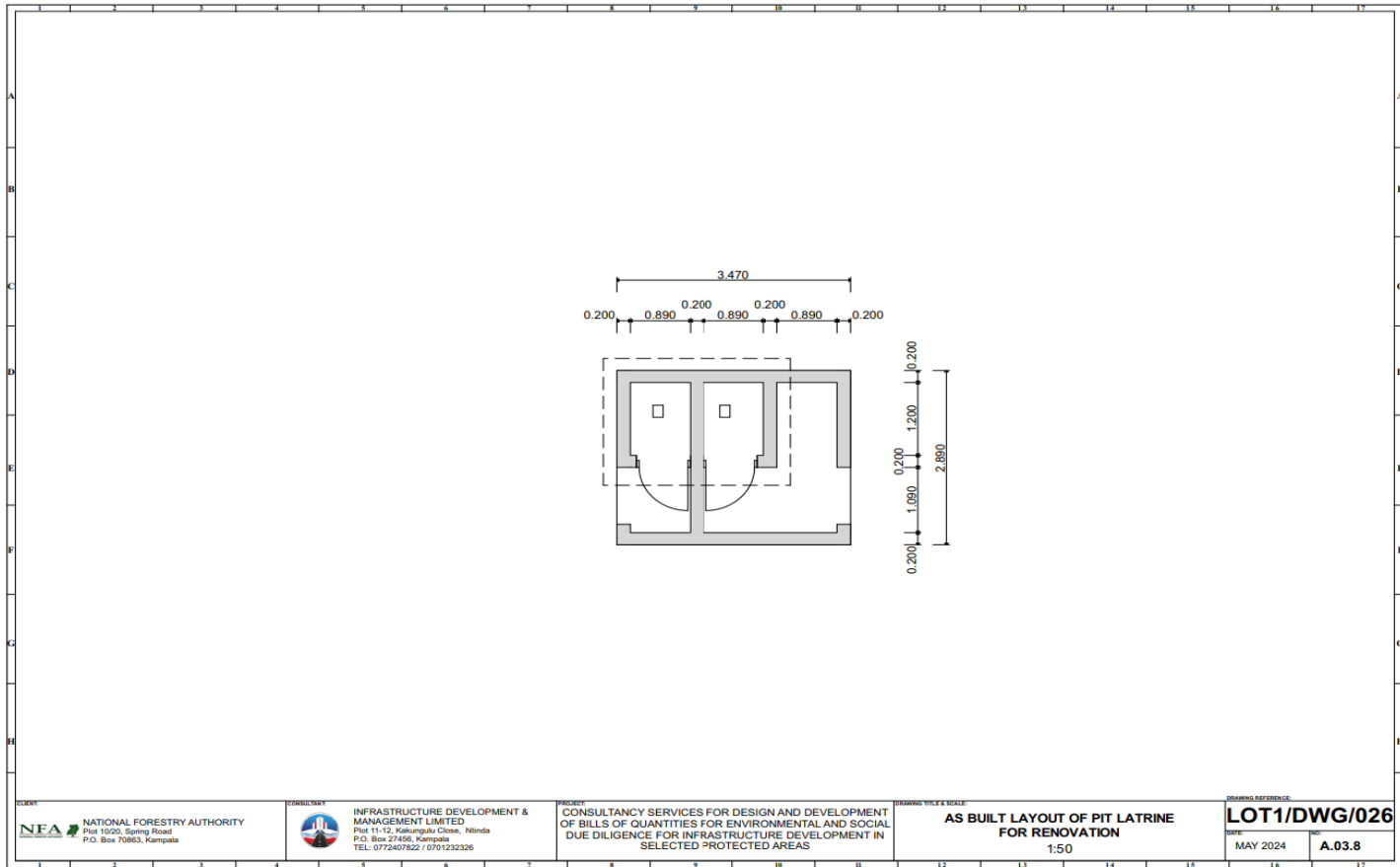
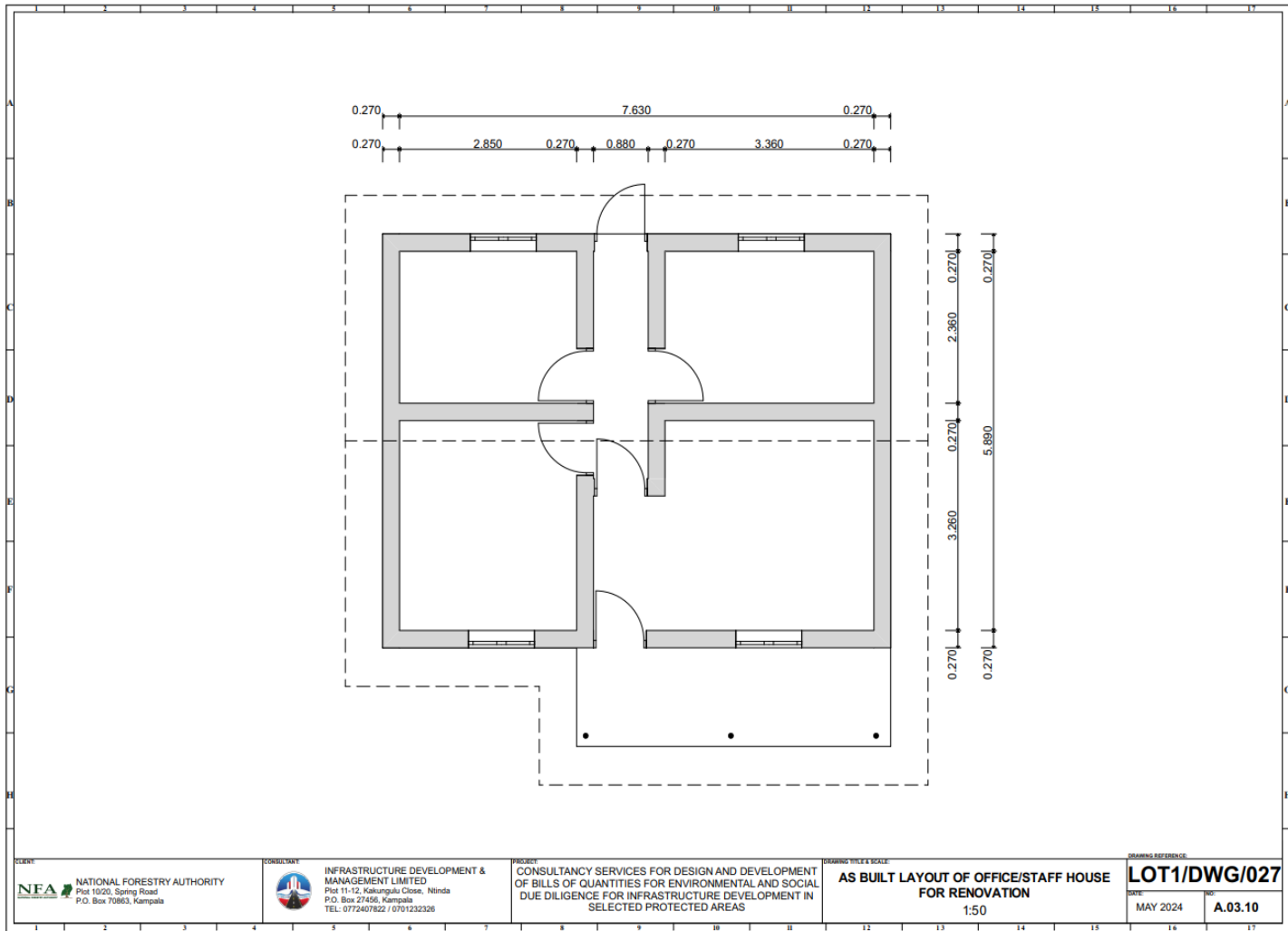
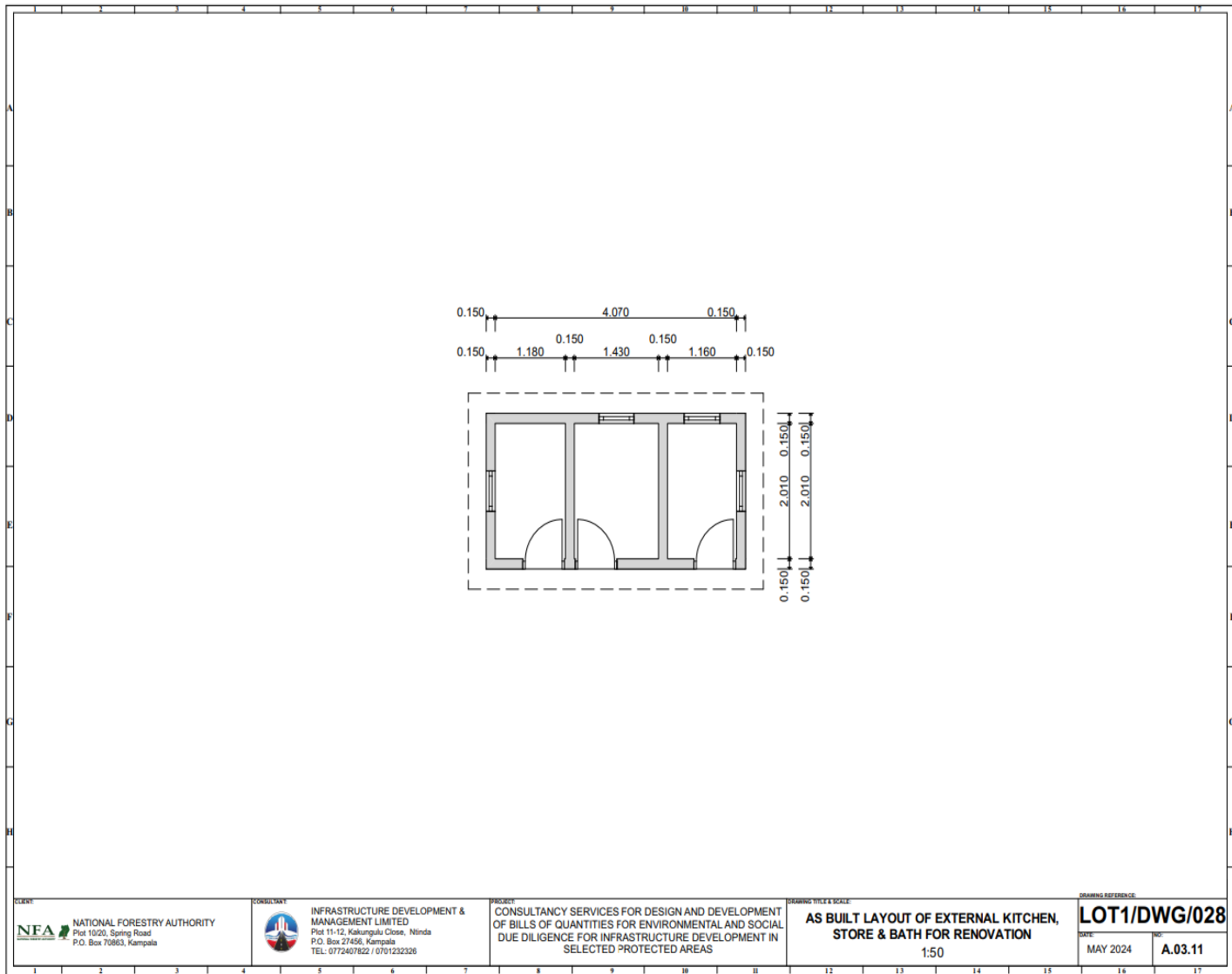
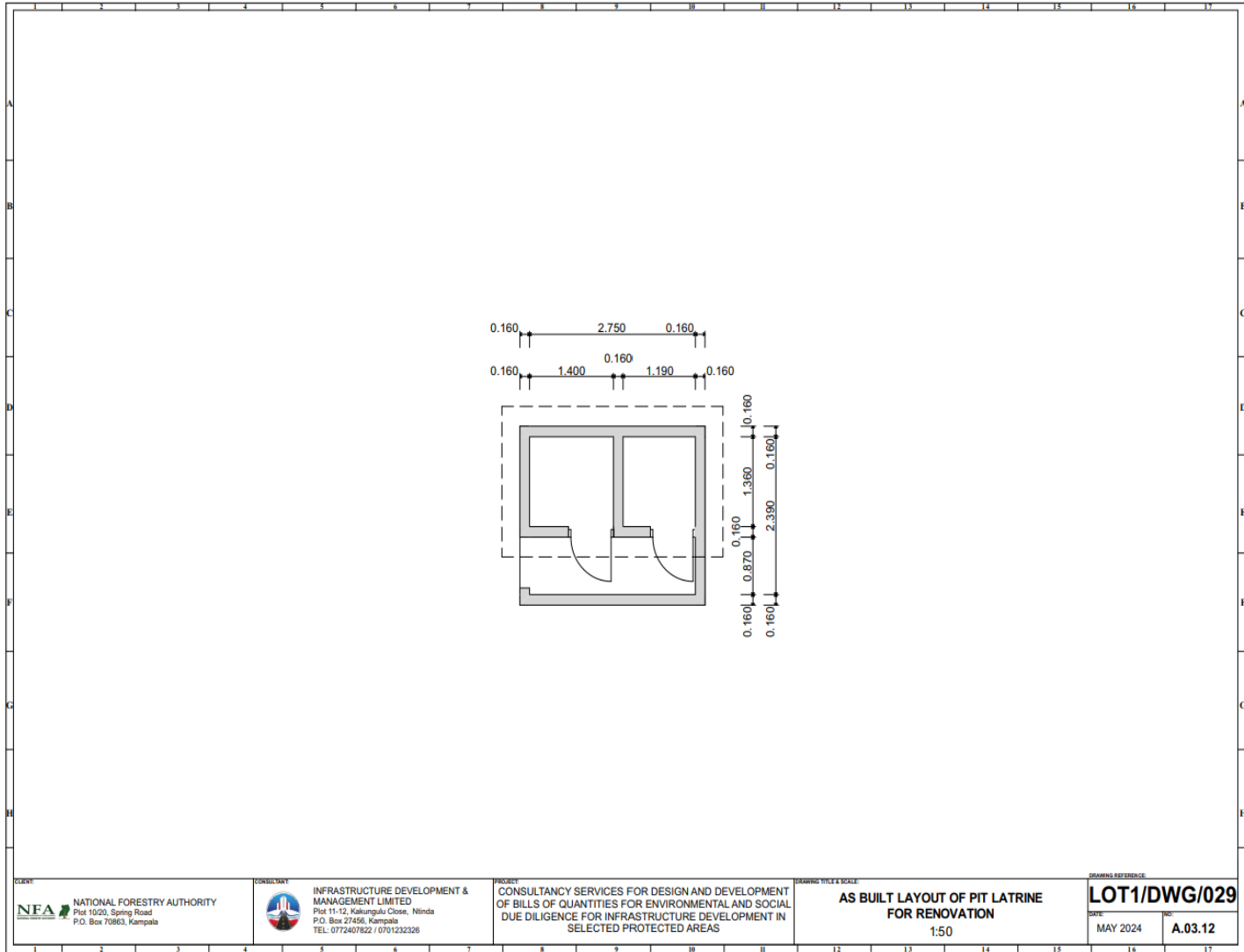
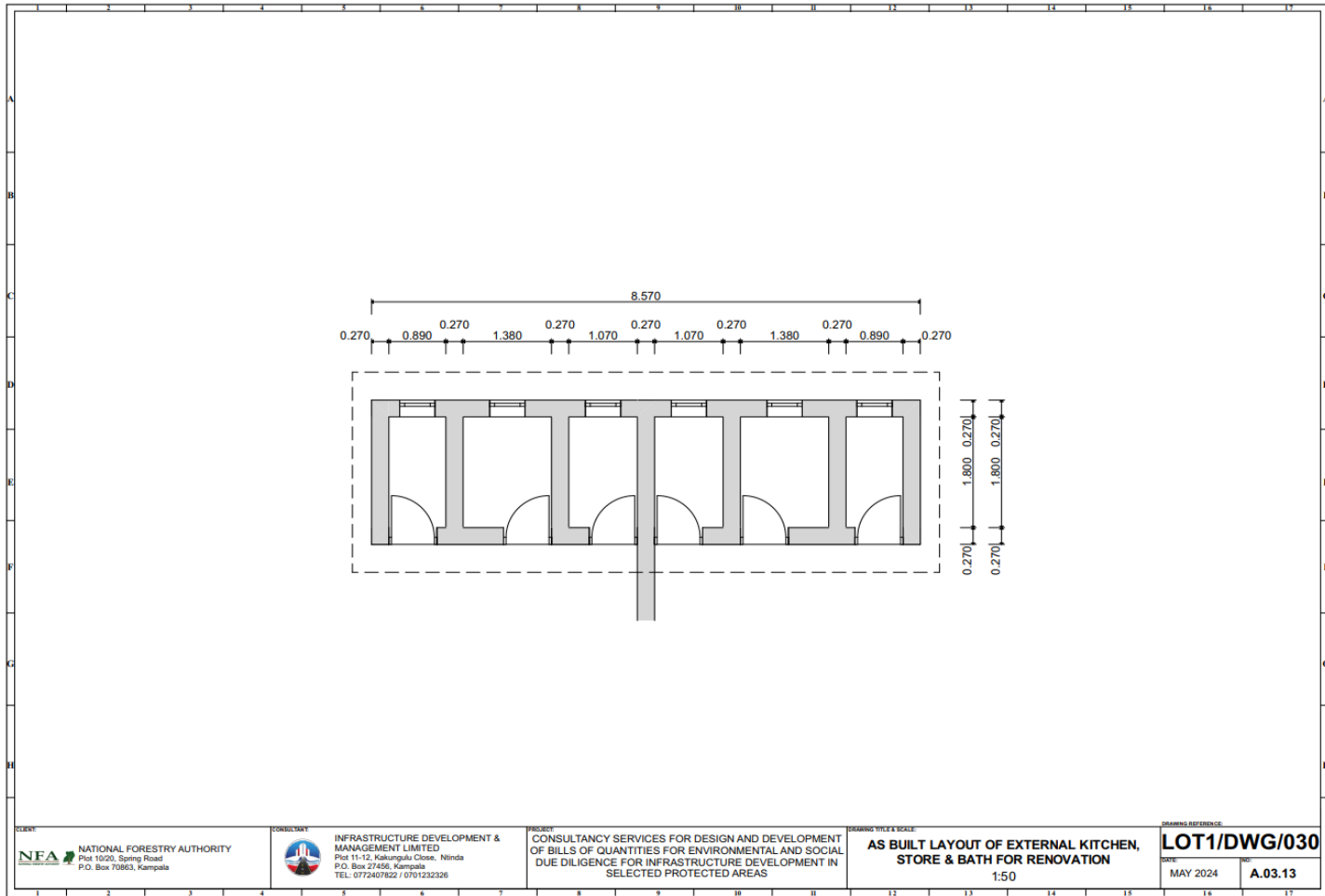


