# UGANDA WILDLIFE AUTHORITY

OFFICE OF THE EXECUTIVE DIRECTOR
PLOT 7 KIRA ROAD KAMWOKYA
P. O. Box 3530, Kampala, Uganda


Our Ref: COD 43/82/01

3rd March 2025

The Executive Director,
National Environmental Management Authority(NEMA)
P.O. Box 22255
**KAMPALA.**

**RE-SUBMISSION OF THE PROJECT BRIEF FOR THE CONSTRUCTION OF JUNIOR STAFF ACCOMODATION FOR QUEEN ELIZABETH NATIONAL PARK (PB/1876/2024/10)**

Reference is made to the discussion between Executive Director-NEMA and Executive Director-UWA regarding the deferred Project Brief for construction of staff accommodation and tourism gate in Queen Elizabeth National Park.

We have revised the Project brief as guided by the ED NEMA as follows:

i. We have separated baseline assessments specific for each site e.g. flora, fauna. physical conditions i.e. air quality, noise, etc.

ii. The Environmental and Social Management Plans (ESMPs) have been separated for the infrastructure category, i.e

   a. ESMP for staff accommodation
   b. ESMP for tourism gate at Kasenyi

The purpose of this letter is to re-submit the revised Project Brief for your consideration.

**Conserving for Generations**

Yours sincerely

EXECUTIVE DIRECTOR
UWA UGANDA WILDLIFE AUTHORITY

Sam Mwandha
**EXECUTIVE DIRECTOR**

# PROJECT BRIEF
# FOR STAFF ACCOMMODATION AND ENTRANCE GATE FOR QUEEN ELIZABETH NATIONAL PARK

**Developer:**

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**SEPTEMBER 2024**

## Consultant:

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# CONSULTANCY TEAM DECLARATION OF INDEPENDENCE

| **NEMA CERTIFIED PRACTITIONERS** | |
|---|---|
| **TEAM LEADER,**<br>MSC. ENVIRONMENT AND NATURAL RESOURCES,<br>B. ENVIRONMENTAL MANAGEMENT<br>EIA SPECIALIST AND REGISTERED PRACTITIONER<br><br>**CC/EIA/76/23** | **Josephine Auruga**<br>  |
| **TEAM MEMBER**<br>BSc. ENVIRONMENTAL ENGINEERING AND MANAGEMENT<br><br>**CC/EIA/268/23** | **Simon Peter Ssali**<br>  |

| **CONTRIBUTING SPECIALISTS** | | |
|---|---|---|
| 1. | Mr. Ssemwaka Stephen | Biodiversity Ecologist |
| 2. | Mr. Kakaire Ibrahim | Environmental Engineer |
| 3. | Mr. Ogolla John Martin | GIS and Pollution Specialist |
| 4. | Ms. Nakayuka Prossy | Sociologist |
| 5. | Ms. Ritah Kirabo Kamugungunu | Environmentalist (Waste Management) |
| 6. | Ms. Kemigisha Eldrine | Environmental Engineer |
| 7. | Mr. Aruho Moses | Environmentalist (Occupational Health and Safety) |

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| | |
|---|---|
| AIDS | Acquired Immune Deficiency Syndrome |
| AQG | Air Quality Guideline |
| AQI | Air Quality Index |
| ARVs | Anti-Retroviral Drugs |
| Cap | Caption |
| CBD | Convention on Biological Diversity |
| CITES | Convention on International Trade in Endangered Species of Wild Fauna and Flora |
| CO | Carbon Dioxide |
| NOx | Nitrogen Oxides |
| $SO_2$ | Sulphur Dioxide |
| CSC | Construction Supervision Consultant |
| dB | Decibels |
| DIZ | Direct Impact Zone |
| DWRM | Directorate of Water Resources Management |
| E & S | Environment and Safety |
| EA | Environmental Assessment |
| EHS | Environment Health and Safety |
| EHSG | Environment Health and Social Safe Guards |
| EIA | Environmental Impact Assessment |
| EMP | Environment Management Plan |
| EMT | Environment Management Team |
| UWA | Uganda Wildlife Authority |
| ES | Environmental Staff |
| ESCP | Environment and Social Commitment Plan |
| ESF | Environmental and Social Framework |
| ESHS | Environmental, Social, Health and Safety |
| ESIA | Environmental Social Impact Assessment |
| ESMF | Environmental and Social Management Framework |
| ESMP | Environmental and Social Management Plan |
| ESS | Environmental and Social Standards |
| FGDs | Focus Group Discussions |
| FESMMR | Final Environmental Management Monitoring Report |
| GBV | Gender Based Violence |
| GHG | Green House Gas |
| GMC | Grievance Management Committee |
| GMM | Grievance Management Mechanism |
| GPS | Global Positioning System |
| GRC | Grievance Redress Committee |
| H & S | Health and Safety |
| HC | Health Center |
| 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 |

| | |
|---|---|
| KII | Key Informant Interviews |
| LC | Local Council |
| LFMP | Labour Force Management Plan |
| LTD | Limited |
| MGLSD | Ministry of Gender Labour and Social Development |
| mi | Mile |
| mm | Millimeter |
| MoWE | Ministry of Water and Environment |
| NDP | National Development Plan |
| NEA | National Environment Act |
| NEMA | National Environment Management Authority |
| NFA | National Forestry Authority |
| NGO | Non-Government Organization |
| NGP | National Gender Policy |
| NIP | National Implementation Plan |
| No. | Number |
| OSH | Occupational Health and Safety |
| PC | Project Contractor |
| PM | Project Manager |
| Pm | Past Midnight |
| POPs | Persistent Organic Pollutants |
| PPEs | Personal Protective Equipment |
| QENP | Queen Elizabeth National Park |
| SEO | Social and Environmental Officer |
| SGBV | Sexual and Gender-Based Violence |
| SMP | Social Management Plan |
| SP | Safeguard Policies |
| SRH | Sexual and Reproductive Health |
| STDs | Sexually Transmitted Diseases |
| ToR | Terms of Reference |
| TSPs | Technical Service Providers |
| UGP | Uganda Gender Policy |
| VAC | Violence Against Children |
| VAWG | Violence Against Women and Girls |
| VES | Visual Encounter Surveys |
| VOL | Volume |
| VAC | Violence Against Children |
| WB | World Bank |
| WCS | World Conservation Status |
| ZOI | Zone of Influence |

## EXECUTIVE SUMMARY

With support from the World Bank, the Uganda Wildlife Authority Contracted *Infrastructure Development and Management Limited (IDML)* to undertake preparation of a project brief for junior accommodation and an entry gate for Queen Elizabeth National Park to be constructed with financing under the *Investing in Forests and Protected Areas for Climate Smart Development* Project.

The project activities involve the development of six (6) sites: five (5) for junior staff accommodations and one (1) for the park entry gate. The junior staff accommodations will be one block each at Kikorongo, Ishasha, Kisenyi, Kanyampara and Guruka outposts and the entry gate will be at Kasenyi.

The proposed junior staff accommodation will have bedrooms, porches, stores, and a common toilet/bath/kitchen facility. The entry gate will have a gate facilities block, canopy and a gate house.

It should be noted that one project brief has been prepared to cover the six sites, given that the environmental and social baseline conditions are similar across the park and the activities will be the same: i.e. construction of junior staff accommodations and the entry gate.

To undertake the assessment, different approaches were used that included site reconnaissance, onsite assessment, literature review, review of the legal and regulatory framework relevant to the site, professional judgement, observations among others as described in section 5. These were used in acquisition of secondary baseline data, primary data as well as map development to ensure a comprehensive report is prepared.

A detailed assessment of the baseline environmental data was carried out to understand the existing parameters in the physical, biological and socio-economic environment within the vicinity of the project site. Aspects observed included climate data, geological data and soils, hydrology, air and noise quality, among others, as detailed in section 3 of the report. This information was key in assessing impact identification and analysis of the proposed project on the existing environment.

Comprehensive stakeholder engagement was carried out, and views of key stakeholders such as rangers, other UWA staff, the local leaders at different levels and district officials were obtained, and the details of these engagements are shown in appendix 3. All proposed sites are located

within QENP, and stakeholder engagements were conducted. From the engagements, stakeholders were positive about the project, especially the rangers and local leaders.

The studies sought to consider possible alternatives to the proposed project. These alternatives included the "Project" and the "No Project Alternative".

Impact analysis was carried out, and both negative and positive impacts were identified in relation to the proposed project. Most of the negative impacts are anticipated in the construction phase, while few in the operational phase of the project. These negative impacts are expected to be highly localized, temporary, and minimal in scope. A summary of the identified potential project impacts is outlined below:

| Expected Positive Impacts | Potential Negative Impacts |
|---|---|
| Construction phase<br>• Employment opportunities<br>• Market for Construction material<br><br>Operation phase<br>• Enhanced Wildlife Protection<br>• Improved Emergency Response<br>• Sustainable Infrastructure and Operations | Construction phase<br>• Noise and Vibrations<br>• Air and Dust Emissions<br>• Erosion effects<br>• Destruction of the floral characters<br>• Occupational Health and Safety Hazards<br>• HIV/AIDS spread<br>• Waste management<br>• Gender Impacts such as sexual harassment and abuse, discrimination and gender-based violence<br>• Insecurities due to likely wildlife attacks of workers<br><br>Operational Phase<br>• Risks of fire outbreaks<br>• Poor waste management |

For the positive impacts, enhancement measures have been proposed, while adequate mitigation measures have been provided for the negative impacts as described in section 8 of this project brief.

To ensure effective implementation of the mitigation measures, an environmental and social management and monitoring plan has been prepared to guide the implementation of the project in an environmentally sound manner.

It is, therefore, important that for the proposed project to be implemented in QENP adequate measures should be taken to manage any potential negative impacts.

# 1 INTRODUCTION

## 1.1 PROJECT BACKGROUND

Uganda Wildlife Authority (UWA) is an implementing agency under the Investing in Forests and Protected Areas for Climate-Smart Development Project (IFPA-CD Project) with financing from the World Bank. The project is aimed at enhancing forest and wildlife conservation for the benefit of local communities and the country's economy. With project support, UWA is implementing various infrastructure developments in 11 target protected areas. Queen Elizabeth National Park (QENP) is one of the selected beneficiaries of the IFPA-CD project. To improve infrastructure within the park, UWA enlisted the help of Infrastructure Development and Management Limited (IDML) to plan the construction of junior staff accommodation, an entry gate and facility blocks for Queen Elizabeth National Park.

The main objective of the project is to construct accommodation facilities for rangers and an entrance gate and facility block as shown in section 3.2, which will play a vital role in enhancing visitor experiences, supporting conservation efforts, meeting diverse needs, promoting sustainability, and addressing the housing needs of park employees to ensure effective park management and visitor satisfaction.

The specific project objectives include:

- Providing on-site accommodation for rangers, so it provides decent housing for UWA staff and ensures a continuous staff presence within the national park. This presence helps deter illegal activities such as poaching, thereby enhancing the security of the park and its resources.
- The comfort of the rangers with their families at their workplaces, with inclusion of such features as, for example, water born toilets, rainwater harvesting systems will be installed under this project.
- Timely Response to Emergencies: having rangers living within the new allocated sites will allow quicker response times to emergencies such as wildfires, human wildlife conflict, natural disasters, or medical incidents.
- Provide a good first impression as visitors enters the park through the new gate.
- This will offer visitors information, maps, exhibits, and emergency assistance.

## 1.2 Purpose of the Project Brief

The project brief is prepared to identify the potential risks, impacts and liabilities that are associated with the project and propose mitigation measures to ensure the project is carried out in an environmentally and socially sound manner.

## 1.3 Specific objectives of this Project Brief

- 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.
- 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 the monitoring of the mitigation measures for the anticipated project risks.
- Carry out consultations with relevant stakeholders to obtain their views and suggestions regarding the environmental and social impacts.

## 1.4 Need for the Project brief

In fulfilment of the legal requirement under the *National Environment Act (NEA), 2019*, the *National Environment (Environmental and Social Assessment) Regulations, 2020* and the *Guidelines for Environmental Impact Assessment in Uganda 1997*, a screening was conducted to determine the level of environmental assessment for this project. The NEA 2019 lists projects that require ESIA to be conducted and those that require Project Briefs.

The proposed project falls under Schedule 4 section 9 (e and g) hotel, tourism and recreational development, in which the construction of junior staff houses and the entry gate in the park will support its management, hence a project brief has been prepared.

In addition, the **Project Brief** is prepared in line with the national regulations, World Bank Environmental and Social Standards in line with the project specifics detailed in the Project's ESMF and ESCP and international best practices. After assessment, this project was categorized as a substantial risk project, according to the World Bank risk classification. This is because some of the project activities pose environmental and social impacts and risks that are considered substantial in nature.

## 1.5 Details of the Project Developer

| | |
|---|---|
| **Full Details of proponent** | **Uganda Wildlife Authority** |
| **Contact person** | **Sam Mwandha** |
| Position | Executive Director |
| Address | Uganda Wildlife Authority, Plot 7 Kira Road |
| Telephone | +256414355000 |
| Estimated Project Cost | **Ugx 4,483,871,985 EXCL VAT** |

## 1.6 Structure of this Project Brief

The structure of this project brief has the following chapters arranged as shown in the table below:

***Table 1: Structure of the Project Brief***

| | |
|---|---|
| Chapter 1 | Introduction to the project background, stating purpose and objectives, project brief requirements, background of the proponent, justification, scope, cost etc. |
| Chapter 2 | A review of policies, laws, regulations and standards in relation to the development of the junior staff quarters and the entry gate |
| Chapter 3 | Description of the proposed project location, components, preparation, construction and operations phase activities. |
| Chapter 4 | Methodology of the Assessment |
| Chapter 5 | Site baseline conditions including the bio-physical and socio -economic information, surrounding area, infrastructure and activities in the project site neighbourhood likely to be affected. |

| | |
|---|---|
| Chapter 6 | Public consultations and disclosure, mentioning stakeholder concerns and developing measures to address them. |
| Chapter 7 | An analysis of alternatives, including a comparison of feasible alternatives to the proposed project site, their suitability under local conditions |
| Chapter 8 | Evaluation of the identified Environmental and social impacts and recommendation of appropriate mitigation measures for all significant negative impacts predicted and enhancement of positive impacts. |
| Chapter 9 | Environmental Social Management and Monitoring plan |
| Chapter 10 | Recommendations and conclusions arising out of the study |

# 2 POLICY, LEGAL, REGULATORY AND INSTITUTIONAL FRAMEWORK

## 2.1 Introduction

This chapter discusses policy, legal and institutional framework relevant for undertaking the project. The projects' proposed activities may have impacts on the environment from two perspectives. These include effects of construction itself and the resulting disturbance of ecological and social systems; and secondly, after the staff quarters and the entrance gate have been constructed, the economic activities they create may have both negative and positive impacts on the environment. These environmental and social effects must be managed within a legal framework. Uganda has various laws, policies and institutional set up governing the management of its natural environment as discussed below. Therefore, this assessment triggered a set of relevant and applicable regulations and policies. Specifically, the following regulations and policies were considered relevant for this assessment.

## 2.2 Policy Framework

### 2.2.1 The National Environment Management Policy, 1994

This policy is aimed at promoting intergenerational equity through promotion of sustainable development that maintains and enhances environmental quality for present and future generations through health and safety, restoration program, natural resource optimal utilization like land and water resources.

*Therefore, undertaking this study ensures that the project poses no or minimal impacts on the environment for sustainable development.*

### 2.2.2 The Uganda National Land Policy, 2013

The overall goal of the Uganda National Land Policy is: "*To ensure an efficient, equitable and optimal utilization and management of Uganda's land resources for poverty reduction, wealth creation and overall socio-economic development."*

Construction of junior staff accommodation and entry gate and Queen Elizabeth National Park considers the objectives of this Policy, including, among others:

- *To ensure sustainable utilization, protection and management of environmental, natural and cultural resources on land for national socio-economic development.*

Sustainable, equitable and integrated utilization of natural resources, like the land on which the staff quarters and their respective support facilities are to be constructed, are essential for natural social and economic development.

*The Policy emphasizes, among others, environmentally friendly practices during the establishment of junior staff quarters and the entry gate.*

### 2.2.3 The Uganda Gender Policy, 2007

The overall goal of this policy is "*to achieve gender equality and women's empowerment as an integral part of Uganda's socio-economic development,"* and its main purpose is "*to establish a clear framework for identification, implementation and coordination of interventions designed to achieve gender equality and women's empowerment in Uganda"*. The policy is a guide to all stakeholders in planning, resource allocation, implementation, monitoring and evaluation of programs with a gender perspective.

*The policy requires that, for adequate implementation of gender aspects, there is need for the contractor to emphasize gender equality through gender sensitization and awareness as well as construction of gender sensitive sanitary facilities and enhance equal employment opportunities to both men and women.*

### 2.2.4 National Occupational Health and Safety Policy (1995)

This policy seeks to:

- *Provide and maintain a healthy working environment;*
- *Institutionalize Occupational Health and Safety (OHS) in the policies, programs and plans; and*
- *Contribute towards safeguarding the physical environment.*

The OHS Policy Statement is guided by the Constitution of the Republic of Uganda and other global, national and sector regulations and policies.

The OHS Policy also takes into consideration the Health Sector Strategic Plan, all of which aim to improve the quality of life for all Ugandans in their living and working environment

*The policy will be relevant in provision of mitigation measures that will protect the workers from health and safety impacts associated with the activities at the construction sites for example provision of adequate full personal protection equipment (PPE) to all workers by the contractor.*

### 2.2.5 National Policy on HIV/AIDS and the World of Work, 2007

The main goal of the National Policy on HIV/AIDS and the World of Work is "*to provide a framework for prevention of further spread of HIV and mitigation of the socio-economic impact of HIV/AIDS within the world of work in Uganda"* with some of the policy objectives including:

- To provide guidelines for employers, workers and the Government on prevention, management as well as mitigation of the impact of HIV/AIDS within the world of work;
- To provide guidelines for employers, workers and the Government to eliminate stigma and discrimination based on perceived or real HIV status within the world of work;
- To provide a framework for monitoring and evaluating the effectiveness of measures taken to combat HIV/AIDS within the world of work;
- To provide a framework for monitoring and evaluating the impact of HIV/AIDS within the world of work; and
- To promote care, treatment and support for people living with HIV/AIDS within the world of work.

Many workers will be expected to be employed at the construction sites (about 30 per site), and they are likely to be exposed to an environment that encourages the spread of HIV/AIDS and other sexually transmitted diseases (STD). The strategies to fulfill this policy's objectives must be incorporated throughout the project's life.

*The contractor shall avail and display information regarding HIV/AIDs prevention on noticeboards around the site as well carry out sensitization and awareness campaigns against the spread of HIV/AIDs amongst his employees.*

### 2.2.6 Uganda Wildlife Policy, 2014

The vision of this policy for the wildlife sector is "sustainably managed and developed wildlife resources and healthy ecosystems in a developed Uganda". The main goal of this policy is to conserve the wildlife resources of Uganda in a manner that contributes to the sustainable development of the nation and the well-being of its people.

*The establishment of the proposed project shall ensure improved management of the park. This is in line with the requirements of this policy.*

### 2.2.7 National Water Policy, 1995

The overall objective of the National Water Policy is *"to manage and develop the water resources of Uganda in an integrated and sustainable manner, so as to secure and provide water of adequate quantity and quality for all social and economic needs of the present and future generations with the full participation of all stakeholders".* This Policy aims to ensure:

- Integrated and sustainable development and management and use of the national water resources with the full participation of all stakeholders; and
- Regulated use of all water, whether public, private or groundwater, other than for domestic use.

*This policy is relevant where project development could impact the quantity and quality of water resources within the project area.*

### 2.2.8 National Employment Policy, 2011

This policy provides a framework to promote productive and decent employment and enterprise development, compliance with labour standards by employers, investors and workers, social protection and social dialogue. Social dialogue, affirmative action, promotion of gender equality for all in employment, addressing HIV/AIDS in the workplace and community participation are crucial guiding principles of the Employment Policy.

*The policy is relevant since employment opportunities will be created by the contractor who will establish the sites and hence compliance with this policy is important.*

### 2.2.9 National Child Labour Policy (2006)

This Policy provides a framework for addressing child labour and actions that need to be taken to deal with child labour. The policy guides and promotes sustainable action aimed at the progressive elimination of child labour, starting with the worst forms. According to this Policy, child labour refers to;

- Work that is mentally, physically, socially and/or morally dangerous and harmful to children. In addition, child labour is perceived as work or activities that interfere with children's school attendance.
- Hazardous work, which by its nature or the circumstances under which it is performed, jeopardizes the health, safety and morals of a child.

The policy is relevant since it is the basis on which child labour will be avoided on the project construction sites.

### 2.2.10 National Child Policy, 2020

The National Child Policy seeks to provide a framework for addressing issues related to children's rights and well-being in a holistic and coordinated manner. The policy's mission is to promote the realization of all children's rights to survival, education and development, protection and participation through a coordinated, comprehensive interdisciplinary and multi-sectoral approach.

*The policy is relevant, since it will deter the contractors from employing children within the project host community*.

### 2.2.11 The National Equal Opportunities Policy, 2006

The National Equal Opportunities Policy guides the establishment and promotion of a just, free and fair society, where all citizens participate in and benefit from the development process. It promotes the fulfilment of the fundamental rights of all Ugandans to social justice and economic development.

*The contractor shall provide equal opportunities to all Ugandans who want to be part of the project in line with this policy's requirements.*

## 2.3 Legal Framework

### 2.3.1 The Constitution of the Republic of Uganda, 1995

The following National Objectives of the Constitution pertain:

*Objective XIII: Protection of Natural Resources." The State shall protect important natural resources, including land, water, wetlands, minerals, oil, fauna and flora on behalf of the people of Uganda."* In this case this proposed project intends to use land, which is a significant natural resource for the country; hence, the need to protect this resource through preparation of this project brief.

*Objective XXVII: (i) The State shall promote sustainable development and public awareness of the need to manage land, air, water resources in a balanced and sustainable manner for the present and future generations.* This objective necessitates public awareness about the project scope, activities, potential impacts, health and safety precautionary measures, hence a need for consultation through public meetings as a step for sustainable development.

(ii) The utilization of the natural resources of Uganda, *the State shall take all possible measures to prevent or minimize damage and destruction to land, air and water resources resulting from pollution or other causes.*

*Activities, such as site clearing and excavations during the construction of the junior staff quarters and the entry gate, will lead to the destruction of vegetation and change of land use; hence, the need for this project brief as a measure to provide adequate mitigation measures to minimize these impacts.*

*Article 39* preserves the right of every Ugandan to a clean and healthy environment.

*This project brief has been prepared in accordance with the requirements of the Constitution.*

### 2.3.2 The National Environment Act, No.5 of 2019

According to the National Environment Act, No.5 of 2019, this proposed project is listed within **schedule 4-part 2 section (4) schedule 4, section 9 (g) Hotel, Tourism and Recreational development.**, Therefore, the developer of this proposed project with such scale of activities is required to prepare a project brief with required information on the project activities and adequate mitigation measures to the identified impacts to ensure sustainable utilization and management of environmental, natural and cultural resources for national and socioeconomic development.

*This legal provision requires that an assessment is undertaken. A project brief has been prepared and submitted to the leading Agency, to review and recommend an action to be taken in accordance with this law.*

### 2.3.3 The Uganda Wildlife Act, 2019

The Uganda Wildlife Act provides for the conservation and sustainable management of wildlife. It aims to strengthen wildlife conservation and management; to continue the existence of the Uganda Wildlife Authority; to streamline the roles and responsibilities of institutions involved in wildlife conservation and management; to continue the existence of the Wildlife Fund; to repeal the Uganda Wildlife Act, Cap. 200 and for related matters.

*This project brief serves to meet the requirements of this Act to ensure that developments in conservation areas are designed in a way to prevent loss of wildlife in the park.*

### 2.3.4 The Water Act Cap 152

One of the objectives of this Act is "*to control pollution and to promote safe storage, treatment, discharge and disposal of waste which may pollute water or otherwise harm the environment and human health"*.

Section 6 (c) implies that *it is prohibited to cause or allow any waste to come into contact, whether directly or indirectly, with any water, other than under the provisions of the Water Act*.

The Act in section 28 (2) requires anyone responsible for the production, storage, discharge or deposit of waste not to permit or cause any waste to be discharged directly or indirectly into any water except in accordance with a waste discharge permit. Subsection 3 reiterates that it is an offence to contravene this directive. Procedures for making applications for waste discharge permits and conditions of approval are outlined in section 29 of this Act.

*During the construction phase water will be needed, for instance, during the equipment cleaning, for drinking and sanitary purposes and for sprinkling of water to minimize dust. With such water demand more effluent discharges are expected; hence, the need of monitoring the quality and quantity of discharge, treatment and disposal methods as to prevent or control both ground water and surface water pollution. Relevant approvals from relevant authorities for water abstraction shall be required before any abstraction is done by the contractor; however, water abstraction permit will not be needed in this project, because water will be purchased by the contractor.*

### 2.3.5 The Occupational Safety and Health Act, 2006

Part III of this Act *outlines duties, obligations and responsibilities of employers to the working environment of their workers,* and since construction of junior houses and the entry gate will employ various categories of workers such as safety officers, engineers, casual laborers, operators, drivers, security guards, etc., this law is vital. These duties include but are not limited to employers providing personal protective clothing where a worker is to be exposed to pollutants or chemicals that could be hazardous to their health.

Section 13 states that it is *the responsibility of an employer to take as far as is reasonably practicable, all measures for the protection of his or her workers and the general public from the dangerous aspects of the employer's undertaking at his or her own cost. Employers are also held responsible to ensure that the working environment is kept free from any hazard due to pollution*

*by employing technical measures, applied to new plant or processes in design or installation or added to existing plant or processes; or employing supplementary organizational measures* which can all be developed in the management and monitoring section of this project brief.

*Construction of junior staff quarters and the entry gate are associated with the use of heavy machinery, dust generation which, all compounded together, require that provision of safety gear, trainings and other considerations as per the Act are compiled to.*

### 2.3.6 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 is based on the provisions of Article 40 of The Constitution of Uganda. The Act mandates Labour Officers to regularly inspect the working conditions of workers to ascertain those rights of workers and basic provisions are provided and workers' welfare attended to.

The Act also provides for the freedom of association of workers permitting workers to join labour organizations.

Section 32 addresses the issue of child labour and states that children under the age of twelve 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.

*The contractor will ensure that he abides by the requirements of this law and prohibit child labor on the site. The working conditions and workers' welfare, including child labour, will be governed by the provisions of this Act and by Labour Management Procedures prepared for the IFPA-CD Project which prohibit use of child labour (workers under the age of 18) for the project activities.*

### 2.3.7 The Workers' Compensation Act 2000, Cap. 225

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 the matter 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.

*Labour shall be employed; it shall be mandatory for the contractor to have in place a workers' compensation insurance policy in case of accidents while at work in line with this Act.*

### 2.3.8 The Local Government Act, 1997

This Act allocates responsibility for service delivery to the Local Government (LG); the local government has both legislative and executive powers, rendering it the highest political authority in the district. Concerning natural resource management, LG is responsible for land surveying, land administration, physical planning and environmental services that are not the central government's responsibility.

*Under this Act, local authorities shall be continually doing site inspections throughout the construction period and will also have a representative to be in charge of overseeing the construction site activities.*

### 2.3.9 The Labor Disputes (Arbitration and Settlement Act) (2006)

This Act provides for arbitration in labor related grievances and is emphasized during project planning and implementation. The Act seeks to promote social dialogue, facilitate collective bargaining, and modernize procedures to address unresolved or mismanaged labour disputes that may have adverse effects.

*The contractor will comply with all Labour policies that specifically address Gender and Vulnerability including the Employment (of Children) Regulations 2012, Employment (Sexual Harassment) Regulations 2012, and the National Action Plan on Elimination of the Worst Forms of Child Labor in Uganda (2012/13-2016/17).*

## 2.4 Regulations

### 2.4.1 National Environment (Waste Management) Regulations No.49. of 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.

*Some volumes of waste are anticipated to be generated during construction and operation of the junior staff accommodation and the entrance gate. Therefore, UWA will ensure that the waste*

*management measures to be developed must be in line with the requirements of this regulation; for example, reusing and recycling waste material should be considered before disposal.*

### 2.4.2 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 these Regulations' requirements.*

### 2.4.3 National Environment (Noise and Vibrations Standards and Control) Regulations, 2013

All noise emitting sources at the project sites must conform to the National Environment (Noise and Vibrations Standards and Control) Regulations, 2013. 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 table 2 below.

***Table 2: 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, 2013. (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

### 2.4.4 National Air Quality Standards, 2006 (Draft)

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

***Table 3: 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 $\mu g/Nm^3$ |
| **Sulphur dioxide ($SO_2$)** | 24 hr | 0.15 ppm |
| **Sulphur trioxide ($SO_3$)** | 24 hr | 200 $\mu g/Nm^3$ |

*Note: ppm = parts per million; "N" in $\mu g/Nm^{-3}$ connotes normal atmospheric conditions of pressure and temperature ($25^oC$ 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.*

### 2.4.5 The National Environment (Audit) Regulations, S.I. No. 47 of 2020

These Regulations apply to the undertaking of Environmental Audits and the establishment of Environmental Management Systems by developers. Regulation 12 (1) of the Regulations states that "The developer of a project or activity listed in Schedule 3 to these Regulations shall carry out an environmental compliance audit." Section 11 (1) notes that The Authority shall notify the developer of the findings of the environmental enforcement audit and require the developer to take specific corrective measures within a specified period.

*This Project brief recognizes the requirement of this regulation and recommends Environmental Audits for all support facilities especially those with NEMA approvals, such as the camp establishments.*

The contractor will comply with all Labour policies that specifically address Gender and Vulnerability including the 2012 Employment (of Children) Regulations 2012, 2012 Employment (Sexual Harassment) Regulations 2012, and National Action Plan on Elimination of the Worst Forms of Child Labor in Uganda (2012/13-2016/17). **The Labor Disputes (Arbitration and Settlement Act) (2006)**.

This Act provides for arbitration in labor related grievances and is emphasized during project planning and implementation. The Act seeks to promote social dialogue, facilitate collective bargaining, and modernize procedures to address unresolved or mismanaged labor disputes that may have adverse effects.

*The contractor will comply with all Labour policies that specifically address Gender and Vulnerability including the Employment (of Children) Regulations 2012, Employment (Sexual Harassment) Regulations 2012, and the National Action Plan on Elimination of the Worst Forms of Child Labor in Uganda (2012/13-2016/17).*

**The 2011 Employment Regulations** deter employers from the casualization of labor by granting contractual/permanent rights to any worker exceeding four (4) months of service.

## 2.5 International Treaties

Uganda is party to several global and regional environment and conventions and agreements as described below:

### 2.5.1 The Convention on Biological Diversity (CBD)

The objectives of this Convention to be pursued in accordance with its relevant provisions are: to conserve biological diversity, to implement the sustainable use of biodiversity components, and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources, by appropriate access to genetic resources and by appropriate transfer of relevant technologies, to consider all rights over those resources and to technologies, and by appropriate funding.

Parties to this convention are required to develop national plans and programs for the conservation and sustainable use of biodiversity.