Figure 2.2: Ndekye beat Renovation drawings









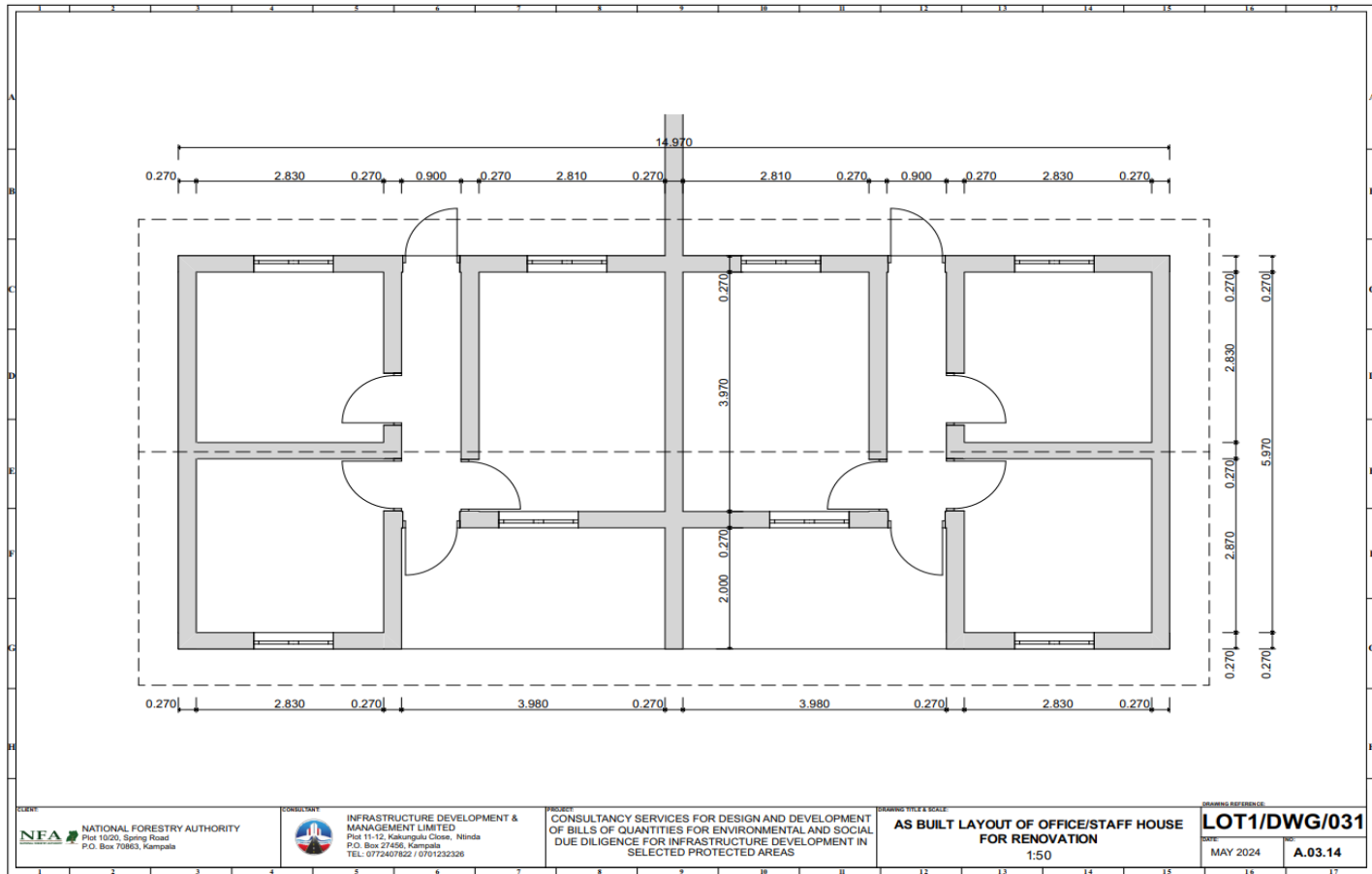
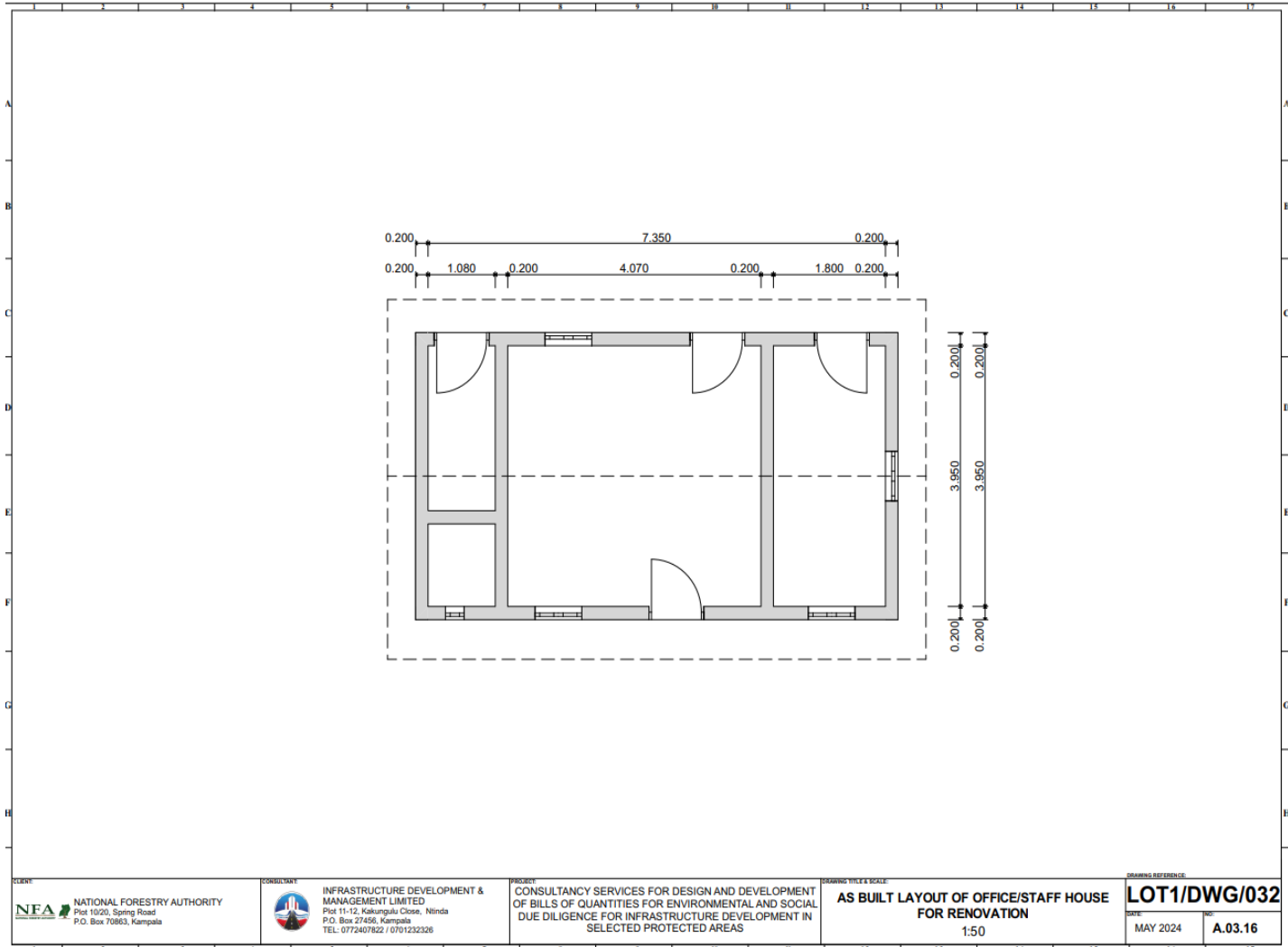


Figure 2.3: Katerera beat Renovation drawings



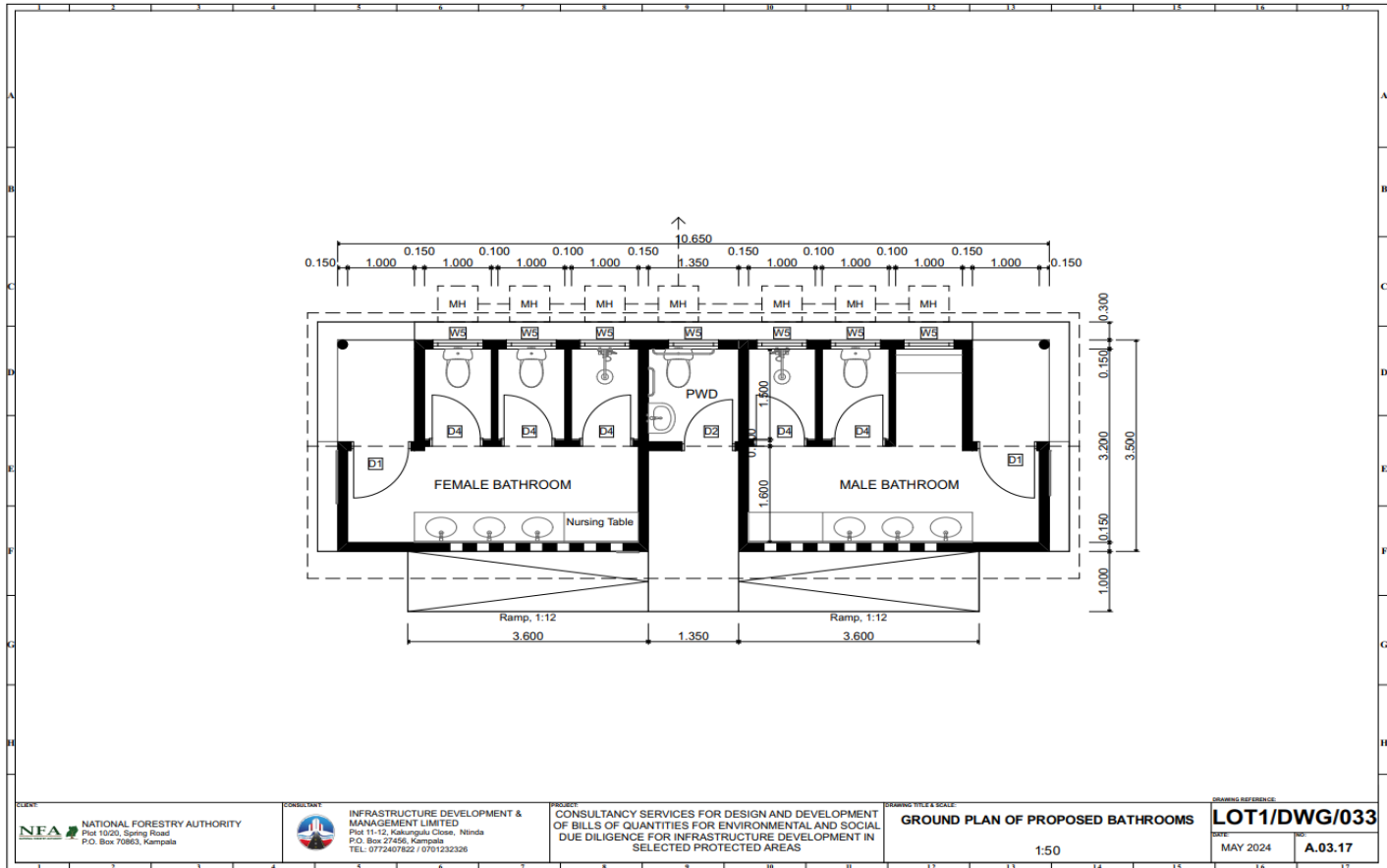
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PROJECT
CONSULTANCY SERVICES FOR DESIGN AND DEVELOPMENT
OF BILLS OF QUANTITIES FOR ENVIRONMENTAL AND SOCIAL
DUE DILIGENCE FOR INFRASTRUCTURE DEVELOPMENT IN
SELECTED PROTECTED AREAS

DRAWING TITLE & SCALE
**AS BUILT LAYOUT OF OFFICE/STAFF HOUSE
FOR RENOVATION**
1:50

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LOT1/DWG/032
DATE: MAY 2024
REV: **A.03.16**



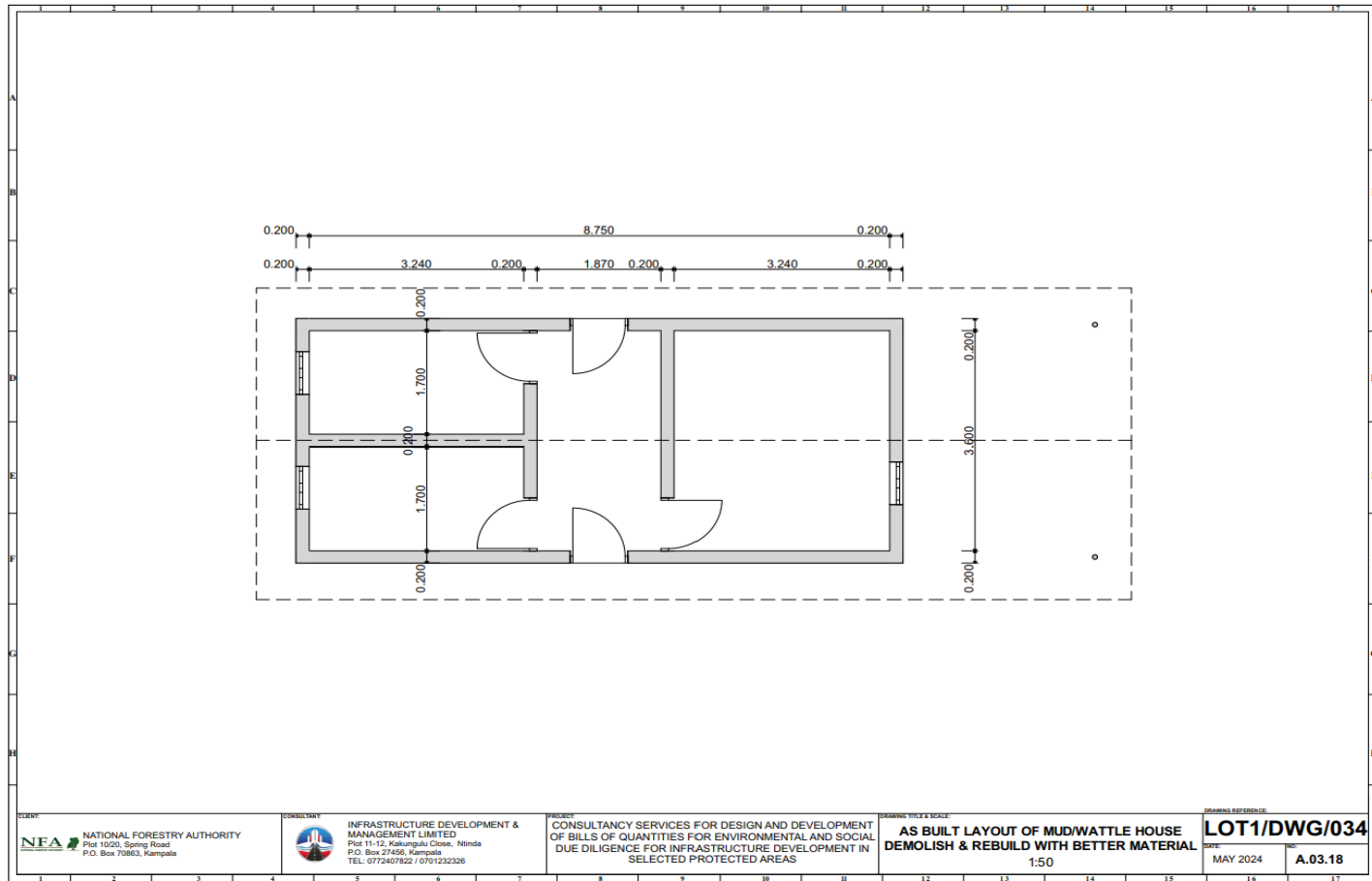


Figure 2.4: Bihanga site Renovation drawings

2.3 Renovation phase

The renovation phase of works shall involve renovation of the office and staff housing. The activities to be performed during the renovation for all the sites include changing the roof, structural coverings, refurbishing the windows, doors and replacing defective ones, refining the dilapidated ceilings, new floor strides, reconstructing the aprons, repairing the walls by replacing detective plaster with new plaster, installing power supply and fittings, installing rainwater harvest system.

During this period, workers will be transported onto the respective work sites by the contractor’s vehicles or walk from their homes hence no worker will stay on site. Each

site will require 6 months for completion, but this will change depending on factors such as funding, resource mobilization, and natural calamities, among others.

2.3.1 Construction inputs and equipment and the environment

The major construction raw materials include sand, cement, stones, crushed rock (including gravel/ballast), steel metals, roofing materials (including iron sheets, timber), rainwater harvesting materials (tanks, pipes, gutters), solar system (solar panels, batteries etc), painting materials, among others, will be obtained from neighboring communities where available.

Construction machinery, including trucks, concrete mixers, tools, and other relevant construction equipment will be used for the transportation of materials and the resulting construction debris.

2.3.2 Project labour

Construction labor force will comprise of both skilled and non-skilled workers. The contractor will be encouraged to get labors from the neighboring community. Furthermore, each site will require 40 workers (70% skilled and 30% unskilled), but this can change when construction work plans are established at the start of the construction phase.

2.3.3 Utilities and Services

These will include.

2.2.3.1 Water supply, sewerage and storm water drainage

For sites within reach of National Water and Sewerage Corporation water and sewerage infrastructure, national water will be installed. Water during the construction phase will be purchased by the contractor and stored in a temporary onsite water reservoir. All sanitary facilities will be provided and installed by the contractor

2.2.3.2 Earthling and Lightning Protection

A general system for the earthling will be put in place during the renovation. This will consist of a copper cable bonded to the outer foundation pads. This earthling will later be connected to the incoming power supply. Lightning protection shall consist of a copper tape on top with appropriate down conductors bonded to the general earth with inspection chambers and test points.

2.2.3.3 Energy Sources

During the renovation phase, the main source of electricity will be a mobile generator which will provide energy required to power electric equipment on the sites. Fuel for the generator will be procured from the nearest fuel station. Where necessary, gas will be used for welding metallic sections on site.

2.4 Operation Phase

The operation phase of this project refers to the time after construction has ended and the office and staff building is in use. This phase will involve the use of the office for its intended purpose, and other associated functionalities for the better housing of the NFA staff members. The following issues are deemed significant for the operations phase.

2.4.1 Fire and Emergency

A comprehensive fire safety training and drills for the workforce will be emphasized to all the workers. Serviced fire extinguishers will be placed in strategic locations. Certified electricians will be used during maintenance of electrical component. Emergency contacts will be obtained and will be accessed by all the workers in case of any emergencies.

2.4.2 Energy Use and Supply

Since the site is not within close proximity of national grid, therefore solar power is recommended. The eco stoves will be adopted since they use solar power and volcanic stones which will generate a smokeless flame for cooking and heating. For staff houses,

4.68kwp smart package Hybrid power box with stored energy of 37.44kwh or 3120Ah battery No 14 of 250Ahrs working with 12No. Photovoltaic of 300w panels complete with; mppt charge controller, inverter and package capabilities power box or equal approved. Photovoltaic 300w panels complete with; mppt charge controller, inverter and package capabilities power box or equal approved and package capabilities power box or equal approved eco stoves will be installed in the kitchen. The eco stoves will use Solar Power and volcanic stones which will generate a smokeless flame for cooking and heating

2.4.3 Water and Sanitation

Since the sites are not within the reach of National Water and Sewerage Corporation, rainwater harvesting will be installed and used as the primary source of water at the sites. The sites will have water borne sanitary facilities. However, the contractor will engage with NFA and the design team to advise on the potential water sources for the construction phase and operation phase and suggest alternative water sources in case the preferred water sources are temporarily unavailable. Ground water reservoirs with capacities of either 10,000 liters or 20,000 liters will be constructed on the site depending on the size with a connection to an elevated tank of 5000 liter to provide adequate storage. The water will then be treated with chlorine to enhance its safety as will be guided in the user manuals at the commissioning of the facilities.

Water-based sanitary facilities will be established at the accommodation sites. Sanitary waste shall be managed by using septic tanks established at the site as onsite wastewater management facilities. These will be routinely managed and emptied using licensed cesspool emptiers once full, who will dispose of the fecal waste/sludge at gazetted sites for disposal of this kind of waste.

The sites will have water purifiers, as these will aid in providing portable water for consumption.

2.4.4 Waste Management

The waste that will be generated at the office and staff building will include generally non-hazardous waste, such as plastic polythene bags, material packaging bags, food remains, paper, etc. These will be stored in coded waste bins and shall be segregated at source. Municipal waste will be disposed of at the nearest designated Town Council waste disposal site once the collection bins are full.

2.5 Location Descriptions and Baseline

2.5.1 Bihanga staff accommodation renovation

Bihanga is also under Kasyoha forest sector and it is located in Bihanga Village, Bihanga parish in Buhweju district. The site is located at WGS 1984 UTM Zone 36N 36N: 9969954m N, 205463m E. The nearest water source is Ndulumo cell seasonal stream about 100m from the site. The site is within the national electricity grid. The nearest health facility is Bihanga HC 111 about 500m from the site. No latrine at the site. The site has an existing accessible road through Bihanga village road network.



Staff house at Bihanga station



Bihanga Station office



Consulting team taking measurements at Bihanga Station



Structural cracks in walls at Bihanga station

Figure 2.5 Bihanga existing components

2.5.2 Katerera renovation

The site is situated at WGS 1984 UTM Zone 36N 36N: 9979213m N, 186220m E. The site is in Kacaba Village, Muyenga Parish in Rubirizi district. The site can easily be accessed through the existing community road. There is UMEME connection. There is no nearby water source hence reliable water harvest system is recommended.



Katerera Beat Office to be renovated



Cracks discovered at Katerera Beat



Consulting Team carrying out dilapidation analysis at Katerera



Cracked Tank base at Katerera

Figure 2.6: Katerera site existing components

2.5.3 Kasyoha-Kitomi sector office

The site is situated at WGS 1984 UTM Zone 36N: 9968409m N, 1776228m E and 9968375m N, 177681m E. The sites are located in Ndekye village in Ryeru Parish, Ryeru Sub county in Rubirizi District. The site has access to a water source which is a

water reservoir tank but it is recommended to have a reliable water harvest system. Connection to UMEME power connection is also available in the surrounding area. It should be noted that there is no latrine that is allocated within the NFA land. The site is about 300m from Ishaka-Kasese road easily accessible through Ndekye community road.



Arrival of consulting team at Ndekye village



Sector office at Ndekye to be renovated



Staff house at Ndekye to be renovated



Staff house and Nature Uganda offices at Ndekye

Figure 2.7: Ndekye site existing components

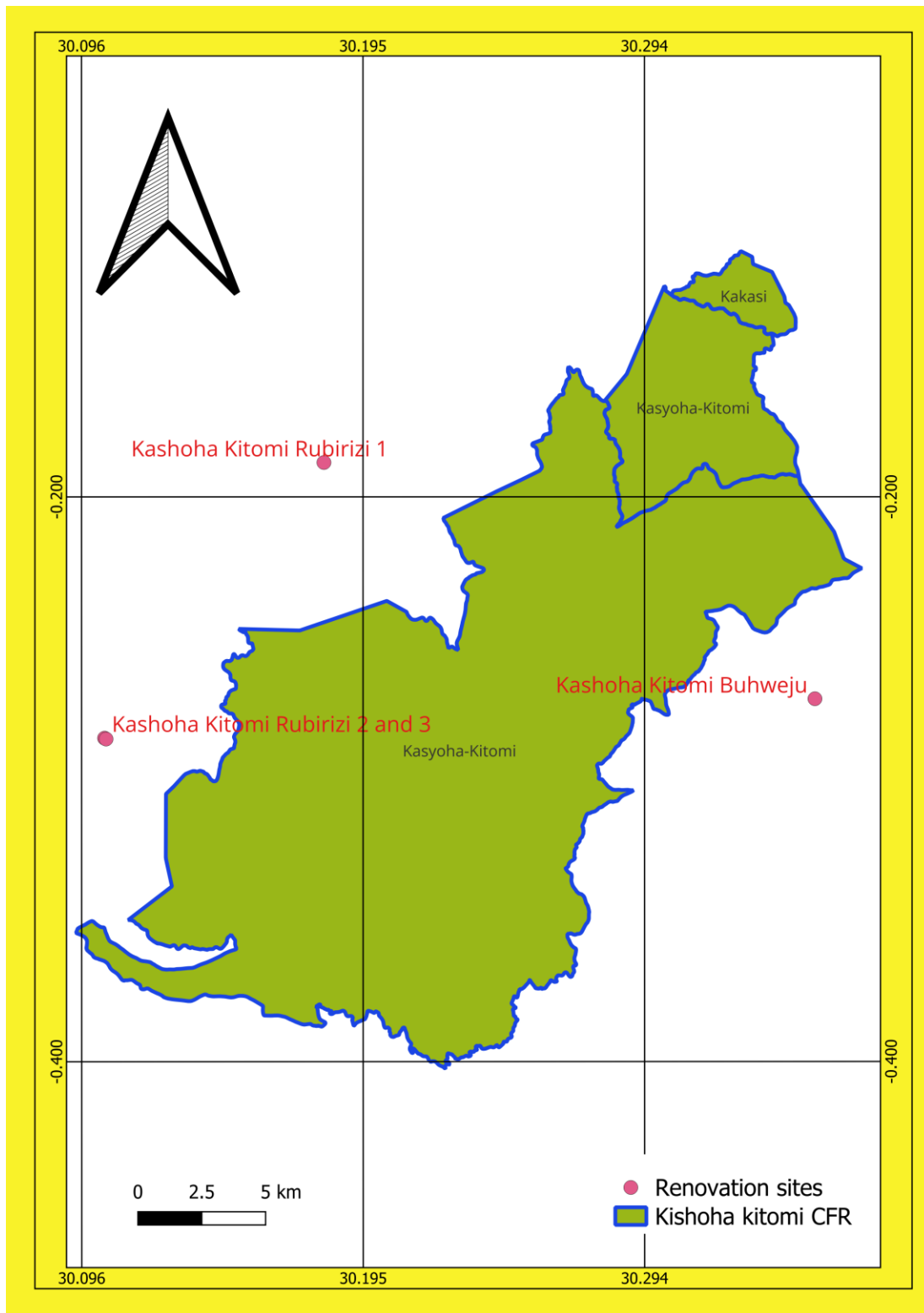


Figure 2.8: Location of the proposed sites

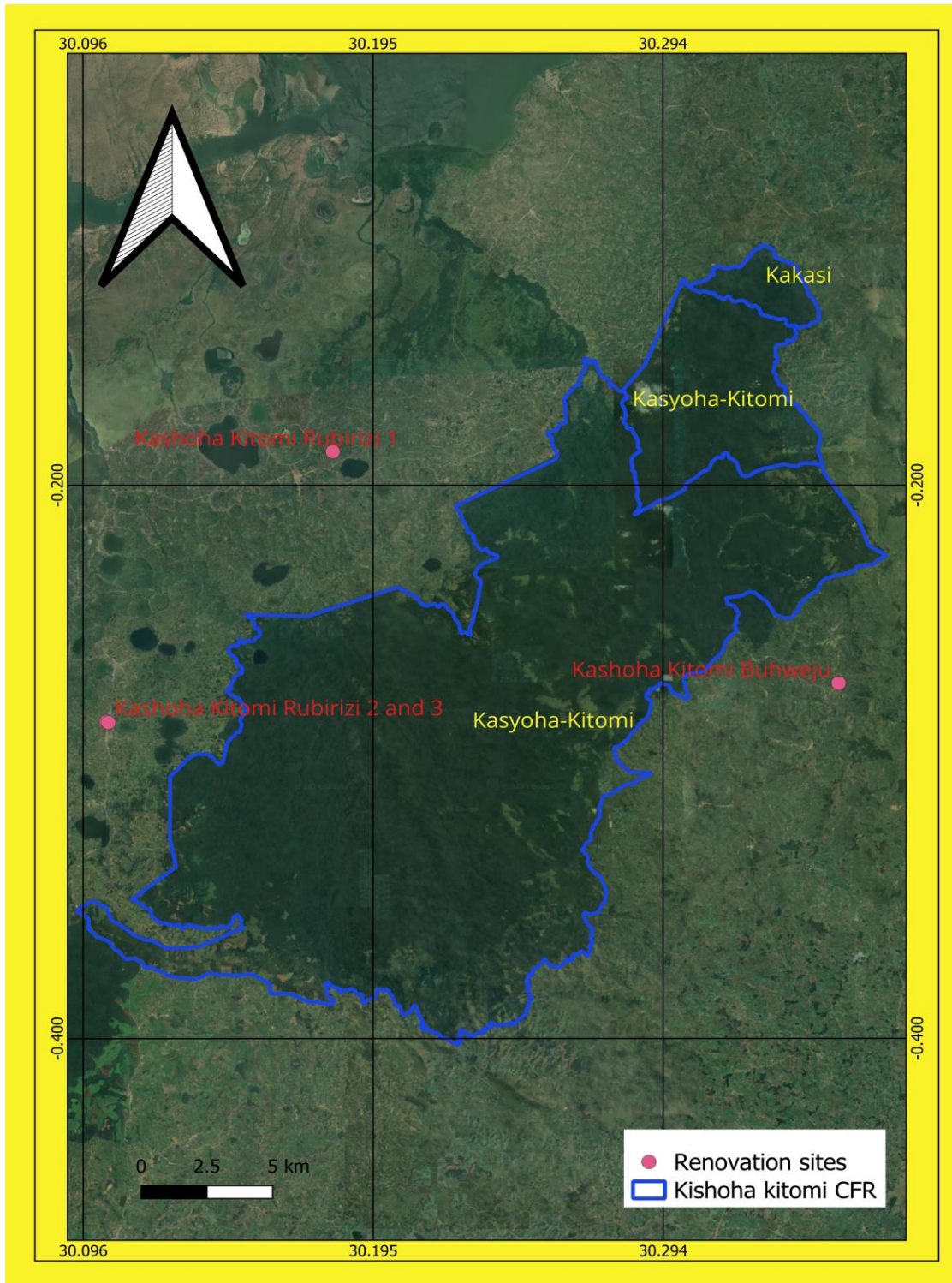


Figure 2.9: Google view of the proposed sites

2.5 Biological Baseline description of Kashoha Kitomi Central Forest Reserve

2.5.1 Flora

Kashoha kitoma Central Forest Reserve can be described as mid elevation moist ever green forest characterized by native trees dominated by *Funtumia Africana* and *Xymalos monospora* tree species.