*The project activities will be carried out in a sensitive biodiversity ecosystem and, therefore, measures to ensure minimal impacts to this ecosystem should be put in place by the contractor and the supervising consultant. Hence, the CBD is relevant to the project.*

### 2.5.2 Ramsar Convention on Wetlands of International Importance Especially as Waterfowl Habitat, 1971

The Ramsar Convention on Wetlands provides the framework for conservation and wise use of all wetlands through local and national actions and international cooperation, as a contribution to sustainable development worldwide. Uganda is a signatory to this convention and, therefore, abides by the requirements of the convention on the protection of all wetlands of international importance

*Lake George, which is part of the park, is a Ramsar site and therefore precautions will be undertaken to ensure its protection.*

## 2.6 Institutional Framework

### 2.6.1 National Environmental Management Authority (NEMA)

The National Environmental Act establishes NEMA as the principal agency responsible for coordination, monitoring and supervision of environmental conservation activities. NEMA is under the Ministry of Water and Environment (MoWE) but has a cross-sectoral mandate to oversee the conduct of ESIAs through issuance of ESIA guidelines, regulations and registration of

practitioners. It reviews and approves environmental impact statements (EIS) and project briefs like for such a project in consultation with any relevant lead agencies. NEMA works with District Environment Officers and local environment committees at local government levels who also undertake inspection, monitoring and enforce compliance on its behalf.

*It is for this reason that the project brief is being submitted to the lead Agency for approval and this is a recommendation outlined in schedule 4 of the National Environment Act, no.5 of 2019.*

### 2.6.2 Uganda Wildlife Authority (UWA)

The mandate of UWA is to conserve, economically develop and sustainably manage the wildlife and protected areas of Uganda in partnership with neighbouring communities and other stakeholders for the benefit of the people of Uganda and the global community.

*UWA is a project proponent. UWA rangers will be working directly with the contractors to provide security against possible wildlife attacks and ensuring compliance to mitigation measures by the contractor.*

### 2.6.3 Ministry of Tourism, Wildlife and Antiquities

The mandate of this institution is to formulate and implement policies, strategies, plans and programs that promote tourism, wildlife and cultural heritage conservation for socio-economic development and transformation of the country.

The ministry has a responsibility to ensure conservation areas are protected from degradation, so that the country's tourism sector continues to flourish.

*The establishment of the project ensures that the staff carrying out conservation activities in Queen Elizabeth National Park are well facilitated with good housing conditions; the improved park gate and associated facilities improve the tourism offering in the park.*

### 2.6.4 District Local Government

The Park is within the jurisdiction of Kasese, Kamwenge, Rukungiri, Kitagwenda, Mitooma, Kihihi and Rubirizi Districts headed by the respective Local Council V (LC V) Chairmen and Chief Administration Officers (CAO) who are the political heads and technical heads respectively. Various district offices with relevant functions include offices of Natural Resources/Environment, District Health Inspector, District Planner, Community Development Officer and District Labour Officer.

*These shall monitor the activities to ensure compliance with the relevant permits and certifications issued to the project implementers in both the construction and operational phases.*

| ***No*** | ***Facility*** | ***District*** | ***Subcounty*** |
|---|---|---|---|
| *1* | Kikorongo outpost | *Kasese* | *Lake Katwe* |
| *2* | Kisenyi outpost | *Rubirizi* | *Katunguru* |
| *3* | Kanyampara outpost | *Kasese* | *Lake Katwe* |
| *4* | Guruka outpost | *Rukungiri* | *Bwambara* |
| *5* | Ishasha outpost | *Kanungu* | *Nyanga* |
| *6* | Kasenyi gate | *Kasese* | *Lake Katwe* |

## 2.7 Relevant Permits

A list of permits and licenses necessary for execution of the project are indicated in Table 4 below.

***Table 4: Required permits***

| TYPE OF PERMIT/APPROVAL | SUPPORTING LEGISLATION | REQUIREMENT | APPLIES TO | APPROVING AUTHORITY | TYPE OF APPLICATION SUBMITTED | STAGE AT WHICH APPROVAL IS REQUIRED |
|---|---|---|---|---|---|---|
| ESIA approval certificate**.** | The Environmental Impact Assessment Regulation2020 | This junior staff accommodation, and entry gate fall under **schedule 4**, *section 9 (e and g) hotel, tourism and recreational development.* *Hence a project brief* | Any project with likely significant impacts to the Environment | NEMA | Project Brief | Prior to commencement of the project |
| 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 | 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 work (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 |

## 2.8 World Bank Environmental and Social Framework (ESF), 2018

As this is a World Bank funded project, provisions of the ESF apply to the proposed development, as follows:

***Table 5: World Bank ESF Standards Applicable to the Project***

| | |
|---|---|
| ESS1: Assessment and Management of Environmental and Social Risks and Impact | ESS1 provides for an environmental and social assessment of the project to assess its environmental and social risks and impacts throughout the project life cycle.<br><br>*The ESF requires to carry out an appropriate environmental and social assessment depending on the risk level of the project. This project has been ranked as substantial risk, and, hence, a Project Brief has been prepared in line with the National Environment Act, 2019.* |
| ESS2: Labor and Working Conditions | 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.<br><br>*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*. In particular, compliance must be ensured with the project specific Labour Management Procedures. |
| ESS3: Resource Efficiency and Pollution Prevention and Management | ESS3 applies to the project due to the nature of the proposed activities. It recognizes that economic activities often cause pollution of air, water, and land, and consumes 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.<br><br>The project will require power and water resources during construction and operational phases. *Given the scarcity of these resources in the project sites, available resources will be used in the most efficient way to minimize wastage. In addition, measures to minimise pollution have been detailed in Section 8 of this Project Brief.* |
| ESS4: Community Health and Safety | 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. It provides further requirements or guidelines on managing safety, including the need for projects to undertake safety assessments for each phase of the project, monitor incidents and accidents and prepare regular reports on such monitoring. ESS4 also guides emergency preparedness and response.<br>*The project may pose limited health and safety risks to the workers employed from the park adjacent communities Within QENP. Therefore, provisions of ESS4 shall be complied with through implementing mitigation measures that minimize these potential risks.* |
| | |
| ESS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources | 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. Some of the mitigation measures mentioned in the ESMP of this Project Brief are aimed at addressing issues under ESS6. |

| | |
|---|---|
| | *The project will be established in a sensitive QENP ecosystem, so there is a need to comply with this standard's provisions.* |
| | |
| ESS8: Cultural Heritage | This standard sets out general provisions on cultural heritage preservation and recommends protecting cultural heritage from the adverse impacts of project activities.<br><br>The project sites' locations shall not impact any known cultural resources based on the assessment. However, in case there are chance finds during the execution of the project, the chance finds protocol included in this Project Brief will be followed. |
| | |
| ESS10: Stakeholder Engagement and Information Disclosure | 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. This allows for stakeholders' views to be considered in the project design and environmental and social performance.<br><br>For this project, relevant stakeholders were engaged in line with the provisions of this standard and other requirements of this standard will be complied with. ESS10 also provides for the establishment and implementation of a grievance mechanism to receive and facilitate resolution of concerns and grievances. The IFPA-CD project has established a Grievance Redress Mechanism (GRM). |

### 2.8.1 Project Documents during the conceptualization of the project

There are different documents that were prepared, and these shall be relevant during the project's implementation. These are described in the table below;

***Table 6: Project Documents during Project Conceptualization***

| **Project Document** | **Key Aspects** |
|---|---|
| Environmental and Social Commitment Plan (ESCP) | The ESCP describes a summary of the project's material measures and actions to Mitigate the project's potential environmental and social risks and impacts.<br><br>This will be helpful to UWA especially during monitoring of the project's implementation. |
| Environmental and Social Management Framework (ESMF) | The ESMF highlights socio-economic, legal, policy and institutional contexts of the project and sets a framework for UWA's roles and responsibilities in addressing the assessed social and environmental risks and impacts. |
| Labour Management Plan (LMP) | The LMP describes how the labour force on the project will be handled to ensure compliance with the requirements of ESS2. UWA shall carefully ensure all these aspects are fully catered for during the implementation of the project. |

| | |
|---|---|
| Stakeholder Engagement Framework (SEF) | The SEF describes the process for consultations with Stakeholders during the project formulation. It also shows the identified stakeholders which UWA shall have to engage during implementation of the sub-project activities. |
| General EHS Guidelines | These are technical reference documents with general and industry-specific examples of Good International Industry Practice. These guidelines contain the performance levels and measures generally considered achievable for new projects by existing technology at reasonable costs. |

# 3 DESCRIPTION OF THE PROPOSED PROJECT COMPONENTS

## 3.1 Geographical location of Queen Elizabeth National Park

Located in Uganda's Albertine Rift Valley, Queen Elizabeth National Park sits on the equator and forms part of a vast transboundary system, adjoining Kibale National Park to the northeast, Rwenzori Mountains National Park to the northwest and bordering the Democratic Republic of Congo. This stunning park spans across the districts of Kasese, Kamwenge, Mitoma, Kitagwenda, Kanungu, Kihihi and Rukungiri in Western Uganda. The centroid geographical coordinates of the park are Latitude: -0.205929; Longitude: 29.981075).

***Table 7: Coordinates for the Selected Sites in QENP***

| S/n | Proposed Site | GPS Location WGS 84 (UTM 36S and 35 S) | Elevation (m) | Area ($m^2$) |
|---|---|---|---|---|
| 1 | Kikorongo Junior Staff House | 9998680 m N 167932m E | 934 | 207 |
| 2 | Kanyampara Junior Staff House | 9996605 m N 820859 m E | 1071 | 207 |
| 3 | Kisenyi Junior Staff House | 9965122 m N 819687 m E | 935 | 207 |
| 4 | Ishasha Junior Staff House | 9931514 m N796070 m E | 956 | 207 |
| 5 | GurukaJunior Staff House | 9941425m N 811403 E | 1021 | 207 |
| 6 | Kasenyi entry gate | 9992156 m N 170346 m E | 943 | 187 |

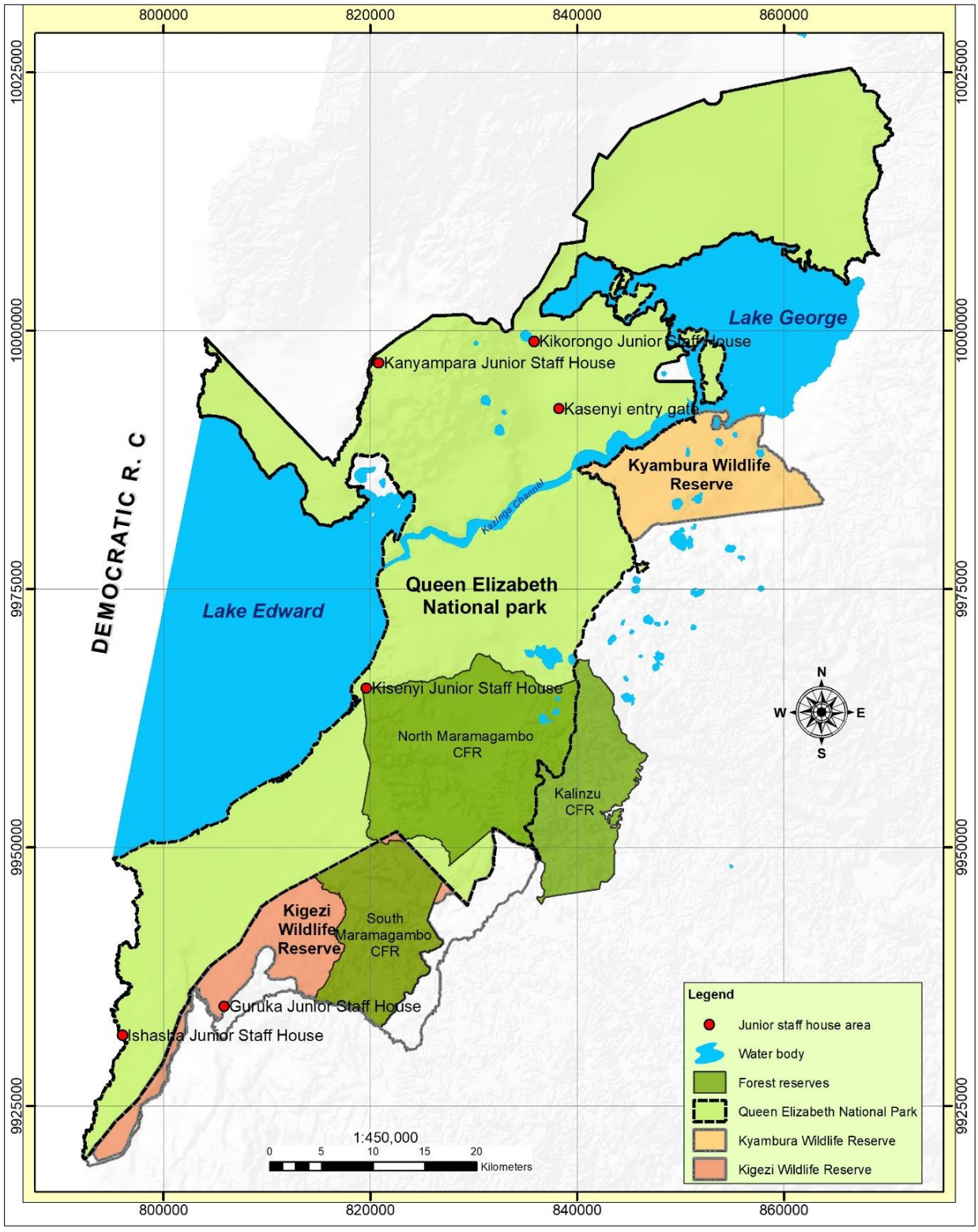


***Figure 1: Geographical location of QENP and proposed development locations***

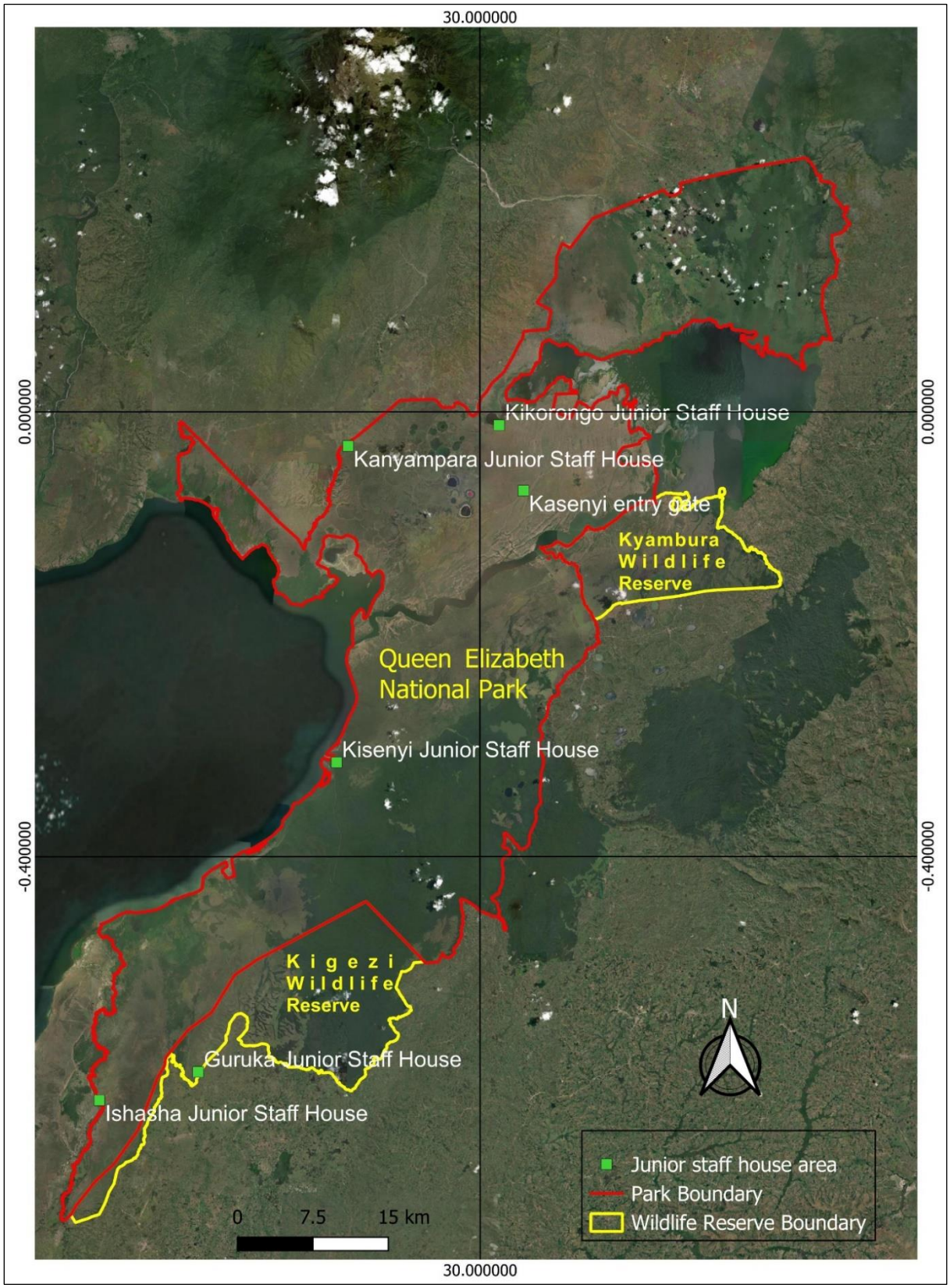


***Figure 2: Google Map of QENP showing the proposed site***

## 3.2 Project components

***Table 8: Projects under design for QENP***

| No. | Project | Components |
|---|---|---|
| 05 | Junior staff house one each at Kikorongo, Kanyampara, Kisenyi, Ishasha, Guruka | • Porch<br>• Studio Room<br>• Common Toilets/Bathrooms Facility<br>• Common Kitchen Facility<br>• Rainwater Harvest Facility<br>• Solar system (where applicable) |
| 01 | Kasenyi entry gate | • Gate house<br>• Canopy<br>• Rainwater Harvest Facility |

The pictures below show the architectural impressions of the proposed staff accommodations to be constructed in the Queen Elizabeth National Park.

***Figure 3:*** *Junior Staff Houses Artistic Impression Design*

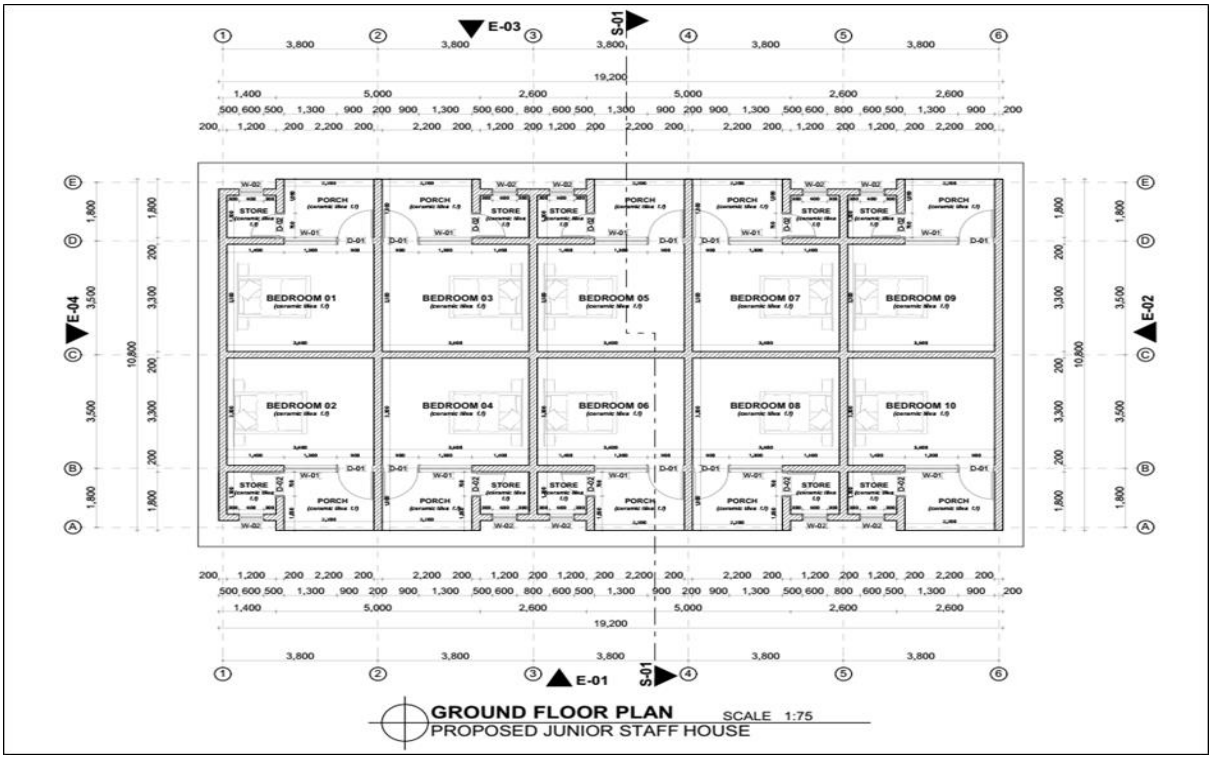


***Figure 4:*** *Junior Staff Houses Floor Plan Design*

***Figure 5: Kitchen Block Artistic Impression Design***

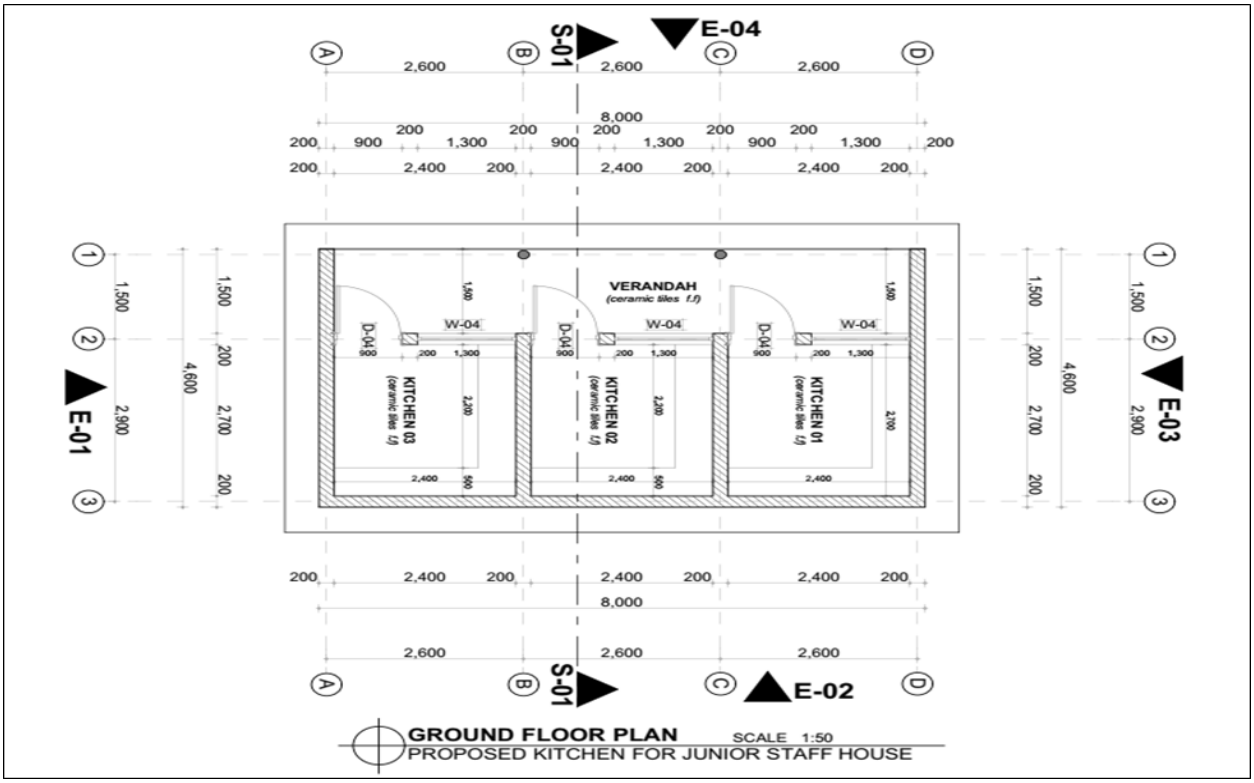


***Figure 6:*** *Kitchen Block -Floor Plan Design*

***Figure 7:*** *Ablution Block Artistic Impression Design*

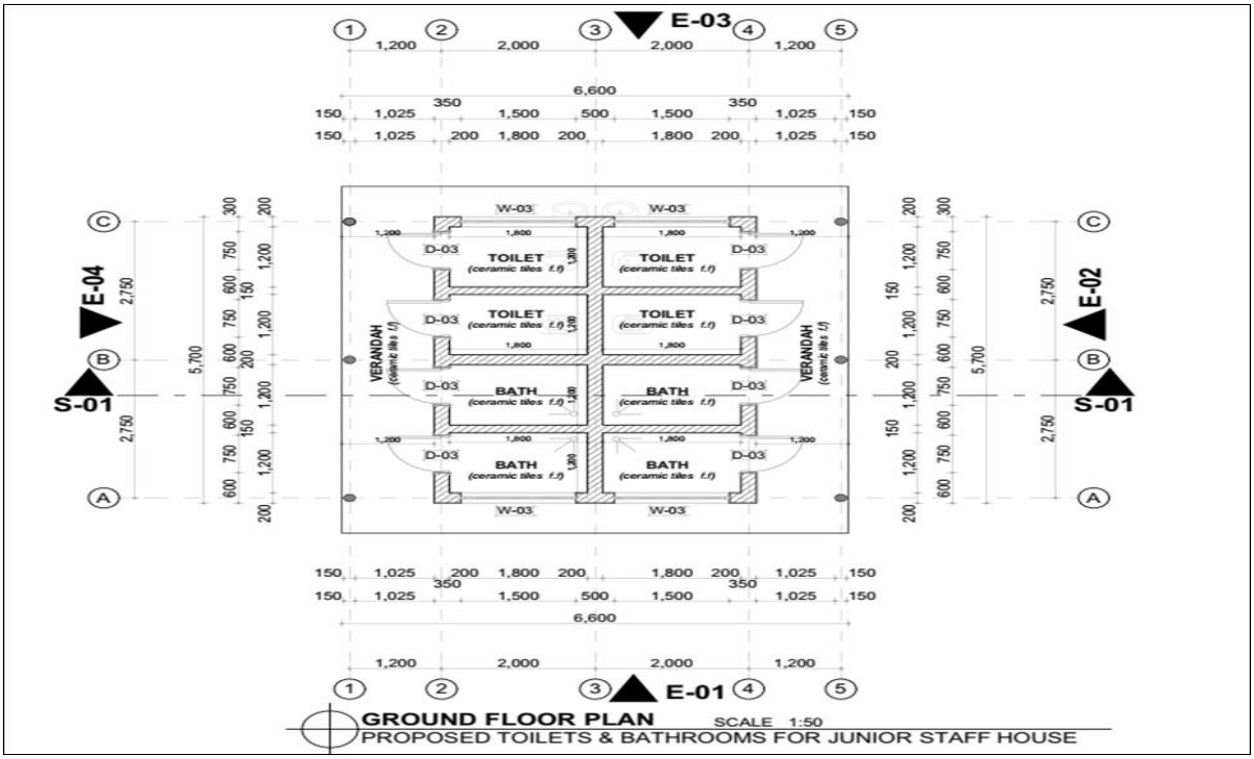


***Figure 8:*** *Ablution Block -Floor Plan Design*

## 3.3 Proposed Project Activities

### 3.3.1 Construction phase

The construction phase of works shall involve construction of junior staff accommodation and entry gate and their associated amenities. During this period, workers will be transported onto the respective work sites by the contractor's vehicles hence no worker will stay on site. Furthermore, each site will require approximately 30 workers (59% skilled and 41% unskilled), but this can change when construction work plans are established at the start of the construction phase.

Each site will require one year for completion, but this will change depending on factors such as funding, resource mobilization, natural calamities, among others.

#### 3.3.1.1 Site Clearing and Excavations

The first stage of the construction phase will be site clearing for levelling and setting up the junior staff quarters and the entry gate facilities. A section will be cleared for dumping material, where tarpaulin will be put to reduce material erosion. This will be followed by setting out of site for construction alignment and levelling by use of various equipment such as survey equipment, poles,

construction squares, plump bob, and others. Excavations at the site, which will involve use of excavation machinery, will then commence.

The main method of excavation to be used is trenching to accommodate the buildings' foundations/ footing. The deep excavated soil material will be disposed off-site at designated sites, but the good topsoil will be used for revegetation around the park. No major rock obstruction was registered on sites to warrant use of explosives. Going by existing developments in the neighboring villages surrounding the park and existing park buildings and the soil samples that were analyzed, the load bearing capacity of the underlying soil is adequate and safe to support the foundations without additional stabilization.

#### 3.3.1.2 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), rain water harvesting materials (tanks, pipes, gutters), solar system (solar panels, batteries etc), painting materials, among others, will be obtained from neighboring communities where available. Construction labor force will comprise of both skilled and non-skilled workers. The contractor will be encouraged to get labourers from the neighboring community.

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.

#### 3.3.1.3 Concrete and reinforcement work

These will include casting of reinforced concrete for the foundation (Concrete slabs) and beams. Concrete blocks will also be used during wall construction. Care should be taken to use prescribed tensile strength of iron bars and cast-iron beams and appropriate ratios of concrete to ensure that load bearing beams and columns will not be subjected to shearing or bending/breaking under pressure. The contractor is also advised to carry out concrete tests to ascertain its specified characteristic strength.

#### 3.3.1.4 Utilities and Services

These will include.

##### 3.3.1.4.1 Water supply, sewerage and storm water drainage

The sites are not located within reach of National Water and Sewerage Corporation water and sewerage infrastructure. Water during the construction phase will be purchased by the contractor

and stored in a temporary onsite water reservoir. Temporary sanitary facilities will be provided and installed by the contractor to be used during the construction phase.

#### 3.3.1.4.2 Earthling and Lightning Protection

A general system for the earthing will be put in place during foundation construction. 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 copper tape on top with appropriate down conductors bonded to the general earth with inspection chambers and test points**.**

#### 3.3.1.4.3 Energy Sources

During the construction 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.

### 3.3.2 Operations Phase

The operations phase of this project refers to the time after construction has ended and the staff quarters and the gate are fit for use. This Phase will involve the use of the junior staff quarters and the entry gate for their intended purpose and other associated functionalities for the better housing of the UWA staff members. The junior accommodations have been planned to house 3 family members per house established.

The following issues are deemed significant for the operations phase.

#### 3.3.2.1 Fire and Emergency

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 components. Emergency contacts will be obtained and will be accessed by all the workers in case of any emergencies.

#### 3.3.2.2 Energy Use and Supply

For sites close to the national grid, hydroelectric power will be used as an energy source and solar power as a backup. However, for sites away from the national grid, solar power will be made available as the main energy source. 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. For the entry gate, 0.78kwp smart package Hybrid power box with stored energy of 6.24 kwh or 540Ah battery No 2 of 250Ahrs working with 3No. 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.

#### 3.3.2.3 Water and Sanitation

The main water supply for all the sites will be through rainwater harvesting which will be supplemented by purchase of water to fill the tanks in times of scarcity. All sites will have water borne sanitary facilities. However, the Consultant will engage with UWA and the design team to advise on the potential water source for the construction phase and suggest an alternative water source in case the preferred water source is temporarily unavailable. Ground water reservoirs with capacities of either 10,000 liters or 20,000 liters will be constructed on different sited 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 commissioning of the facilities at completion.