2.5.2 Fauna

Kasyoha-kitomi central forest reserve is a critical forest for migrating large mammals from Queen Elizabeth national park and acts as their refugium during the dry seasons. The forest is rich in biodiversity with over, 15 mammal species and 308 bird species which include the endemic blue headed sunbird. The other bird species include, black bee-eater, dusky long tailed cuckoo, white napped pigeon among others. The sites harbor a number of mammals such as red- tailed monkeys, red colobus monkeys, olive baboons, L'Hoest's monkey, bush pigs and bushbucks among others.

2.6 Physical Characteristics of Kashoha Kitomi Central Forest Reserve

2.6.1 Climatic patterns

2.6.1.1 Rainfall patterns

The rainfall patterns of the Forest Reserve are characteristic of a tropical rainforest climate, with significant annual precipitation distributed throughout the year. The region typically experiences two main rainy seasons: the long rains from March to May and the short rains from September to November. These periods are marked by heavy, sustained rainfall, which is crucial for maintaining the lush, dense vegetation and the diverse ecosystems within the forest. The annual rainfall averages between 1,500 to 2,000 millimeters, although this can vary based on specific microclimatic conditions within the reserve.

2.6.1.2 Temperature and Humidity

The temperature and humidity of the Forest Reserve are typical of a tropical rainforest climate, characterized by warm temperatures and high humidity levels throughout the year. Average daily temperatures range between 20°C and 25°C, with minimal variation between seasons. The combination of high temperatures and abundant rainfall results in consistently high humidity levels, often exceeding 80%.

2.6.2 Soils and Geology

The soils and geology are integral to its ecological and environmental characteristics. The soils predominantly consist of lateritic types, rich in iron and aluminum oxides, which are typical of tropical rainforest regions. These soils are generally well-drained but can be nutrient-poor due to intense weathering and leaching. The geological foundation of the area is primarily composed of Precambrian metamorphic rocks, including schists and gneisses, which contribute to the rugged terrain. Additionally, sandstone formations are prevalent, influencing both the soil composition and the hydrological patterns within the reserve.

2.7 Biophysical Characteristics of the Sites

2.7.1 Noise Assessment

Noise levels at the renovation sites were measured using a Casella Cel 621C2/K1 integrating 1/3 octave band sound level meter (Class 2) and compared against the National Environment Noise Standards (2003) and World Bank EHS Guidelines (2007). Baseline results showed that noise levels were below the permissible limits at 75 dB(A) for daytime and 65 dB(A) for nighttime at all sites. Renovation activities are expected to temporarily increase noise levels from construction tools, traffic, and worker activities, impacting local communities, workers, and wildlife. These noise increments could temporarily affect local communities, workers, and wildlife. However, the impact will be managed through effective noise mitigation strategies and monitoring.

Table 2-1: Baseline Noise Results for Renovation Sites

Project activity	GPS Coordinates (UTM 36N)	Noise results			Noise source	Noise receptor
		Min (db)	Av (db)	Max (db)		
Bihanga staff accommodation renovation	9969954m N, 205463m E	16	42	60	<ul style="list-style-type: none"> • Community • Traffic 	<ul style="list-style-type: none"> • community
Katerera renovation	9979213m N, 186220m E	37	48	62	<ul style="list-style-type: none"> • Community • Birds • Traffic 	<ul style="list-style-type: none"> • community
Kasyoha-kitomi sector office	9968409m N, 1776228m E 9968375m N, 177681m E.	34	47	64	<ul style="list-style-type: none"> • Traffic • Community 	<ul style="list-style-type: none"> • Community
Standard of noise limits						
Construction site day 75 night 65						

2.7.2 Air Quality

The baseline ambient air quality parameters of the sites were obtained using a MX 60 multi-gas and the results are shown in Table 2-2 below. The results indicate that pollutant levels fall within the permissible limits defined by both the National Environment (Air Quality Standards) Regulations 2024 and the World Bank EHS Guidelines (2007), and this means that the air quality can be considered favorable for the local wildlife ecosystem. However, the renovation activities such as construction, demolition, and material transport could potentially increase the levels of dust (PM10, PM2.5) and gaseous pollutants (NO₂, CO, SO₂) at the site. The impact could result in short-term deterioration of air quality, which may affect both human health and wildlife if not properly managed.

Table 2-2: The Air Baseline Results for the renovation sites

Site name	AQI	PM 2.5 µm	PM10 µm	Source	Receptor
Bihanga staff accommodation renovation	26	6	10	Dusty road	• Community
Katerera renovation	32	10	10	Dusty road	• Community
Kasyoha-kitomi sector office	52	13	18	Traffic pollution	• Community

2.7.3 Flora

2.7.3.1 Bihanga staff accommodation renovation

The site is within a settlement area surrounded by croplands of mainly cassava and banana plantations. The recorded trees around the site include *Makhemia lutea*, *Eucalyptus grandis* and grasses of *Cyperus rotundus*, *Digitaria abyssinica*, *Imperata cylindrica*, *Cynodon dactylon*, *Elymus repens* and *Bidens pilosa*



Figure 2.10: Eucalyptus trees surrounding the site

2.7.3.2 Katerera renovation

The site is surrounded by croplands of cassava, maize and beans gardens. The surrounding trees included *Grevilia robusta*, *Ficus natalensis*, *Eucalyptus grandis*, *Artocarpus heterophylla*, *persia Americana* and *Terminalia catapa*. Shrubs and grasses composed of mainly *Solsnum nigrum*, *Bidens pilosa*, *Cyperus rotundus*, *Euphorbia heterophylla*, *Setaria homonyma* and *Solanum virginianum*



Figure 2.11: Cropland of cassava

2.7.3.3 Staff house at Ndekye

The site is within a modified settlement area surrounded by trees of *Makhemia lutea*, *Cypressus lusitanica*, *Tectona grandis*, *Terminalia sperba* and grasses of mainly *Digiaria abyssinica*, *Cissus petiolate*, *Cyperus rotundus*, *Bidens pilosa* and *Eleusine indica*. The site is surrounded by banana plantation.

2.7.4 Fauna

The proposed sites harbor a variety of avian species. The recorded bird species include the following; Grey crowned crane (*Balearica regulorum*), Black & white casqued hornbill (*Bycanistes subcylindricus*), Black-headed weaver (*Ploceus cucullatus*), Hadada ibis (*Bostrychia hagedash*), Eastern plantain eater (*Crinifer zoronus*), African pied wagtail (*Motacilla aguimp*), Rupells starling (*Lamprotornis purpuroptera*), Common bulbul (*Pyconotus barbatus*) among others

The recorded mammal species include; Black & white colobus monkey (*colobus*) and *vervet monkeys*.

3 POLICY, LEGAL AND REGULATORY FRAMEWORK

3.1 National Policies

3.1.1 The National Environment Management Policy, 1994

The overall goal of the National Environment Management Policy (NEMP) is sustainable social and economic development, which maintains or enhances environmental quality and resource productivity on a long-term basis that meets the needs of the present generations without compromising the ability of future generations to meet their own needs. Section 4.8 requires that an environmental assessment is done for any development project that is likely to have significant impacts on the environment.

This ESMP has been prepared to ensure sustainable development, as the sub-project is likely to result in environmental impacts and risks.

3.1.2 The National Forestry Policy, 2001

This policy provides a framework for the sustainable management, conservation, and development of Uganda's forest resources. Its mandate focuses on ensuring that forests are managed in a way that balances environmental, social, and economic benefits for present and future generations. The policy promotes the conservation of biodiversity, the protection of water catchments, and the sustainable use of forest products. Section 4.1 outlines the policy's commitment to conserving forest ecosystems by emphasizing protection of natural forests, biodiversity conservation and sustainable use of forest resources.

This ESMP has been prepared to ensure the project activities are carried in line with the requirements of this policy.

3.1.3 Uganda Wildlife Policy, 2014

The Wildlife Policy states the intention and the strategic direction of the Government of Uganda regarding wildlife conservation.

Subsection (h) mandates the relevant institution to establish standards, guidelines and mitigation measures to be followed for any development activities that may have a significant impact on wildlife.

NFA should restrict excavation works to areas that will be required for renovation of the sub-project to minimize the impacts on wildlife.

3.1.4 Uganda National Climate Change Policy, 2015

This policy is designed to guide the country in addressing the challenges posed by climate change through strategic adaptation and mitigation efforts. Its general mandate is to integrate climate change considerations into national development planning, ensuring that all sectors contribute to reducing vulnerability to climate change impacts and lowering greenhouse gas emissions. The policy aims to enhance the resilience of communities, ecosystems, and economies while promoting sustainable development practices that align with Uganda's commitment to international climate agreements. Section 3.1 calls for Climate Change Adaptation and Mitigation by Promoting strategies to adapt to the impacts of climate change, especially in sensitive ecosystems like forests. Section 5.1 emphasizes the need to integrate climate change considerations into all development projects.

NFA shall ensure the project contributes positively to climate change adaptation and mitigation while maintaining the ecological balance within Kasyoha-kitomi CFR.

3.1.5 The National Land Use Policy, 2007

The overall goal for the national land use policy is "To achieve sustainable and equitable socio-economic development through optimal land management and utilization in Uganda". The client bases on some of the specific goals of this policy among others. To promote land use activities that ensure sustainable utilization and management of environmental, natural and cultural resources for national socio-economic development.

Section 4.5 addresses the management and use of land in environmentally fragile areas, such as forests, wetlands, and other protected areas. It calls for need to protect and conserve fragile ecosystems by regulating and controlling activities that could lead to environmental degradation. Furthermore, it noted the criticality of promoting land use practices that are environmentally sustainable, particularly in areas like Kasyoha-kitomi CFR, where maintaining ecological balance.

This ESMP is aimed at ensuring the sustainable project development through the implementation of the proposed mitigation measures to conform to this policy while effectively utilizing land resources.

3.1.6 The National Gender Policy, 2007

The policy provides a legitimate point of reference for addressing gender inequalities at all levels of government and by all stakeholders. The major aspects of this policy provisions include among others;

- Increased awareness of gender as a development concern among policymakers and implementers at all levels;
- Influencing national, sectoral and local government programmes to address gender issues;
- Strengthened partnerships for the advancement of gender equality and women's empowerment and increased impetus in gender activism.

Based on this policy, NFA and/or the contractor shall take gender issues into account during the construction and particularly through equitable access to the job opportunities available.

3.1.7 The Child Labour Policy, 2006

This policy requires the complete elimination of child labour in all forms by prohibiting the employment of children in work that harms their health, safety, or development. It aims to protect children from exploitation and ensure their right to education and proper development. The policy establishes regulations and enforcement mechanisms to

monitor and prevent child labour, promoting safe and child-friendly environments in all sectors.

Section 3 of the policy prohibits child labour by clearly stipulating the prohibition of employing children in any work that is detrimental to their health, development, or education as well as emphasizing the need for strict adherence to regulations that prevent child labour and requiring mechanisms to monitor and enforce compliance.

NFA will ensure strictly no employment of children at the sub-project following this policy.

3.1.8 Uganda Land Policy, 2013

The Uganda National Land Policy was put in place by the Government in 2013 to streamline land management issues in the country. Its major goal is to ensure efficient, equitable and optimal utilization and management of Uganda's land resources for poverty reduction, wealth creation and overall socio-economic development.

Section 4.9 calls for the management of environmentally sensitive areas including forests, wetlands, and protected areas like Kasyoha-kitomi CFR. It emphasizes promoting sustainable land use practices that align with environmental conservation goals, particularly in areas with significant ecological value like Central Forest Reserves.

NFA is developing this ESMP to ensure the ecosystem under its jurisdiction is not deteriorate due to the implementation of the project, by ensuring mechanisms are put in place to manage any potential impacts.

3.2 Legal Framework

3.2.1 The Constitution of the Republic of Uganda, 1995

The constitution in its National Objectives and Directive principle of state policy, objective XIII provides for the protection of natural resources.

Under Article 237 (2) (b) of the Constitution, the Government or Local government is mandated to hold in trust for the people and protect, natural lakes, rivers, wetlands,

forest reserves, game reserves, national Reserves and any land, to be reserved for ecological and touristic purposes for the common good of all citizens.

In observance of the above provisions, all the renovation activities in protected areas must take into consideration environmental concerns and ensure that the natural resources, wildlife in this case, are not adversely affected.

3.2.2 The National Environment Act Cap 181

The National Environment Act is the supreme law of environmental management in Uganda. This act provides for various strategies and tools for environment management, which also includes the Environmental and Social Impact Assessment (ESIA) (Section 113) for projects likely to have significant environmental impacts, and audit (Section 126) for ongoing projects/activities which may significantly affect the environment.

The ESMP has been developed to identify, assess and manage environmental and social risks and impacts as the implementation of the sub-project is likely to have associated negative environmental and social impacts and risks.

3.2.3 The National Forestry and Tree Planting Act 2003

This policy mandates the sustainable management and conservation of Uganda's forest resources by establishing a legal framework for protecting both natural and planted forests. It focuses on maintaining ecological balance and biodiversity, promoting tree planting and afforestation, and regulating the use of forest resources to prevent over-exploitation. Section 5 of the Act deals with the designation and management of forest reserves, including control of activities within forest reserves to prevent degradation and maintain ecological integrity.

NFA shall ensure the construction and operation phases of the sub-projects do not interfere and degrade with forest activities as laid out in this Act.

3.2.4 The Land Act, 1998

Section 43, provides for management and utilization of land in line with the Wildlife Act 2019 and other laws. Section 44 (i) mandates the government or local governments to hold in trust for the people and protect national Reserves, wetlands, and forest reserves among others for ecological and touristic purposes for the common good of the citizens of Uganda.

NFA shall ensure the contractor minimizes as much as possible the land take of their developments so as not to compromise the purpose for which the protected areas were gazetted.

3.2.5 The Uganda Wildlife Act 2019

This Act has a mandate for the protection and conservation of wildlife and their habitats across Uganda. It emphasizes safeguarding wildlife from poaching and illegal trade, promoting sustainable use of wildlife resources, and preserving critical habitats to maintain biodiversity. Additionally, it establishes a regulatory framework and enforcement mechanisms to manage wildlife effectively and address any violations. Section 8 outlines the measures for wildlife conservation and habitat management which is essential for ensuring that the ESMP addresses potential impacts on wildlife and their habitats during the project implementation.

NFA shall ensure that the proposed project activities in the CFR are designed in a way to prevent the loss of wildlife during both the construction and operation phases of the project.

3.2.6 The National Climate Change Act, 2021

This Act establishes a legal framework for addressing climate change in Uganda by mandating comprehensive climate action across all sectors. It focuses on integrating climate change considerations into national planning and development, enhancing resilience to climate impacts, and reducing greenhouse gas emissions. The Act establishes a National Climate Change Council to oversee implementation, sets up

mechanisms for monitoring and reporting climate actions, and promotes the adoption of climate-smart technologies and practices.

Section 10 focuses on climate change adaptation, guiding the incorporation of resilience measures to protect the forest and local communities from climate impacts. Section 12 provides guidelines for implementing emissions reduction strategies, ensuring that construction and renovation activities minimize their carbon footprint. Section 15 emphasizes the need for effective monitoring and reporting of climate actions, which is essential for assessing the ESMP's effectiveness and ensuring compliance with climate goals.

NFA shall integrate climate change considerations to ensure that the project supports national climate goals, enhances resilience, and incorporates effective mitigation and adaptation strategies.

3.2.7 Employment Act, 2006

The Employment Act is the governing legal statutory instrument for the recruitment, contracting, deployment, remuneration, management and compensation of workers. The Act also provides for the freedom of association of workers permitting workers to join labour organizations.