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 a licensed cesspool emptier once full to ensure proper sanitary waste disposal.

#### 3.3.2.4 Waste Management

The waste that will be generated at junior staff accommodation and the entry gate will include generally non-hazardous waste, such as plastic polythene bags, waste packaging bags, food remains, paper, etc. These will be stored in coded waste bins to encourage segregation, and they will be disposed of at the nearest designated Town Council waste disposal site once the collection bins are full.

# 4 METHODOLOGY FOR ENVIRONMENTAL AND SOCIAL ASSESSMENT

This section highlights the methods used for the environmental and social impact assessment and preparation of the project brief.

1. Baseline establishment
2. Stakeholder engagement
3. Impact analysis and identification of mitigation measures

## 4.1 Baseline Establishment

### 4.1.1 Zone of Influence

The effects of the Project activities on a particular resource or receptor will have spatial (distance) and temporal (time) dimensions. Some activities would impact a larger radius than other identified impact sources. The spatial and temporal dimensions have therefore been taken into account to define a Project's Zone of Influence.

This assessment entails establishing the bio – physical and social - economic conditions of the ZOI (Zone of Influence) i.e., Direct Impact Zone (DIZ) and Indirect Impact Zone (IIZ). The DIZ has been set at radius of 200m of the proposed site and 5km for the IIZ.

The 200m DIZ due to the fact that: -

- It is within this site that clearing shall occur, usage of equipment, contractor's material vehicle trucks movements, and all these activities are associated with impacts that will occur within this zone of influence.

The 5km IIZ was considered due to the fact that: -

- The materials for construction may be sourced from different places further away from the construction sites.

### 4.1.2 Air Quality

The baseline for air quality assessment was quantified through the following activities:

1. Review of national policies and laws / regulations;
2. Measurement of dust was undertaken with Diyeeni Air Quality Tester, HT9600 Air Quality Monitor whereas air quality was measured using the MX6 Ibrid Multi-gas detector
3. Randomly selected points were selected for the air quality baseline survey at the proposed sites and took note of the receptors.


***Figure 9:*** *Air quality measuring equipment used*

### 4.1.3 Noise Measurement

Baseline noise monitoring was undertaken at selected representative receptors along the proposed sites. These measurements were undertaken so as to enable a quantitative assessment of the prevailing noise levels that will form a baseline for this assessment and project while implementation.

Noise measurement was done with a Casella Cel 621C2 / K1 integrating 1/3 octave band sound level meter (Class 2). The noise logger used was set to record for a sample period of 5 minutes at each potential receptor.


***Figure 10:*** *Noise measuring equipment used*

## 4.2 Biodiversity Survey Methods

The first step in the study was a desk review of available literature on the flora, fauna and their conservation status in the proposed project area. This review, which was carried out before the field visit, aimed to identify priority species, sensitive habitats and provide an overview of the vegetation and habitats present within the study area. To achieve this, previous vegetation classifications were reviewed, and relevant literature sources such as Kalema (2005), Langdale-Brown et al (1964), IUCN (2021), and Kalema & Beentje (2012) and QENP General Management Plan (2013-2023) were reviewed.

### 4.2.1 Flora

Floristic surveys were conducted using a combination of field observations, specimen collection, and identification. This involved moving randomly within a radius of 200m from the proposed site and recording all the plant species encountered. Taxonomic keys such as "Useful Trees and Shrubs for Uganda" (Katende, Birnie, & Tengnäs, 2000) and "Field Guide to the Forest Trees of Uganda" (James & Hamilton, 2020) and expert verification were used to identify the plant specimens to species level. For species that could not be identified in the field, voucher specimens were carefully collected, pressed, and dried, and then transported to the Makerere University Herbarium for identification.

Site specific vegetation descriptions to determine habitat types were based on species dominance and floral features such as herbs, shrubs and trees along the proposed site. Plants were also categorized as Native and/or Invasive. The IUCN Red list of threatened species was used to assess the plants' conservation status. The tree layers ranged from 3m+ high. The Shrub layers ranged from 1 - 3 m, whereas the herb layer was from 0-1m. Any herb that was >3m was recorded here as a tree and likewise, a tree seedling that was <1m high was recorded in the herb layer (Kent and Coker, 1992; Magurran, 1988).

### 4.2.2 Mammals

The methods used for mammal survey in QENP were visual encounter surveys from 30.04.2023-04.05.2023, local consultations, and indirect methods involving identification of mammalian dung, calls, tracks, footprints, and asking of local informants on the presence of mammals. The surveys were focused mainly on small to medium-sized mammals, while direct sighting and species counts were used to count large and conspicuous mammals. Since several mammal species of conservation concern may be secretive and nocturnal, searching for mammal traits such as fecal

matter, feeding signs, footprints, and burrows was an important part of the field surveys. Mammal tracks were mostly looked for on the wet or muddy areas near ponds and streams where animals come to feed or drink. In addition, local people encountered near the park were contacted, and an inquiry was made into the mammals encountered in their day-to-day work, with most of the mammal names given in the local names. In addition, UWA rangers further provided information on the mammal species that frequent the proposed project area.

Mammals were classified into two categories: small mammals to include only rodents, shrews, and bats, and medium to large-sized mammals. These methods are usually adopted in surveys of small, medium, and large-sized mammals, although they are more efficient with the latter two. Data from each of these methods were noted as encountered at survey locations.

The conservation status for each mammal recorded was evaluated using the IUCN Red List (2021) and the Red List of Uganda's Nationally Threatened Species (WCS, 2016). In these resources, species are assessed as to whether they are CR – Critically Endangered, EN – Endangered, VU – Vulnerable, NT - Near-Threatened, NE – Not Evaluated, LC - Least Concern or DD - Data Deficient. The use of both direct and indirect methods allowed for a more comprehensive and accurate survey of the mammal species present in Queen Elizabeth National Park.

### 4.2.3 Herptiles (Reptiles and Amphibians)

The Visual Encounter Survey (VES) method was used to search for Herptiles in the study area from 30.04.2023-04.05.2023. To increase the chances of finding animals and cover a wider survey area, a random search was conducted. This method involved a researcher moving slowly through the habitat, carefully watching the foliage above the ground, turning logs or stones, inspecting retreats, and watching out for surface-active species. In addition to VES, interviews were conducted with local leadership near the park as well as UWA rangers, who were asked about physical signs of herptiles presence in the area such as skin shades and prints, bones, and fecal samples. Herptiles were sampled along the study area with a sampling radius of 200m from either side of the center line, as herptiles are highly mobile animals. The sampling interval was determined by the spatial distribution of the chosen habitats. The species encountered were assessed against the IUCN Red list to determine their conservation status.

### 4.2.4 Avian Surveys

To systematically survey the avifauna diversity within the proposed sites, two methods were employed: Timed Species Counts and Point Counts. Timed Species Counts were conducted for one hour between 6:30 and 7:30am for four days from 01.04.2023-04.05.2023. This method was useful for assessing the relative abundance of birds in specific areas. During each one-hour count, bird species were listed in the order in which they were seen or heard, against a time frame.

Point Counts involved the observer recording all birds seen and heard from a stationary point for a set period. A series of point counts were conducted at various locations in the study area.

In addition to these methods, the study also employed random searches for birds. This method increased the chances of finding birds in addition to covering a wider survey area. The researcher moved slowly in the habitat, watching the foliage above the ground carefully, listening for bird calls and songs, and watching out for surface-active species. The local people near the park and UWA rangers were also interviewed to obtain information about physical signs (feathers, nests, calls, droppings, etc.) of bird presence in the area. All bird species encountered were assessed against the IUCN Red list to understand their conservation status.

## 4.3 Stakeholder Engagement and Public Consultations

### 4.3.1 Sampling strategy

A non-probability sampling strategy was adopted to select the study participants for qualitative studies.

***Key Informant Interviews****:* Specifically, a purposive sampling procedure was adopted because the key informant was information rich. This is attributed to the roles and responsibilities they perform in their respective line of duty. In total 8 key informant interviews were conducted (refer to the table below) and the key informants included the UWA field staff (warden in charge, community conservation, intelligence, law enforcement, research and monitoring, ecological monitoring), and UWA headquarter team (Executive Director, tourism, ecological monitoring and Environment unit) and community local leaders, District representatives, Ministry Contact Personnel.

*Table 9: Types and Number of Key Informants*

| S/N | Position | Date | QENP | Gender | | Total |
|---|---|---|---|---|---|---|
| | | | | F | M | |
| 1 | UWA field team | 03/04/2023 | 7 | 1 | 6 | 7 |
| 2 | Team from HQ | 17/05/2023 | 10 | 2 | 8 | 10 |
| 3 | Community Local Leader. | 03/04/2023 | 5 | | 5 | 5 |
| 4 | District representatives | 05/04/2023 | 2 | | 2 | 2 |
| 5 | Community members | 03/04/2023 | 7 | 2 | 5 | 7 |
| 6 | Uganda Tourism Borad | 28/05/2023 | 1 | 1 | | 1 |
| 7 | Ministry of tourism and Wildlife Antiquities | 20/05/2023 | 1 | 1 | | 1 |
| 8 | Ministry of Labour Gender and Social Development | 30/05/2023 | 1 | | 1 | 1 |

### 4.3.2 Focus Group Discussions (FGDs)

FGDs were conducted for each project as described in section 6 of this report. The FGD guide was used to capture socio-economic activities, land-based activities, food security issues, agricultural production constraints, no- agricultural constraints, current infrastructure condition, food security status, gender issues, water sources available to the community, social services, sources of energy, communal assets etc. Data was analyzed based on emerging themes.

## 4.4 Document Reviews

The socio-economic assessment was preceded by review of Uganda's relevant national policies and sectorial performance reports, and the Five-Year District and Town Council/Sub County Development Plans. In addition, project documents such as ESMF, Stakeholder Engagement

Framework (SEF), Labor Management Procedures (LMP), GRM procedures prepared for IFPA-CD Project, were reviewed and referred to during Project Brief preparation.

### 4.5 Drive through Observation

Data was collected using a drive through in the park. This involved making stopovers to make observations. Some of the observations made included the current status of the infrastructure, social economic activities along the projects, social services associated with the proposed infrastructure, institutions within the project vicinity. An observation checklist was used.

### 4.6 Impact Identification and Analysis

The proposed project's impacts were predicted in relation to environmental and social receptors in the project area. This was accomplished by comparing baseline conditions with situations that would culminate when the project is implemented.

#### 4.6.1 Impact Significance

The impact significance was obtained as a product of the impact severity and probability of occurrence. These two variables are defined below as per this study.

***Table 10:*** *Impact Significance detailed below*

| **Impact Severity** | **Probability of Occurrence** |
|---|---|
| The severity of an impact was defined as a function of a range of considerations which include:<br>1. Impact magnitude;<br>2. Impact extent;<br>3. Impact duration. | This the likelihood of an impact to occur and it was rated as:<br>1. Highly improbable,<br>2. Improbable, probable,<br>3. Highly probable or;<br>4. Definite. |

The table below describes the criteria for rating the various risk elements used to determine impact significance.

***Table 11:*** *Criteria for rating the various risk elements*

| **Extent** | | **Magnitude** | |
|---|---|---|---|
| On site (Localised) | 1 | **Negligible:** No noticeable effect upon the social environment | 1 |
| Project area of influence (proposed site and its immediate environs) | 2 | **Minor:** Noticeable effects on the environment, but reversible over a short period of time. | 2 |
| Regional | 3 | **Medium:** Noticeable effects on the environment, reversible over the long term. | 3 |
| National | 4 | **High:** Highly noticeable effects on the environment, difficult to reverse. | 4 |
| International | 5 | **Very High:** Highly noticeable, irreparable effect upon the environment. | 5 |
| **Duration** | | **Probability** | |
| Temporary (0-1 year) | 1 | **Highly improbable:** A combination of very rear factors is required for it to happen. (<20% chance of occurring) | 1 |
| Short Term (1-5 years) | 2 | **Improbable:** A combination of very many conceivable factors is required for this to occur. (20 – 40% chance of occurring) | 2 |
| Medium Term (5-10 years) | 3 | **Probable:** This impact could occur at some point/time if controls are not applied. (40% - 70% chance of occurring) | 3 |
| Long Term (10-15 years) | 4 | **Highly probable:** This impact will probably occur in most circumstances if controls are not applied (several times a year) (>70% - 90% chance of occurring) | 4 |
| Permanent (above 15 years) | 5 | **Definite:** Impossible to avoid. Could occur either immediately or within a short period of time (likely to occur most weeks or months). (>90% chance of occurring) | 5 |

The combination of the impact severity and the probability of occurrence of the impact is shown as a matrix below.

***Table 12: Derivation of impact significance***

| Severity (Extent + Magnitude + Duration) | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Probability | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| | 1 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| | 2 | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 | 26 | 28 | 30 |
| | 3 | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 27 | 30 | 33 | 36 | 39 | 42 | 45 |
| | 4 | 4 | 8 | 12 | 16 | 20 | 24 | 28 | 32 | 36 | 40 | 44 | 48 | 52 | 56 | 60 |
| | 5 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 | 65 | 70 | 75 |

### 4.6.2 Impact Significance Rating

| | | |
|---|---|---|
| **Low** | **<25** | Shaded green as shown above in the impact significance matrix (Table 4 above). Impacts in this criterion are considered acceptable. |
| **Medium** | **25-49** | Shaded orange as shown above in the impact significance matrix (Table 4 above). Impacts rated as medium are considered tolerable, but efforts must be made to reduce the impact to levels that are as low as reasonably practical. |
| **High** | **>50** | Shaded red as shown above in the impact significance matrix (Table 4 above). These denote that the impact is un-acceptable and further mitigation measures must be implemented to reduce the significance. |

Mitigation measures were proposed based on findings of the field surveys/analyses and stakeholder consultations. Recommendations were made in accordance with Ugandan laws and regulations, the World Bank Environmental Health Safety Sector Guidelines, sound technological measures, and standard industry best practice. Mitigation measures that require to be integrated in the early planning stages of the project were proposed following preliminary impacts identification.

## 4.7 Environmental and Social Management Plan (ESMP)

After the identification of mitigation measures, the environmental and social team prepared an ESMP with procedures, plans and costs, as well responsible parties for implementing the recommended measures. The ESMP has been included in the Project Brief and includes:

- The identified social and environmental impacts and risks;
- Recommendations of feasible and cost-effective measures to prevent or reduce, mitigate or compensate significant negative impacts to acceptable levels;
- Estimated magnitude of impacts and costs of mitigation measures; consideration for compensation to affected parties for the impacts that cannot be mitigated;
- Set of "best practices" measures to be followed in order to avoid some of the impacts during construction and operation phases of the project;
- Identification of the institutional needs to implement environmental and social recommendations including a review of the capacities of the relevant institutions; and
- Description of the detailed arrangements required for monitoring the implementation of the mitigation measures and the impacts of the project during the construction and operation; proposed work programs, budget estimations, schedules, responsibilities for implementation and other necessary support services to implement the ESMP.

# 5 ENVIRONMENMENTAL AND SOCIAL ECONOMIC BASELINE CONDITIONS

Under this chapter the current state of the environment at and around the proposed project sites and the area surrounding were studied. This chapter provides the findings categorized into the physical, biological and socio-economic features. Based on the physical, biological, and socio-economic / cultural environment of the area, the environmental and social impacts of the proposed activities were identified.

## 5.1 Description of Status of Sites

### 5.1.1 Kikorongo Junior Staff House

It's located at UTM coordinates 36S: 9998680 m N 167932m E within Lake Katwe subcounty in Kasese District. The nearest village is the Hamukungu fishing Village at a distance of about 8km from the site with about 2,701 people. The Kikorongo crater lake, which is 60 meters away (Queens Pavilion), is the nearest water source. The site is located about 2km from Kikorongo headquarters. The nearest Health Centre is in Kasese town. The site is in an area which is not connected to the national power grid; therefore, solar power is the only recommended source of power. The site is about 230m from Hamukungu-Kikorongo road but there is no access road to the site. Therefore, an access road to the site shall have to be established since a new site is to be developed.

### 5.1.2 Kanyampara Junior Staff House

It's located at UTM coordinates 35S: 9996605 m N 820859 m E. It's in Busunga Village within Lake Katwe Subcounty in Kasese District with an estimated population of about 6,750 people.The site is about 1km to the Busunga community, 3km to the main road (A109 Fort Portal-Mpondwe road) and 15km to the park headquarters. The site is accessed through the community (Bushunga) bumpy road. The nearest water source is Nyamugasana River. The site is in an area which is not connected to the national power grid; therefore, solar power is the only recommended source of power. The site is 250m from Bushunga community bumpy road.

### 5.1.1 Ishasha Junior Staff House

The site is located at UTM coordinates UTM 35S: 9931514 m N 796070 m E, in Kihihi Town Council, Rwanga subcounty in Kanungu District with an estimated population of 3,416 people. The site is about 9 km to the main road (Katunguru-Ishasha road). The access road (Ishasha

Ntungwe road) is not in good condition and it's in need of improvement. The site is about 500 meters to the border with the Democratic Republic of the Congo (DRC).

The site is bordering the Virunga National Park in DRC. The nearest source of water is Isasha River, about 200 meters away. There is no connection to the national grid in the vicinity. As a result, the only available energy source for the site is solar power.

### 5.1.2 Guruka Junior Staff House

This site is situated at UTM coordinates 35S: 9941425m N 811403 E in Bwentare Village Bwanbara Subcounty in Rukungiri District with an estimated population of 7,569 people. Nearest HC is about 5-6km from the site in Bwambara. There is an access road to the site. The site is 200m to Kikarara- Omurwesigilo road. The nearest water source is a borehole of about 1 km from the site. The site is near a power grid; therefore, electricity will be used as the primary source of power and solar as a backup and no t-lines needed.

### 5.1.3 Kisenyi Junior Staff House

The proposed site for the construction of Kisenyi Junior Staff House is situated at coordinates UTM 35S: 9965122 m N 819687 m E in the Katunguru subcounty, Rubirizi District. The site is about 400m to the main Ishasha Road near Kisenyi landing site. It's about 400m from the nearest water source. There is no existing access road to the site, so the access road shall be established during the construction phase. Given that this site is within an open grassland, construction of the access road will not require any vegetation loss. The site is not located near national power grid, so solar power will be the source of power.

## 5.2 General Biological Baseline

Biodiversity surveys were conducted within six sites i.e., for the proposed development of Kikorongo Junior staff houses, Kanyampala Junior staff houses, Kasenyi Entry Gate, Kisenyi Junior staff houses, Ishasha Junior staff houses, Guruka houses Junior staff houses.

### 5.2.1 Flora

QENP is a savanna grassland park that features various vegetation types, such as grasslands, woodlands, riverine woodlands, and papyrus swamps, providing diverse ecosystems that support a variety of animal species. *Themeda trianda* is the most widespread species of grass, though it is non-existent in water-logged areas. Other species of grass to come along include: *Cymbopogon*

*afronardus*, *Acacia hockii*, *Sporobulus pyramidalis*, *Acacia gerradii*, *Euphobia candelabrum* and thickets of Capparis tomentosa. The predominant tree species include *Acacia sieberiana*, *Acacia gerradii*, and *Ficus gnaphalocarpa*.

The dominant vegetation in the proposed sites can be described as a savanna grassland. The savanna grasslands are dominated by *Sporobolus sp, Digitaria* sp and *Urochloa sp*, scattered shrubs comprising of mainly *Capparis tomentosa* and *Carisa edulis* with scattered trees of mainly *Acacia spp*., *Dichrostachys cinerea* and *Lantana camara* form dense thickets in some parts of the park, these plants are reported as invasive species, should be removed in any case, and should be handled with expertise.

A total of 44 plant species were surveyed within the proposed sites. These belonged to 18 Families and 23 genera. The family *Poaceae* was most frequent followed by *Fabaceae*. The figure below shows the plant families surveyed and their frequencies.

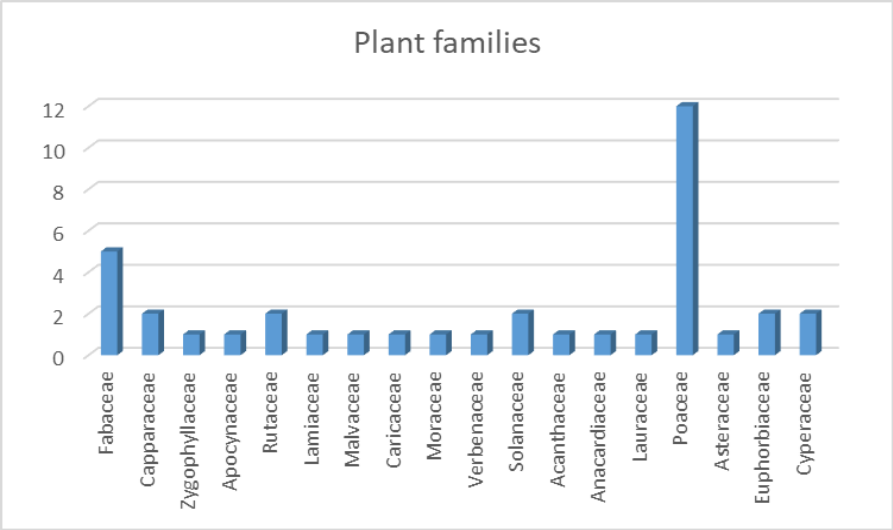


***Figure 11: Bar graph showing the plant families surveyed***

### 5.2.1.1 Site specific vegetation description

#### 5.2.1.1.1 Kikorongo Junior Staff Houses

The proposed site for the construction of Kikorongo junior houses lies within UTM coordinates UTM 36S: 9998680 m N 167932m E. This site comprises grassland dominated by *Chloris gayana* and *Cynodon dactylon***.** The site is predominated by dense thickets of *Dichrostachys cinerea* (an invasive species).

*Open grassland with scattered shrubs*

*Open grassland dominated by Panicum spp and Cynodon dactylon*

*Open grassland with scattered shrubs*

*Acacia shrubs*

***Figure 12:*** *Baseline data collection at Kikorongo Junior Staff Accommodation site*

#### 5.2.1.1.2 Kanyampala Junior Staff Houses

The vegetation is a savanna grassland predominated by Imperata cylindrica and thickets of Lanatana camara, both of which are invasive species. A detailed list of the plant species is included in Appendix 1.

*Sporobolus spp dominated grassland*

*Grassland with thickets of Lantana camara*

***Figure 13:*** *Site in Kanyampara Junior Staff Site*

#### 5.2.1.1.3 Kisenyi Junior Staff Housing

The site is located within a dense thicket of *Vepris nobilis.* Other shrubs include *Carisa edulis, Cadaba farinose, Ocimum Gratissimum* and *Grewia mollis.*

*Shrubs dominated by Rhus spp*

*Vepris nobilis dominated thicket*

***Figure 14:*** *Flora baseline data collection at Kisenyi Junior staff house*

#### 5.2.1.1.4 Ishasha Junior Staff Housing

The site is located within an open grassland field dominated by Sporobolus spp, *Digitaria eriantha, Hyparrhenia rufa*, and *Setaria spp*. Scattered *Acacia spp* and *Senna siamea* trees can be located within the site.

***Figure 15:*** *Sporobolus dominated grassland*

#### 5.2.1.1.5 Guruka Junior Staff Housing

The site is in a slightly modified grassland field due to existing housing infrastructure. The dominant grasses are *Imperata cylindrica, Hyparrhenia rufa*, *Chloris gayana* and *Pennisetum purpureum*. *Ficus mucuso* and other Acacia trees are scattered within the proposed site.

### 5.2.1.2 Invasive Species

The presence of invasive *Lantana camara* and *Dichrostachys cinerea* was observed along various sections of the road. Invasive plants often exploit ecological disturbances, which are anticipated during site clearances, thereby posing a potential threat to the ecological systems. According to NARO (2007), invasive plants can have detrimental effects on conservation efforts and may result in economic and environmental damage. They outcompete native species through aggressive recruitment and disrupt the balance of natural ecosystems, underscoring the importance of their management.

*Lantana camara* and *Dichrostachys cinerea* have a propensity for further spread, if disturbances persist (Cronk & Fuller, 1995). The International Finance Corporation (IFC, 2012) Performance Standard 6 and ESS 6 of the ESF, which focus on biodiversity conservation and sustainable

management of living resources, emphasizes the need for projects to address concerns associated with invasive species to ensure compliance with the standard.

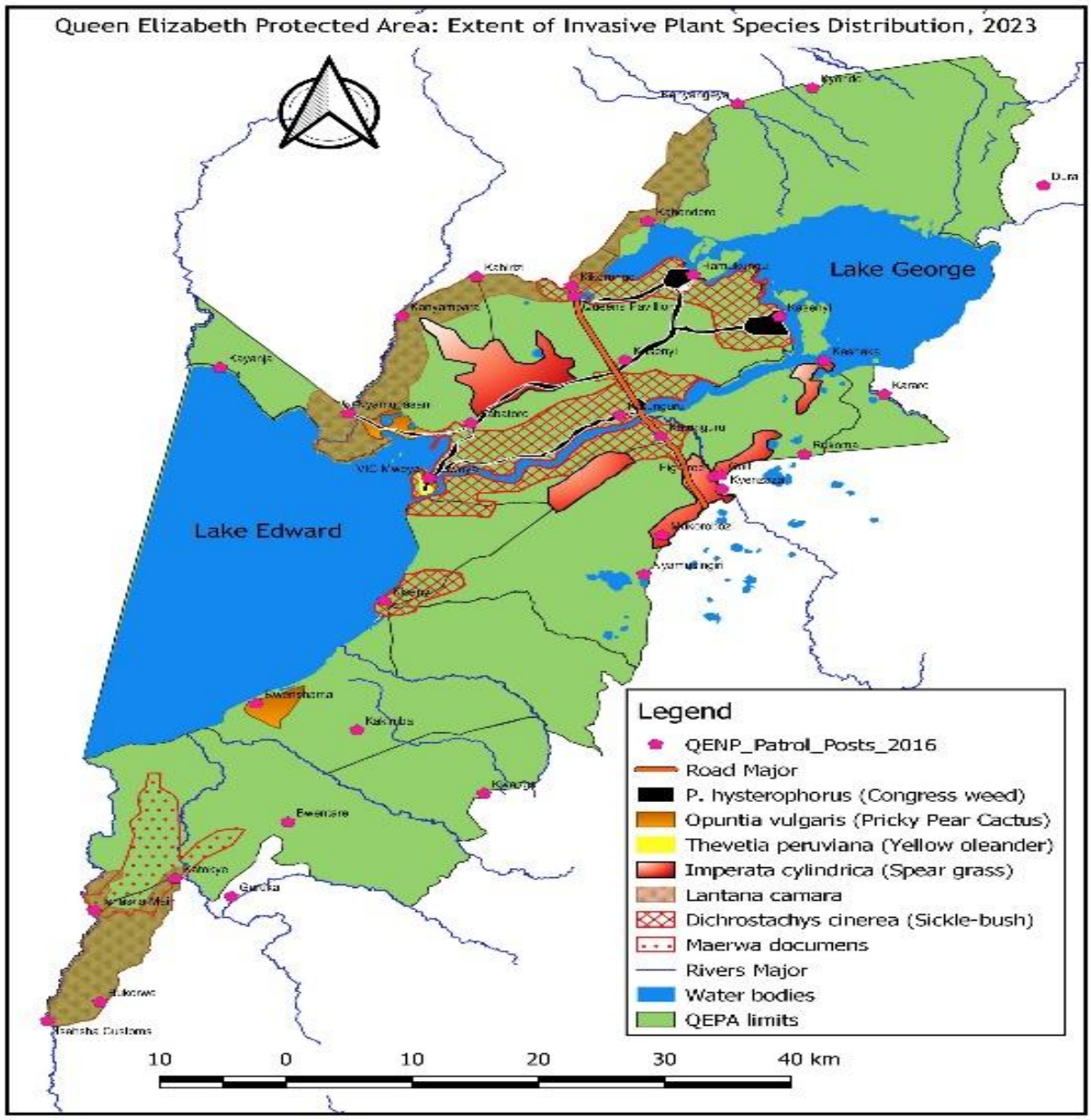


***Figure 16:*** *Map showing spread of invasive species in Queen Elizabeth National Park*

### 5.2.2 Fauna

QENP hosts over 95 types of mammals. These include the following: Spotted hyaena, Shrews, Peter's shrew, Fruit bats, Epauletted fruit bat, Rousette fruit bat, Insect eating bats, White-bellied tomb bat, Yellow-winged bat, Vervet monkey, Uganda blue monkey, Red-tailed monkey, Olive

baboon, Black and white colobus, Red colobus, Long-haired chimpanzee, Pangolins, Temminck's lesser, Ground pangolin, African wild cat, Serval, Lion, Leopard, African ant bear or aardvark, Rock hyrax, Tree hyrax, African elephant, Hippopotamus, Uganda black buffalo, Common (or kavirondo) Bush buck, Speke's sitatunga, Bush duiker, Blue duiker, Red duiker, Yellow-backed duiker, Defassa waterbuck, Uganda kob, Bohor reedbuck, Topi, East African hare, East African crested porcupine, Langer cane rat, African tree squirrel, and Giant squirrel, among others.

QENP has more than 600 bird species recorded. This is mostly due to the wide variety of habitats: from savannah to forest to wetland. Many of the birds in the park are regarded as specials within East Africa, which makes it a prime birding destination. The wetlands in the Ishasha sector are a good place to look for the elusive Shoebill Stork. Migratory birds are present from November to April.

#### 5.2.2.1 Mammals

##### 5.2.2.1.1 Small mammals

No small mammal species were encountered during the site visit, but we understand some are present, however these would not be verified.

##### 5.2.2.1.2 Medium to large mammals

The survey conducted in QENP within the study sites recorded a total of 9 medium-to-large mammals, representing 4 different orders and 6 families. Among the recorded families, Bovidae had the highest number of sightings, followed by Cercopithecidae. However, it is important to acknowledge that QENP boasts a wide variety of mammalian species. Therefore, this report provides insights into the encountered species and includes some additional species that were not physically encountered but are known to frequent the study sites based on reports from UWA rangers. For all sites there were no visible animal tracks, although it is noted that these sites are within the ranges of most species that occur in the park. Most of the sites selected for the staff accommodation are existing sites. For the new sites, e.g Guruka, the sites were selected during the General Management Planning process after a thorough assessment to avoid the sensitive areas like the kobleks, animal corridors, nesting grounds, etc.

***Table 13: Medium to Large Mammals Recorded***

| Order | Family | Species name | Common name | IUCN Conservation status | Identification method | Site name |
|---|---|---|---|---|---|---|
| Proboscidea | Elephantidae | *Loxodonta Africana* | African elephant | EN | Direct and Indirect | Kasenyi Kikorongo |
| Carnivora | Herpestidae | *Mungos mungo* | Banded Mangoose | LC | Direct | All sites |
| | Felidae | *Panthera leo* | Lion | VU | Direct | Kasenyi Ishasha |
| Artiodactyla | Bovidae | *Syncerus caffer* | African buffaro | NT | Direct | All sites |
| | Bovidae | *Kobus kob* | Kob | LC | Direct | All sites |
| | Bovidae | *Kobus ellipsiprymnus* | Waterbuck | LC | Direct | All sites |
| | Hippopotamidae | *Hippopotamus amphibius* | Hippopotamus | VU | Direct | Kikorongo Kisenyi |
| Primates | Cercopithecidae | *Papio anubis* | Olive baboon | LC | Direct | All sites |
| | Cercopithecidae | *Cercopithecus aethiops* | Vervet monkey | LC | Direct | Kikorongo, Guruka, Kisenyi |

#### 5.2.2.2 Herptiles

##### 5.2.2.2.1 Reptiles

Six reptile species were recorded within the study area, these belonged to three families and five genera. All recorded species belonged to the order Sauria. This order is more adapted due to the position of limbs, and this makes it more successful than order Serpentes (which consists of snakes). The recorded species are listed in the table below.

***Table 14: Reptiles encountered***

| Order | Family | Species name | IUCN status |
|---|---|---|---|
| Sauria | Agamidae | *Acanthocercus ugandaensis* | LC |
| | Gekkonidae | *Hemidactylus brookii* | LC |
| | | *Lygodactylus gutturalis* | LC |
| | | *Hemidactylus mabouia* | LC |
| | Scincidae | *Trachylepis striata* | LC |
| | | *Trachylepis varia* | LC |

#### 5.2.2.3 Avifauna

A total of 22 bird species were recorded within the proposed sites, and none of them are considered threatened. The majority of these species are recognized for their extensive ecological and breeding ranges. A comprehensive list of the recorded birds is provided in Appendix 2.

## 5.3 Physical Baseline

### 5.3.1 Geographical Location of QENP

Located in Uganda's Albertine Rift Valley, QENP, with an area of 1,978 square kilometers (764 square miles), sits on the equator and forms part of a vast transboundary system, adjoining Kibale National Park to the northeast and Rwenzori Mountains National Park to the northwest, with its expansive reach extending from Lake George in the northeast to Lake Edward in the southwest, including the Kazinga Channel connecting the two lakes. This stunning park spans across the districts of Kasese, Kanungu, Rukungiri, and Rubirizi in Western Uganda, approximately 376 kilometers (234 miles) southwest of Kampala, the capital and largest city of Uganda. Adjacent to the park's northeastern border lies the town of Kasese, while the town of Bushenyi is just outside its southeastern boundaries. The geographical coordinates of the park are 00 12S, 30 00E (Latitude: 0.2000; Longitude: 30.0000). The west boundary of the park lies along the border with DRC.

### 5.3.2 Topography and Geomorphology

The landscapes and habitats of QENP are shaped by a varied topography featuring rolling hills, flat plains, valleys, and escarpments. As part of the Western Rift Valley, the park's elevation ranges from 910 meters at Lake Edward to 1,390 meters in Kyambura Gorge. Geological forces like tectonics, volcanism, and erosion have given rise to remarkable features within the park. Notable among these are the Rift Valley Floor, formed by the African continent's gradual separation, the Kazinga Channel created by tectonic activity, the Kyambura Gorge carved by the Kyambura River, the Ishasha Escarpment, and several crater lakes of volcanic origins.

### 5.3.3 Soils and Geology

In Pleistocene time, the protected area was influenced by great volcanic and tectonic activity associated with the formation of the rift valley. The main volcanic activity was between 8,000-10,000 years ago. As a result, the area lies within the rift valley with several volcanic craters. Some are salty in nature, and these include Lake Katwe, famous for its artisanal salt industry. Other volcanic lakes are freshwater lakes. The soil is volcanic and is very fertile.

### 5.3.4 Climatic Patterns

#### 5.3.4.1 Rainfall patterns

QENP boasts diverse ecosystems, its climate shaped by elevation and equatorial proximity. The park experiences a tropical climate with two rainy and two dry seasons. The long rainy season from March to May brings abundant rain, nurturing lush vegetation and birthing wildlife, while the first dry season from June to July sees less precipitation, causing landscapes to dry up and animals to cluster around water sources. August to September brings a milder short rainy season, sustaining the park's greenery, and December to February marks the second dry season, favored for wildlife observation as creatures gather near water sources.

#### 5.3.4.2 Temperature and Humidity

QENP experiences distinct temperature and humidity differences across the park. The climate is characterized by wet and dry seasons. The dry season, occurring from June to August and December to February, is marked by lower humidity, minimal rainfall, warm daytime temperatures between 25°C to 30°C (77°F to 86°F), and cooler nights around 15°C to 20°C (59°F to 68°F). In contrast, the long wet season, spanning from March to May and September to November, brings higher humidity, increased rainfall leading to lush vegetation, and similar warm daytime

temperatures of 25°C to 30°C (77°F to 86°F), with mild nighttime temperatures of 15°C to 20°C (59°F to 68°F).

### 5.3.5 Noise Assessment

Noise meters were used to record noise level at each site from 30.04.2023 to 04.05.2023. The sites are located away from the traffic and far from any community, since most of them are inside the park; therefore, the likely receptors will be the workers during construction and the animals.

The proposed sites had noise levels below the recommended permissible limits as shown in table 15 below.

***Table 15: Baseline noise results at the proposed sites***

| **Project activity** | **GPS Coordinates (UTM 36S and 35S)** | **Noise results** | | | **Noise source** | **Noise receptor** |
|---|---|---|---|---|---|---|
| | | **Min (db)** | **Av (db)** | **Max (db)** | | |
| Kikorongo Junior | 9998680 m N 167932m E | 29 | 31 | 34 | • Sounds from the birds on the proposed site | • Wildlife |
| Kanyampara Junior | 9996605 m N 820859 m E | 31 | 36 | 49 | • Sounds from the birds on the proposed site | • Wildlife |
| Kisenyi Junior | 9965122 m N 819687 m E | 31 | 42 | 48 | • Sounds from the birds on the proposed site<br>• Moving traffic along Katunguru-Ishasha road | • Wildlife |
| Ishasha Junior | 9931514 m N796070 m E | 28 | 32 | 36 | • Sounds from the birds on the proposed site | • Wildlife<br>• |
| Guruka Junior | 9941425m N 811403 E | 34 | 42 | 46 | • Sounds from the birds on the proposed site<br>• Moving traffic along the road | • Wildlife |
| Kasenyi entry gate | 9992156 m N 170346 m E | 28 | 33 | 39 | • Sounds from the birds on the proposed site<br>• Moving traffic transiting the park | • Wildlife |

| |
|---|
| Standard of noise limits<br>Construction site day 75 night 65 |

### 5.3.6 Air Quality

Since most of the sites are in remote areas, their ambient air is not polluted; but this is expected to change temporarily when the construction activities commence. An assessment to determine the baseline conditions was done to obtain values for compliance monitoring as shown in Table 16 below. The assessment was done from 30.04.2023 to 04.05.2023 in all the selected sites.

***Table 16: Baseline Air quality results at the proposed sites***

| **Project activity** | **GPS Coordinates (UTM 36N)** | **Air results** | | | **Source** | **Receptor** |
|---|---|---|---|---|---|---|
| | | AQI | P2.5 µm | P10 µm | | |
| Kikorongo Junior Staff House | 9998680 m N 167932m E | 37 | 9 | 13 | Emission fumes from moving motor-vehicle traffic | Wildlife Community |
| Kanyampara Junior Staff House | 9996605 m N 820859 m E | 33 | 8 | 11 | Emission fumes from moving motor-vehicle traffic<br>Dusty marram community road | Wildlife Community |
| Kisenyi Junior Staff House | 9965122 m N 819687 m E | 35 | 12 | 13 | Dusty road Katunguru-Ishasha<br>Emission fumes from moving motor-vehicle traffic | Wildlife Community |
| Ishasha Junior Staff House | 9931514 m N796070 m E | 60 | 17 | 24 | Dusty road | Wildlife Community |
| Guruka Junior Staff House | 9941425m N 811403 E | 51 | 12 | 18 | Emission fumes from moving motor-vehicle traffic<br>Dusty marram road | Wildlife Community |

| | | | | | | |
|---|---|---|---|---|---|---|
| Kasenyi Entry Gate | 9992156 m N 170346 m E | 51 | 12 | 18 | Emission fumes from moving motor-vehicle traffic Dusty Park marram | Wildlife Community |

## 5.4 Socio-Economic Baseline

### 5.4.1 Administrative structure

The sites are located in 4 districts as indicated in the table below.

***Table 17: Location of the proposed sites***

| ***No*** | ***Facility*** | ***District*** | ***Subcounty*** |
|---|---|---|---|
| *1* | Kikorongo outpost | *Kasese* | *Lake Katwe* |
| *2* | Kisenyi outpost | *Rubirizi* | *Katunguru* |
| *3* | Kanyampara outpost | *Kasese* | *Lake Katwe* |
| *4* | Guruka outpost | *Rukungiri* | *Bwambara* |
| *5* | Ishasha outpost | *Kanungu* | *Nyanga* |
| *6* | Kasenyi gate | *Kasese* | *Lake Katwe* |

The political head of the district is LCV Chairperson, while the technical head is the Chief Administrative Officer. These are supported by the line officers at different levels.

### 5.4.2 Socio-Economic Characteristics

Surrounded by diverse ethnic groups, each with distinct languages and economic practices, the neighbourhood of QENP is home to various communities. Notable groups include the Bakiga, who focus on agriculture and animal husbandry while speaking Rukiga; the Banyankole, who prioritize cattle herding and communicate in Runyankole; the Batuku, pastoralists speaking Rukonjo; and the Basongora, who traditionally combined farming and herding. Smaller communities and migrants from other parts of Uganda contribute to the region's diversity. Common economic activities encompass subsistence farming of crops like bananas and maize, animal husbandry, particularly cattle herding, and fishing due to the presence of lakes and water bodies (QEPA GMP 2011-2021).

### 5.4.3 Access to Health Services

Delivery of health service in the area around QENP is done by both private and Government Health Units.

***Table 18: Health Centers within the Project Area***

| Sn | Health Centre | Location |
|---|---|---|
| 1 | Bwambara | Ishasha |
| 2 | HC III | Katungulu |

Construction sites are prone to accidents and injuries due to the nature of the work involved. Having a nearby health facility ensures that immediate medical attention can be provided to injured workers. This can significantly reduce response time and improve the chances of a successful recovery.

### 5.4.4 Communication Services

The park has access to communication facilities such as radio stations, satellite television, and telecom networks, especially MTN and Airtel. The rangers also move with long range walkie talkies for communication in areas that have poor communication network.

# 6 STAKEHOLDER CONSULTATION

## 6.1 Introduction

This chapter presents a synopsis of the views of the UWA top management, and UWA rangers, close to the park. The consultation meeting with top management was carried out on 17th May 2023 at UWA Headquarters at GPS coordinates latitude 0.336111 and longitude 32.58361. UWA rangers were consulted on-site as data was being collected and the coordinated are with the site description context, the local community leaders surrounding the park i.e. Guruka at GPS Coordinates latitude 03254.085 latitude and longitude 29473.83E, Kisenyi at GPS coordinates 01844.35 and longitude 29521.60E, Kanyampara at GPS coordinates 0014.995 latitude and 295343.43E longitude, Kasese Natural Resources and Environmental Office at GPS 0.199667 latitude and 30.107246 E longitude, Ministry of Tourism, Wildlife and Antiquities at GPS coordinates 0.317210 latitude and 32.579869 longitude, Uganda Tourism Board at GPS coordinates 0.334164 latitude and 32.602415 longitude, Ministry of Gender, Labour and Social Development at GPS coordinates 0.316642 latitude and 32.578672 longitude comments and feedback was recorded in the comment section. The World Bank ESF and Government of Uganda (GoU) guidelines require the people likely to be affected by a development project to be consulted so that their views and fears are incorporated in planning. Community perspectives, where activities are undertaken within proximality to communities, are important for project planning and implementation.

## 6.2 Objectives of Consultation

The objectives of the consultation were:

- To provide information about the project and its potential impacts to those interested in or affected by the project, and solicit their opinion in this regard;
- To provide opportunities to stakeholders to discuss their opinions and concerns;
- To manage expectations and misconceptions regarding the project; and
- To inform the process of assessing significance of impacts and developing appropriate mitigation measures.

In this project's context, many benefits are associated with early and continuous stakeholder consultation and engagement, right into the detailed assessment stage, to project implementation.

- delays shall be minimized;
- Improve on decision making and secure greater transparency and accountability;

- Understanding and characterizing the potential environmental, socio - economic and health impacts of the project;
- Developing effective mitigation measures and management plans;

## 6.3 Our Approach

### 6.3.1 Stakeholder Identification and Engagement

To develop an effective consultation program, it was necessary to determine exactly who the stakeholders were, basing on the definition that a stakeholder is "any individual or group who is potentially affected by a project or can themselves affect a project". In addition, stakeholder identification and engagement were carried out in line with the Project Stakeholder Engagement Framework and Plan of the project.

The Table below shows the identified relevant stakeholders to this project.

***Table 19: Stakeholders Consulted on the Project***

| **Category** | **Stakeholders consulted** |
|---|---|
| Protected Area | Chief Warden<br>Warden In Charge<br>Warden Ecological Monitoring and Research<br>Warden Law Enforcement<br>Rangers<br>Community within the QENP |
| UWA Headquarter | Executive Director<br>Tourism Department<br>Ecological Monitoring and Research<br>Conservation Department<br>Legal Department<br>Finance and Administration Department<br>Environment Unit |
| District | Environment Officer<br>District Community Development Officer |

| | |
|---|---|
| National | Ministry of Tourism Wildlife and Antiquities<br>Uganda Tourism Board<br>Ministry of Gender, Labour and Social Development |

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

### 6.3.2 Engagement Activities

Stakeholder consultations were undertaken April 2023 to disclose the proposed project to the rangers, to seek their views about its development and operation. Some Project Affected adjacent communities are likely to be affected as local people will be considered for employment opportunities. In addition, district representatives were engaged to seek their opinions on the proposed projects.

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

***Table 20: Summary of Key Issues and Comments from Stakeholder Engagements***

| **Stakeholder** | **Key Issues Noted** |
|---|---|
| UWA Top Management | • The Designs were too urban requested to be changed and to reflect each national Park Environment.<br>• Gates should symbolize the different Park themes |
| UWA Rangers | • Requested to see the designs and know the number of blocks on each facility.<br>• Code of conduct should be effective by the Contractor<br>• Requested for safety kits/bags |

| | |
|---|---|
| District Local Government Officials | • Environmental officer recommended sanitary facilities should be provided for during the construction period,<br>• NEMA should be aware of these developments through documentations should be submitted<br><br>Community development officers concern was community benefiting from the project through employment.<br><br>HIV/AIDS awareness should be carried out |
| Ministry of Tourism, Wildlife and Antiquities | • Use of Eco-friendly materials minimize the environment footprint of the staff facilities |
| Uganda Tourism Board | • Designs of the staff facilities should be in harmony with natural surroundings national park |
| Ministry of Gender, Labour and Social Development | • Promote Local employment and skill development<br>• Regular monitoring to ensure compliance with relevant regulations and standards |
| Local Community Leadership | • Local leaders should ensure that local stakeholders will be informed about the employment Opportunities.<br>• Time when the project commences |
| Community Members | • Community members were included in the stakeholder engagements and will be informed by local leaders about the employment Opportunities.<br>• Time when the project with begin |

**Stakeholder Engagements**

*Engagement with the UWA rangers*

*Consultative meeting with warden in charge the UWA rangers*

*Consultative meeting with the UWA rangers*

*Consultative meeting with the UWA ranger*

*Meeting will UWA rangers*

*Meeting with the MLGSD*

*Meeting with Top Management UWA*

*Meeting with District Officers*

***Figure 17: Stakeholder engagement pictorial***

# 7 CONSIDERATION OF ALTERNATIVES

## 7.1 Alternative Analysis

According to National Environment (Environmental and social assessment) regulations 2020 section 6 sub-section 5C, and the World Bank ESF ESS1 requirements, alternative analysis in Environmental Assessments process informs on the viability of the project with regards to environmentally friendly and socially acceptable project options. While undertaking project alternative analysis, it is important to ensure that the best selected option meets project objectives, resource requirements for short-listed technologies, and broad environmental planning and economic considerations.

The Environmental studies sought to consider possible alternatives to the proposed project. These alternatives included, among other considerations, the "No Project Alternative", the Alternative Locations and the Alternative Designs. This study has, therefore, sought to identify and assess alternatives to the proposed developments so as to have the best working models that may have none or those that have the least minimal effects.

## 7.2 The 'No' project alternative

The "No Project" alternative implies the project does not proceed, thereby maintaining the status quo. The status of the environmental resources neither improves nor worsens since the state of the resources is not interfered with. However, the "No Project Alternative" means foregoing all the environmental, social and economic benefits that are anticipated from the implementation of the project. The proposed developments have been identified to have great environmental, social and economic benefits in the identified project zone of influence. This option is the most suitable alternative from an extreme environmental perspective, as it ensures non-interference with the existing conditions. The anticipated insignificant environmental impacts resulting from construction and occupation activities would not occur.

This option has not been selected given the benefits that the project will bring to the conservation of the park, therefore the "no project" alternative is not recommended.

## 7.3 Proposed Project Alternative

The construction of junior staff quarters and the entry gate will provide good accommodation facilities for the staff, and this will aid in proper management of the park. The gate will help increase park revenue thanks to better visibility and site attraction – part of the revenue is used for community revenue sharing and for park operations, both of which have social and environmental benefits. However, just like every development has a downside to it, construction of the project facilities is associated with a number of potential negative impacts such as accidents, waste generation, vegetation clearance, noise generation, among others most especially during the construction phase that need to be planned for.

## 7.4 Alternative Locations

There were no alternative locations provided by UWA for the accommodation facilities within the QENP. This is because the selected sites were critically chosen to ensure minimal impacts, and this is justified as below;

The sites were well placed for easy deployment, especially during monitoring wildlife daily activities.

The selected sites had no species of conservation concern and hence a low risk on flora for the park.

The selected sites also were located away from animal tracks and pathways and hence would not affect the current movement of animals within the park.t. Since, no alternatives designs were presented for these sub projects, therefore no analysis of design alternative was undertaken. Therefore, analysis of alternatives is mainly based on the “project” or “no project” as described in the above sub sections. The Project alternative was, therefore, selected to ensure the benefits of the project are accrued as long as the mitigation measures proposed in the report are fully adhered to during implementation of the project. In addition, UWA chose the selected sited in the different areas of the park after scrutiny, and these were the sites where least disturbances and minimal clearance of indigenous vegetation is expected.

# 8 IMPACT ANALYSIS AND MITIGATION

## 8.1 Introduction

Impact analysis involved determination of nature of impacts, their magnitude, extent and duration to define the level of significance. Potential positive and negative impacts were identified both for the construction phase and operation phases.

## 8.2 Positive impacts

### 8.2.1 Enhanced Wildlife Protection

The establishment of junior ranger houses and the entry gate facilities will increase presence and surveillance within the park. Rangers can conduct regular patrols, monitor wildlife populations, and deter illegal activities such as poaching and habitat destruction. By curbing illegal activities, the project promotes a safe and secure environment for wildlife, contributing to the preservation of biodiversity, thereby making the Park more attractive to tourists. This will enhance tourism revenues, thereby ensuring benefits to the surrounding communities through the revenue sharing schemes and jobs directly and via broader economic impacts, indirectly.

### 8.2.2 Improved Emergency Response

The construction of ranger houses allows for improved emergency response capabilities within the park. Rangers can promptly respond to incidents such as animal injuries, natural disasters, incidences of human wildlife conflict, or other wildlife-related emergencies. Quick and effective response minimizes the impact on biodiversity and ensures the well-being of wildlife populations. The project's infrastructure supports the conservation efforts by providing a base for immediate action and coordination in critical situations.

### 8.2.3 Sustainable Infrastructure and Operations

The proposed construction can incorporate sustainable practices, including energy-efficient and climate-smart designs (such as use of rainwater harvesting and use of solar power), waste management systems, and eco-friendly materials. By adopting sustainable infrastructure and operational practices, the project reduces its ecological footprint and promotes environmental stewardship. This sustainable approach aligns with the World Bank ESS6 on biodiversity conservation and sustainable management of living natural resources and demonstrates a commitment to preserving the natural integrity of QENP.

### 8.2.4 Employment Opportunities

Establishment of the project shall require both skilled and unskilled labour to ensure the project is in place. This shall provide opportunity for employment of locals around the park, especially in regard to manual labour, and hence improving their standards of living.

### 8.2.5 Market for Construction Materials

Construction materials such as bricks, sand, aggregates, and cement shall be required to ensure the facilities are set up. These will be acquired from the neighbouring trading centres and hence increase income for the business operators around the park.

## 8.3 Construction Phase Negative impacts

### 8.3.1 Impacts on Biological Environment

#### 8.3.1.1 Destruction of Floral characteristics

During site preparation prior to construction, part of the vegetation within the project site's footprint will be cleared. The vegetation to be cleared is mainly composed of low vegetation such as grass and shrubs, as well as invasive plant species. Removal of vegetation cover eliminates essential resources, such as food, nesting sites, and protective cover, impacting the survival and reproductive success of many species. Vegetation loss is a permanent impact but can be compensated through re-vegetation and landscaping. However, considering the scale of the project and type of vegetation found on site and within the project influence area, no significant adverse effects or loss of habitats are anticipated or effect on the ecology of the area.

**Mitigation Measures**

1. Only vegetation that shall be within the work area shall be cleared and leave out vegetation that does not affect the establishment of the camp site components.
2. Selective removal of trees that could be habitat to some species shall be done to ensure minimal habitat distortion. This shall be overseen by the UWA environmental team.
3. Selective clearing rather than indiscriminate vegetation removal shall be prioritized by conducting thorough surveys to identify and protect areas of high biodiversity and rare plant species – although none of those were found in the sites surveyed.
4. Develop and implement a re-vegetation program to compensate for the lost vegetation but invasive species will be avoided.

#### 8.3.1.2 Disturbance of Wildlife

The protected area has various animal species including animals of conservation importance such as lions, elephants and chimpanzees. The noise from machinery and human presence associated with clearing and other construction activities can disrupt normal behavior patterns, breeding activities, and even lead to temporary displacement of these wildlife. Prolonged disturbance and stress can have detrimental effects on the overall health and well-being of the animal population.

**Mitigation Measures**

1. Sensitization of workers on the dos and don'ts while working in QENP shall be carried out by UWA rangers before and during the construction phase.
2. Earthworks shall be limited to proposed built areas as per the approved site layout plans
3. UWA rangers shall always be with the construction team to ensure construction activities cause minimal disturbances to the wildlife.
4. Working hours shall be restricted to daytime work, and this will ensure less disturbance to the park.
5. Water for construction will be obtained from outside the park to minimize disturbances of wildlife that uses the water resources within the park.
6. Ensure to properly store food and food waste to prevent the attraction of wild animals.
7. An emergency preparation plan should be developed for rangers to handle aspects of animal encounters and attacks.

#### 8.3.1.3 Risk of introduction of Invasive Species

Invasive species may be introduced through the vehicles that will be delivering construction materials to different sites. These may come on the tires of vehicles or even through human dispersal. In addition, invasive species may arise due to use of fill materials which may contain these species as well as the type of plants used in revegetation. Given that QENP already is facing a big challenge of invasive species, this risk should be minimized as much as possible

**Mitigation Measures**

1. Vehicle shall be checked and thoroughly cleaned e before they enter the protected area.

2. All vehicles shall be required to keep on the motorable routes and off-tracking shall be avoided.

3. Constant monitoring shall be done to identify any invasive species, and the identified species should be uprooted and waste valorization, and then use the compost to make bricks and manure maybe considered by UWA.

4. For materials such as murram and sand to be obtained from outside the park, sources should be inspected to ensure there are no invasive species.

### 8.3.2 Impacts on Physical Environment

#### 8.3.2.1 Air and dust emissions

Construction activities often result in increased dust and gas emission. These pollutants emanate from movement of construction machinery and trucks as well as dust generated during construction including movement from borrow areas and quarries and crushers. Dust emission during the excavation and ground leveling depends on the excavated and backfilled volume. The concentration of dust emitted from the excavation, backfilling and ground leveling causes impacts on the air environment at the site (mainly in embankment items). Workers are directly affected by the impacts. However, as the works are scattered and far from residential areas, dust emission is only generated in the construction progress, the impact is assessed at low.

Construction of items under the project will have to use some construction machines and equipment, and some of these machines may require generators. Most of the devices use diesel, so the process of operation will emit pollutants such as: particulate materials dust, CO, $SO_2$, NOx, etc. Emission arising from the operation of machines and equipment on the construction site depends on quantity, quality of construction machines, equipment and construction methods.

With the implementation of the suggested mitigation measures, the impact's significance can be reduced from MODERATE NEGATIVE to LOW NEGATIVE.

| **IMPACT** | **MITIGATION** | **IMPACT** | | | | | **SIGNIFICANCE** | |
|---|---|---|---|---|---|---|---|---|
| | | **NATURE** | **EXTENT** | **DURATION** | **MAGNITUDE** | **PROBABILITY** | | |
| **Air and Dust emissions** | **No** | **Negative** | **2** | **2** | **6** | **5** | **50** | **Moderate** |
| | **Yes** | **Negative** | **1** | **2** | **2** | **2** | **10** | **Low** |
| **Mitigation Measures** | • Prevention measures such as dampening dust by use of water (sprinkling water on surfaces that produce dust or covering them) shall be practiced;<br>• PPEs such as nose masks will be provided to the workers on the construction site especially during cement mixing. | | | | | | | |

| | |
|---|---|
| | • Control over areas generating dust particles. Such areas shall be regularly cleaned;<br>• Workers will be encouraged to go for regular health check-ups to ascertain their health standards;<br>• Wet sweeping of the surfaces that produces a lot of dust particles;<br>• Establishment of optimum green spaces in the compound particularly at the perimeter fence as the vegetation helps in dust control from the air;<br>• Ensure generators are well serviced on a routine basis to minimize emissions from exhaust gas.<br>• Adequate sensitization of the drivers;<br>• Ensure proper maintenance and operation of construction equipment;<br>• Keeping vehicle idling time to the very minimum. |
| **Cumulative Impact** | No |
| **Reversibility** | Yes |

#### 8.3.2.2 Noise and Vibration Generation

Construction activities tend to cause noise which affects the immediate environment and even disrupt other nearby operations. The noise will affect small animals and birds which are sensitive to noise. Construction noise is a major source of environmental noise pollution and a cluster of equipment at these sites under construction can produce a steady roar through the day.

However, it is important to note that the social receptors are used to noise levels that fall within the mixed residential limits.

Noise from the construction sites shall be generated due to: -

i. Use of construction machineries such as excavators and wheel loaders, among others
ii. Use of mechanical equipment and electric motors
iii. Use of generators to run equipment.
iv. Movement of trucks within, to and from the site.

With the implementation of the suggested mitigation measures, the impact's significance can be reduced from **MODERATE NEGATIVE to LOW NEGATIVE.**

| IMPACT | MITIGATION | IMPACT | | | | | SIGNIFICANCE | |
|---|---|---|---|---|---|---|---|---|
| | | NATURE | EXTENT | DURATION | MAGNITUDE | PROBABILITY | | |
| Noise and excessive vibration generation | No | Negative | 2 | 2 | 6 | 5 | 50 | Moderate |
| | Yes | Negative | 1 | 2 | 2 | 2 | 10 | Low |
| Mitigation Measures | i. Avoiding or minimizing transportation through or processing material in community areas (like concrete mixing).<br>ii. Routine noise and vibration level assessment will be undertaken to ensure that the noise levels are kept within the recommended standards<br>iii. Where possible construction equipment will be fitted with silencers to reduce the noise generated;<br>iv. Adequate servicing of all machinery, trucks and vehicles so as to ensure reduction of noise generated especially by friction<br>v. Construction activities shall be carried out only during the day<br>vi. Install sound mufflers in generators to minimize the noise generated.<br>vii. Ensure regular servicing of generators to ensure minimal noise emissions.<br>viii. Construction vehicle drivers and machine operators should be sensitized to adopt a habit of switching off engines of their vehicles or machinery when they are not in use.<br>i. Unnecessary hooting will be avoided at all costs by the construction vehicles and even during project occupation. | | | | | | | |
| Cumulative Impact | No | | | | | | | |
| Reversibility | Yes | | | | | | | |

### 8.3.2.3 Soil erosion

Since the construction phase will involve use of heavy plant machinery and excavations, soil disturbance is bound to happen. Therefore, the Contractor should put in place mitigation measures to aim at minimum soil disturbance and soil erosion. With the implementation of the suggested mitigation measures, the significance of the impact can be reduced from **MODERATE NEGATIVE to LOW NEGATIVE.**

| IMPACT | MITIGATION | IMPACT | | | | | SIGNIFICANCE | |
|---|---|---|---|---|---|---|---|---|
| | | NATURE | EXTENT | DURATION | MAGNITUDE | PROBABILITY | | |
| Soil erosion | No | Negative | 2 | 2 | 10 | 5 | 56 | Moderate |
| | Yes | Negative | 1 | 2 | 2 | 2 | 10 | Low |
| Mitigation Measures | i. The Contractor will ensure that excavations are undertaken safely in that shoring and good slope banking is put in place and by adhering to all safety | | | | | | | |

| | |
|---|---|
| | rules;<br>ii. The excavated materials will be used during the restoration activities;<br>iii. Emergency measures and procedures for protection of soil shall be developed.<br>iv. Revegetation of cleared areas will be done after conclusion of construction activities. |
| **Cumulative Impact** | No |
| **Reversibility** | Yes |

### 8.3.2.4 Waste Management

Construction operations will generate solid and liquid waste within the site. The waste may include metal rods, pieces of iron sheets, broken glass, pieces of wood, empty containers and broken stones.

Non-hazardous solid waste generated will include paper, plastics, cement bags, scrap wood and metals, and small geotechnical drilled material, among others. Hazardous waste, such as oil spills, oily waste material and sanitary waste, will also be adequately addressed as explained below.

With the implementation of the suggested mitigation measures, the significance of the impact can be reduced from **MODERATE NEGATIVE to LOW NEGATIVE.**

| IMPACT | MITIGATION | IMPACT | | | | | SIGNIFICANCE | |
|---|---|---|---|---|---|---|---|---|
| | | NATURE | EXTENT | DURATION | MAGNITUDE | PROBABILITY | | |
| **Solid waste** | **No** | **Negative** | **2** | **2** | **4** | **5** | **40** | **Moderate** |
| | **Yes** | **Negative** | **1** | **2** | **2** | **2** | **10** | **Low** |

| | |
|---|---|
| **Mitigation Measures** | i. Waste segregation at source into different waste categories before disposal shall be encouraged;<br>ii. All the solid waste will be collected by NEMA licensed waste collectors and disposed of in a certified facility. Licensed waste management firm for disposal of large quantities of solid waste shall be contracted;<br>iii. Domestic solid waste to be temporarily stored in refuse bins before disposal by licensed contractor<br>iv. All reusable materials will be reused to minimize on quantity of solid waste generated<br>v. The construction contractor will liaise with private waste handlers to have sound waste handling and disposal.<br>vi. The waste will be properly segregated and separated to facilitate recycling of some useful waste materials. For example, broken stones can be used for backfills. Integrated solid waste management system may also be adopted through hierarchy of options like source reduction, recycling, composting and reuse.<br>vii. The Proponent will ensure that measures are put in place to ensure that construction materials required for the project are carefully budgeted to ensure the amount of construction materials left are kept to the minimal level possible. |
| **Cumulative Impact** | No |
| **Reversibility** | Yes |

### 8.3.2.5 Climate Change and Ecosystem Services Impacts

The construction and operation activities of this project may lead to deforestation and habitat loss, reducing the park's carbon sequestration capacity and disrupting local ecosystems. Additionally, increased greenhouse gas emissions from construction activities and ongoing energy use could further contribute to climate change.