Section 32 states that children under the age of 12 years shall not be employed in any business, undertaking or workplace (32(1)). Subsection 32(2) provides restrictions under which a child under the age of fourteen (14) years may be employed; including for light work under the supervision of an adult aged over eighteen (18) years and the work shall not interfere with the child's education.

This development will require recruitment, contracting, and deployment, especially during the preparation and construction phases, thus this Act will be an important pillar on which the project will be conducted.

3.2.8 The Workers' Compensation Act, 2000

The Workers' Compensation Act outlines responsibilities and obligations for both parties (employer and employee) in guaranteeing the safety and health of the workers. The Act outlines matters of compensation for injuries and accidents as well as the responsibility of employees to take care of their health and safety while on the project.

Section 3 provides provisions on employer liability for work-related injuries while Section 4 outlines compensation entitlements for medical expenses, lost wages, and disability. The Act also details the procedure for filing compensation claims in Section 5 and provides for medical and rehabilitation benefits for injured workers in Section 9. Additionally, Section 12 emphasizes the implementation of safety measures to prevent workplace accidents.

All workers at the sub-project should be provided with adequate PPE that is appropriate to the task they are involved in and ensure that workers use them. A workers' compensation policy should be implemented as stipulated.

3.2.9 The Water Act, Cap 152

The Water Act, Cap 152 of 1995 provides for the management of water in Uganda under the mandate of the Directorate of Water Resources Management (DWRM) in the Ministry of Water and Environment. Section 31, subsection (1) of the Water Act deals with the prohibition of pollution to water.

NFA will ensure that appropriate measures to prevent pollution of underground and surface water sources in the site neighbourhood are implemented.

3.2.10 The Occupational Safety and Health Act, 2006

The Occupational Safety and Health Act of 2006 consolidates, harmonizes and updates the law relating to occupational safety and health and repeals the Factories Act of 1964. It makes provisions for the health, safety, welfare and appropriate training of persons

employed in workplaces. The Act provides for safe access to the workplaces and safe work practices which applies to this project as well.

The Act is applicable in relation to protection of the construction workers against secondary injuries and hazards during execution of their duties or work. NFA and the Contractor will provide for the protection of workers from adverse weather, provision of a clean and healthy work environment, sanitary conveniences, washing facilities, first Aid and facilities for safe drinking water and meals. In summary, this act should be used as a guideline to ensure health and safety of workers is guaranteed. NFA and Contractor should provide PPE to its entire staff.

3.3 Regulations and Standards

3.3.1 The National Environment (Waste Management) Regulations, 2020

These regulations apply to all types of waste (non-hazardous and hazardous) and its storage and eventual disposal. Regulation 12 prohibits the disposal of waste into the environment without adequate treatment at a treatment facility approved by the Lead agency. Regulation 5 emphasizes waste minimization measures by making Cleaner Production a requirement for owners or operators of facilities that generate waste. Production process improvement; product cycle monitoring; and incorporation of environmental concerns in the product lifecycle are some of the requirements.

NFA will ensure that wastes are managed in a way to avoid environmental pollution and public health impact and that wastes are managed and disposed of in an environmentally friendly manner.

3.3.2 National Environment (Environmental and Social Assessment Regulations), 2020

These regulations hold for all projects/activities listed under the fourth and fifth schedule of the National Environment Act, 2019. The regulations state in part III section 10 that, environmental impact studies shall be conducted in accordance with terms of reference developed by the developer in consultation with the Authority and the lead agency and that, the study shall be conducted in accordance with the guidelines adopted by the

Authority in consultation with the lead agency under subsection (8) of section 19 of the National Environment Act. Regulation 16 of these regulations also requires that stakeholder consultations should be carried out while undertaking the Environmental Impact Assessment study.

Therefore, the assessment for the proposed project was conducted in line with the requirements of these Regulations.

3.3.3 The National Forestry and Tree Planting Act, 2016

This Act makes provision for the conservation, management and development of forest resources in Uganda and establishes the National Forestry Authority and a fund for tree planting. The purposes of the Act include the creation of an integrated forest sector, conservation of biological diversity, the devolution of functions and powers in the forest sector and the sustainable development of that sector.

Establishment of the project will support the increase in protection of forest reserves against human activities in line with the objectives of this Act.

3.3.4 The National Environment (Minimum Standards for Management of Soil Quality Regulations, 2001)

The act sets guidelines for maintaining and protecting soil quality through sustainable practices. It focuses on preventing soil degradation, controlling pollution from chemicals and waste, and promoting agricultural techniques that preserve soil health. The regulation also includes provisions for monitoring soil conditions, proper waste disposal, and land-use planning to prevent over-exploitation and ensure long-term soil productivity and fertility. It serves as a framework to safeguard soil resources for environmental sustainability and agricultural viability.

Therefore, the renovation project will be conducted in line with the requirements of these Regulations.

3.3.5 The National Environment (Noise and Vibrations Standards and Control) Regulations, 2003.

All noise emitting sources at the project sites must conform to the National Environment (Noise and Vibrations Standards and Control) Regulations, 2003. The Regulations are aimed at ensuring maintenance of a healthy environment for all people in Uganda, the tranquility of their surroundings and their psychological well-being. Part IV, Section 19(1) of the Regulations states that *“the owner of machinery or the owner or occupier of a facility or premises or person responsible for any activity; shall use the best practicable means to ensure that the emission of noise and vibration from that machinery, facility, premises or activity does not exceed the permissible noise levels”*.

The activities at the sites under construction will emit noise; hence, the contractor will put in place measures that will minimize noise emissions and keep them below the national standards. The contractor shall take caution on all equipment and noise generating sources, especially during the construction phase

Maximum Permissible Noise Levels are shown in the table below.

Table 3: Maximum Permissible Noise Levels for Construction Site

Facility	Noise limit dB(A) (Leq) Day	Noise limit dB(A) (Leq) Night
1. Any building used as a hospital, convalescence home, home for the elderly, sanatorium and institute of higher learning, conference rooms, public library, environmental or recreational sites	45	35
2. Residential buildings	50	35

Source: *The National Environment (Noise and Vibrations Standards and Control) Regulations, 2003. (Schedule 1)*

Time Frame: Use duration

Day- 6.00 a.m. -10.00 p.m.

Night- 10.00 p.m. - 6.00 a.m.

The Time frame takes into consideration human activity.

3.3.6 National Environment (Air Quality Standards) Regulations, 2024

The renovation activities will cause air emissions which will need to be minimised. The draft National Air Quality Standards provide the following regulatory limits.

Table 4: Regulatory Air Quality Standards for selected Pollutants

Pollutant	Averaging time for ambient air	Standard for ambient air
Saw dust	24 hr	1 mgNm ⁻³
Carbon dioxide (CO ₂)	8 hr	9.0 ppm
Carbon monoxide (CO)	8 hr	9.0 ppm
Hydrocarbons	24 hr	5 mg/m ³
Nitrogen oxides (NO _x)	24 hr1 year arithmetic mean	0.10 ppm
Soot	24 hr	500 µg/Nm ³
Sulphur dioxide (SO ₂)	24 hr	0.15 ppm
Sulphur trioxide (SO ₃)	24 hr	200 µg/Nm ³

Note: ppm = parts per million; “N” in µg/Nm⁻³ connotes normal atmospheric conditions of pressure and temperature (25°C and 1 atmosphere).

Baseline air quality conditions for this site were undertaken and are elaborated in chapter three of this report; they shall form a benchmark for the air quality levels during construction.

3.4 International Treaties and Conventions

3.4.1 Convention on Biological Diversity, 1992

Under the Convention, each contracting party is expected to develop national strategies, plans or programs for the conservation and sustainable use of biological diversity.

The convention was signed by Uganda in 1992 and ratified in 1993. This treaty obliges member states to establish a mechanism of engaging local communities, to share issues arising out of conservation of biological resources and use of indigenous knowledge in the management and conservation of protected areas.

The ESMP has been carried out as a measure to protect biodiversity within the Reserve during construction and operation.

3.4.2 The United Nations Framework Convention on Climate Change (“1992 UNFCCC”)

The objective of the 1992 UNFCCC is to tackle the negative effects of climate change. According to Article 2 of the convention, its stated aim is to stabilize greenhouse gas concentration at a level that allows ecosystems to adapt naturally to climate change so that food production is not threatened, while enabling economic development to proceed in a sustainable manner.

The proposed renovation project will be implemented with utmost consideration to conserve all natural and artificial forests, water systems and the general ecological system in the reserve.

3.4.3 The 1968 African Convention on the Conservation of Nature and Natural Resources

Article II of the convention emphasizes the conservation, utilization, and development of natural resources, such as soil, water, flora, and fauna, based on scientific principles and the best interests of the people. Article IV mandates contracting States to combat soil erosion and misuse through effective land-use planning grounded in ecological, economic, and sociological investigations.

The proposed renovation project will be implemented with utmost consideration to conserve flora, fauna, and endangered species in the reserve.

3.5 Relevant Permits

A list of permits and licenses necessary for execution of the project are indicated in the Table below.

Table 5: Required permits

TYPE OF PERMIT/ APPROVAL	SUPPORTING LEGISLATION	REQUIREMENT	APPLIES TO	APPROVING AUTHORITY	TYPE OF APPLICATION SUBMITTED	STAGE AT WHICH APPROVAL IS REQUIRED
Certificate of Registration of a Workplace	The Occupational Safety and Health Act, 2006	Section 40, Subsection (2): a person shall not less than one month before he or she begins to occupy any premises as a workplace, serve on the Commissioner, a notice with the particulars prescribed in Schedule 3.	Any project requiring the establishment of a workplace (e.g., camp site).	Department of Occupational Safety and Health MGLSD	Particulars to be Submitted When Applying for the Registration of a Workplace or a Change in the Registered Occupier	Immediately upon (not later than one month) prior to undertaking any site works (construction, operation, preconstruction surveys).
Building plan approvals	Building Control Act 2013	Section 34 prohibits any person from carrying out a building operation unless he/she has a valid building permit issued by the District Building Committee	Applies to all commercial and residential buildings	District Local Government	Building plans	Prior to commencement of construction

3.6 World Bank Environmental and Social Standards

Table 3-6: World Bank Environmental and Social standards

<p>ESS1: Assessment and Management of Environmental and Social Risks and Impact</p>	<p>ESS1 provides for carrying out an environmental and social assessment of the project to assess the environmental and social risks and impacts of the project throughout the project life cycle.</p> <p>Given that the scale of this renovation project and associated environmental and social risks are minimal, an ESMP was prepared to ensure the risks are mitigated during the implementation of the project.</p>	<p>Triggered/applicable</p>
<p>ESS2: Labor and Working Conditions</p>	<p>Recognizes the importance of employment creation and income generation in the pursuit of poverty reduction and inclusive economic growth. Borrowers can promote sound worker-management relationships and enhance the development benefits of a project by treating workers in the project fairly and providing safe and healthy working conditions</p> <p>Both skilled and unskilled labour force will be required on the project and therefore requirements of this standard to ensure appropriate working conditions shall have to be complied with.</p>	<p>Triggered/ applicable</p>
<p>ESS3: Resource Efficiency and Pollution Prevention and Management</p>	<p>Recognizes that economic activity and urbanization often generate pollution to air, water, and land, and consume finite resources that may threaten people, ecosystem services and the environment at the local, regional, and global levels. This ESS3 sets out the requirements to address resource efficiency and pollution prevention and management throughout the project life-cycle.</p> <p>ESS3 applies to the project due to the nature of the proposed</p>	<p>Triggered/ applicable</p>

	<p>activities. Therefore, measures to avoid pollution and ensure efficient resource utilization shall have to be implemented in line with this standard.</p>	
<p>ESS4: Community Health and Safety</p>	<p>ESS4 recognizes that project activities, project equipment and infrastructure increase the exposure of project stakeholder communities to various health, safety and security risks and impacts and thus recommends that projects implement measures that avoid or limit the occurrence of such risks.</p> <p>The project is expected to pose health and safety risks to the community, workers in the host environments. Therefore, provisions of these standards shall be complied with through mitigation measures that resolve these potential risks.</p>	<p>Triggered/ applicable</p>
<p>ESS5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement</p>	<p>ESS5 promotes consideration of feasible alternative project designs to avoid or minimize land acquisition or restrictions on land use, especially where this would result in physical or economic displacement, while balancing environmental, social, and financial costs and benefits, and paying particular attention to gender impacts and impacts on the poor and vulnerable. ESS5 does not apply to this project since the land where the renovation is located is owned by NFA.</p> <p>The renovation will not require land acquisition and resettlement since all the project areas are the property of the implementing agency. Therefore, this standard will not be relevant for the renovation project.</p>	<p>Not Triggered/ not applicable</p>
<p>ESS6: Biodiversity Conservation and Sustainable Management of</p>	<p>ESS6 recognizes that protecting and conserving biodiversity and sustainably managing living natural resources are fundamental to sustainable development and it recognizes the importance of maintaining core ecological functions of habitats, including forests, and the biodiversity they support.</p> <p>Some of the mitigation measures mentioned in this ESMP are</p>	<p>Triggered/ applicable</p>

<p>Living Natural Resources</p>	<p>aimed at addressing issues under ESS6.</p> <p>The renovation are to be established in sensitive ecosystems such as forests, reserves and therefore there is a need to comply with the provisions of this standard.</p>	
<p>ESS7: Indigenous Peoples/Sub- Saharan African Historically Underserved Traditional Local Communities</p>	<p>This ensures that the development process fosters full respect for the human rights, dignity, aspirations, identity, culture, and natural resource-based livelihoods of Indigenous Peoples. ESS7 is also meant to avoid adverse impacts of projects on Indigenous Peoples.</p> <p>The renovation project will not affect indigenous communities and therefore this standard will not be relevant.</p>	<p>Not Triggered/not applicable</p>
<p>ESS8: Cultural Heritage</p>	<p>This standard sets out general provisions on cultural heritage preservation and recommends protecting cultural heritage from the adverse impacts of project activities.</p> <p>The renovation locations shall not impact any cultural resources based on the assessments. However, in case there are chance finds during the execution of the projects, the chance finds protocol as in annex 3 shall be used hence triggering this standard.</p>	<p>Triggered/ applicable</p>
<p>ESS9: Financial Intermediaries (FI)</p>	<p>This recognizes that strong domestic capital and financial markets and access to finance are important for economic development, growth and poverty reduction. FIs are required to monitor and manage the environmental and social risks and impacts of their portfolio and FI subprojects and monitor portfolio risk, as appropriate to the nature of intermediated financing. How the FI will manage its portfolio will take various</p>	<p>Not Triggered/not applicable</p>

	<p>forms, depending on some considerations, including the capacity of the FI and the nature and scope of the funding to be provided by the FI.</p> <p>ESS9 does not apply to this project</p>	
<p>ESS10: Stakeholder Engagement and Information Disclosure</p>	<p>ESS10. The standard establishes a systematic approach to stakeholder engagement and helps to identify stakeholders and build and maintain a constructive relationship with them, as well as disclose information on the environmental and social risks and impacts to stakeholders in a timely, understandable, accessible and appropriate manner and format. It recommends that stakeholder engagements be commenced as early as possible in the project development process and continued throughout the lifecycle of the Project.</p> <p>For this renovation project, relevant stakeholders were engaged in line with the provisions of this standard and other requirements of this standard will be complied with.</p>	<p>Triggered/ applicable</p>

3.7 List of Plans to be Included in The Contractor’s C-ESMP

The following plans shall constitute the Contractor’s Social and Environmental Management Plan.

S/N	Plan
1.	Waste Management Plan
2.	Occupational and Community Health and Safety Management Plan
3.	Emergency Response Procedures
4.	Decommissioning and Restoration Plan

4 METHODOLOGY

The methodology section highlights the methods that were used in the development of this ESMP.

4.1 Environmental and Social Screening

Environmental and social screening are important processes used to identify, assess, and manage the potential environmental and social risks and impacts associated with activities.

The sub-project was subjected to the project screening checklist and it was determined that the potential adverse risks and impacts on human populations and/or the environment are not likely to be significant. The likely impacts are mostly predictable and expected to be low in magnitude, temporary and/or reversible, site-specific, without likelihood of impacts beyond the actual project. It was after the environmental screening that it was determined that an ESMP would be adequate to mitigate the likely environmental and social impacts and risks.

4.2 Document Review

To gain a clear insight on baseline parameters and project characterization, various planning, regulatory documents and reports were analyzed. Reviewed documents include those on policy and regulatory provisions

1. World Bank Environmental and Social Framework
2. National Legal and Regulatory Framework

4.3 Site Reconnaissance

The proposed sub-project area was examined during the site visit. The observation and assessment of the physical characteristics of the proposed site, the immediate surrounding and other environmental and social attributes likely to affect or be affected by the implementation of the sub-project was undertaken. The site characteristics are detailed in section 2.24 of this ESMP.

The site visit assisted in identifying and assessing the likely impacts as a result of the project implementation. The site visits also assisted in establishing baselines (i.e.,

biological and physical) to be used in monitoring compliance of the project to the proposed mitigation measures.

4.4 Stakeholder Consultations

Stakeholder consultations allow those most affected by proposed developments to make an input at both planning and operation stages.

The aim of the consultations was to identify and take note of environment and social concerns and views of stakeholders so that appropriate mitigations are incorporated.

Consultations were carried out with key NFA staff at Kashoha Kitomi Central Forest Reserve, community leaders, community members and the District officials to obtain their comments on the proposed project with respect to the potential environmental and socio-economic issues and impacts.

Table 4-1: Stakeholders Consulted on the Project

Category	Stakeholders consulted
Central Forest Reserve	Forest Supervisor Forest Manager
Community	Local leaders Community Members
NFA Headquarter	IFPA-CD Institutional Focal Person IFPA-CD Project Officer IFPA-CD Procurement Officer Ecotourism officer Environment Management and Research Officer Administration Officer Planning Officer
District	Environment Officer District Community Development Officer District Forest Officer

National	Ministry of Tourism Wildlife and Antiquities Ministry of Water and Environment Uganda Wildlife Authority (UWA) Ministry of Gender, Labour and Social Development.
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For each engagement, the consultant disclosed information along the thematic areas here below;

1. Introduction of project team.
2. Purpose of the meeting
3. Project Description and Planned Activities
4. Project Partners and their roles;
5. Perceived project impacts (positive and negative) and proposed mitigation

4.4.1 Engagement Activities

Stakeholder consultations were undertaken in April 2024 to disclose the proposed project to the NFA field staff, to seek their views about its development and operation. The nearest Community were consulted since they were within the site vicinity. In addition, district representatives were engaged to seek their opinions on the proposed projects.

During the stakeholder engagements, the stakeholders raised concerns/issues. Some of the key concerns raised during the various stakeholder engagement meetings are summarized in the table below.

Table 4-2: Summary of Key Issues Raised by Stakeholders

Stakeholder	Key Issues Raised	Consultants' response
Community leaders	<ul style="list-style-type: none"> • Provision of employment Opportunities • Improve on the Road • Improve on Security in the area 	<ul style="list-style-type: none"> • The consulting team assured the community leaders that various opportunities will be created to be occupied by the community members. • The consulting team recommended enhancing security measures through NFA patrol team, and collaboration with local law enforcement agencies.
National Forest Authority (NFA) field Team	<ul style="list-style-type: none"> • Provide Safety Kits. • Provision of Power. • Provision of Uniforms for identity. • Provision of water at the housing facilities. 	<ul style="list-style-type: none"> • Safety kits will be provided, ensuring everyone has the necessary protective equipment. • A reliable power sources, (solar panels) will be installed, to ensure a continuous power supply. • Uniforms will be provided to improve team identity and professionalism
District team <ul style="list-style-type: none"> • District Environmental Officer (DEO) • District Community Development Officer. 	<ul style="list-style-type: none"> • Ensure that ownership of land is identified • Ensuring the project complies with local, national, and international environmental laws and regulations is crucial. • Employment opportunities. • Providing training and capacity-building programs for local residents to enable them to benefit from the project. • Ensure HIV/AIDS awareness 	<ul style="list-style-type: none"> • The site is within the NFA protected area and NFA owns the land. • The consulting team assured us of adhering to all relevant environmental laws and regulations. • The consulting team assured to create job opportunities for local residents throughout the project. • Training programs to enhance local residents' skills and capacity to benefit from the project will be provided.

<ul style="list-style-type: none"> • District Forestry Officer 	<p>in the management Plans.</p> <ul style="list-style-type: none"> • Implementing measures to protect critical habitats and prevent illegal logging or encroachment. • Ensuring that biodiversity conservation plans are integrated into the project's planning. • Ensuring the project complies with all relevant forestry laws, regulations, and policies 	<ul style="list-style-type: none"> • HIV/AIDS awareness programs in the project's management plans has provided. • Proposed measures to protect critical habitats and prevent illegal activities have been developed. • The consulting team committed to integrating biodiversity conservation plans into the project's planning stages. • Consultants reassured compliance with all forestry laws, regulations, and policies.
<p>Community Members</p>	<ul style="list-style-type: none"> • There could be potential benefits in terms of improved infrastructure, such as roads • Construction could lead to restrictions on access to forest resources that community members rely on for subsistence and income. • Job Opportunities 	<ul style="list-style-type: none"> • Proposed alternative solutions and compensatory measures to mitigate restrictions on access to forest resources was disc. • The consulting team assured the community members that various opportunities will be created for them.
<p>Uganda Wildlife Authority (UWA)</p>	<ul style="list-style-type: none"> • Avoid Pollution and Disturbance • Ensuring that the project complies with local, national, and international wildlife protection laws and environmental regulations. 	<ul style="list-style-type: none"> • The consulting team assured UWA that measures would be taken to minimize pollution and disturbance during the project, including careful planning and implementation of best practices. • The project would adhere to all relevant wildlife protection laws and environmental regulations.
<p>National Forest</p>	<ul style="list-style-type: none"> • The Consultant presented a 	

<p>Authority (NFA) Top management</p>	<p>draft report highlighting; the field findings, design concept, renovations, budget estimates, environmental assessment and revised schedule.</p> <ul style="list-style-type: none"> • The Consultant noted that there was a discrepancy in the proposed infrastructure developments in the ToRs and the field findings. According to the Tor’s a total of 52 buildings had been proposed while the field findings had a total of 104 sites. He requested the client to guide on the scope to be covered. 	
<p>Ministry of Water and Environment (W&E)</p>	<ul style="list-style-type: none"> • The Code of conduct for workers should be laid out Occupational health and safety needs to be emphasized on the sites such as sexual Orientation should be carried out to the workers. • There needs to be no land encumbrances on the sites where the facilities are to be set up (the site is within the gazetted CFR). 	<ul style="list-style-type: none"> • The consulting team agreed to implement a strict code of conduct for workers, emphasizing occupational health and safety, including training on issues such as sexual orientation sensitivity. • Consulting team acknowledged the importance of clear land ownership and assurance the ministry that the project site is within the protected area and it’s owned by NFA so there won’t be any land encumbrances.

5 ANTICIPATED IMPACTS AND MITIGATION MEASURES

This chapter lays out a discussion of the most pertinent environmental and social impacts of the proposed renovation project. In addition, the possible mitigation measures to manage the impacts are also proposed.

5.1 Positive Impacts

5.1.1 Improved Living Conditions for Staff

The establishment and improvement of the accommodation facilities will enhance comfort, safety, and health of the staff. Upgraded housing with modern amenities and better sanitation reduces safety hazards and health risks, leading to increased staff well-being and satisfaction. This, in turn, boosts productivity and job performance, supports a better work-life balance, and aids in retaining and attracting skilled employees.

5.1.1 Increased Productivity and Morale

Improving staff housing within Kashoha Kitomi CFR enhances productivity and morale by creating a comfortable and supportive living environment. Upgraded housing leads to higher employee satisfaction and engagement, which translates into better performance and efficiency on the job. Reduced turnover and associated training costs result from increased staff retention, while boosted morale fosters a more motivated and cohesive team.

5.1.2 Increased Health Benefits

The project will offer significant health benefits by enhancing hygiene, sanitation, and overall living conditions. Modernized housing with better sanitation facilities and clean water reduces the risk of waterborne diseases, while improved air quality and ventilation contribute to respiratory health. Comfortable and secure living environments also reduce stress, supporting better mental well-being. Additionally, addressing safety hazards minimizes the risk of injuries and accidents, and well-designed living spaces can encourage healthier lifestyles.

5.1.3 Employment Opportunities

Renovation will require both skilled and unskilled labour for the project to be well executed. This shall provide opportunity for employment of locals around the Reserve especially in regard to manual labour, and hence improving their standards of living.

5.1.4 Market for Construction Materials

Construction materials such as bricks, sand, aggregates, and cement shall be required during the renovation. These will be acquired from the neighbouring trading centres and hence increasing income for the business operators around the Reserve.

5.2 Negative Impacts

5.2.1 Construction Phase Impacts

5.2.1.1 Vegetation Loss

Clearing vegetation is essential to create space for construction activities and ensure smooth access for equipment, vehicles, and workers involved in the renovation process. Additionally, the movement of workers and machinery, as well as other operational activities, can unintentionally damage surrounding vegetation. In these cases, limited clearing of vegetation around the site helps facilitate the renovation works while ensuring safe and efficient operations. The vegetation around the renovation sites are not ecologically sensitive, and the scale of the renovations is often too small to have a major ecological impact. Nonetheless, careful planning is necessary to minimize disruption and implement mitigation measures where possible.

Mitigation measures

- Vegetation clearance will be limited strictly to the project area, ensuring that the extent of clearing is minimized.
- Trees that may serve as habitats for species will be selectively removed to limit habitat disturbance.

- A targeted approach to vegetation clearing will be applied, prioritizing thorough surveys to protect areas of high biodiversity and avoid the removal of rare or ecologically valuable plant species.
- Re-vegetation efforts will be undertaken after the renovation is completed, to compensate for the temporary loss of vegetation.
- Workers and staff will be trained on minimizing damage to vegetation, with resting areas provided to reduce unnecessary trampling and destruction.

5.2.1.2 Soil and Geological Disturbances

In the renovation of existing office buildings and staff accommodations, there will be minimal soil and geological disturbances as no excavation will be required. However, minor disturbances could still occur due to the movement of heavy equipment, foot traffic, and other activities related to the renovation process. These disturbances may slightly affect the topsoil and the habitat of surface-dwelling organisms in the project area.

Mitigation Measures

- Limit movement and activities to designated areas to prevent unnecessary soil compaction or surface disturbance.
- Implement protective measures, such as ground covers or temporary pathways, to minimize the impact of foot traffic and equipment on the soil.
- Ensure that any minor soil disturbance is restored through re-vegetation or other methods to maintain soil stability after the renovation is completed.

5.2.1.3 Wildlife Disturbance

Construction activities such as haulage of construction materials, breaking, and the existence of more people in the Reserve are likely to cause disturbances to the wildlife. This can cause retaliation if provoked hence causing dangers to the workers and in some cases causing migration of species away from the construction area.

Mitigation Measures

- Sensitization of workers on the dos and don'ts while working in Budongo Central Forest Reserve shall be carried out by NFA field teams before and during the renovation works.
- The NFA field team shall move with the construction team at all times to ensure that the renovation activities cause minimal disturbances to the wildlife.
- Working hours shall be restricted to daytime and this will ensure less disturbance to the wildlife.

5.2.1.4 Deforestation

The project activities will increase access to the forest by the contractor's workers. This can be used by the illegal loggers as a chance of entry into the forest reserve and engage in deforestation activities. In addition, workers may cut trees for use as firewood, and furniture which is illegal.

Mitigation Measures

- Sensitisation of construction workers on illegal activities in the forest Reserve shall be done.
- NFA Field staff shall be assigned to supervise the movements of the Contractors workers while in the forest reserve and hence minimise risks of tree cutting.
- All workers shall be offered identification tags for recognition as they enter and carry out the construction activities in the forest reserve since they are near the communities.
- Contractors shall be monitored and encouraged to avoid redundant labourers at the site.

5.2.1.5 Noise

Noise is expected to come from construction activities such as generators running the welding equipment as well as human interactions. Noise can attract animals which can be dangerous to the workers. In the same manner, noise can cause interference in the communication of some animals and bird species. These can be forced to leave their habitat and look for alternative favourable places.

Mitigation Measures

- Noise generating activities shall be restricted to daytime only.
- Personal Protective Equipment such as earbuds shall be provided to workers to minimize impact of noise to their health.
- Sound harnessers such as muffler shall be used in generators and drilling equipment to minimize the noise generated.
- Scheduling of delivery of material in specific times shall be done to minimize impact of noise due to vehicular movements.
- Maintenance and regular servicing of equipment shall be carried out to ensure they are in good operating condition.

5.2.1.6 Poor Waste Management

Poor management of domestic waste, hazardous waste and human excreta can affect the aesthetics of areas by making them untidy. Improper handling of hazardous waste and human excreta can lead to contamination of land and water resources. Waste should therefore be managed in accordance with the national waste management regulations of 2020.

Mitigation Measures

- Regular sensitisation of workers on proper waste management practices shall be done.
- Coded (and labelled) waste bins shall be provided and placed around at each site for waste collection and ensure waste segregation.
- All waste collected shall be disposed of outside the protected area in an environmentally sound manner.
- Contractors shall be encouraged to prepare and implement a detailed site-specific waste management plan for the renovation.
- Mobile toilets shall be provided to ensure that sanitation is observed at the construction site and hence prevent diseases related to poor sanitation.

5.2.1.7 Air and Dust Emission

Drilling activities, vehicle traffic, concrete mixing at the site are expected to generate dust. In addition, traffic and other equipment using fossil fuels that release hydrocarbons

and other gases including carbon dioxide, nitrous oxides, sulphur oxides, and particulate matter will also pollute the air at the site. These can cause eye irritations and respiratory tract diseases among others.

Mitigation Measures

- PPE shall be provided to all workers at the construction site to minimise air pollution impacts on their health.
- Vehicles shall be limited to the speed as per the reserve to minimise dust raising on the murrum roads.
- Haulage trucks will be covered with tarpaulin while transporting construction and spoil material to and from the sites.
- Regular maintenance of vehicles shall be carried out to minimise the emission of hydrocarbons.

5.2.1.8 Occupational Health and Safety Risks to Workers

Construction sites come with different risks while executing the activities. While undertaking the renovation works, accidents, injuries, cuts, falls from heights, disease outbreak due poor sanitary conditions, among others are some of the anticipated risks at the site. These can cause pain, at times death to the workers and hence the need to manage these impacts and avoid their occurrences during project implementation.

Mitigation Measures

- Sensitisation of workers on likely risks at the site shall be carried out routinely including daily toolbox talks before any activities start.
- PPE that are specific to each worker’s roles shall be issued out to ensure minimum risks to human health during renovation works. First Aid kits shall be provided at each site to offer aid to injured workers.
- A trained first aider shall be available at each site to ensure that all first aid cases are adequately handled while at the site.
- Emergency response procedures shall be prepared, displayed and workers trained on such so as to be ready in case of any emergency.

- Warning signage shall be provided on site and along the traffic routed to remind all workers, staff and site visitors on the health and safety aspects in the project area.
- A MoU with a nearby health facility shall be set up to ensure medical cases are handled at the facility in cases where first aid is not sufficient

5.2.1.9 Staff Safety Risks Associated with Renovation Activities

- Exposure to Construction Hazards: Staff may face risks such as falling debris, dust, and injuries from tools and machinery during renovation.
- Compromised Structural Stability: Partial demolitions could temporarily weaken building structures, posing risks to occupants.
- Health Hazards from Dust and Emissions: Dust and fumes from paints or adhesives may cause respiratory or health issues.
- Limited Access to Amenities: Renovations may disrupt access to kitchens, bathrooms, and water supply.
- Noise Pollution: High noise levels may affect mental well-being and daily activities.
- Electrical and Fire Risks: Rewiring or electrical works may increase risks of fire or electrocution.

Mitigation Measures

- Temporary Relocation of Staff: Staff will be relocated to alternative accommodations during the renovation.
- Segregated Work Zones: Clear barriers will be installed to separate construction and occupied areas.
- Personal Protective Equipment (PPE): PPE such as helmets and masks will be provided to staff as necessary.
- Dust and Fume Management: Dust suppression measures and exhaust systems will manage air quality.
- Schedule Work Strategically: Hazardous activities will be scheduled during non-working hours.