Furthermore, the park's ability to provide critical ecosystem services, such as carbon storage and flood regulation, could be compromised although this is unlikely due to the footprint the project is expected to cover.

| IMPACT | MITIGATION | IMPACT | | | | | SIGNIFICANCE | |
|---|---|---|---|---|---|---|---|---|
| | | NATURE | EXTENT | DURATION | MAGNITUDE | PROBABILITY | | |
| **Climate Change and Ecoservices** | **No** | **Negative** | **2** | **2** | **4** | **5** | **40** | **Moderate** |
| | **Yes** | **Negative** | **1** | **2** | **2** | **2** | **10** | **Low** |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **System Impacts** | | | | | | | | |
| **Mitigation Measures** | i. Replant native vegetation in areas cleared for construction and create wildlife corridors to help restore lost habitats and enhance carbon sequestration.<br>ii. Implement rainwater harvesting systems and water-saving technologies to help minimize the impact on local water resources, ensuring a sustainable water supply.<br>iii. Strict biosecurity protocols should be enforced, including the cleaning of construction equipment and vehicles before entering the site.<br>iv. Include the use of climate resilient materials and designs that can withstand extreme weather events, such as heavy rains, which may occur during or after construction.<br>v. Ensure the use of eco-friendly building materials and energy-efficient designs, can significantly reduce habitat loss and greenhouse gas emissions. | | | | | | | |
| **Cumulative Impact** | No | | | | | | | |
| **Reversibility** | Yes | | | | | | | |

### 8.3.3 Impacts on Socio-Economic Environment

#### 8.3.3.1 Gender Based Violence

Both women and men experience gender-based violence, but women and girls are more vulnerable. However, GBV risk analysis for this project indicates the risk is on a low scale. Some of the possible impacts may include: -

1. Any form of sexual abuse;
2. Denied opportunities to work due to sex;
3. Unequal payment for the same work done;
4. Discrimination.

GBV could result in the following effects on the affected community: increase spread of HIV/AIDS, unwanted pregnancies, social demoralization, health problems to the sexual reproduction organs, community / family reject or neglect, family breakages among other vices.

Any form of impacts to human right of both the male and female are considered to be **MODERATE NEGATIVE** if not mitigated. However, implantation of the proposed mitigation measures will reduce the impact to **LOW NEGATIVE.**

| IMPACT | MITIGATION | IMPACT | | | | | SIGNIFICANCE | |
|---|---|---|---|---|---|---|---|---|
| | | Nature | Extent | Duration | Magnitude | Probability | | |
| **Gender Based Violence** | No | Negative | 5 | 2 | 4 | 4 | 44 | **Moderate** |
| | Yes | Negative | 1 | 1 | 2 | 2 | 10 | **Low** |
| **Mitigation Measures** | i. sensitization of construction workers will be included in the construction contract such that these are conducted throughout the projects;<br>ii. Any form of GBV will be referred to police for handling and where necessary psycho-social support shall be provided by a qualified GBV service provider.<br>iii. Workers will be required to sign a code of conduct - as per the standard World Bank contract template and the Labour Management Procedures developed for the project | | | | | | | |
| Cumulative Impact | Yes | | | | | | | |
| Reversibility | No | | | | | | | |

### 8.3.3.2 Occupational Health and Safety

Construction activities such as excavation and concreting can pose occupational hazards and risks to construction workers. They can cause respiratory infections and injuries to limbs and body due to exposure to dust and combustion gases, operation of equipment and handling of construction materials. Accidents may occur during construction due to workers falling from heights or being hit by falling construction materials or tools. Dust and combustion gases can irritate the eyes causing trachoma and respiratory problems.

The operation of construction equipment and handling of materials can result in injuries to the workers, especially in the absence of appropriate protective devices. The health of the site workers may be further compromised by the food which is often supplied by mobile individuals with no licenses to handle food and some of the foodstuffs may be prepared in unhygienic manner

There is safety risks associated with working at construction sites with various types of materials and machines, equipment, and with many vehicles passing by. Furthermore, risks related to electrical installation for grid connection and solar installation, such as electrocution, falls from heights can also cause harm to workers during the construction phase.

With the implementation of the suggested mitigation measures, the significance of the impact can be reduced from **MODERATE NEGATIVE to LOW NEGATIVE.**

| IMPACT | MITIGATION | IMPACT | | | | | SIGNIFICANCE | |
|---|---|---|---|---|---|---|---|---|
| | | NATURE | EXTENT | DURATION | MAGNITUDE | PROBABILITY | | |
| Occupational health and safety | No | Negative | 3 | 2 | 4 | 4 | 44 | moderate |
| | Yes | Negative | 2 | 2 | 2 | 3 | 10 | Low |
| Mitigation Measures | ➢ Depending on the occupational safety and health hazards encountered while performing assigned tasks, workers may require using properly fitting personal protective equipment (PPE) to avoid injuries and illness. They (workers) will be provided with full protective gear. These include working/safety boots, overalls, helmets, goggles, earmuffs, masks, gloves etc.<br>➢ All equipment will be inspected before use for appropriate safeguards.<br>➢ Controlled working hours will be provided and employees will not extend working hours unnecessarily<br>➢ The contractor will adopt effective emergency response plans. A good start to learning how to respond to an emergency is through certification in Basic First Aid, mostly for snake and insect bites. Regular drills and emergency situations will be followed to impart the anticipated insight and awareness to the workers.<br>➢ A first aid kit will be provided within the site. This should be fully equipped always and should be managed by qualified persons.<br>➢ Safety awareness may be gained through regular safety training or personal interest in safety and health.<br>➢ Local individuals preparing food for the workers at the site will be controlled to ensure that food is hygienically prepared. Allow only authorized food vendors to supply food for the workers in the site | | | | | | | |

| | |
|---|---|
| | ➢ The Contractor will be having workmen's compensation cover. It should comply with Workmen's Compensation Act, as well as other Ordinances, Regulations and Union Agreements.<br>➢ Workers will always be sensitized on social issues such as drugs, alcohol, diseases etc.<br>➢ Ensure trained personnel are employed to install solar panels and provide grid electricity connection to the respective sites.<br>➢ Provide appropriate safety wear during electrical installations to reduce the risks of electrocution of the workers. |
| **Cumulative Impact** | Yes |
| **Reversibility** | No |

### 8.3.3.3 Violence against Children (VAC)

Violence against Children (VAC) is also very common case in Uganda. In the 2018, Violence against Children Survey conducted by MGLSD reported that the most common cases of VAC included sexual abuse and exploitation child sacrifice, child labor, child marriage, child trafficking among others (no district data is available so national data was used). It is, therefore, very possible that a construction project may attract underaged workers seeking employment and opportunities to earn a living.

With the implementation of the suggested mitigation measures, the significance of the impact can be reduced from **MODERATE NEGATIVE to LOW NEGATIVE.**

| IMPACT | MITIGATION | IMPACT | | | | | SIGNIFICANCE | |
|---|---|---|---|---|---|---|---|---|
| | | NATURE | EXTENT | DURATION | MAGNITUDE | PROBABILITY | | |
| **Violence Against Children** | **No** | **Negative** | **4** | **2** | **6** | **4** | **48** | **Moderate** |
| | **Yes** | **Negative** | **1** | **2** | **2** | **2** | **10** | **Low** |
| **Mitigation Measures** | i. Adequate sensitization for the contractor not to recruit children<br>ii. Contractor will keep record of the age numbers for all their employees so as to avoid employing those below the age of 18; and verification documents such as copies of National IDs shall be kept on site<br>iii. No cases of VAC will be tolerated on the infrastructure projects, and these will be punishable by law. | | | | | | | |
| **Cumulative Impact** | No | | | | | | | |

| | |
|---|---|
| **Reversibility** | Yes |

### 8.3.3.4 Transmission of HIV/AIDs and other diseases:

The prevalence of HIV/AIDS in the area could increase due to the free flow of workers. Each. construction site will have approximately 30 people. The increased number of people in the protected area may result in increased infections of diseases, particularly HIV/AIDS. With the implementation of the suggested mitigation measures, the significance of the impact can be reduced from **MODERATE NEGATIVE to LOW NEGATIVE.**

| IMPACT | MITIGATION | IMPACT | | | | | SIGNIFICANCE | |
|---|---|---|---|---|---|---|---|---|
| | | NATURE | EXTENT | DURATION | MAGNITUDE | PROBABILITY | | |
| **Transmission of HIV/AIDs and other diseases:** | **No** | Negative | **3** | **2** | **6** | **4** | **44** | Moderate |
| | **Yes** | Negative | **1** | **2** | **2** | **2** | **10** | **Low** |
| **Mitigation Measures** | i. Workers shall be regularly sensitized on the spread of infectious diseases such as HIV/AIDS<br>ii. Regular provision of adequate prevention measures such as condoms;<br>iii. Encourage workers to go for HIV voluntary counseling, testing and referral services; | | | | | | | |
| **Cumulative Impact** | No | | | | | | | |
| **Reversibility** | No | | | | | | | |

### 8.3.3.5 Insecurity

Security is a prerequisite for any development. During construction security is very important in any project site. This ensures that materials are safe but also controls movement within the site especially for intruders who might be injured by the materials and other hazardous features available within the site. In the recent times, there have been attacks in QENP from ADF rebels in Congo and this can lead to abductions and death of workers and rangers in the park.

The significance of the impact is MODERATE before mitigations and **LOW NEGATIVE after** mitigations.

| IMPACT | MITIGATION | IMPACT | | | | | SIGNIFICANCE |
|---|---|---|---|---|---|---|---|
| | | NATURE | EXTENT | DURATION | MAGNITUDE | PROBABILITY | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Insecurity** | **No** | **Negative** | **4** | **4** | **4** | **4** | **48** | Moderate |
| | **Yes** | **Negative** | **1** | **2** | **2** | **2** | **10** | **Low** |
| **Mitigation Measures** | i. The project sites will be enclosed using suitable hoarding to avoid contamination of the environment and to control movement within the sites.<br>ii. The contractor will provide adequate security during the construction period when there is no work being done on the sites.<br>iii. The guards stationed at the gates should document movements in and out of the sites/ property.<br>iv. UWA will develop and regularly update an emergency response plan that includes protocols for dealing with security incidents, including evacuation procedures and emergency contacts.<br>v. Conduct a detailed security risk assessment specific to the project site, considering recent attacks in the area and the potential threats they pose. | | | | | | | |
| **Cumulative Impact** | No | | | | | | | |
| **Reversibility** | No | | | | | | | |

#### 8.3.3.6 Risks Associated with Project Suppliers

The primary suppliers for the project, those providing essential goods or materials like construction supplies and equipment, can present several significant risks and impacts. Environmentally, suppliers may be involved in activities that contribute to deforestation, excessive resource extraction, or pollution. Their operations could lead to habitat destruction, loss of biodiversity, and degradation of natural resources, particularly if they engage in unsustainable practices. Additionally, suppliers might not adhere to environmental regulations, resulting in increased emissions, water contamination, or other environmental harm.

On the social side, the risks associated with these suppliers include poor labor practices such as child labor, forced labor, or inadequate working conditions. Suppliers might also be involved in violating community rights, including displacing local communities or failing to respect indigenous peoples' rights. These social risks can lead to negative impacts on the well-being of workers and local populations, potentially causing social unrest or harm to vulnerable groups. Furthermore, any instability or disruption in the supply chain could affect the project's timeline

and overall success, highlighting the importance of understanding and managing these risks effectively.

| IMPACT | MITIGATION | IMPACT | | | | | SIGNIFICANCE | |
|---|---|---|---|---|---|---|---|---|
| | | NATURE | EXTENT | DURATION | MAGNITUDE | PROBABILITY | | |
| **Insecurity** | **No** | **Negative** | **4** | **2** | **3** | **3** | **27** | Moderate |
| | **Yes** | **Negative** | **1** | **2** | **2** | **2** | **10** | **Low** |
| **Mitigation Measures** | Develop and implement a code of conduct that clearly outlines environmental and social expectations for suppliers and ensure it covers aspects such as sustainable resource sourcing, adherence to labor laws, respect for community rights, and commitment to minimizing environmental impacts.<br>The contractor will regularly engage with suppliers to assess their environmental and social practices to ensure they meet the project's standards and requirements.<br>Conduct regular supplier audits to ensure adherence to environmental and social standards and address any non-compliance issues promptly.<br>Provide training and support to suppliers to help them improve their environmental and social practices through workshops on sustainable sourcing, waste management, and ethical labor practices.<br>Identify and maintain relationships with alternative suppliers who demonstrate higher standards of environmental and social responsibility to avoid disrupting the project in case of a non-compliant supplier.<br>Include specific clauses in supplier contracts that mandate adherence to environmental and social standards such as penalties or termination of the contract as consequences of non-compliance. | | | | | | | |
| **Cumulative Impact** | No | | | | | | | |
| **Reversibility** | Yes | | | | | | | |

## 8.4 Operational Phase Negative impacts

### 8.4.1 Poor Waste management

During operation of the project, waste is expected to be generated by the rangers who are using the staff quarters. The main waste streams expected will include food waste, plastic material such as water bottles and human waste. Plastic wastes degrade the aesthetics of the park hence making the Park unappealing, while poor human waste management can cause diseases due to poor sanitation practices such as cholera.

| IMPACT | MITIGATION | IMPACT | | | | | SIGNIFICANCE | |
|---|---|---|---|---|---|---|---|---|
| | | NATURE | EXTENT | DURATION | MAGNITUDE | PROBABILITY | | |
| Waste Management | **No** | **Negative** | **2** | **2** | **3** | **3** | **21** | **Low** |
| | **Yes** | **Negative** | **1** | **2** | **2** | **2** | **10** | **Low** |
| **Mitigation Measures** | **i.** Sensitisation of rangers on proper waste management practices shall be done to ensure proper implementation of waste management strategies during the operational phase.<br>**ii.** Coded waste bins shall be provided and placed around the quarters to ensure waste segregation and onsite collection.<br>iii. All waste collected shall be disposed of outside the protected area in an environmentally sound manner by certified waste handlers.<br>iv. Sanitary facilities should be routinely cleaned to minimise risks of diseases. | | | | | | | |
| **Cumulative Impact** | No | | | | | | | |
| **Reversibility** | No | | | | | | | |

### 8.4.2 Risk of Fire Outbreaks

There is a likelihood of fire outbreaks at the proposed staff quarters. Fire could be a result of short circuits, human error/ignorance, kitchen activities, accidental fires from smoking or arson related fires. Fire outbreaks and explosions can cause loss of property and injure staff who are in the quarters or nearby animals at the time of explosion.

| IMPACT | MITIGATION | IMPACT | | | | | SIGNIFICANCE | |
|---|---|---|---|---|---|---|---|---|
| | | NATURE | EXTENT | DURATION | MAGNITUDE | PROBABILITY | | |
| **Fire outbreak** | **No** | **Negative** | **2** | **2** | **3** | **3** | **21** | **Low** |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | **Yes** | **Negative** | **1** | **2** | **2** | **2** | **10** | **Low** |
| **Mitigation Measures** | i. UWA will install and properly maintain fire-fighting equipment, train staff in basic fire-fighting methods and ensure that the fire escape routes are known and are always free from any obstacles.<br>ii. The building walls will be painted with flameproof paint and fitted with smoke detectors and fire alarms.<br>iii. There will be properly accessible fire assembly points on site.<br>iv. Regular servicing and testing of fire equipment will be done to ensure proper functioning.<br>v. Fire prone behavior such as smoking will be strictly prohibited onsite. | | | | | | | |
| **Cumulative Impact** | No | | | | | | | |
| **Reversibility** | No | | | | | | | |

### 8.4.3 Poor Water Consumption

Since the rangers will be using water with their families, there is a likelihood of wastage of water during the operation phase. Increased water usage can strain local water resources, potentially affecting water availability for wildlife and natural vegetation

**Mitigation Measures**

- Install water reservoir tanks at the facilities to collect rainwater and minimize dependency on local water resources.
- Sensitize rangers on water saving techniques to use for domestic water consumption.
- Install water-saving devices such as low-flow faucets and toilets.
- Sensitize rangers to boiling all drinking water to reduce risks of diseases.

8.4.4 Human Wildlife Conflict

Rangers interact with the wildlife daily, but there is a risk of dangerous interactions that can cause harm to them and family members who will stay in the project facilities. In addition, Improper storage of food and waste can attract wildlife, leading to potential conflicts and risks for both

animals and humans. Furthermore, Introduction of domestic animals (e.g., pets) can lead to conflicts with local predators and affect local biodiversity.

**Mitigation Measures**

- Securely store food and waste in wildlife-proof containers to avoid the attraction of wildlife.
- Properly store food waste in enclosed collection bins.
- Sensitize rangers to avoid feeding wild animals and always to ensure to keep a safe distance.
- Ensure to avoid having domestic animals at the facility or keep those that can be restricted to indoors only.
- Carryout continuous training of rangers on the management of different wildlife in case of unfriendly encounters.

### 8.4.5 Structural Failure of Buildings

Poorly constructed buildings can collapse, leading to injury, loss of life, and environmental damage within the park. This can as well lead to destruction of rangers' property

**Mitigation Measures**

- Ensure buildings are designed and constructed according to stringent safety and quality standards during the construction phase.
- Carry out inspections to regularly check for and address structural weaknesses if identified.
- Use high-quality materials and design buildings to maximize natural ventilation.

### 8.4.6 Natural Disasters Related Risks

During the operation phase, there is a likelihood of experiencing natural disasters such as storms, high winds, flooding etc which can destroy the structure or even cause injuries and death to the rangers staying within,

**Mitigation Measures**

- Ensure that the constructed buildings withstand high winds and storms by using reinforced structures and storm-resistant materials.

- Ensure design and establish effective drainage systems around the facilities to channel water away.
- Develop and regularly update comprehensive emergency preparedness plans to cater for natural disasters.
- Conduct drills and training sessions to ensure all personnel are familiar with emergency procedures.

# 9 ENVIRONMENTAL SOCIAL MANAGEMENT AND MONITORING PLAN FOR THE STAF ACCOMODATION

## 9.1 Introduction

Environmental and Social Management involves the implementation of mitigation measures to eliminate or reduce significant adverse environmental and social-economic impacts of a project to acceptable levels. Environmental monitoring is a long-term process, which should begin at the start of construction and should continue throughout the life of the project. Monitoring establishes benchmarks so that the nature and magnitude of anticipated environmental and social impacts can be continually assessed. The overall objective of environmental and socio-economic monitoring is to ensure that recommended mitigation measures are actually implemented during staff accommodation and entry gate construction and operation.

## 9.2 Environmental and Social Management Plan (ESMP)

The goal of the ESMP is to ensure that environmental and socio-economic issues continue to be fully integrated into the decisions of the developer while promoting resource allocation efficiency throughout the lifetime of the project. It provides a framework for managing and monitoring impacts for the life of the project. It is designed to ensure that the commitments/mitigation measures in this project brief, and in any subsequent assessment reports, together with any license approval or similar conditions, are implemented.

This ESMP has been designed as a summary of proposed mitigation measures, monitoring, and institutional measures to be taken during implementation and operation to eliminate or reduce adverse environmental and social impacts to acceptable levels as per provisions within the National Environment Act, No.5 of 2019. The time frame for implementation of these mitigation measures and monitoring is also specified. The UWA Team shall conduct monitoring, record-keeping and reporting, so as to ensure the contractor's keeps in with the environment regulations. The Contractor will prepare their own Contractors' ESMP (C-ESMP) and report on its implementation monthly to UWA.

### 9.2.1 Roles and Responsibilities for ESMP Implementation

This section details institutional responsibilities for environmental and social management and monitoring.

The overall responsibilities of coordination of the projects lie in UWA as the executing agency for the World Bank project. UWA working in close collaboration with technical teams from the district local governments such as Environmental officers, Engineers etc. will ensure compliance with environmental laws, policies and regulations. Technical experts well-trained and qualified with the capacity to implement the Environmental and Social Management Plan (ESMP) will be identified and recruited.

Oversight responsibilities will be undertaken by the Project Technical Committee from UWA.

### 9.2.2 ESMP Implementation Arrangement

ESMP during construction requires the involvement of several stakeholders and agencies, each with different roles and responsibilities including UWA, the Contractors, the Construction Supervision Consultant (CSC), To ensure effective implementation of the ESMP, the following structure shall be used to ensure the project is executed in line with the contractual expectations.

In order to ensure compliance with the ESCP, at least one environmental and social (E&S) focal point person will be appointed within the Ministry of Water and Environment (MWE), the National Forestry Authority (NFA), and the Uganda Wildlife Authority (UWA). These focal point officers will oversee the daily implementation of the Environmental and Social Management Framework (ESMF) for the project and the sub-projects like this. The mentioned MDAs must ensure that the above-mentioned and required staff to be designated for the joint oversight for the project, are adequately qualified and that the necessary resources are provided and maintained throughout the project's duration.

### 9.2.3 Responsibilities of Stakeholders in Monitoring Project Compliance

According to the project ESMF, the environmental and social safeguards monitoring will be carried out by UWA, NFA, MWE and TSPs (the latter, working closely with District Local Governments to carry and ensure effective monitoring of environmental and social risks. These entities will be supported by dedicated contract staff engaged by MWE and hosted as part of the PCU. Monitoring of environmental and social standards will also cover all project activities. The roles and responsibilities of the key parties and their relationships regarding the implementation of the ESMP in both the construction and operation phases are described as follows:

***Table 21: Responsibilities of the various stakeholders***

| **Community/ Agencies** | **Responsibilities** |
|---|---|
| UWA | UWA will be responsible for monitoring the overall project implementation, including environmental and social compliance of the subproject. UWA will be responsible for ESMP implementation and environmental performance of the subproject during the construction and operational phases. Specifically, UWA will:<br>• closely coordinate with local authorities in the participation of the community during project preparation and implementation;<br>• Ensure adequate ESHS terms and conditions are include in all bid documents and subsequent contracts<br>• Monitor and supervise ESMP implementation including incorporation of ESMP into the detailed technical designs, bidding and contractual documents, and during the project's operation phase.<br>• Ensure construction contractor obtains all necessary EHS permits and authorizations<br>• ensure that an environmental management system is set up and functions properly; and<br>• oversee reporting on ESMP implementation and Environmental and Social incident reporting to the World Bank.<br>In order to be effective in the implementation process, UWA will assign Environmental Staff(s) (ES) to help with the environmental aspects of the project |

| | |
|---|---|
| UWA Environmental and Social Staff(s) (ES) | The ES is responsible for monitoring the implementation of the subproject ESMP. Specifically, ES will be responsible for:<br>• helping UWA incorporate ESMP and other ESHS terms and conditions into the detailed technical designs and civil works bidding and contractual documents;<br>• helping UWA incorporate responsibilities for ESMP and other ESHS terms and conditions and supervision into the TORs, bidding and contractual documents for the Construction Supervision Consultant (CSC);<br>• providing relevant inputs to the consultant selection process;<br>• reviewing reports submitted by the CSC;<br>• conducting periodic site checks;<br>• helping the UWA on solutions to handle Environmental, occupational health and safety, and social issues of the subproject; and<br>• preparing environmental and social performance section on the progress, environmental and social incident reports and review reports to be submitted to the responsible authorities (World Bank) |
| Construction Supervision Consultant (CSC) | i. The CSC will assign Environmental and Social Staff(s) and will be responsible for routine supervision and monitoring of all construction activities and for ensuring that Contractors comply with the requirements of the contracts<br>ii. The CSC will engage sufficient number of qualified staff members (e.g., Environmental Engineers) with adequate knowledge on environmental protection and construction project management to perform the required duties and to supervise the Contractor's performance.<br>iii. The CSC will also assist the Local governments in reporting and maintaining close coordination with the local community. |

| | |
|---|---|
| Contractor | i. The contractor will assign Environmental and Social Staff(s) to carry out Environmental and Social mitigation measures proposed in ESMP. Based on the approved environmental specifications in the bidding and contractual documents, the Contractor is responsible for establishing a Contractor ESMP (CESMP) for each construction site area, submit the plan to UWA and CSC for review and approval before commencement of construction and report monthly on CESMP implementation. In addition, it is required that the Contractor get all permissions for construction (traffic control and diversion, excavation, labor safety, etc. before civil works) following current regulations.<br>ii. The Contractor is required to appoint a competent individual as the contractor's on-site Safety and Environment Officer (SEO) who will be responsible for monitoring the contractor's compliance with health and safety requirements, the CESMP requirements, and the environmental specifications<br>iii. Take actions to mitigate all potential negative impacts in line with the objective described in the C-ESMP and promote actions that enhance positive impacts.<br>iv. Actively communicate with local residents and take actions to prevent disturbance during construction.<br>v. Ensure that all staff members and workers understand the procedure and their tasks in the environmental management program.<br>vi. Report to the Local governments and CSC on any difficulties and their solutions.<br>vii. Report to local authority and UWA and CSC if environmental accidents occur and coordinate with agencies and keys stakeholders to resolve these issues. |
| Local government (Sub County level) | • Oversee implementation of project under recommendations of UWA to ensure compliance of Government policy and regulations.<br>• District Environmental Officers through NEMA are responsible for monitoring the compliance with the Government environmental requirements |

| | |
|---|---|
| Rangers | • The Rangers have the right and responsibility to routinely monitor environmental performance during construction to ensure that their rights and safety are adequately protected and that the mitigation measures are effectively implemented by contractors.<br>• If unexpected problems occur, they will report to the CSC and Local governments. |

### 9.2.4 Grievance Management

UWA has a grievance handling mechanism used to manage community grievances that occur in projects they implement. This grievance handling system shall be applicable for the project to ensure it is executed appropriately. In addition, ESS2 of the World Bank's Safeguards Framework requires that all contractors on a funded project shall establish a grievance mechanism for all direct workers and contracted workers to ensure that workers' concerns at the workplace are raised. The contractor will need such a mechanism immediately after contract signing and prior to mobilization on site. Furthermore, the grievances related to workers and those related to the communities will be addressed in line will the general grievance management plan that was prepared during the project formulation. The service provider for GBV aspects shall be vetted by UWA to ensure they are qualified to carry out the required activities.

## 9.3 Reporting Arrangements

ESMP monitoring and reporting requirements are summarized in Table below.

***Table 22: Monitoring arrangements and reporting requirements by the various stakeholders***

| No. | Report Prepared by | Submitted to | Frequency of Reporting |
|---|---|---|---|
| 1. | Contractor to the Employer | UWA | The Contractor is obliged to report (immediately on certain aspects and monthly with respect to a wider range of aspects including the environmental and social performance of the project) to the CSC.<br>The contractor shall report incidents to the CSC regarding the incident reporting procedure for the project as laid out in the ESCP. |
| 2. | Construction Supervision consultant (CSC) | UWA | The CSC is required to report (immediately or monthly) to the employer every month.<br>The CSC shall report project incidents to the Client (UWA) regarding the incident reporting procedure for the project as laid out in the ESCP. |
| 3 | UWA to the Funder | World Bank | UWA shall report project incidents to the Funder (World Bank) regarding the incident reporting procedure for the project as laid out in the ESCP. |

CSC's report on environmental performance/compliance of the project should be included in the progress report submitted to UWA before each subproject implementation support mission and must include sufficient information on:

- preparation and disclosures of environmental safeguards instruments for subprojects;
- incorporation of new subproject project briefs in the bidding and contractual documents;
- monitoring and supervision of ESMP implementation by the contractor, the construction supervision engineer, and the PCs;
- any challenges in safeguard implementation, solutions, and lessons learned
- Status on both community and workers' grievances
- Information on incidents.

### 9.3.1 Communication and Progress Reports

This section describes the monitoring program and reporting required for ensuring effective implementation of this Environmental and Social Report, including assignment of responsibilities and environmental performance monitoring to be conducted as part of the project.

### 9.3.2 Routine Reports

The Supervisor will inspect the works for compliance with the contract specifications, proposed construction mitigation measures and all relevant environmental regulatory requirements concerning the project on a continuous basis.

The Environmentalist will also conduct random inspections while construction activities are occurring on site. Inspection/supervision will include all construction work, pits, waste collection and disposal areas, and other project facilities. The inspection will include but not be limited to:

- Inspection of construction areas for signs of environmental spills or emergencies;
- Inspection of construction equipment for oil and fuel leaks.

### 9.3.3 Emergency/Environmental Response

For monitoring emergencies, the Supervisor will target the following:

1. The contractor's activities for non-compliance with environmental specifications
2. Grounds for non-compliance are identified. If non-compliance is not rectified and the significance of the non-compliance warrants it, the procedure to halt construction will be initiated.

The Supervisor / Environmentalist can instruct the contractor to halt work if:

1. Construction activities are unexpectedly and significantly affecting environmentally sensitive areas or features;
2. There is likelihood or actual occurrence for an environmental emergency;
3. A physio-cultural resource has been found during project execution. A government agency has ordered the work to halt to enable supervision of remedial activities before work can commence.

It is also important to note that the project's Environmental and Social Commitment Plan requires that severe incidents should be reported within 24 hours of occurrence.

## 9.4 Audits and Project Completion Reports

### 9.4.1 Environmental and Social Compliance Audit

The contractors shall have to carry out internal audits on bi-annual basis, and these shall be undertaken jointly with the Supervising Engineer's team in order to determine:

1. if activities conform to measures and procedures identified in this project brief,
2. if there is compliance with legal requirements,

3. to inform management of the performance of project on ESHS and,
4. Identify non-conformities and implement corrective actions.

The E&S Team shall prepare internal audit procedures that define the objective, scope, frequency and methodologies, as well as the responsibilities for conducting audits and reporting the results. Annual Audits shall be undertaken as required by the National Environment (Audit) Regulations, 2020; where independent Environmental Consultants shall be engaged.

The draft audit reports will be submitted to CSC through the supervising Engineer and the local authorities, before submitting to NEMA so that the Employer provides comments and are addressed by the independent consultants undertaking the audit.

### 9.5 Final Environmental Social Management and Monitoring Report

The implementation of this ESMP shall be documented and will provide information that will be used to prepare a Final Environmental and Social Management Report (FESMMR) after completion of the works.). The FESMR will detail how this ESMP shall be implemented, and summaries of non-conformances and how they were corrected as well as summary of where contractor performed excellently. It will include restoration works undertaken in all components of the Project.

Preparation of the FESMMR shall commence at least three months to the completion date, and the draft report shall be shared with the Supervising consultants who shall in turn, after provided comments, share with the local authorities' E&S team. The FESMMR will include evidence of restorations of all campsite areas, embankments among others, as well as evidence that all grievances have been heard with feedback given to the aggrieved; and that compensation measures for injured workers and community injurious affections resulting from the contractor's actions other than land takes have been taken.