- **Structural Assessments:** Structural evaluations will ensure phased renovations without compromising safety.
- **Emergency Preparedness:** Fire safety measures and first aid kits will be in place, with staff trained in evacuation procedures.
- **Communication and Notifications:** Staff will be informed about schedules, disruptions, and safety measures.

5.2.1.10 Sexual Harassment and Risks of HIV

Construction of the renovation can involve sexual harassment at the site and off the site, to fellow workers. This can cause uncomfortable working conditions which can lead to poor performance while at work. In addition, HIV/AIDS can easily spread around construction sites where sexual relations are likely to occur among workers of different sex or back in the community where the workers stay after work.

Mitigation Measures

- Sensitisation of workers on sexual harassment and HIV shall be carried out prior to deployment to the site and continuous engagements shall also be carried out to remind the workers.
- Condoms shall be provided to workers for usage in case they cannot abstain from sex while still on the project.
- Access to primary health care such as availability of ARVs for HIV positive workers shall be prioritized to ensure work does not affect their health needs.

5.2.2 Operation phase

5.2.2.1 Poor Waste management

During operation of the renovation, waste is expected to be generated by the Field staff teams who will be using the renovation as required. Since no food is allowed within the Reserve, the main waste streams expected will include plastic material such as water bottles and human waste. Plastic wastes degrade the aesthetics of the Reserve hence making the Reserve unappealing, while poor human waste management can cause diseases due to poor sanitation practices such as cholera.

Mitigation Measures

- Sensitisation of Field staff teams on proper waste management practices shall be done to ensure proper implementation of waste management strategies during the operational phase.
- Coded waste bins shall be provided and placed around the renovation to ensure waste segregation and onsite collection.
- All waste collected shall be disposed of outside the protected area in an environmentally sound manner.
- Sanitary facilities should be routinely cleaned to minimise risks of diseases.

5.2.2.2 Occupational Health and Safety risks and impacts

During operation of the office and staff accommodation facilities, there are risks involved such as falls from the staircases/ platforms, attacks by wild animals, among others. The probability of occurrence of these impacts is low since the field staff that will be occupying the renovated facilities are well trained individuals.

Mitigation Measures

- Field staff teams will be sensitized on the health and safety risks that are associated with operation of the renovation, so as to minimise the occurrence.
- First Aid kits shall be provided at the field staff teams' residences for easy access in case of any injuries at the workplace.
- Emergency response procedures for the operation of the renovation shall be set up to ensure effective operation and management of the facilities.

5.2.2.3 Visual impacts

The establishment of the renovation affects the visual aesthetics of the wildlife reserve and may be an obstruction to flying vessels which may knock it and hence causing accidents in the Reserve.

Mitigation Measures

- The renovation shall be painted with green colour that blends into the natural setting of the Reserve and hence reducing on the visual impacts.

6 ENVIRONMENTAL AND SOCIAL MANAGEMENT AND MONITORING PLAN

The purpose of environmental and social monitoring is to evaluate the effectiveness of the implementation of the Environmental and Social Management Plan (ESMP) by periodically monitoring the important environmental parameters within the impact area so that any adverse effects are detected and timely action can be taken.

The environmental management and monitoring plan has been developed to ensure the implementation of the mitigation measures identified. The monitoring will begin during the construction and must continue throughout all the phases of the project

The ESMPs outlined in tables hereafter address the potential negative impacts and mitigation measures as well as roles, and monitorable indicators that can help to determine the effectiveness of actions to upgrade the quality of environment; as regards the proposed project.

6.1 Monitoring team

The implementation of the project shall be monitored by NFA staff both at HQ and field level. Below are the specific roles for the team personnel

6.1.1 EIA Unit

- NFA incorporate ESMP into the detailed technical designs and civil works bidding and contractual documents;
- Providing relevant inputs to the contractor selection process and the procurement process.
- Reviewing reports submitted by the contractor on the implementation of the mitigation measures proposed;
- Conducting periodic site checks to assess compliance with the proposals made in this ESMP.

6.1.2 Project Coordination Unit (PCU).

- Project coordination involves developing project plans, defining objectives, setting timelines, and allocating resources effectively.

- The PCU oversees budget allocation and financial management for the project, ensuring that funds are used efficiently and in accordance with project goals and guidelines.
- It is responsible for preparation of regular reports for project funders, government agencies, and other stakeholders to demonstrate project progress and compliance.
- The PCU monitors the progress of the project including the environmental and social performance, collects data on key performance indicators, and evaluates the project's effectiveness.

6.2 Grievance Management

The National Forestry Authority (NFA) has established a comprehensive Grievance Redress Mechanism (GRM) to effectively manage and address community grievances arising from the projects it implements. This system ensures that concerns from community members are promptly resolved at the local level. The mechanism enables the use of the existing local-level Grievance Redress Committees (GRCs) within project areas to address any complaints or issues that may arise during project execution.

To further enhance this process, NFA has set up a toll-free line (0800 264036) and (WhatsApp 0707608920) that community members can use to report their grievances directly and receive timely assistance. This is in addition to the physical GRCs, offering a more accessible platform for all stakeholders.

In line with the Environmental and Social Standards (ESS2) of the World Bank's Environment and Social Standards, all contractors working on NFA projects are mandated to establish a grievance mechanism for direct and contracted workers. This system ensures that workplace-related concerns are addressed in a fair and timely manner. Contractors are required to implement this grievance mechanism immediately after contract signing and prior to site mobilization. Workers will be represented on the GRC, which will be fully functional once workers are on-site, allowing their concerns to be integrated into the overall grievance management process.

Table 6-1: Environmental Social Management and Monitoring Plan

Environmental/ social impact	Proposed mitigation and Enhancement measures	Monitoring Indicators	Implementing Party/Agency	Recommended Frequency of Monitoring	Monitoring Agency	Cost Estimates (UGX)
Construction Phase						
Biological Environment						
Vegetation Loss	<ul style="list-style-type: none"> Vegetation clearance will be limited strictly to the project area, ensuring that the extent of clearing is minimized. Trees that may serve as habitats for species will be selectively removed to limit habitat disturbance. A targeted approach to vegetation clearing will be applied, prioritizing thorough surveys to protect areas of high biodiversity and avoid the removal of rare or ecologically valuable plant species. Re-vegetation efforts will be 	Area cleared Restoration Plan	Contractor	Throughout the construction phase	NFA Ecological Monitoring team, Supervising consultant	3,000,000

Environmental/ social impact	Proposed mitigation and Enhancement measures	Monitoring Indicators	Implementing Party/Agency	Recommended Frequency of Monitoring	Monitoring Agency	Cost Estimates (UGX)
	<p>undertaken after the renovation is completed, to compensate for the temporary loss of vegetation.</p> <ul style="list-style-type: none"> Workers and staff will be trained on minimizing damage to vegetation, with resting areas provided to reduce unnecessary trampling and destruction 					
Soil and Geological Disturbances	<ul style="list-style-type: none"> Limit movement and activities to designated areas to prevent unnecessary soil compaction or surface disturbance. Implement protective measures, such as ground covers or temporary pathways, to minimize the impact of foot traffic and equipment on the soil. 		NFA Contractor	During the execution	NFA Ecological Monitoring team, Supervising consultant	3,000,000

Environmental/ social impact	Proposed mitigation and Enhancement measures	Monitoring Indicators	Implementing Party/Agency	Recommended Frequency of Monitoring	Monitoring Agency	Cost Estimates (UGX)
	<ul style="list-style-type: none"> Ensure that any minor soil disturbance is restored through re-vegetation or other methods to maintain soil stability after the renovation is completed. 					
Wildlife Disturbance	<ul style="list-style-type: none"> Sensitisation of workers on the dos and don'ts while working in Kashoha Kitomi Central Forest Reserve shall be carried out by NFA Field staff teams before and during the construction of renovation. NFA Field staff teams shall be required to move with construction team at all times to ensure construction activities cause minimal disturbances to the wildlife. Working hours shall be restricted to day time work and this will ensure less 	<p>Record of sensitization.</p> <p>Presence of NFA Field staff teams on site</p>	NFA Contractor	Throughout the construction phase	NFA Ecological Monitoring team,	2,000,000

Environmental/ social impact	Proposed mitigation and Enhancement measures	Monitoring Indicators	Implementing Party/Agency	Recommended Frequency of Monitoring	Monitoring Agency	Cost Estimates (UGX)
	disturbance to the Reserve wildlife					
Poaching	<ul style="list-style-type: none"> • Sensitisation of construction workers on illegal activities in the Reserve shall be done to ensure no poaching is done while the renovation is being set up. • NFA Field staff teams shall be assigned to the contractor's team to supervise their movements while in the Reserve and hence minimise risks of poaching. • All workers shall be offered with identification tags for recognition as they enter and carryout the construction activities in the Reserve. • Contractors shall be monitored and encouraged to avoid redundant labourers at the site 	Identification for workers NFA Field staff teams presence	NFA Contractor	Throughout the construction phase	NFA Ecological Monitoring team,	5,000,000
Physical Environment						

Environmental/ social impact	Proposed mitigation and Enhancement measures	Monitoring Indicators	Implementing Party/Agency	Recommended Frequency of Monitoring	Monitoring Agency	Cost Estimates (UGX)
Noise	<ul style="list-style-type: none"> Noise generating activities shall be restricted to day time only. Personal Protective Equipment such as earbuds shall be provided to workers to minimise impact of noise to their health. Sound harnessers such as muffler shall be used in generators and drilling equipment to minimise the noise generated. Scheduling of delivery of material in specific times shall be done so as to minimise impact of noise due to vehicular movements. Maintenance and servicing of equipment shall be carried out to ensure they are in good operating conditions. 	<p>Daily noise monitoring in place</p> <p>Workers with earmuffs</p>	Contractor	Daily monitoring	NFA	8,000,000

Environmental/ social impact	Proposed mitigation and Enhancement measures	Monitoring Indicators	Implementing Party/Agency	Recommended Frequency of Monitoring	Monitoring Agency	Cost Estimates (UGX)
Poor Waste Management	<ul style="list-style-type: none"> • Sensitization of workers on proper waste management practices shall be done to ensure proper implementation of waste management strategies. • Coded waste bins shall be provided and placed around the construction site to ensure waste segregation and onsite collection. • All waste collected shall be disposed of outside the protected area in an environmentally sound manner. • Contractors shall be encouraged to prepare and implement a detailed site-specific waste management plan for the renovation. • Mobile toilets shall be provided to 	<p>Waste bins in place.</p> <p>Record of wastes taken off site.</p> <p>Contractor's Waste Management Plan</p>	Contractor	Throughout the construction phase	NFA	15,000,000

Environmental/ social impact	Proposed mitigation and Enhancement measures	Monitoring Indicators	Implementing Party/Agency	Recommended Frequency of Monitoring	Monitoring Agency	Cost Estimates (UGX)
	ensure that sanitation is observed at the construction site and hence prevent diseases related to poor sanitation.					
Air and dust emissions	<ul style="list-style-type: none"> • PPEs shall be provided to all workers at the construction site to minimise air pollution impacts on their health. • Vehicles shall be limited to a prescribed speed to minimise dust raising on the murrum roads. • Haulage trucks will be covered with tarpaulins to ensure dust is not released as vehicles are transporting both construction and spoils material to and from the site. • Regular maintenance of vehicles shall be carried out to minimise the emission of hydrocarbons from their exhaust. 	<p>Air quality monitoring measures in place.</p> <p>Workers with PPEs such as masks.</p>	Contractor	Daily, weekly & quarterly monitoring	NFA,	6,000,000

Environmental/ social impact	Proposed mitigation and Enhancement measures	Monitoring Indicators	Implementing Party/Agency	Recommended Frequency of Monitoring	Monitoring Agency	Cost Estimates (UGX)
Socio-Economic Environment						
Occupational health & safety risks for workers	<ul style="list-style-type: none"> Sensitisation of workers on likely risks at the site shall be carried out routinely including toolbox talks at commencement of new tasks. PPEs that are specific to each worker’s roles shall be issued out to ensure minimum risks to human health during operation of the site. First Aid kit shall be provided at the site to offer aid to injured workers. A trained first aider shall be available at the site to ensure that all first aid cases are adequately handled while at the site. Emergency response procedures shall be prepared, displayed and workers 	<p>First Aid Kit available at the site</p> <p>Safety awareness programs</p> <p>Workers dressed up in full PPEs</p>	Contractor	Random inspections	NFA,	10,000,000

Environmental/ social impact	Proposed mitigation and Enhancement measures	Monitoring Indicators	Implementing Party/Agency	Recommended Frequency of Monitoring	Monitoring Agency	Cost Estimates (UGX)
	<p>trained on such so as to be ready in case of any emergency.</p> <ul style="list-style-type: none"> Warning signage shall be provided on site and along the traffic routed to remind all workers, staff and site visitors on the health and safety aspects in the project area. An MoU with a nearby health facility shall be set up to ensure medical cases are handled at the facility in cases where first aid is not sufficient. 					
Sexual Harassment and Risks of HIV	<ul style="list-style-type: none"> Sensitisation of workers on sexual harassment and HIV shall be carried out prior to deployment to the site and continuous engagements shall also be carried out to remind the workers. Condoms shall be provided to workers 	<p>Record of sensitization on Sexual harassment.</p> <p>Condom</p>	Contractor	Weekly	NFA	

Environmental/ social impact	Proposed mitigation and Enhancement measures	Monitoring Indicators	Implementing Party/Agency	Recommended Frequency of Monitoring	Monitoring Agency	Cost Estimates (UGX)
	<p>for usage in case they cannot abstain from sex while still on the project.</p> <ul style="list-style-type: none"> • Access to primary health care such as availability of ARVs for HIV positive workers shall be prioritized to ensure work does not affect their health needs. 	dispensers				
Operational Phase						
Physical Environment						
Poor waste management	<ul style="list-style-type: none"> • Sensitization of Field staff teams on proper waste management practices shall be done to ensure proper implementation of waste management strategies during the operational phase. • Coded waste bins shall be provided and placed around the renovation to ensure waste segregation and onsite 	Waste Bins in place. Status of sanitary facilities	NFA Field staff teams	Random inspections	NFA HQ team	3,000,000

Environmental/ social impact	Proposed mitigation and Enhancement measures	Monitoring Indicators	Implementing Party/Agency	Recommended Frequency of Monitoring	Monitoring Agency	Cost Estimates (UGX)
	<p>collection.</p> <ul style="list-style-type: none"> All waste collected shall be disposed of outside the protected area in an environmentally sound manner. Sanitary facilities should be routinely cleaned to minimise risks of diseases. 					
Socio-economic Environment						
Occupational Health and Safety	<ul style="list-style-type: none"> Field staff teams will be sensitized on the health and safety risks that are associated with the operation of the renovation, to minimise the occurrence. A First Aid kit shall be provided at the Field staff teams' house to ensure easy access services to first aid in case of any injuries at the workplace. Emergency response procedures for the operation of the renovation shall be 	<p>First Aid kit on site.</p> <p>Emergency response procedures displayed</p>	NFA	Daily monitoring	NFA HQ team.	5,000,000

Environmental/ social impact	Proposed mitigation and Enhancement measures	Monitoring Indicators	Implementing Party/Agency	Recommended Frequency of Monitoring	Monitoring Agency	Cost Estimates (UGX)
	set up to ensure effective operation and management of the project.					
Visual Impacts	<ul style="list-style-type: none"> The renovation shall be painted with a green colour that blends into the natural setting of the Reserve hence reducing on the visual impacts. 	Colour of the renovation	NFA HQ team	Bi-annually	NFA field team, HQ team	3,000,000
Maintenance and Decommissioning Impacts	<ul style="list-style-type: none"> Ensure that maintenance crews have appropriate safety wear and tools for all maintenance activities. Decommissioning activities such as disassembly of the tower should be carried out by competent professionals to minimise cases of accidents due to incompetence. Maintenance and decommissioning activities should be carried out during the day time only. 	<p>Safety checklists filled by the maintenance crew.</p> <p>Competence certificate for contractor to decommission project</p>	NFA Contractors	<p>Quarterly Maintenance</p> <p>At the end of the project</p>	NFA field team, HQ team	8,000,000

Environmental/ social impact	Proposed mitigation and Enhancement measures	Monitoring Indicators	Implementing Party/Agency	Recommended Frequency of Monitoring	Monitoring Agency	Cost Estimates (UGX)

7 CONCLUSIONS

From the assessment undertaken during this study, it can be concluded that the implementation of this project will have low risk environmental and social impacts. Mitigation measures have been identified to address the anticipated impacts. Therefore, it's imperative to ensure that the mitigation measures suggested are implemented during the execution of the project.