***Table 23:*** Environmental Social Management and Monitoring Plan for the Staff Accommodation facilities

| Environmental/ social impact | Proposed mitigation and Enhancement measures | Monitoring Indicators | Capacity building required | Recommended Frequency of Monitoring | Responsible Actors | Cost Estimates |
|---|---|---|---|---|---|---|
| **Positive Impacts** | | | | | | |
| Enhanced Wildlife Protection | UWA to provide monitoring and supervision equipment to rangers such as smartphones, cameras and GPS machines. | • Reduced poaching rate | Training on use of monitoring equipment | Monthly | UWA Rangers | 5000000 |
| Improved Emergency Response | Avail emergency response kits to rangers, specific to their work area. | • Reduced the number of losses during an emergency.<br>• Improvement in emergency handling procedures | Training in emergency preparedness, response and management. | Quarterly | UWA Rangers | 3000000 |
| Sustainable Infrastructure and Operations | Provide eco-friendly energy sources such as solar for the facilities. | • The presence of sustainable and eco-friendly equipment at the sites. | Training on the need for and use of eco-friendly equipment. | Quarterly | UWA Rangers | 4000000 |
| Employment opportunities | • Timely payment.<br>• Having formal contracts for the workers.<br>• The contractor should involve local leaders in the recruitment process to ensure full and fair participation of | • Employment records of workers in adherence to the law<br>• 41% of contractor workers. sourced from the local communities | Hire of skilled and unskilled labour. | Quarterly reports | Contractor, UWA, local leaders. | 200,000,000 |

| Environmental/ social impact | Proposed mitigation and Enhancement measures | Monitoring Indicators | Capacity building required | Recommended Frequency of Monitoring | Responsible Actors | Cost Estimates |
|---|---|---|---|---|---|---|
| | local communities and screening out of lawbreakers.<br>• To the extent possible, equal employment opportunities shall be available for women during construction. | | | | | |
| Market for Construction Materials | • Give priority to local suppliers of material where necessary.<br>• Advertise requests for suppliers within the community areas. | • Local suppliers with contracts to supply material to the project. | Sensitization of the procurement department and the local community. | Quarterly | UWA Procurement | 400,000,000 |
| **Negative Impacts** | | | | | | |
| **Construction Phase Impacts** | | | | | | |
| Destruction of Floral characteristics | • Clear only vegetation that shall be within the work area and leave out vegetation that shall not affect the establishment of the campsite components.<br>• Selective removal of trees that could be habitat to some species shall be done to ensure minimal habitat | • Minimal clearance of vegetation and soil stripping<br>• Restoration plans in place<br>• Neighboring vegetation kept intact | Sensitization | Monthly during the construction period | Contractors, CSC | 10,000,000 |

| Environmental/ social impact | Proposed mitigation and Enhancement measures | Monitoring Indicators | Capacity building required | Recommended Frequency of Monitoring | Responsible Actors | Cost Estimates |
|---|---|---|---|---|---|---|
| | distortion. This shall be overseen by the UWA environmental team.<br>• Prioritize selective clearing rather than indiscriminate vegetation removal.<br>• Develop and implement a re-vegetation program to compensate for the lost vegetation but invasive species will be avoided. | | | | | |
| Wildlife Disturbance | • Sensitization of workers on the dos and don'ts while working in QENP shall be carried out by UWA rangers before and during the construction phase.<br>• Limit earthworks to proposed built areas as per the approved site layout plans<br>• UWA rangers shall be provided to move and be with construction team at all times to ensure construction | • Restoration plans in place<br>• Neighboring vegetation kept intact.<br>• Proper food waste storage on site.<br>• Presence of an emergency response plan.<br>• | Sensitization and Public awareness campaigns<br><br>Proper food storage and handling | Monthly during construction period | Contractors, CSC | 9,000,000 |

| Environmental/ social impact | Proposed mitigation and Enhancement measures | Monitoring Indicators | Capacity building required | Recommended Frequency of Monitoring | Responsible Actors | Cost Estimates |
|---|---|---|---|---|---|---|
| | activities cause minimal disturbances to the wildlife.<br>• Working hours shall be restricted to daytime work and this will ensure less disturbance to the park.<br>• Water for construction will be obtained from outside the park to minimize disturbances of wildlife that uses the water resources within the park.<br>• Ensure to properly store food and food waste to prevent the attraction of wild animals.<br>• An emergency response plan should be developed for rangers to handle aspects of animal encounters and attacks. | | | | | |

| Environmental/ social impact | Proposed mitigation and Enhancement measures | Monitoring Indicators | Capacity building required | Recommended Frequency of Monitoring | Responsible Actors | Cost Estimates |
|---|---|---|---|---|---|---|
| Risk of Introduction of Invasive Species | • Inspection of vehicles shall be done and where necessary equipment and vehicles shall be cleaned to prevent the unintentional spread of invasive species.<br>• Soil erosion control measures shall be put in place to minimize soil disturbance and prevent the spread of invasive plants.<br>• Ensure implementation waste management protocols to properly handle, segregate, and dispose of construction waste in accordance with local regulations, and ensure that all waste materials are inspected and cleaned before | • Absence of invasive species around the construction areas.<br>• Record of invasive species that are cleared around the site. | Sensitization of contractor's workers. | Quarterly | Contractors<br>UWA rangers | 5,000,000 |

| Environmental/ social impact | Proposed mitigation and Enhancement measures | Monitoring Indicators | Capacity building required | Recommended Frequency of Monitoring | Responsible Actors | Cost Estimates |
|---|---|---|---|---|---|---|
| | disposal to prevent the spread of invasive species.<br>• Sources of construction materials such as murram, aggregates and sand shall be inspected to ensure they are free from invasive species. | | | | | |
| Air and dust emissions | • Prevention measures such as dampening dust by use of water (sprinkling water on surfaces that produce dust or covering them) shall be practiced;<br>• PPEs such as nose masks will be provided to the workers on the construction site especially during cement mixing.<br>• Control over areas generating dust particles. Such areas shall be regularly cleaned; | • Availability, provision and proper use of appropriate PPE against dust<br>• Sensitization programs for drivers in place.<br>• Dust related complaints recorded from constructor workers and neighboring communities | education and control through enforcement | Weekly, monthly | Contractors, CSC, | 6,000,000 |

| Environmental/ social impact | Proposed mitigation and Enhancement measures | Monitoring Indicators | Capacity building required | Recommended Frequency of Monitoring | Responsible Actors | Cost Estimates |
|---|---|---|---|---|---|---|
| | • Workers will be encouraged to go for regular health check-ups to ascertain their health standards;<br>• Ensure generators are well serviced on a routine basis to minimize emissions from exhaust gas.<br>• Wet sweeping of the surfaces that produces a lot of dust particles;<br>• Establishment of optimum green spaces in the compound particularly at the perimeter fence as the vegetation helps in dust control from the air;<br>• Adequate sensitization of the drivers;<br>• Ensure proper maintenance and operation of construction equipment;<br>• Keeping vehicle idling time to the very minimum. | | | | | |

| Environmental/ social impact | Proposed mitigation and Enhancement measures | Monitoring Indicators | Capacity building required | Recommended Frequency of Monitoring | Responsible Actors | Cost Estimates |
|---|---|---|---|---|---|---|
| Noise and vibrations generations | • Continuous noise and vibration level monitoring will be undertaken to ensure that the noise levels are kept within the recommended standards Avoiding or minimizing transportation through or processing material in community areas (like concrete mixing).<br>• Routine noise and vibration level assessment will be undertaken to ensure that the noise levels are kept within the recommended standards<br>• Where possible construction equipment will be fitted with silencers to reduce the noise generated;<br>• Adequate servicing of all machinery, trucks and vehicles so as to ensure reduction of noise generated especially by friction<br>• Construction activities shall | Construction equipment noise emissions within acceptable limits. | Education and control through enforcement Sensitization campaigns | Bi-weekly or Monthly | Contractors, CSC, | 3,000,000 |

| Environmental/ social impact | Proposed mitigation and Enhancement measures | Monitoring Indicators | Capacity building required | Recommended Frequency of Monitoring | Responsible Actors | Cost Estimates |
|---|---|---|---|---|---|---|
| | be carried out only during the day<br>• Construction vehicle drivers and machine operators should be sensitized to adopt a habit of switching off engines of their vehicles or machinery when they are not in use.<br>Unnecessary hooting will be avoided at all costs by the construction vehicles and even during project occupation<br>• All construction equipment will be fitted with silencers to reduce the noise generated;<br>• Adequate servicing of all machinery, trucks and vehicles to ensure reduction of noise generated especially by friction<br>• Construction activities shall be carried out only during the daytime. | | | | | |

| Environmental/ social impact | Proposed mitigation and Enhancement measures | Monitoring Indicators | Capacity building required | Recommended Frequency of Monitoring | Responsible Actors | Cost Estimates |
|---|---|---|---|---|---|---|
| | • Ensure regular servicing of generators to ensure minimal noise emissions.<br>• Install sound mufflers in generators to minimize the noise generated.<br><br>• Construction vehicle drivers and machine operators should be sensitized to adopt a habit of switching off the engines of their vehicles or machinery when they are not in use.<br>• The Proponent should provide a well-marked billboard at the construction site gates. This is meant to notify the public of the construction activity and timings.<br>• Unnecessary hooting will be avoided at all costs by the construction vehicles and | | | | | |

| Environmental/ social impact | Proposed mitigation and Enhancement measures | Monitoring Indicators | Capacity building required | Recommended Frequency of Monitoring | Responsible Actors | Cost Estimates |
|---|---|---|---|---|---|---|
| | even during project occupation. | | | | | |
| Soil erosion | • The Contractor will ensure that excavations are undertaken safely in that shoring and good slope banking is put in place and by adhering to all safety rules;<br>• The excavated materials will be used during the restoration activities;<br>• Emergency measures and procedures for protection of soil shall be developed.<br>• Revegetation of cleared areas will be done after conclusion of construction activities. | • Soil deposited in the neighboring area drains<br>• Storm water control plan in place | Sensitization and awareness campaigns | Daily monitoring whenever a heavy storm pours during construction period and can be deleted since the same information is presented below (GBV section) | Contractors,<br>CSC | 12,000,000 |
| Waste Management | • Waste segregation at source into different waste categories before disposal shall be encouraged.<br>• A licensed waste management firm for the | • Dumpsites available in place.<br>• Waste corded bins<br>• Site cleanliness<br>• Number of waste/debris on site | Sensitization and awareness activities. | Daily, weekly and monthly<br>Random site inspection | Contractors,<br>CSC, | 15,000,000 |

| Environmental/ social impact | Proposed mitigation and Enhancement measures | Monitoring Indicators | Capacity building required | Recommended Frequency of Monitoring | Responsible Actors | Cost Estimates |
|---|---|---|---|---|---|---|
| | disposal of large quantities of solid waste shall be contracted.<br>• Domestic solid waste is to be temporarily stored in refuse bins before disposal by a licensed contractor.<br>• All reusable materials will be reused to minimize the quantity of solid waste generated.<br>• The construction contractor will liaise with private waste handlers to have sound waste handling and disposal.<br>• The waste will be properly segregated and separated to facilitate the recycling of some useful waste materials. For example, broken stones can be used for backfills. An integrated solid waste management system may also be adopted through the hierarchy of options like | • Disposal methods of solid waste from the site<br>Records for hazardous waste | Environment sensitization programs | | | |

| Environmental/ social impact | Proposed mitigation and Enhancement measures | Monitoring Indicators | Capacity building required | Recommended Frequency of Monitoring | Responsible Actors | Cost Estimates |
|---|---|---|---|---|---|---|
| | source reduction, recycling, composting and reuse.<br>• The Proponent will ensure that measures are put in place to ensure that construction materials required for the project are carefully budgeted to ensure the amount of construction materials left is kept to the minimal level possible.<br>• All the solid waste will be collected by NEMA-licensed waste collectors and disposed of in a certified facility. | | | | | |
| Climate Change and Ecosystem Services Impacts | • Replant native vegetation in areas cleared for construction and create wildlife corridors to help restore lost habitats and enhance carbon sequestration.<br>• Implement rainwater harvesting systems and | Native species and other vegetation species replanted.<br><br>Rainwater collection tanks on site. | Sensitization of rangers on water conservation measures. | Weekly | NFA<br>UWA<br>MWE | 5,000,000 |

| Environmental/ social impact | Proposed mitigation and Enhancement measures | Monitoring Indicators | Capacity building required | Recommended Frequency of Monitoring | Responsible Actors | Cost Estimates |
|---|---|---|---|---|---|---|
| | water-saving technologies to help minimize the impact on local water resources, ensuring a sustainable water supply.<br>• Strict biosecurity protocols should be enforced, including the cleaning of construction equipment and vehicles before entering the site.<br>• Include the use of climate resilient materials and designs that can withstand extreme weather events, such as heavy rains, which may occur during or after construction.<br>• Ensure the use of eco- | Construction materials used on site. | | | | |

| Environmental/ social impact | Proposed mitigation and Enhancement measures | Monitoring Indicators | Capacity building required | Recommended Frequency of Monitoring | Responsible Actors | Cost Estimates |
|---|---|---|---|---|---|---|
| | friendly building materials and energy-efficient designs, can significantly reduce habitat loss and greenhouse gas emissions. | | | | | |
| Gender Based Violence | • Sensitization of construction works shall be undertaken and included in the construction contract conducted throughout the projects.<br>• Any form of GBV will be referred to the police for handling. and where necessary psycho-social support shall be provided by the GBV service provider;<br>• Workers will be required to sign a code of conduct as per the standard World Bank contract template and the Labour Management | • Record of sensitizations on GBV aspects.<br>• Police cases on GBV related to project workers<br>• Cases handled by GBV service provider. | Sensitization | Monthly and Quarterly | Contractors,<br>CSC | 5,000,000 |

| Environmental/ social impact | Proposed mitigation and Enhancement measures | Monitoring Indicators | Capacity building required | Recommended Frequency of Monitoring | Responsible Actors | Cost Estimates |
|---|---|---|---|---|---|---|
| | Procedures developed for the project; | | | | | |
| Occupational health and safety | • Depending on the occupational safety and health hazards encountered while performing assigned tasks, workers may require using properly fitting personal protective equipment (PPE) to avoid injuries and illness. They (workers) will be provided with full protective gear. These include working/safety boots, overalls, helmets, goggles, earmuffs, masks, gloves etc.<br>• All equipment will be inspected before use for appropriate safeguards.<br>• Controlled working hours will be provided and employees will not extend working hours unnecessarily | • Record of PPEs distributed to workers on site.<br>• Fire prevention equipment in place.<br>• Good housekeeping on-site<br>• PPE used on-site by workers.<br>• First Aid kits are available on construction sites.<br>• Sanitation facilities cleanliness. | Awareness and education<br>First Aid management | Monthly<br>Quarterly | Contractors,<br>CSC | 20,000,000 |

| Environmental/ social impact | Proposed mitigation and Enhancement measures | Monitoring Indicators | Capacity building required | Recommended Frequency of Monitoring | Responsible Actors | Cost Estimates |
|---|---|---|---|---|---|---|
| | • Adapt effective emergency response plans. A good start of learning how to respond to an emergency is through certification in Basic First Aid mostly for snake and insect bites. Regular drills and emergency situations should be followed to impart the anticipated insight and awareness to the workers.<br>• A first aid kit will be provided within the site. This should be fully equipped always and should be managed by qualified persons.<br>• Safety awareness may be gained through regular safety training or personal interest in safety and health.<br>• Local individuals preparing food for the workers at the site will be controlled to ensure that food is | • Appropriate qualification of electrical installation experts. | | | | |

| Environmental/ social impact | Proposed mitigation and Enhancement measures | Monitoring Indicators | Capacity building required | Recommended Frequency of Monitoring | Responsible Actors | Cost Estimates |
|---|---|---|---|---|---|---|
| | hygienically prepared. Allow only authorized food vendors to supply food for the workers in the site<br>• The Contractor will be having workmen's compensation cover. It should comply with the Workmen's Compensation Act, as well as other Ordinances, Regulations and Union Agreements.<br>• Workers will always be sensitized to social issues such as drugs, alcohol, diseases etc.<br>• Ensure that trained personnel are employed to install solar panels and as well provide grid electricity connection to the respective sites.<br>• Provide appropriate safety wear during electrical | | | | | |

| Environmental/ social impact | Proposed mitigation and Enhancement measures | Monitoring Indicators | Capacity building required | Recommended Frequency of Monitoring | Responsible Actors | Cost Estimates |
|---|---|---|---|---|---|---|
| | installations to reduce the risks of electrocution of the workers. | | | | | |
| Violence Against Children | • Adequate sensitization for contractors not to recruit children.<br>• The contractor will keep a record of the age numbers of all their employees so as to avoid employing those below the age of 18 and verification documents such as copies of national identification will be kept on site.<br>• No cases of VAC will be tolerated on the infrastructure projects, and these will be punishable by law.<br>• The project will therefore work with the Police and the associated local Probation officers to see that VAC cases are minimized on the project. | • Employment record details.<br>• Human resource manual in place.<br>• No police cases regarding children on the project. | Awareness activities and education | Quarterly | Contractors,<br><br>CSC | 10,000,000 |

| Environmental/ social impact | Proposed mitigation and Enhancement measures | Monitoring Indicators | Capacity building required | Recommended Frequency of Monitoring | Responsible Actors | Cost Estimates |
|---|---|---|---|---|---|---|
| Transmission HIV/AIDs and other diseases | • Workers shall be regularly sensitized on the spread of infectious diseases such as HIV/AIDS;<br>• Regular provision of adequate prevention measures such as condoms;<br>• Encourage workers to go for HIV voluntary counselling, testing and referral services; | • Record of sensitizations carried out.<br>• Record of condoms purchased and distributed to workers. | Sensitization | Quarterly | Contractors,<br><br>CSC, | 9,000,000 |
| Insecurity cases | • The project sites will be enclosed using suitable hoarding to avoid contamination of the environment and to control movement within the sites.<br>• The contractor will provide adequate security during the construction period when no works are being done on the sites.<br>• The guards stationed at the gates should document | • Security guards<br>• Lighting in place | Security awareness campaigns | Random site inspection | Contractors,<br><br>CSC,<br><br>UWA Rangers | 25,000,000 |

| Environmental/ social impact | Proposed mitigation and Enhancement measures | Monitoring Indicators | Capacity building required | Recommended Frequency of Monitoring | Responsible Actors | Cost Estimates |
|---|---|---|---|---|---|---|
| | movements in and out of the sites/ property. out of the sites/ property.<br>• UWA will develop and regularly update an emergency response plan that includes protocols for dealing with security incidents, including evacuation procedures and emergency contacts.<br>• Conduct a detailed security risk assessment specific to the project site, taking into account recent attacks in the area and the potential threats they pose. | | | | | |
| Risks Associates with Project Suppliers | i. Develop and implement a code of conduct that clearly outlines environmental and social expectations for suppliers | i. Supplier code of conducts available<br>ii. Minutes of meetings with suppliers. | Workshops and Training sessions with suppliers | Monthly Review during construction phase | UWA<br><br>Contractors | 4,000,000 |

| Environmental/ social impact | Proposed mitigation and Enhancement measures | Monitoring Indicators | Capacity building required | Recommended Frequency of Monitoring | Responsible Actors | Cost Estimates |
|---|---|---|---|---|---|---|
| | and ensure it covers aspects such as sustainable resource sourcing, adherence to labor laws, respect for community rights, and commitment to minimizing environmental impacts.<br>ii. The contractor will regularly engage with suppliers to assess their environmental and social practices to ensure they meet the project's standards and requirements.<br>iii. Conduct regular supplier audits to ensure adherence to environmental and social | iii. List of approved suppliers | | | | |

| Environmental/ social impact | Proposed mitigation and Enhancement measures | Monitoring Indicators | Capacity building required | Recommended Frequency of Monitoring | Responsible Actors | Cost Estimates |
|---|---|---|---|---|---|---|
| | standards and address any non-compliance issues promptly.<br>iv. Provide training and support to suppliers to help them improve their environmental and social practices through workshops on sustainable sourcing, waste management, and ethical labor practices.<br>v. Identify and maintain relationships with alternative suppliers who demonstrate higher standards of environmental and social responsibility to avoid | | | | | |

| Environmental/ social impact | Proposed mitigation and Enhancement measures | Monitoring Indicators | Capacity building required | Recommended Frequency of Monitoring | Responsible Actors | Cost Estimates |
|---|---|---|---|---|---|---|
| | disrupting the project in case of a non-compliant supplier.<br>vi. Include specific clauses in supplier contracts that mandate adherence to environmental and social standards such as penalties or termination of the contract as consequences of non-compliance. | | | | | |
| **Operation and Maintenance Phase** | | | | | | |
| Poor waste management | • Sensitization of rangers on proper waste management practices shall be done to ensure proper implementation of waste management strategies during the operational phase. | 1. No littered waste around the quarters<br>2. Coded bins on site<br>3. Clean sanitary facilities | awareness and education on waste management | Daily | UWA Staff | 3,000,000 |

| Environmental/ social impact | Proposed mitigation and Enhancement measures | Monitoring Indicators | Capacity building required | Recommended Frequency of Monitoring | Responsible Actors | Cost Estimates |
|---|---|---|---|---|---|---|
| | • Coded waste bins shall be provided and placed around the quarters to ensure waste segregation and onsite collection.<br>• All waste collected shall be disposed of outside the protected area in an environmentally sound manner by certified waste handlers.<br>• Sanitary facilities should be routinely cleaned to minimize risks of diseases | | | | | |
| Risk of Fire Outbreaks | • UWA will install and properly maintain fire-fighting equipment, train staff in basic fire-fighting methods and ensure that the fire escape routes are known and are always free from any obstacles.<br>• The building walls will be painted with flameproof paint | • The presence of well serviced fire extinguishers.<br>• No record of fire incidents | awareness and education on fire management<br><br>Fire drills | Quarterly | UWA staff | 2,000,000 |

| Environmental/ social impact | Proposed mitigation and Enhancement measures | Monitoring Indicators | Capacity building required | Recommended Frequency of Monitoring | Responsible Actors | Cost Estimates |
|---|---|---|---|---|---|---|
| | and fitted with smoke detectors and fire alarms.<br>• There will be properly accessible fire assembly points on site.<br>• Regular servicing and testing of fire equipment will be done to ensure proper functioning.<br>• Fire prone behavior such as smoking will be strictly prohibited onsite. | | | | | |
| Poor Water Consumption | • Install water reservoir tanks at the facilities to collect rainwater and minimize dependency on local water resources.<br>• Sensitize rangers on water saving techniques to use for domestic water consumption.<br>• Install water-saving devices such as low-flow faucets and toilets. | • Presence of rainwater collection facilities.<br>• Number of sensitizations on water usage.<br>• Clean drinking water available. | Sensitization on proper water consumption.<br><br>Routine maintenance of water storage facilities. | Quarterly | UWA staff | 2,000,000 |

| Environmental/ social impact | Proposed mitigation and Enhancement measures | Monitoring Indicators | Capacity building required | Recommended Frequency of Monitoring | Responsible Actors | Cost Estimates |
|---|---|---|---|---|---|---|
| | • Sensitize rangers on boiling all drinking water to reduce risks of diseases. | | | | | |
| Human Wildlife Conflict | • Securely store food and waste in wildlife-proof containers to avoid the attraction of wildlife.<br>• Properly store food waste in enclosed collection bins.<br>• Sensitize rangers to avoid feeding wild animals and always to ensure to keep a safe distance.<br>• Ensure to avoid having domestic animals at the facility or keep those that can be restricted to indoors only.<br>• Carry out continuous training by rangers on the management of different wildlife in case of unfriendly encounters. | • Presence of appropriate food storage containers.<br>• Appropriate food waste collection facilities.<br>• Number of incidents on unfriendly wildlife encounters.<br>• Number of sensitization sessions. | Sensitization on animal handling and proper waste management. | Daily<br><br>Quarterly | UWA Staff | 4,000,000 |

| Environmental/ social impact | Proposed mitigation and Enhancement measures | Monitoring Indicators | Capacity building required | Recommended Frequency of Monitoring | Responsible Actors | Cost Estimates |
|---|---|---|---|---|---|---|
| Structural Failure of Buildings. | • Ensure buildings are designed and constructed according to stringent safety and quality standards during the construction phase.<br>• Carry out inspections to regularly check for and address structural weaknesses if identified.<br>• Use high-quality materials and design buildings to maximize natural ventilation. | • Approved building occupation permits on site.<br>• Record of routine maintenance of the facilities. | Routine maintenance and rehabilitation. | Bi Annually | UWA Engineering team | 10,000,0000 |
| Natural Disaster Related Risks | • Ensure that the constructed buildings withstand high winds and storms by using reinforced structures and storm-resistant materials.<br>• Ensure to design and establish effective drainage systems around the facilities to channel water away. | • Presence of an emergency response plan that includes natural disasters.<br>• Record of drills on emergency response. | Provide professional support during emergency drills. | Bi Annually | UWA Staff | 5,000,000 |

| Environmental/ social impact | Proposed mitigation and Enhancement measures | Monitoring Indicators | Capacity building required | Recommended Frequency of Monitoring | Responsible Actors | Cost Estimates |
|---|---|---|---|---|---|---|
| | • Develop and regularly update comprehensive emergency preparedness plans to cater for natural disasters.<br>• Conduct drills and training sessions to ensure all personnel are familiar with emergency procedures. | | | | | |

# 10 ENVIRONMENTAL AND SOCIAL MANAGEMENT FOR THE ENTRY GATE FOR QENP

## 10.1 Location, Description and Environmental Baseline

### 10.1.1 Kasenyi Entry Gate

This site is located at UTM coordinates: 36S: 170346 m E 9992156 m N, 171242m E 9993095m N, 170663 m E 9994016m N, and 169505m E 9993016m N, within Katwe subcounty in Kasese District. The site is about 15km from Kasenyi village with an estimated population of about 1,677 people. The site is 200 meters to the main road (Kasenyi road) and about 2km from Mbarara-Kasese road. There is an access road to the site. This is a new entry gate point. The nearest potential water source for the site is Kazinga Channel, located 6-7km away. The nearest HC III is in Katungulu. From the site to the headquarters is about 10 km. The site will be powered by grid electricity and solar as a backup. Since the national grid passes nearby, no transmission lines will be needed to be set up.

*Existing gate*

*Access Road near by the site*

### 10.1.2 Biophysical Characteristics of the Site

#### 10.1.2.1 Flora and Fauna

The site is an open field of grasses dominated by *Cynodon dactylon* and *Chloris gayana.* Within the grassland, scattered Acacia trees and *Euphorbia candelabrum* can be located.

*Grassland dominated by Digitaria spp*

*Grassland dominated by Digitaria spp*

#### 10.1.2.2 Avifauna

The common bird species in this site ae summarized in the table below

***Table 24:*** *Avifauna species encountered*

| Bird Species | Common Name | Conservation Status (IUCN) |
|---|---|---|
| *Polemaetus bellicosus* | Martial Eagle | Endangered (EN) |
| *Mycteria ibis* | Yellow-billed Stork | Least Concern (LC) |
| *Falco ardosiaceus* | Grey Kestrel | Least Concern (LC) |
| *Leptoptilos crumenifer* | Marabou Stork | Least Concern (LC) |
| *Haliaeetus vocifer* | African Fish-Eagle | Least Concern (LC) |
| *Anhinga rufa* | African Darter | Least Concern (LC) |
| *Ceryle rudis* | Pied Kingfisher | Least Concern (LC) |
| *Numida meleagris* | Helmeted Guineafowl | Least Concern (LC) |
| *Alopochen aegyptiaca* | Egyptian Goose | Least Concern (LC) |

### 10.1.3 Physical Environment

#### 10.1.3.1 Soils and Geology

The site predominantly features sandy clay soils with moderate drainage and fertility, supporting a mix of grassland and forest vegetation that sustains the transitional ecosystem between savanna and rainforest.

#### 10.1.3.2 Climatic patterns

##### 10.1.3.2.1 Rainfall patterns

QENP boasts diverse ecosystems, its climate shaped by elevation and equatorial proximity. The park experiences a tropical climate with two rainy and two dry seasons. The long rainy season from March to May brings abundant rain, nurturing lush vegetation and birthing wildlife, while the first dry season from June to July sees less precipitation, causing landscapes to dry up and animals to cluster around water sources. August to September brings a milder short rainy season, sustaining the park's greenery, and December to February marks the second dry season, favored for wildlife observation as creatures gather near water sources.

##### 10.1.3.2.2 Temperature and Humidity

QENP experiences distinct temperature and humidity differences across the park. The climate is characterized by wet and dry seasons. The dry season, occurring from June to August and December to February, is marked by lower humidity, minimal rainfall, warm daytime temperatures between 25°C to 30°C (77°F to 86°F), and cooler nights around 15°C to 20°C (59°F to 68°F). In contrast, the long wet season, spanning from March to May and September to November, brings higher humidity, increased rainfall leading to lush vegetation, and similar warm daytime temperatures of 25°C to 30°C (77°F to 86°F), with mild nighttime temperatures of 15°C to 20°C (59°F to 68°F).

#### 10.1.3.3 Noise Assessment

Noise levels at the entry gate site was 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 site. Construction activities are expected to temporarily increase noise levels from construction tools, traffic, and worker activities, affecting wildlife. However, the impact will be managed through effective noise mitigation strategies and monitoring.

***Table 25:*** *Baseline noise results at Kasenyi entry gate site*

| Project activity | GPS Coordinates (UTM 36N) | Noise results | | | Noise source | Noise receptor |
|---|---|---|---|---|---|---|
| | | Min (db) | Av (db) | Max (db) | | |
| Kasenyi entry gate | 9992156 m N 170346 m E | 28 | 33 | 39 | • Sounds from the birds on the proposed site<br>• Moving traffic transiting the park | • Wildlife |
| Standard of noise limits<br>Construction site day 75 night 65 | | | | | | |

#### 10.1.3.4 Air Quality

The baseline ambient air quality parameters of the site were obtained using a MX 60 multi-gas and the results are shown in Table 2 below. The result indicated 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 construction activities such as construction, and material transport could potentially increase the levels of dust (PM10, PM2.5) and gaseous pollutants ($NO_2$, CO, $SO_2$) 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 26: Baseline Air quality results at Kasenyi entry gate site***

| Site name | AQI | PM 2.5 µm | PM10 µm | Source | Receptor |
|---|---|---|---|---|---|
| Kasenyi Entry Gate | 9992156 m N 170346 m E | 51 | 12 | 18 | • Emission fumes from moving motor-vehicle traffic<br>• Dusty Park marram |

The pictures below show the architectural impressions of the proposed Entry gate to be constructed in Queen Elizabeth National Park**.**

*Figure 18: Queen Elizabeth National Park Kasenyi Gate Artistic Impression*

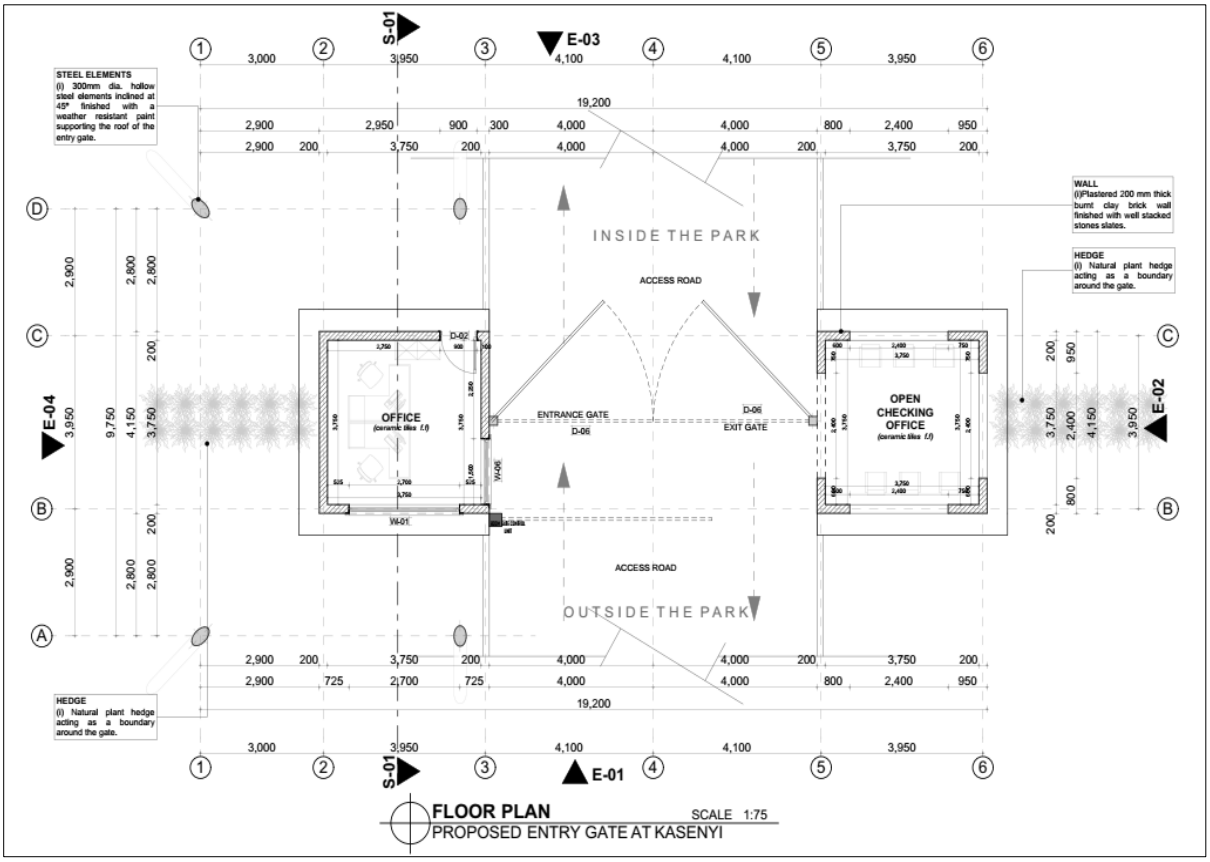


*Figure 19: Queen Elizabeth National Park Kasenyi Gate Floor Plan*

**Gate Facilities Block at QENP**

The gate facilities block at Queen Elizabeth National Park (QENP) will serve as a crucial infrastructure to enhance visitor experience while ensuring minimal environmental impact. These facilities will include eco-friendly restrooms and toilets, a visitor information center providing maps, exhibits, and emergency assistance, as well as trailheads and parking areas with clear signage and orientation boards for easy access to hiking trails. Additionally, the block will house an emergency and first aid station, offering essential health and safety resources in case of accidents or medical emergencies. Strategically positioned adjacent to the entry gate, the facilities will share the same physical and biological characteristics as the surrounding environment, seamlessly integrating into the natural landscape.