REFERENCES

- Howard, P. C. and Davenport, T. R. B. (1996) Forest biodiversity reports. Volumes 1–33.
Kampala: Uganda Forest Department.
- The constitution of the Republic of Uganda 1995, Kampala-Uganda
- The Employment Act, 2006, Kampala Uganda
- The Land Act, Cap 227, Kampala Uganda
- The National Environment (Waste Management) Regulations, No.49 of 2020
- The National Environment Act, No.5 of 2019

The National Environment Management policy, 1994, Ministry of Natural Resources, Kampala-Uganda.

Bennun, L., Davies, G., & Howell, K. (2002). African Forest Biodiversity A Field Survey Manual for Vertebrates. In *Earthwatch*.

APPENDICES

APPENDIX 1: CODES OF CONDUCT

A. Company's Code of Conduct

The Contractor is expected to be committed to ensuring that the project is implemented to minimize any negative impacts on the local environment, communities, and its workers. This will be done by respecting the Environmental, Social, Health and Safety (ESHS) standards, and ensuring appropriate Occupational Health and Safety (OHS) standards are met. The Contractor should also be committed to creating and maintaining an environment where children under the age of 18 will be protected, and where Sexual Exploitation and Abuse (SEA) and sexual harassment have no place. Improper actions towards children, SEA and sexual harassment are acts of Gender Based Violence (GBV)

and Violence against Children and as such will not be tolerated by any employee, supplier, associate, or representative of the Contractor.

Therefore, to ensure that all those engaged in the project are aware of this commitment, the Contractor will be required to commit to the following core principles and minimum standards of behavior that will apply to all Contractor employees, associates, and representatives, including Managers and suppliers, without exception:

General

- The Contractor – and therefore all employees, associates, representatives, Managers and suppliers – shall commit to complying with all relevant national laws, rules and regulations.
- The Contractor shall commit to fully implementing the Environmental and Social Management Plan ESMP as approved by the Project.
- The Contractor shall commit to treating women, children (persons under the age of 18), and men with respect regardless of race, colour, language, religion, political or other opinion, national, ethnic or social origin, property, disability, birth or other status. Acts of GBV and VAC are in violation of this commitment.
- The Contractor shall ensure that interactions with local community members are done with respect and non-discrimination.
- Demeaning, threatening, harassing, abusive, culturally inappropriate, or sexually provocative language and behavior are prohibited among all Contractor employees, associates, and its representatives, including sub-Managers and suppliers.
- The Contractor will follow all reasonable work instructions (including regarding environmental and social norms).
- The Contractor will protect and ensure proper use of property (for example, to prohibit theft, carelessness or waste).

❖ Health and Safety

- The Contractor will ensure that the project’s OHS Measures are effectively implemented by Contractor’s staff, as well as Managers and suppliers.
- The Contractor will ensure that all persons on-site wear prescribed and appropriate personal protective equipment, preventing avoidable accidents,

and reporting conditions or practices that pose a safety hazard or threaten the environment.

The Contractor will:

- Prohibit the use of alcohol during work activities.
- Prohibit the use of narcotics or other substances which can impair faculties at all times.
- The Contractor will ensure that adequate sanitation facilities are available on site
- The Contractor will not hire children under the age of 18 for construction work, or allow them on the work site, due to the hazardous nature of construction sites.

Gender Based Violence and Violence Against Children

- Acts of GBV and VAC constitute gross misconduct and are therefore grounds for sanctions, which may include penalties and/or termination of employment and, if appropriate, referral to the Police for further action.
- All forms of GBV and VAC, are unacceptable, regardless of whether they take place on the work site, the work site surroundings, or within the local community.
- Sexual harassment of work personnel and staff (e.g. making unwelcome sexual advances, requests for sexual favours, and other verbal or physical conduct of a sexual nature) are acts of GBV and are prohibited.
- Sexual favors (e.g. making promises of favorable treatment such as promotions, threats of unfavorable treatment such as losing a job, payments in kind or in cash dependent on sexual acts) and any form of humiliating, degrading or exploitative behavior are prohibited.
- The use of prostitution in any form at any time is strictly prohibited.
- Sexual contact or activity with children under 18—including through digital media—is prohibited. Mistaken belief regarding the age of a child is not a defence. Consent from the child is also not a defence or excuse.
- Unless there is full consent by all parties involved in the sexual act, sexual interactions between the Contractor’s employees (at any level) and members of the communities surrounding the work place are prohibited. This includes relationships involving the withholding/promise of actual provision of benefit (monetary or non-monetary) to community members in exchange for sex (including prostitution). Such sexual activity is considered “non-consensual” within the scope of this Code.

- In addition to Contractor sanctions, legal prosecution of those who commit acts of GBV and VAC will be pursued if appropriate.
- All employees, including volunteers and sub-contractors are highly encouraged to report suspected or actual acts of GBV and VAC by a fellow worker.

Implementation

To ensure that the above principles are implemented effectively, the Contractor commits to:

- ✚ Ensuring that all employees sign the ‘Individual Code of Conduct’ confirming their agreement to comply with ESHS and OHS standards, and not to engage in activities resulting in GBV and VAC, child endangerment or abuse, or sexual harassment.
- ✚ Displaying the Contractor and Individual Codes of Conduct prominently and in clear view, in offices, and in in public areas of the work space.
- ✚ Ensuring that all employees attend an induction training course prior to commencing work on site to ensure they are familiar with the Contractor’s commitments to ESHS and OHS standards, and the project’s GBV and VAC Codes of Conduct.
- ✚ Ensuring that all employees attend a mandatory training course once a month for the duration of the contract starting from the first induction training prior to commencement of work to reinforce the understanding of the project’s ESHS and OHS standards and the GBV and VAC Codes of Conduct.

I do hereby acknowledge that I have read the foregoing Contractor’s Code of Conduct, and on behalf of the Contractor agree to comply with the standards contained therein. I understand my role and responsibilities to support the project’s OHS and ESHS standards, and to prevent and respond to GBV and VAC.

I understand that any action inconsistent with this Contractor Code of Conduct or failure to act mandated by this Contractor Code of Conduct may result in disciplinary action.

Contractor Name:	Signature:
Name:	Title:

Date: _____

B. Individual Code of Conduct

1. Professional Behaviour:

As an employee, I am committed to maintaining a high standard of professional behaviour. I will conduct myself with honesty, integrity, and respect toward colleagues, supervisors, clients, and others associated with the company.

2. Equal Opportunity and Inclusion:

I understand and support the company's commitment to equal opportunity and diversity. I will treat all individuals with respect and dignity, regardless of race, ethnicity, gender, age, sexual orientation, disability, or any other protected characteristic.

3. Sexual Harassment and Gender-Based Violence:

I will not engage in any form of sexual harassment or gender-based violence. I will foster a safe and inclusive work environment by promoting mutual respect and reporting any incidents promptly through the established channels.

4. Work Environment:

I will contribute to maintaining a positive and cooperative work environment. I will refrain from engaging in any behaviour that may be disruptive, disrespectful, or harmful to others.

5. Confidentiality:

I understand the importance of maintaining confidentiality regarding sensitive information related to the company, its clients, and fellow employees. I will not disclose confidential information without proper authorization.

6. Compliance with Policies and Laws:

I will comply with all company policies and applicable local, state, and federal laws. This includes, but is not limited to, safety regulations, anti-discrimination laws, and ethical standards.

7. Reporting Concerns:

If I witness or experience any behaviour that goes against this Code of Conduct, I am committed to reporting it promptly. I understand that [Construction Company Name] has established confidential reporting mechanisms, and I will utilize them to address concerns.

8. Respect for Property:

I will respect and take care of company property, equipment, and resources. Any misuse or damage will be reported promptly, and I will follow proper procedures for reporting and resolving such incidents.

9. Continuous Learning:

I am committed to continuous learning and professional development. I will actively participate in training programs provided by the company to enhance my skills and knowledge.

10. Social Responsibility:

I acknowledge my role in promoting a positive image of the company in the community. I will represent the company ethically and responsibly in all interactions outside the workplace.

By adhering to this Code of Conduct, I contribute to fostering a workplace environment that values professionalism, equality, and respect for all. I understand that any violation of this Code may result in disciplinary action, up to and including termination of employment

Contractor Name:	Signature:
Name:	Title:

Date: _____

APPENDIX 2: CHANCE FIND PROCEDURE

Chance find procedures will be used as follows:

- a) Stop the project activities in the area of the chance find;
- b) Delineate the discovered site or area;
- c) Secure the site to prevent any damage or loss of removable objects. In cases of removable antiquities or sensitive remains, a night guard shall be deployed until the responsible local authorities and the DoMM take over;
- d) Notify the project supervisor who in turn will notify the responsible local authorities and the National Museum immediately (within 24 hours or less);
- e) The local authorities and the National Museum will take charge of protecting and preserving the site in case the finds are of interest to the Department.
 - i. This would require a preliminary evaluation of the findings to be performed by the archaeologists of the National Museum (within 72 hours). The significance and importance of the findings should be assessed according to the various criteria relevant to cultural heritage; those include the aesthetic, historic, scientific or research, social and economic values;
 - ii. Decisions on how to handle the finding shall be taken by the responsible authorities and the National Museum. This could include changes in the layout (such as when finding an irremovable remain of cultural or archaeological importance) conservation, preservation, restoration and salvage;
 - iii. The local authority/ National Museum decision concerning the management of the finding shall be communicated in writing by the National Museum; and
 - iv. Findings will be recorded in World Bank Implementation Supervision Reports (ISRs), and Implementation Completion Reports (ICRs) will assess the overall effectiveness of the project's cultural property mitigation, management, and activities, as appropriate.
 - v. Project works could resume after permission is given from the responsible local authorities and the National Museum concerning safeguard of the heritage;
- f) The above procedure when applicable must be referred to as standard provisions during the project activities and therefore site supervisors shall monitor the procedure for any chance find encountered during project activities.

- g) If the finds are not of interest to the Department of Museums and Monuments, they should be reburied on a site set aside for such purpose and project works continue.

In case of Chance finds, the Implementing partners for the project will ensure that the chance finds procedure is adequately utilised and monitored.

APPENDIX 3. PLANT SPECIES RECORDED FROM THE PROPOSED SITES IN KASHOHA KITOMI CENTRAL FOREST RESERVE

No	Family	Species name	Growth form	IUCN status
1.	Moraceae	<i>Ficus elastica</i>	Tree	LC
2.	Burseraceae	<i>Canarium schweinfurthii</i>	Tree	LC
3.	Sapindaceae	<i>Blighia unijiganta</i>	Tree	LC
4.	Moraceae	<i>Ficus natalensis</i>	Tree	LC
5.	Euphorbiaceae	<i>Macaranga tenarius</i>	Tree	LC
6.	Euphorbiaceae	<i>Shirakiopsis indica</i>	Tree	LC
7.	Euphorbiaceae	<i>Shirakiopsis elleptica</i>	Tree	LC
8.	Meliaceae	<i>Azadirachta indica</i>	Tree	LC
9.	Zygophyllaceae	<i>Balanites aegyptica</i>	Shrub	LC
10.	Rhamnaceae	<i>Meesopsis emini</i>	Tree	LC
11.	Moraceae	<i>Broussonetia papyrifera</i>	Tree	LC
12.	Fabaceae	<i>Senna spectabilis</i>	Shrub	LC
13.	Moraceae	<i>Millicia excelsa</i>	Tree	NT
14.	Anacardiaceae	<i>Rhus natalensis</i>	Shrub	LC
15.	Fabaceae	<i>Albizia zygia</i>	Tree	LC
16.	Fabaceae	<i>Albizia grandibracteata</i>	Tree	LC
17.	Fabaceae	<i>Albizia coriaria</i>	Tree	LC
18.	Malvaceae	<i>Grewia mollis</i>	Shrub	LC
19.	Euphorbiaceae	<i>Croton marostachyus</i>	Tree	LC
20.	Cypressaceae	<i>Hesperocyparis lusitanica</i>	Tree	LC
21.	Euphorbiaceae	<i>Euphobia tirucalli</i>	Tree	LC
22.	Acanthaceae	<i>Acanthus pubescens</i>	Shrub	LC

23.	Bignoniaceae	<i>Makhamia lutea</i>	Tree	LC
24.	Ebenaceae	<i>Diospyros abyssinica</i>	Tree	LC
25.	Asteraceae	<i>Vernonia amygdalina</i>	Shrub	LC
26.	Bignoniaceae	<i>Spathodea campanulata</i>	Tree	LC
27.	Poaceae	<i>Eleusine indica</i>	Herb	LC
28.	Poaceae	<i>Elymus repens</i>	Herb	LC
29.	Fabaceae	<i>Erythrina abyssinica</i>	Shrub	LC
30.	Poaceae	<i>Cynodon dactylon</i>	Herb	LC
31.	Lamiaceae	<i>Ocimum lamiifolium</i>	Herb	LC
32.	Asteraceae	<i>Bidens pilosa</i>	Herb	LC
33.	Asteraceae	<i>Targeta minuta</i>	Herb	LC
34.	Cyperaceae	<i>Cyperus rotundus</i>	Herb	LC
35.	Solanaceae	<i>Solanum incanum</i>	Shrub	LC
36.	Solanaceae	<i>Solanum virginianum</i>	Shrub	LC
37.	Solanaceae	<i>Solanum erianthum</i>	Shrub	LC
38.	Solanaceae	<i>Solanum mauritianum</i>	Shrub	LC
39.	Poaceae	<i>Imperata cylindrica</i>	Herb	LC
40.	Asparagaceae	<i>Dracaena fragens</i>	Shrub	LC
41.	Poaceae	<i>Setaria homonyma</i>	Herb	LC

APPENDIX 4. AVAIAN SPECIES RECORDED AT THE PROPOSED SITES IN KASHOHA KITOMI CENTRAL FOREST RESERVES

No	Species name	Common name	IUCN Status
1	<i>Cecropis abyssinica</i>	Lesser striped swallow	LC
2	<i>Chalcomitra senegalensis</i>	Scarlet chested sunbill	LC

3	<i>Crinifer zoronus</i>	Eastern plantain eater	LC
4	<i>Black-headed weaver</i>	<i>Ploceus cucullatus</i>	LC
5	<i>Motacilla aguimp</i>	African pied wagtail	LC
6	<i>Bycanitstes subcylindricus</i>	Black & white casqued hornbill	LC
7	<i>Chrysococcyx cepreus</i>	Emerald cuckoo	LC
8	<i>Corythaeola cristata</i>	Great blue turaco	LC
9	<i>Alcedo quadibrachys</i>	Shining blue kingfisher	LC
10	<i>Chlorophoneus silphureopectus</i>	Sulphur breasted bushshrike	LC
11	<i>Lamprotornis purpuroptera</i>	Rupells starling	LC
12	<i>Sarothrura pulchra</i>	White spotted flufftail	
13	<i>Anthreptes collaris</i>	Collard sunbill	LC
14	<i>Apalis rufogularis</i>	Buff –throated apalis	LC
15	<i>Ploceus nigricollis</i>	Black-necked weaver	LC
16	<i>Clytospiza monteiri</i>	Brown twinspace	LC
17	<i>Merops albicollis</i>	White throated bee- eater	LC
18	<i>Halcyon senegalensis</i>	Woodland kingfisher	LC
19	<i>Pyconotus barbatus</i>	Common bulbul	LC
20	<i>Lagonosticta rubricata</i>	African firefinch	LC
21	<i>Amandava subflava</i>	Orange breasted waxbill	LC
22	<i>Ploceus ocularis</i>	Spectacled weaver	LC
23	<i>Phyllastrephus flavostriatus</i>	Yellow-streaked greenbul	LC
24	<i>Eurillas virens</i>	Little greenbul	LC
25	<i>Calamonastides gracilirostris</i>	Papyrus yellow warbler	LC
26	<i>Egretta garzetta</i>	Little egret	LC
27	<i>Bostrychia hagedash</i>	Hadada ibis	LC
28	<i>Streptopeliacapicola</i>	Ring-necked dove	LC