***Figure 20: Gate Facilities Block Artistic Impression***

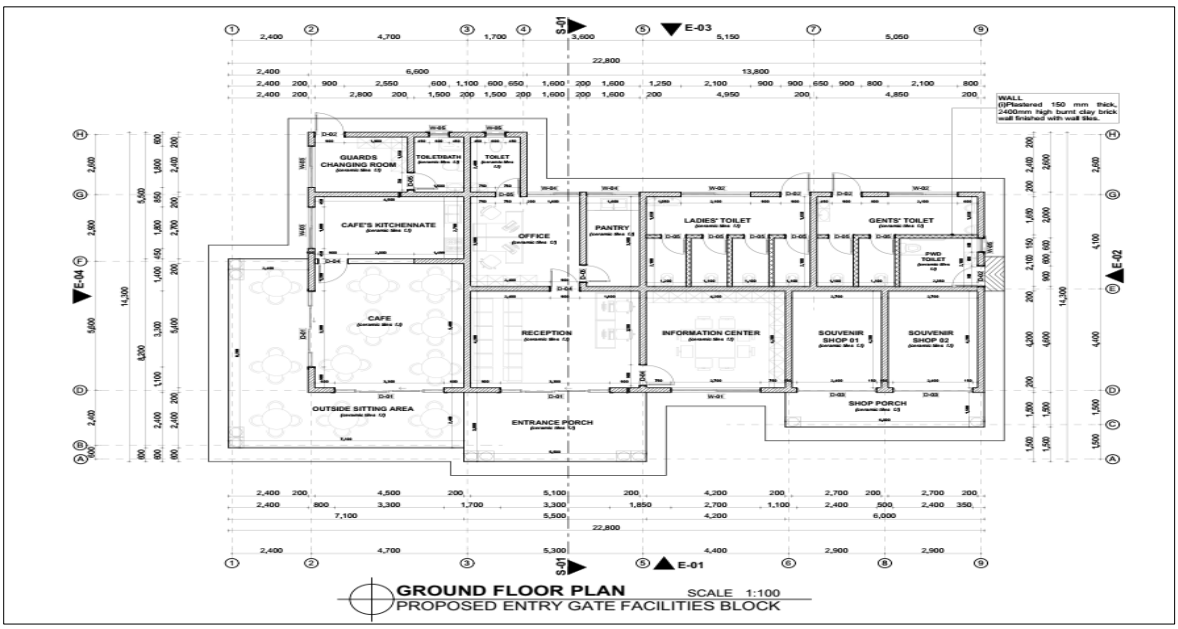


***Figure 21: Gate Facilities block Floor Plan***

## 10.2 Construction inputs, 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.

## 10.3 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, the gate site will require 30 workers (70% skilled and 30% unskilled), but this can change when construction work plans are established at the start of the construction phase.

## 10.4 Utilities and Services

These will include;

### 10.4.1 Water supply, sewerage and storm water drainage

Since the site is not within the reach of National Water and Sewerage Corporation water and sewerage infrastructure, Rainwater will be the main source of water. 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.

### 10.4.2 Earthling and Lightning Protection

A general system for the earthling will be put in place during the construction of the entry gate. 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**.**

### 10.4.3 Energy Sources

During the construction phase, the main source of electricity will be a mobile generator, which will provide energy required to power electric equipment on the site. Fuel for the generator

will be procured from the nearest fuel station. Where necessary, gas will be used for welding metallic sections on site.

## 10.5 Operation Phase

The operation phase of this project refers to the time after construction has ended and the entry gate is in use. This phase will involve the use of the entry gate for its intended purpose. The following issues are deemed significant for the operations phase.

### 10.5.1 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.

### 10.5.2 Energy Use and Supply

Since the site is within the national electricity grid, electricity will be used as the primary source of energy and being backed up by solar energy. A 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 will be installed and used during the operation of the entry gate.

### 10.5.3 Water and Sanitation

Rain water harvesting system will be installed and used as the primary source of water at the site. The site will have water borne sanitary facilities. 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 entry gate site. 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 site for disposal of this kind of waste. The site will have water purifiers as these will aid in providing portable water for consumption.

### 10.5.4 Waste Management

The waste that will be generated at the entry gate 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.

## 10.6 Anticipated Impacts and Mitigation Measures Associated with An Entry Gate and Facility Block

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

### 10.6.1 Positive Impacts

#### 10.6.1.1 Sustainable Tourism Promotion

The entry gate will promote eco-tourism by encouraging responsible visitor behavior, ensuring that footfall is managed to prevent overuse of trails and sensitive habitats. It can serve as an education hub to create awareness among visitors about conservation efforts, local wildlife, and sustainable tourism practices.

#### 10.6.1.2 Enhanced wildlife protection

Improved infrastructure at the entry gate will strengthen surveillance and monitoring capabilities, reducing illegal activities such as poaching and unauthorized access to the park.

#### 10.6.1.3 Improved Research and Data Collection:

A controlled entry point can facilitate better record-keeping of visitors, wildlife tracking, and ecosystem changes, aiding long-term environmental monitoring.

#### 10.6.1.4 Employment Opportunities

Construction of an entry gate will require both skilled and unskilled labour to ensure the project is in place. This shall provide opportunity for employment of locals around the park especially in regard to manual labour, and hence improving their standards of living.

#### 10.6.1.5 Market for Construction Materials

Construction materials such as bricks, sand, aggregates, and cement shall be required to ensure an entry gate is set up. These will be acquired from the neighbouring trading centres and hence increasing income for the business operators around the park.

#### 10.6.1.6 Increased Revenue

The development of an entry gate infrastructure will enhance the visitor experience, attracting more tourists to the park. This increase in footfall translates to higher revenue from entrance fees, guided tours, and other tourism-related services.

#### 10.6.1.7 Enhanced Park Visibility and Marketing Potential

The entry gate will offer an opportunity to enhance the park's visibility and create a positive first impression for tourists. The gate will serve as the primary access point and the first touchpoint for visitors, making it an important branding and marketing tool for Queen Elizabeth National Park.

### 10.6.2 Negative Impacts

#### 10.6.2.1 Construction Phase Impacts

##### 10.6.2.1.1 Vegetation Loss

Some vegetation will be cleared to facilitate the construction of the entry gate and facility block. However, the vegetation affected is not considered ecologically sensitive, and the project's limited scale minimizes the overall impact on the park's ecosystem.

Mitigation Measures:

- Vegetation clearance shall be limited to the designated project footprint to reduce unnecessary environmental disturbance.
- A re-vegetation program shall be implemented to restore cleared areas upon completion of construction.

##### 10.6.2.1.2 Wildlife Disturbance

Construction activities such as material transportation, excavation, and increased human presence may disturb wildlife within the park. Such disturbances may result in animal migration or defensive behavior, posing risks to workers and affecting wildlife habitats.

Mitigation Measures:

- Workers shall undergo mandatory sensitization on acceptable behaviors while operating within Queen Elizabeth National Park, conducted by UWA rangers before and during construction.
- UWA rangers shall accompany construction teams to ensure minimal disturbances to wildlife.
- Construction activities shall be restricted to daylight hours to minimize disruptions to nocturnal wildlife.

#### 10.6.2.1.3 Noise Pollution

Construction activities, including excavation, welding, and the operation of heavy machinery, will generate noise, which may disturb wildlife and park visitors. Noise pollution can interfere with wildlife communication and force displacement from their natural habitat.

Mitigation Measures:

- Noise-generating activities shall be restricted to specific working hours during the day.
- Personal protective equipment (PPE), such as earplugs, shall be provided to workers.
- Noise suppression devices, such as mufflers and silencers, shall be installed on construction equipment.
- Scheduling of material deliveries shall be optimized to reduce vehicle noise impacts.
- Regular maintenance of machinery shall be conducted to minimize excessive noise production.

#### 10.6.2.1.4 Poor Waste Management

Improper disposal of solid and liquid waste generated during construction can lead to land and water contamination, negatively impacting the park's aesthetics and ecological balance.

Mitigation Measures:

- Workers shall receive training on appropriate waste management practices to ensure compliance with environmental standards.
- Clearly labeled waste bins shall be provided on-site for waste segregation and disposal.
- Waste shall be collected and disposed of at authorized facilities outside the park boundaries.
- Contractors shall develop and implement a comprehensive waste management plan.
- Mobile toilets shall be installed to address sanitation needs and prevent environmental pollution.

#### 10.6.2.1.5 Air and Dust Emissions

Construction activities such as excavation, vehicle movement, and use of construction machinery will generate dust and air pollutants, potentially affecting air quality and visibility within the park.

Mitigation Measures:

- Workers shall be provided with appropriate PPE, such as dust masks, to minimize exposure.
- Vehicle speeds shall be regulated to prevent excessive dust generation.
- Materials shall be covered with tarpaulins during transportation to minimize dust dispersion.
- Regular maintenance of construction vehicles shall be conducted to limit emissions.

#### 10.6.2.1.6 Occupational Health and Safety Risks

The construction site presents various hazards, including falls, exposure to hazardous materials, machinery accidents, and the spread of communicable diseases due to inadequate sanitation.

Mitigation Measures:

- Routine safety sensitization, including daily toolbox talks, shall be conducted for all workers.
- Proper PPE, tailored to specific job roles, shall be provided and enforced.
- A fully stocked first aid kit shall be maintained on-site, and a trained first aider shall be available.
- Emergency response procedures shall be displayed and practiced regularly.
- Adequate warning signage shall be placed strategically around the site.
- Contractors shall establish a memorandum of understanding (MoU) with nearby healthcare facilities for emergency medical support.

#### 10.6.2.1.7 Sexual Harassment and HIV/AIDS Risks

Construction activities may expose workers and surrounding communities to social issues, including sexual harassment and the spread of HIV/AIDS due to interactions between workers and local residents.

Mitigation Measures:

- Sensitization programs on gender-based violence and HIV/AIDS prevention shall be conducted before and during construction.
- Condoms shall be made readily available to workers.
- Access to primary healthcare, including HIV/AIDS testing and treatment, shall be provided.
- A grievance redress mechanism shall be established to address any reported cases of harassment.

#### 10.6.2.2 Operation Phase

##### 10.6.2.2.1 Poor Waste Management

Waste generated during the operation phase, primarily from visitors and staff, such as plastic bottles and paper, may degrade the park's aesthetics and pose health risks.

Mitigation Measures:

- Park rangers shall be trained on waste management best practices to ensure proper implementation.
- Strategically placed coded waste bins shall be provided for segregation and collection of waste.
- Routine waste collection and disposal to approved facilities shall be conducted.
- Sanitary facilities shall be regularly cleaned to prevent health risks.

##### 10.6.2.2.2 Occupational Health and Safety Risks

During operation, risks such as falls from elevated structures, wildlife attacks, and exposure to harsh environmental conditions may arise, posing threats to staff and visitors.

**Mitigation Measures:**

- Rangers shall be sensitized on potential health and safety risks and best practices to minimize incidents.
- A first aid station shall be established at the entry gate to provide immediate medical assistance.
- Emergency response procedures shall be put in place to address potential risks effectively.

*Table 27:* **Environmental Social Management and Monitoring Plan for the Entry Gate and Facility block**

| Environmental/ Social Impact | Proposed Mitigation and Enhancement Measures | Monitoring Indicators | Implementing Party/Agency | Recommended Frequency of Monitoring | Monitoring Agency | Cost Estimates (UGX) |
|---|---|---|---|---|---|---|
| **Positive Impacts** | | | | | | |
| | | | | | | |
| Enhanced Wildlife Protection | - Improved infrastructure to strengthen surveillance and monitoring capabilities, reducing illegal activities such as poaching and unauthorized access. | Increased surveillance records | UWA | Throughout operation | UWA HQ Team | 5,000,000 |
| Employment Opportunities | - Hiring of skilled and unskilled labor during construction, providing income to local communities. | Employment records | Contractor | Throughout construction phase | UWA, Supervising Consultant | 8,000,000 |
| Market for Construction Materials | - Sourcing materials such as bricks, sand, aggregates, and cement from local suppliers to boost local business income. | Records of material purchase from local suppliers | Contractor | Throughout construction phase | UWA | 5,000,000 |
| Increased Revenue | - Improved visitor experience will attract more tourists, leading to higher revenue from entrance fees and other services. | Visitor footfall data and revenue records | UWA | Quarterly monitoring | UWA HQ Team | 10,000,000 |
| Enhanced Park Visibility and Marketing Potential | - The entry gate will serve as a branding and marketing tool to enhance the park's visibility. | Marketing materials and visitor feedback | UWA | Annually | UWA HQ Team | 6,000,000 |
| **Negative Impacts** | | | | | | |
| **Construction Phase Impacts** | | | | | | |
| Vegetation Loss | - Limit vegetation clearance to the project footprint. | Area cleared and restoration plan | Contractor | Throughout the construction phase | UWA Ecological Monitoring | 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) |
|---|---|---|---|---|---|---|
| | - Re-vegetation program post-construction. | | | | Team, Supervising Consultant | |
| Wildlife Disturbance | - Sensitization of workers on acceptable behavior within the park.<br>- UWA rangers to accompany workers.<br>- Restrict activities to daylight hours. | Record of sensitization, presence of UWA rangers | Contractor, UWA | Throughout the construction phase | UWA Ecological Monitoring Team | 3,000,000 |
| Noise Pollution | - Restrict noisy activities to daytime.<br>- Provide ear protection to workers.<br>- Install noise suppression devices on machinery.<br>- Optimize material delivery schedules. | Noise monitoring records, workers with ear protection | Contractor | Daily monitoring | UWA | 2,000,000 |
| Poor Waste Management | - Worker training on waste management.<br>- Provision of coded waste bins.<br>- Disposal at approved sites outside the park.<br>- Mobile toilets to maintain sanitation. | Waste bins on-site, record of waste types and quantities | Contractor | Throughout construction phase | UWA | 2,000,000 |
| Air and Dust Emissions | - Provide workers with PPE.<br>- Regulate vehicle speeds.<br>- Cover materials during transport.<br>- Regular vehicle maintenance to reduce emissions. | Air quality monitoring, PPE issuance | Contractor | Daily, weekly & quarterly | UWA | 4,000,000 |
| Occupational Health and Safety Risks | - Routine safety sensitization and toolbox talks.<br>- Provide proper PPE. | First aid kit availability, safety | Contractor | Random inspections | UWA | 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) |
|---|---|---|---|---|---|---|
| | - Maintain first aid kits on-site.<br>- Display emergency procedures.<br>- MoU with healthcare facilities for emergencies. | awareness programs, PPE compliance | | | | |
| Sexual Harassment and HIV/AIDS Risks | - Conduct sensitization programs.<br>- Provide condoms to workers.<br>- Ensure access to healthcare for HIV/AIDS services.<br>- Establish grievance redress mechanisms. | Sensitization records, condom dispensers' availability | Contractor | Weekly | UWA | 3,000,000 |
| **Operation Phase** | | | | | | |
| Poor Waste Management | - Train rangers on proper waste management.<br>- Provide coded waste bins for segregation.<br>- Routine waste collection and disposal.<br>- Regular cleaning of sanitary facilities. | Waste bins availability, sanitary facility condition | UWA Rangers | Random inspections | UWA HQ Team | 3,000,000 |
| Occupational Health and Safety Risks | - Train rangers on health and safety risks.<br>- Establish a first aid station at the gate.<br>- Implement emergency response procedures. | First aid kit availability, emergency response procedures | UWA | Daily monitoring | UWA HQ Team | 5,000,000 |

## 10.7 Decommissioning/Restoration/Rehabilitation Plan

During decommissioning of construction activities, the contractor shall ensure that all construction equipment is demobilized from the site before handover. As part of the restoration activities, grasses and trees that are indigenous to QENP shall be planted around the established staff accommodation house. In scenarios where the contractor opened auxiliary components to support the construction activities, a restoration plan shall be prepared and submitted to the Consultant and Client for approval.

The proposed decommissioning and restoration strategy shall be detailed to consider the prevailing conditions then. At this stage of the project conceptualization, it is not yet clear if:

On completion of the project's construction phase, all environmental components disturbed by the project should be restored to their original state. This follows the National Environment Act, Cap 2019.

# 11 CONCLUSIONS AND RECOMMENDATONS

## 11.1 Introduction

The Environment assessment study revealed that the proposed project has got both socio-economic and environmental benefits and costs. It emerged that the benefits exceed the costs. Also, all the identified environmental and social impacts can be mitigated to a level of minimum or no significance throughout the project cycle. Further, none of the potential impacts would result in permanent irreversible damage to the ecosystem components.

## 11.2 Conclusions

The report has identified reasonable measures to mitigate the potential impacts arising from the construction and operation of the proposed staff accommodation, entry gate and facility blocks has assessed the significance of each of these impacts under both the pre- and post-migration of labour force scenarios. Professional experience, specialist knowledge, relevant literature and local knowledge of the area have all been used to assess the potential impacts associated with the proposed project.

The proposed staff accommodation, entry gate and facility blocks will have a number of positive impacts including creation of employment, conservation of wildlife biodiversity. The negative environmental impacts that will result from the establishment of the project include noise and dust pollution during both construction and decommissioning phases.

The contractors shall have to be committed to putting in place several measures to mitigate the negative environmental, safety, health and social impacts associated with the development cycle of the proposed development project. It is recommended that in addition to this commitment, the proponent shall focus on implementing the measures outlined in the ESMP as well as adhering to all relevant national and international environmental, health and safety standards, policies and regulations that govern establishment and operation of such projects.

## 11.3 Recommendations

To supplement the environment project brief assessment with its ESMP prepared, the contractor should be called upon to develop the following Environmental management plans:

1. A Spill Prevention and Counter Measure Plan;
2. Waste Management Plan;
3. Occupational Health and Safety Management Plan;
4. HIV/AIDS Prevention Plan;

5. Erosion and Sediment Control Plan;
6. Environmental Restoration Plan;
7. Stakeholder Engagement Plan
8. Grievance Management Plan
9. Biodiversity Management Plan

The developer should obtain any necessary permits including water abstraction permits, waste discharge permits, and construction permits among others.

It is therefore recommended that the proposed project be approved subject to the following conditions:

1. The contractor will have to adhere to proper environmental and social practices.
2. The contractor will comply with the laws of the country and the World Bank Safeguards Standards.
3. The contractor will ensure implementation of the proposed ESMP
4. The contractor will engage the neighborhood association on legal compliance and approvals and good environmental and social practices in project implementation.
5. Green building practices are to be adopted to achieve significant impact on combating climate change and help to create truly sustainable communities.
6. All necessary approvals will be obtained, and the conditions of such approvals complied with.
7. In order to ensure maximize the perceived project benefits, mitigation measures of identified potential risks must be put into consideration.

Based on the above, the consultancy team recommends that lead Agency approves this project for implementation.

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# APPENDICES

## Appendix 1: Plant Species List

| No. | Species names | Family | Plant life | IUCN status |
|---|---|---|---|---|
| 1. | *Acacia sieberiana* | Fabaceae | Tree | LC |
| 2. | *Dichrostachys cinerea* | Fabaceae | Tree | LC |
| 3. | *Acacia hockii* | Fabaceae | Tree | NE |
| 4. | Albizia adianthifolia | Fabaceae | Tree | LC |
| 5. | Senna siamea | Fabaceae | Tree | LC |
| 6. | Albizia glaberrima | Fabaceae | Tree | LC |
| 7. | *Acacia mallifera* | Fabaceae | Tree | NE |
| 8. | *Piliostigma thonningii* | Fabaceae | Shrub | NE |
| 9. | *Capparis tomentosa* | Capparaceae | Shrub | NE |
| 10. | *Balanites aegyptiaca* | Zygophyllaceae | Shrub | LC |
| 11. | *Carisa edulis* | Apocynaceae | Shrub | NE |
| 12. | *Cadaba farinosa* | Capparaceae | Shrub | LC |
| 13. | *Vepris nobilis* | Rutaceae | Shrub | LC |
| 14. | *Rhus spp* | Rutaceae | Shrub | |
| 15. | *Ocimum Gratissimum* | Lamiaceae | Shrub | NE |
| 16. | *Grewia mollis* | Malvaceae | Shrub | LC |
| 17. | *Carica papaya* | Caricaceae | Tree | LC |
| 18. | *Ficus mucuso* | Moraceae | Tree | LC |
| 19. | *Lantana camara* | Verbenaceae | Shrub | NE |
| 20. | *Solanum virginianum* | Solanaceae | Shrub | LC |
| 21. | *Solanum incanum* | Solanaceae | Shrub | LC |
| 22. | *Acanthus polystachyus* | Acanthaceae | Shrub | LC |
| 23. | *Mangifera indica* | Anacardiaceae | Tree | LC |
| 24. | *Persea americana* | Lauraceae | Tree | LC |
| 25. | *Chloris virgata* | Poaceae | Herb | LC |
| 26. | *Imperata cylindrica* | Poaceae | Herb | LC |

| | | | | |
|---|---|---|---|---|
| 27. | *Pennisetum purpureum* | Poaceae | Herb | LC |
| 28. | *Sporobolus stapfianus* | Poaceae | Herb | LC |
| 29. | *Digitaria eriantha* | Poaceae | Herb | LC |
| 30. | *Urochloa panicoides* | Poaceae | Herb | LC |
| 31. | *Hyparrhenia hirta* | Poaceae | Herb | LC |
| 32. | *Vossia cuspidata* | Poaceae | Herb | LC |
| 33. | *Hyparrhenia rufa* | Poaceae | Herb | LC |
| 34. | *Setaria verticillata* | Poaceae | Herb | LC |
| 35. | *Chloris gayana* | Poaceae | Herb | LC |
| 36. | *Sporobolus heterolepis* | Poaceae | Herb | LC |
| 37. | *Cynodon dactylon* | Poaceae | Herb | LC |
| 38. | *Bidens pilosa* | Asteraceae | Herb | LC |
| 39. | *Euphorbia candelabrum* | Euphorbiaceae | Tree | LC |
| 40. | *Euphorbia tirucalli* | Euphorbiaceae | Tree | LC |
| 41. | *Cyperus rotundus* | Cyperaceae | Herb | LC |
| 42. | *Cyperus papyrus* | Cyperaceae | Herb | LC |
| 43. | *Ageratum conyzoides* | Asteraceae | Herb | LC |
| 44. | *Commelina erecta* | Commelinaceae | Herb | LC |

**Appendix 2: Avifauna recorded within the proposed sites**

| No. | Common name | Species name | IUCN conservation status |
|---|---|---|---|
| 1. | Martial Eagle | *Polemaetus bellicosus* | EN |
| 2. | Yellow-billed Stork | *Mycteria ibis* | LC |
| 3. | Grey Kestrel | *Falco ardosiaceus* | LC |
| 4. | Marabou Stork | *Leptoptilos crumenifer* | LC |
| 5. | African Fish- eagle | *Haliaeetus vocifer* | LC |
| 6. | African Darter | *Anhinga rufa* | LC |
| 7. | Grey-headed Kingfisher | *Halcyon leucocephala* | LC |
| 8. | Pied Kingfisher | *Ceryle rudis* | LC |
| 9. | Helmeted Guineafowl | *Numida meleagris* | LC |
| 10. | Egyptian Goose | *Alopochen aegyptiaca* | LC |
| 11. | Giant Kingfisher | *Megaceryle maxima* | LC |
| 12. | Long-toed Plover | *Vanellus crassirostris* | LC |
| 13. | Black-headed Lapwing | *Vanellus tectus* | LC |
| 14. | Yellow-fronted Tinkerbird | *Pogoniulus chrysoconus* | LC |
| 15. | Little Bee-eater | *Merops pusillus* | LC |
| 16. | Sandpipers | *Scolopacidae* | LC |
| 17. | Swamp Flycatcher | *Muscicapa aquatica* | LC |
| 18. | Red-winged Grey Warbler | *Drymocichla incana* | LC |
| 19. | Village Weaver | *Ploceus cucullatus* | LC |
| 20. | Black-headed Weaver | *Ploceus melanocephalus* | LC |
| 21. | Red-billed Firefinch | *Lagonosticta senegala* | LC |
| 22. | Vieillot's Black Weaver | *Ploceus nigerrimus* | LC |

## Appendix 3: Minutes of Stakeholder Engagements

## UWA RANGERS

| | |
|---|---|
| ***Project Name*** | **PROPOSED CONSTRUCTION OF STAFF ACCOMODATIONS AND THE ENTRY GATE** |
| | Proposed Construction of Accommodation Facilities in QENP |
| *Subject* | **Meeting with the UWA Rangers** |
| *Meeting Status* | **Physical Meeting** |
| *Date* | **03th April 2023** |
| *Time* | **4:00pm-5:00pm** |
| *Members Present* | Simon Peter Ssali<br>John Martin Ogolla<br>Kirabo Rita<br>Ssemwaka Stephen<br>Prossy Nakawuka<br>Eng Ronald Menya<br>Twine Everest<br>Rukundo Talent<br>Karuhanga John<br>Byarugaba Amos<br>Adane Robert |

| Minute | Discussion | Action |
|---|---|---|
| | **Agenda**<br>1. Prayer<br>2. Self-introduction<br>3. Communication from the consultant team<br>4. Communication from UWA team<br>5. Reactions and Way forward<br>6. Closure | All to Note |
| **1.0** | **Prayer**<br>An opening prayer was led by Ssemwaka Stephen | All to Note |
| **2.0** | **Self-introduction**<br><br>The environment consultant team and the UWA team<br>The community leaders and the other members introduced themselves | All to Note |
| **3.0** | **Communication from the consultant team**<br>The consultant team introduced the project where the developer (UWA) intends to set up Accommodation facilities for the junior staff in 5 sites and an entry gate within QENP | All to Note. |

| | | |
|---|---|---|
| | UWA procured a consultant to undertake an environmental Assessment study as per agreement since its situated within a Protected Area to identify impacts of the construction and propose mitigation measures. The purpose of the meeting was to involve staff to get their views on the project. | |
| **4.0** | **Communication from UWA ranger**<br>To know the total number of blocks or units and the designs that would be accommodated at the site facility.<br><br>Any construction should prioritize using sustainable materials and energy-efficient designs to reduce the carbon footprint.<br><br>Contractor to manage all impacts, namely waste-related impacts, pollution, human wildlife conflicts, etc.<br><br>They requested to know the time the project will begin<br><br>The safety measures for workers should clearly be elaborated<br>The contractor should train their works on code of conduct<br><br>The units should comprise of Wardrobes to be installed in the bedrooms, flushing toilets and ceiling boards due to the heat in the new facilities<br>Create proper access routes<br><br>Ranger should be safe and enhance the park's management | Consultant to Note |
| **5.0** | **Reactions and Way forward**<br><br>The compensation measures for lost biodiversity will be clearly elaborated through restoration<br><br>Impacts of HIV/AIDs and livelihood of the people during both the construction and operation phases will clearly be addressed.<br><br>Sensitization of the people within the project areas and the contractors work force on HIV/AIDS and general conduct while within the community | All to Note |

| | | |
|---|---|---|
| | Time management on the project's duration with the monitoring teams will ensure that it is delivered within the contact time.<br><br>HIV stands for Human Immunodeficiency Virus, while AIDS stands for acquired immunodeficiency syndrome. Therefore, (HIV/AIDS) testing and counseling services should be provided to the workers that come to the park.<br><br>Strict laws will be set on the contractor's workers discipline especially when socializing with the local community and UWA staff mostly the Rangers<br><br>Follow-ups and monitoring of the environment will be planned and effected by having monitoring teams such as UWA and the Supervising Consultant.<br><br>UWA to provide security while monitoring the project progress and ensure safety from the wild<br><br>Contractor on site should consider the nearby communities for employment which will both be skilled and unskilled where appropriate, but apriority will be given to local workers<br><br>In addition to Police Gender Based violence service providers will be procured to provide comprehensive training on GBV awareness to prevent any incidences | |
| **6.0** | **Closure**<br>The meeting closed at 5:00pm | All to Note |

**UWA TOP MANAGEMENT**

| | |
|---|---|
| **Project Name** | **PROPOSED CONSTRUCTION OF STAFF ACCOMODATIONS AND THE ENTRY GATE** |
| | Proposed Construction of Accommodation Facilities in QENP |
| Subject | **Meeting with the UWA Top Management** |
| Meeting Status | **Physical Meeting** |
| Date | **17/05/2023** |
| Time | **11:00am-12:30pm** |
| Members Present | Ssemwaka Stephen<br>Prossy Nakawuka<br>Eng Ronald Menya<br>Kirabo Rita<br>Simon Peter Ssali<br>John Martin Ogolla<br>Justine Namara<br>Buhanga Edgar<br>Mwandha Sam<br>Eng Kalanzi Adam<br>Kapere Richard |
| ***Minute*** | **Discussion** |
| ***1.0*** | **Agenda**<br>1. Prayer<br>2. Self-introduction<br>3. Communication from the consultant team<br>4. Communication from Top Management team<br>5. Reactions and Way forward<br>6. Closure |
| *2.0*<br>*2.1* | **Prayer**<br>An opening prayer was led by Eng.Kalanzi Adam (UWA) |
| *3.0*<br>*3.1* | **Self-introduction**<br>The consultant team introduced themselves and the UWA team |
| 4.0<br>*4.1* | **Communication from the consultant team** |

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| 4.2<br><br>4.3 | The consultant team introduced the project where the developer (UWA) intends to set up Accommodation facilities, and Gates in Eleven (11) Protected Areas,<br><br>UWA procured a consultant to undertake Design and development of bills of quantities for Environmental and Social due diligence for infrastructure development in Selected Protected areas.<br><br>Presentation of the Designs for each protected area was done using Power point. |
| 4.4<br><br>4.5<br><br>4.6 | **Communication from UWA Top Management**<br><br>The designs are too urban. UWA recommended the designs to reflect the Environment of the site.<br><br>The gate should symbolize the Parks themes, and the colors of the gate should be changed as well<br><br>The project briefs should be in line to the recent NEMA regulations and World Bank Standards. |
| 4.8 | **Reactions and Way forward** |
| 4.9<br><br>5.0<br><br>5.1<br><br>5.2<br><br>5.3 | The designs should Clearly depict the specific environment of each park site.<br><br>UWA team agreed to give the color particular of each park to reflect with the gates<br><br>Consultants ensured to include Ramps for (PWD)<br><br>It was agreed by the UWA team that the consultants should liaise with the UWA Environmental team before submission of the final reports.<br><br>Presentation of the final designs to track changes will be presented to UWA top management. |
| 5.4 | **Closure 12.30pm**<br><br>The meeting closed at 12:30pm |

## DISTRICT LOCAL GOVERNMENT OFFICIALS

| | | |
|---|---|---|
| **Project Name** | **PROPOSED CONSTRUCTION OF STAFF ACCOMODATIONS AND THE ENTRY GATE** | |
| | Proposed Construction of Accommodation Facilities in QENP | |
| Subject | **Meeting with the District Local Government Officials** | |
| Meeting Status | **Physical Meeting** | |
| Date | **035/04/ 2023** | |
| Time | **11:00am-11:30am** | |
| Members Present | Augustine Kooli<br>Asiimwe Queenngonda<br>Eng Ronald Menya<br>Kirabo Rita<br>Simon Peter Ssali<br>John Martin Ogolla | |
| ***Minute*** | **Discussion** | **Action** |
| ***1.0*** | **Agenda**<br>1. Prayer<br>2. Self-introduction<br>3. Communication from the consultant team<br>4. Communication from the District Environmentalist<br>5. Communication from the District CDO<br>6. Reactions and Way forward<br>7. Closure | All to Note |
| ***2.0***<br>*2.1* | **Prayer**<br>An opening prayer was led by John Martin Ogolla | All to Note |
| ***3.0***<br>*3.1* | **Self-introduction**<br>The Environment consultant team<br>The District Environmentalist and Chief Development Officer introduced themselves | All to Note |

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|---|---|---|
| ***4.0*** | **Communication from the consultant team** | District Officials to Note. |
| *4.1* | The consultant team introduced the project where the developer (UWA) intends to set up Accommodation facilities for the junior staffs in Six sites, and a gate within QENP | |
| *4.2* | UWA procured a consultant to undertake an environmental Assessment study as per agreement since its situated within a Protected Area to identify impacts of the construction and propose mitigation measures the purpose of the meeting was to involve the District Local Government Officials so as to get their views on the project. | |
| *4.3* | **Communication from District Environmentalists** | Consultant to Note |
| | They welcomed the project in the different districts. | |
| *4.4* | They noted that NEMA should be aware of the developments through the documentation that is to be submitted in regard to the staff accommodation sites. | |
| *4.5* | They requested security observation on the different staff accommodation sites. | |
| | They requested that the facility areas should be fenced. | |
| *4.6* | Sanitation facilities should be used for the proposed developments. | |
| *4.7* | General Waste management facilities should be provided. | |
| *4.8* | There should be minimum vegetation disturbance in the areas for which the developments are situated. | |
| *4.9* | **Communication from CDOs** | |
| | They positively welcomed the project. | |
| ***5.0*** | They requested that HIV/AIDS Awareness should be carried out especially to the Contractors' Workers in the different areas. | |
| *5.1* | Community people should as well benefit from the project. Through Employment where necessary | |

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| ***6.0*** | **Reactions and Way forward** | All to Note |
| *6.1* | Communication to NEMA of the project will be carried out especially since project briefs will be submitted to the Authority for certification. | |
| *6.2* | Sensitization of the people within the project areas and the contractors work force on HIV/AIDS and general conduct while within the community | |
| *6.3* | General Waste Management by the Contractors will be provided for, and Plans will be on site. | |
| *6.4* | Security will be enhanced mostly by the UWA Rangers since they well know the Park | |
| *6.5* | HIV/AIDS testing and counseling services will be provided for the workers on site to prevent any incident. | |
| | Minimum Vegetation cover disturbance by the Contractors and restoration is to be considered. | |
| | Employment for community members shall be considered where applicable for both skilled and unskilled but priority will be given to local worker who will be in a range of thirty people | |
| ***7.0*** | **Closure** | All to Note |
| *7.2* | The meeting closed at 11:30am | |

**MINISTRY OF TOURISM, WILDLIFE AND ANTIQUITIES**

| | | |
|---|---|---|
| **Project Name** | **PROPOSED CONSTRUCTION OF STAFF ACCOMODATIONS AND THE ENTRY GATE** | |
| | Proposed Construction of Accommodation Facilities in QENP | |
| Subject | **Meeting with the Ministry of Tourism, Wildlife and Antiquities** | |
| Meeting Status | **Physical Meeting** | |
| Date | **20/05/2023** | |
| Time | **10:00am-10:30am** | |
| Members Present | Ssemwaka Stephen<br>Eng Ronald Menya<br>John Martin Ogolla<br>Prossy Nakawuka<br>Simon Peter Ssali<br>Annet Balaza<br>Baluku Joward | |
| ***Minute*** | **Discussion** | **Action** |
| ***1.0*** | **Agenda**<br>1. Prayer<br>2. Self-introduction<br>3. Communication from the consultant team<br>4. Communication from MTWA team<br>5. Reactions and Way forward<br>6. Closure | All to Note |
| *2.0*<br>*2.1* | **Prayer**<br>An opening prayer was led by John Martin Ogolla | All to Note |
| *3.0* | **Self-Introduction**<br>The Environment consultant team<br>The Ministry of Tourism Wildlife and Antiquities themselves | All to Note |
| 3.1 | **Communication from the Consultant team** | |

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| 3.2 | The consultant team introduced the project where the developer (UWA) intends to set up Accommodation facilities, and Gates in eleven (11) Protected areas<br><br>UWA procured a consultant to undertake an environmental Assessment study as per agreement since its situated within a Protected Area to identify impacts of the construction and propose mitigation measures the purpose of the meeting was to involve the Ministry of Tourism Wild life and Antiquities. | MTWA to Note |
| 3.3<br><br><br><br><br><br><br>3.4 | **Communication from MTWA Member**<br><br>The staff facilities within the national park are a positive step towards improving services and enhancing the overall tourism experience, Consideration should be given to sustainable building practices and eco-friendly materials to minimize the environmental footprint of the staff facilities and demonstrate a commitment to conservation.<br><br>When does the project commence | Consultants to Note |
| 3.5<br><br>3.6<br><br><br><br><br>3.7<br><br><br><br><br>3.8 | **Reactions and Way forward**<br><br>UWA will communicate when the project commences.<br><br>Prioritize Energy Efficiency the design of the infrastructure is to be energy-efficient by incorporating features such as high-performance insulation.<br><br>Integrate Renewable Energy to explore options for integrating renewable energy sources, such as solar panels, to power staff facilities and reduce reliance on fossil fuels will be considered.<br><br>Sustainable Material the select materials with low environmental impact will be used, such as recycled or reclaimed materials, sustainably sourced wood, and non-toxic finishes | MTWA to Note |
| 3.9 | **Closure**<br>**The meeting closed at 10:30 am** | All to Note |

**UGANDA TOURISM BOARD**

| | | |
|---|---|---|
| **Project Name** | **PROPOSED CONSTRUCTION OF STAFF ACCOMODATIONS AND THE ENTRY GATE** | |
| | Proposed Construction of Accommodation Facilities in QENP | |
| Subject | **Meeting with the Uganda Tourism Board** | |
| Meeting Status | **Physical Meeting** | |
| Date | **28/05/ 2023** | |
| Time | **4:00pm-4:30pm** | |
| Members Present | Ssemwaka Stephen<br>Kirabo Rita<br>Simon Peter Ssali<br>John Martin Ogolla<br>Prossy Nakawuka<br>Eng Ronald Menya<br>Arc Jesse<br>Melon Twikirize | |
| ***Minute*** | **Discussion** | **Action** |
| ***1.0*** | **Agenda**<br>1. Prayer<br>2. Self-introduction<br>3. Communication from the consultant team<br>4. Communication from UBT team<br>5. Reactions and Way forward<br>6. Closure | All to Note |
| 2.0<br>2.1 | **Prayer**<br>An opening prayer was led by Arc Jesse | All to Note |
| 3.1<br>3.2 | **Self-Introduction**<br>The Environment consultant team<br>The Uganda Tourism Borad (UBT) | All to Note |
| 3.3 | **Communication from the consultant team**<br>The consultant team introduced the project where the developer (UWA) intends to set up | All to Note |

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|---|---|---|
| | Accommodation facilities, and Gates in eleven (11) Protected areas.<br><br>UWA procured a consultant to undertake an environmental Assessment study as per agreement since its situated within a Protected Area to identify impacts of the construction and propose mitigation measures the purpose of the meeting was to involve Uganda Tourism Board. | |
| 3.4<br><br>3.5<br><br><br><br><br><br>3.6 | **Communication from UBT Member**<br><br>It is crucial to ensure that the design and location of staff facilities are in harmony with the natural surroundings of the national park, minimizing visual impact and preserving the park's aesthetic value**.**<br><br>Collaboration with the Ministry of Tourism and other relevant agencies is essential to align the construction of staff housing with broader tourism development objectives and visitor management strategies | Consultant to Note |
| 3.7<br><br>3.8<br><br><br><br>3.9 | **Reactions and Way forward**<br><br>The Ministry of Tourism is fully aware of the ongoing programs as they a major Stakeholders and consultations have been carried out.<br><br>Before designing the infrastructure facilities, a comprehensive screening for an ESIA/Project brief to understand the potential environmental impacts on the surrounding ecosystem has been carried out to minimize visual impacts | UBT to Note |
| 4.0 | **Closure**<br><br>The meeting closed at 4.30pm | All to Note |

**MINISTRY OF GENDER, LABOUR AND SOCIAL DEVELOPMENT**

| | | |
|---|---|---|
| **Project Name** | **PROPOSED CONSTRUCTION OF STAFF ACCOMODATIONS AND THE ENTRY GATE** | |
| | Proposed Construction of Accommodation Facilities in QENP | |
| Subject | **Meeting with the Ministry of Gender, Labour and Social Development** | |
| Meeting Status | **Physical Meeting** | |
| Date | **30/05/ 2023** | |
| Time | **2:00pm-3:00pm** | |
| Members Present | Prossy Nakawuka<br>Eng Ronald Menya<br>Kirabo Rita<br>Simon Peter Ssali<br>John Martin Ogolla<br>Michale Tegeka | |
| ***Minute*** | **Discussion** | **Action** |
| ***1.0*** | **Agenda**<br>1. Prayer<br>2. Self-introduction<br>3. Communication from the consultant team<br>4. Communication from UWA team<br>5. Reactions and Way forward<br>7. Closure | All to Note |
| *2.0*<br>*2.1* | **Prayer**<br>An opening prayer was led by Kirabo Rita | All to Note |
| *2.2* | **Self-Introduction**<br>The Environment consultant team<br>The Ministry of Labour Gender and Social Development (MLGSD) | All to Note |
| *2.3* | **Communication from the consultant team** | MSLGSD to Note |

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|---|---|---|
| | The consultant team introduced the project where the developer (UWA) intends to set up Accommodation facilities, and Gates in eleven (11) Protected areas.<br>UWA procured a consultant to undertake an environmental Assessment study as per agreement since its situated within a Protected Area to identify impacts of the construction and propose mitigation measures the purpose of the meeting was to involve Ministry of Labour Gender and Social Development (MLGSD), | |
| *2.4*<br>*2.5*<br><br><br><br>*2.6*<br><br><br><br>*2.7* | **Communication from MLGSD Member**<br>The construction project presents an opportunity to promote local employment and skills development through the hiring of labor from nearby communities and the engagement of local contractors and suppliers.<br>Regular monitoring and evaluation of the construction process should be conducted to ensure compliance with relevant regulations and standards, as well as to address any emerging issues or challenges in a timely manner.<br>Local leaders will need to have some safety as there in the park while monitoring on the ongoing project | Consultant to Note |
| *2.8*<br>*2.9*<br><br><br>*3.0*<br><br><br>*3.1* | **Reactions and Way forward**<br>The Supervising Consultant will regularly monitor and evaluate the impact of local employment and skills development initiatives associated with the construction project.<br>Regularly will monitor and evaluate the impact of local employment of about thirty people both skilled and unskilled and skills development initiatives associated with the construction project.<br>Assigned dedicated project personnel or supervisors to oversee the safety of local leaders on-site and will provide support as needed. These individuals will be trained in safety management and emergency response procedures | MLGSD to Note |
| *3.2* | **Closure**<br>The meeting closed at 3.00pm | All to Note |

**LOCAL LEADERS (LC1 Chairmen of surrounding villages)**

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|---|---|---|
| **Project Name** | **PROPOSED CONSTRUCTION OF STAFF ACCOMODATIONS AND THE ENTRY GATE** | |
| | Proposed Construction of Accommodation Facilities in QENP | |
| Subject | **Meeting with the local leaders** | |
| Meeting Status | **Physical Meeting** | |
| Location | **UWA field offices** | |
| Date | **03/04/2024** | |
| Time | **3:00pm-3:30pm** | |
| Members Present | Ssemwaka Stephen<br>Prossy Nakawuka<br>Eng Ronald Menya<br>Kirabo Rita<br>Simon Peter Ssali<br>John Martin Ogolla<br>Bwambale Kuakye<br>Masereka Deo<br>Kanyantole Simon | |
| ***Minute*** | **Discussion** | **Action** |
| ***1.0*** | **Agenda**<br>1. Prayer<br>2. Self-introduction<br>3. Communication from the consultant team<br>4. Communication from UWA team<br>5. Reactions and Way forward<br>6. Closure | All to Note |
| ***2.0*** | **Prayer**<br>Prayer led by Ssemwaka Steven | All to Note |
| ***2.1*** | **Self-Introduction**<br>The Environment consultant team<br>Local leaders | All to Note |

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| ***2.2*** | **Communication from the consultant team**<br>The consultant team introduced the project where the developer (UWA) intends to set up Accommodation facilities, and Gates in eleven (11) Protected areas.<br>UWA procured a consultant to undertake an environmental Assessment study as per agreement since its situated within a Protected Area to identify impacts of the construction and propose mitigation measures the purpose of the meeting was to involve Local Leaders | Leaders to Note |
| *2.3*<br><br>*2,4*<br><br><br>*2.5* | **Communication from Local Leaders**<br><br>Availability of employment opportunities for the local community.<br><br>Awareness of HIV/AIDS to the community<br><br>Safety along the roads | Consultant to Note |
| *2.6* | **Response from the consultants** | |
| *2.7*<br><br><br><br>*2.8*<br><br><br><br><br>*2.9*<br><br><br><br>*3.0* | Impacts of HIV/AIDs and livelihood of the people during both the construction and operation phases will is stated in the monitoring plans which includes awareness and training programms<br><br>Strict laws are set on the contractor's workers discipline especially when socializing with the local community.<br><br>Sensitization of the people within the project areas and the contractors work force on HIV/AIDS and general conduct while within the community has clearly been stated in the monitoring plans.<br><br>Safety on the roads such as signage will be installed on the roads for safety awareness and a supervising Consultant will be procured.<br><br>Both skilled and unskilled employment will compare of about thirty people on site and priority will be to the local workers<br><br>In addition to Police, Gender Based Violence service providers will be procured to carry out awareness programs and training to prevent any incidents | Local Leaders to Note |
| *3.1* | **Closure**<br><br>The meeting closed at 3.30pm | All to Note |

**COMMUNITY MEMBERS**

| | | |
|---|---|---|
| **Project Name** | **PROPOSED CONSTRUCTION OF STAFF ACCOMODATIONS AND THE ENTRY GATE** | |
| | Proposed Construction of Accommodation Facilities in QENP | |
| Subject | **Meeting with the Community** | |
| Meeting Status | **Physical Meeting** | |
| Location | **UWA Field Offices** | |
| Date | **03/04/2023** | |
| Time | **2:00pm-2:30pm** | |
| Members Present | Ssemwaka Stephen<br>Prossy Nakawuka<br>Simon Peter Ssali<br>John Martin Ogolla<br>Kukunda Adrine<br>Mumbere Tom<br>Tumwine Danis | |
| ***Minute*** | **Discussion** | **Action** |
| ***1.0*** | **Agenda**<br>1. Prayer<br>2. Self-introduction<br>3. Communication from the consultant team<br>4. Communication from UWA team<br>5. Reactions and Way forward<br>6. Closure | All to Note |
| *2.0* | **Prayer**<br>Prayer led by Prossy Nakawuka | All to Note |
| *2.1*<br>*2.2* | **Self-Introduction**<br>The Environment consultant team<br>Community members | All to Note |
| *2.3*<br>*2.4* | **Communication from the consultant team** | |

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|---|---|---|
| | The consultant team introduced the project where in the developer (UWA) intends to set up Accommodation facilities, and Gates in eleven (11) Protected areas.<br>UWA procured a consultant to undertake an environmental Assessment study as per agreement since its situated within a Protected Area to identify impacts of the construction and propose mitigation measures the purpose of the meeting was to involve Local Leaders | |
| *2.4*<br><br>*2.5*<br>*2.6* | **Communication from the community**<br>Employment Opportunity for the locals<br><br>Time when the project commences | Consultant to Note |
| *2.7*<br><br>*2.8*<br><br><br><br>*2.8* | **Response from the consultants**<br><br>Communication will be made through the Local leaders when the project is to commence. UWA field monitoring team is in touch with the local leaders.<br><br>Employment Opportunities community members will be considered hence both the skilled and unskilled priority will be given to the local workers of about thirty individuals. In addition to Police, Gener Based Violence (GBV) service providers will be procured to carry out awareness programs and trainings to prevent any incidences | Community members to Note |
| *3.0* | **Closure**<br><br>The meeting closed at 2.30pm | All to Note |

## Appendix 4: Engagement contacts

### STAKEHOLDERS ENGAGEMENT FOR DESIGN OF UWA INFRASTRUCTURE

FOR: QUEEN ELIZABETH NATIONAL PARK DATE: 3rd/04/2023

| S/NO | NAME | DESIGNATION | CONTACT | SIGN |
|---|---|---|---|---|
| 01 | ADAMA ROBERT | MONITORING | 0783261886 | |
| 02 | TUMUHIMBISE BENNIE | MONITORING | 0789645835 | |
| 03 | TWINE EVERSLIT | RANGER | 0782643462 | |
| 04 | EGAU FRANCIS | VICE L.C | 075282627 5 | |
| 05 | BYARUGABA AMOS | VICE | 0703738471 | |
| 06 | RUKUNDO TALENT | MONITORING | 0772480644 | |
| 07 | EDISON TUMWERTA | MONITORING | 0782509989 | |
| 08 | John Karuhanga | Monitoring | 0751364644 | |
| 09 | BENJI TUMUHIMBISE | MONITORING | 0789645835 | |
| 10 | ROBERT ADAMA | MONITORING | 0783361886 | |
| 11 | BWAMBALE KUAKYE (KUGENDI) | LCI | 0784020143 | |
| 12 | MASEREKA DOUGLAS (Bwentare) | LCI | 0788532599 | |
| 13. | Simon Kamyatore (Kampara) | LCI | 0777425799 | |

### STAKEHOLDERS ENGAGEMENT FOR DESIGN OF UWA INFRASTRUCTURE

FOR: QUEEN ELIZABETH NATIONAL PARK DATE: 3/04/2023

| S/NO | NAME | DESIGNATION | CONTACT | SIGN |
|---|---|---|---|---|
| 01. | TUMWIINE BENJIN | COMMUNITY MEMBER | 0703457811 | |
| 02 | KWATUNDA ADRINE | COMMUNITY MEMBER | 0775183460 | |
| 03 | Muiime Innocent Baluku | Community Member | 0704112453 | |
| 04 | Bonabana Medius .K. | CIM | 0742160661 | |
| 05. | Mumbere Tom | Community Member | 0761012344 | |
| 06 | Mukwalo Josephat | Community Member | 0772071222 | |
| 07 | Mwiti Abraham | Community Member | 0782199902 | |

**Stakeholder Engagements (District Officials)**

**Date: 05th/04/2023** **Venue: District Offices**

| NAME | DESIGNATION | CONTACT | EMAIL | SIGNATURE |
|---|---|---|---|---|
| Augustine Kooli | District Env. Officer | 0782544911 | agustinekool@gmail.com | |
| Asiimwe Queen Ngumdoodo Kasese | | 0772931073 | asiimwequeen@gmail.com | |
| Rita Kirabo | IDM | 0785060746 | ritahkirabo08@gmail. | |
| Ssemakula Steven | IDM | 0756185852 | Ssemwaka078@gmail.com | |
| Prossy Nakawuka | IDM | 0779658101 | Prossy Nakawuka@gmail | |
| Simon Sali | IDM | 0778144153 | Ssalisimon@gmail.com | |
| Ronald Menya | IDM/MD | 0772407822 | ronaldmenya2016@gmail.com | |
| | | | | |

**Stakeholder Engagements (Ministry of Gender, Labour and Social Development)**

**Date: 30th/05/2023** **Venue: MGLSD Offices**

| NAME | DESIGNATION | CONTACT | EMAIL | SIGNATURE |
|---|---|---|---|---|
| Tengeka Michael | MGLSD | 0774852020 | tengekamichael@gmail.com | |
| Rita Kirabo | IDM | 0785060746 | ritahkirabo@gmail.com | |
| Prossy Nakawuka | IDM | 0778141153 | Prossynakawuka@gmail.com | |
| John Martin | IDM | 0781735348 | Ogdenjohnmartin@gmail.com | |
| Menya Ronald | MD/IDM | 0772407822 | ronaldmenya2016@gmail.com | |
| Simon Sali | IDM | 0778 65 8101 | Ssalisimon@gmail.com | |
| | | | | |

**Stakeholder Engagements (Ministry of Tourism, Wildlife and Antiquities)**

**Date: 20th/08/2023** **Venue: MTWA Offices**

| NAME | DESIGNATION | CONTACT | EMAIL | SIGNATURE |
|---|---|---|---|---|
| ANNET BAZARA | MINISTRY OF TOURISM | 0701860561 | annetbazara@gmail.com | |
| BALUKU JOWARD | MINISTRY OF TOURISM | 0784654561 | Jaward.baluku@tourism.go.ug | |
| SIMON SALI | IDM | 0778144153 | Ssalisimon@gmail.com | |
| RITA KIRABO | IDM | 0785607465 | ritakirabo078@gmail.com | |
| John Mentin | IDM | 0781735348 | Ogollajohnmentin@gmail.com | |
| Prossy Nakawuka | IDM | 0779658101 | ProssyNakawuka@gmail.com | |
| MENYA RONALD | IDM | 0772407822 | ronaldmenya2016@gmail.com | |

**Stakeholder Engagements (Uganda Tourism Board)**

**Date: 28th/05/2023** **Venue: UTB Offices**

| NAME | DESIGNATION | CONTACT | EMAIL | SIGNATURE |
|---|---|---|---|---|
| MELLON TUKEIKIRIZA | UTB | 0783456539 | mellontukeikiriza@utb.go.ug | |
| Ssemwaka Steven | IDM | 0756185882 | Ssemwaka@gmail.com | |
| SIMON SALI | IDM | 0778144153 | Ssalisimon@gmail.com | |
| MENYA RONALD | IDM | 0772407822 | ronaldmenya2016@gmail.com | |
| RITA KIRABO | IDM | 0785607465 | ritakirabo078@gmail. | |
| Jesse Tukahirwa | IDM | 0785244007 | Jesse112@gmail.com | |

## Appendix 5: Chance Finds Procedure

This document describes the Chance Find Procedure for the project outlining the procedures that will be undertaken should potential cultural heritage discoveries occur during the construction of the components associated with the Project.

The Chance Find Procedure has been developed in alignment with international good practice, including the World Bank Environmental and Social Standards (notably ESS8), and also complies with Uganda's requirements as well as the legal and regulatory framework.

Cultural heritage is defined as resources with which people identify as a reflection and expression of their constantly evolving values, beliefs, knowledge and traditions. Cultural heritage encompasses tangible and intangible heritage, which may be recognized and valued at a local, regional, national or global level.

### Purpose of the Chance Find Procedure

A Chance Find Procedure is a project-specific procedure which is to be followed if previously unknown cultural heritage is encountered during project activities. The Chance Find Procedure sets out how chance finds associated with the project will be managed.

The Chance Find Procedure aims to:

- Protect physical cultural resources from the adverse impacts of physical investment activities and support their preservation;
- Promote the equitable sharing of benefits from the use of Physical Cultural Resources; and
- Raise awareness of all construction workers and management on site regarding the potential for accidental discovery of cultural heritage resources.

This Chance Find Procedure therefore intends to provide UWA and their contractors with an appropriate response as per the relevant national legislation and international good practice. As such, all contracts for civil works will include this Chance Find Procedure.

In order for the Chance Find Procedure to be effective, the site manager must ensure that all personnel on the proposed development site understand the Chance Find Procedure and the importance of adhering to it if cultural heritage resources are encountered.

**Procedures for accidental discovery of cultural resources (chance finds)**

This Chance Finds Procedure covers the actions to be taken from the discovering of a heritage site or item to its investigation and assessment by a professional archaeologist or other appropriately qualified person to its rescue or salvage.

If cultural resources (e.g. archaeological sites, historical sites, remains, objects, graveyards or individual graves) are discovered when undertaking the project construction activities, the following procedure will be executed;

1. Halt the construction activities around the chance find to avoid any (or further) damage;
2. Report the discovery to your supervisor or the Environmental Officer or supervising consultant immediately;
3. Delineate and fence the discovered site or area and provide a 25-meter buffer zone around all sides of the find;
4. Secure the site to prevent any damage or loss of removable objects. In cases of removable antiquities or sensitive remains, a night guard will be arranged until the responsible local authorities can take over;
5. Forbid any removal of the objects by the workers or other parties;
6. Note the type of archaeological materials you think you have encountered, their location (GPS) and if possible, the depth below the surface where the find occurred;
7. Photograph the exposed materials, preferably with a scale (e.g. a file binder, coin, rules etc.);
8. Notify the responsible local authorities and the relevant Institute of Archaeology immediately (within 24 hours or less);
9. Responsible local authorities would oversee protecting and preserving the site before deciding on subsequent appropriate procedures. This would require a preliminary evaluation of the findings to be performed by experts. The significance and importance of the findings should be assessed according to the various criteria relevant to cultural heritage; these include the aesthetic, historic, scientific or research, social, and economic values;
10. Decisions on how to handle the finding shall be taken by the responsible authorities. This could include changes in the physical investment layout (such as when finding an irremovable remain of cultural or archaeological importance) conservation, preservation, restoration, and/or salvage;

11. Implementation of the authority decision concerning the management of the finding shall be communicated in writing by relevant local authorities;
12. The mitigation measures could include the change of proposed Project design/ layout, protection, conservation, restoration, and/or preservation of the sites and/or objects;
13. Construction work at the site could resume only after permission is given from the responsible local authorities concerning the safeguard of the heritage; and
14. The physical investment proponent is responsible for cooperating with the relevant local authorities to monitor all construction activities and ensure that adequate preservation actions are taken and hence the heritage sites are protected.

In addition, the contractor is obliged to declare the chance find discovery at the earliest possible date to the Uganda Wildlife Authority.

## Appendix 6: Site Layout Plan

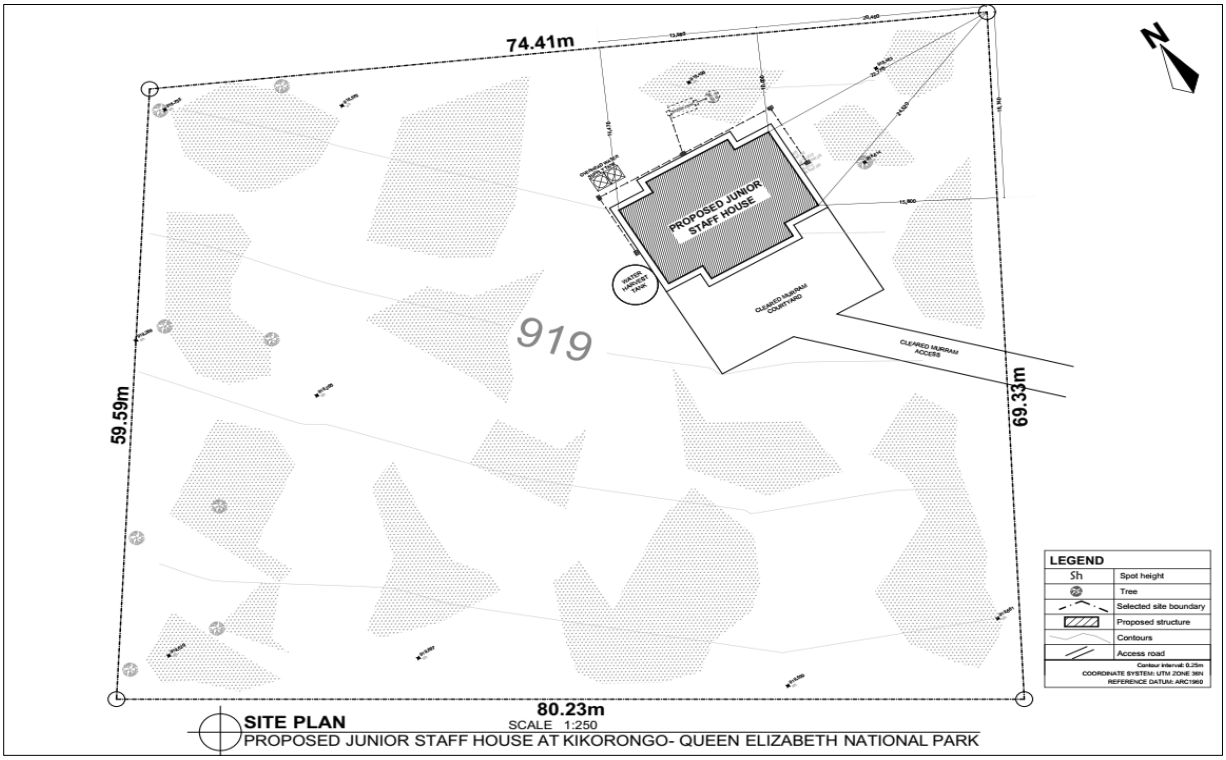


***Figure 22:*** Kikorongo Junior Staff Accommodation Site Plan

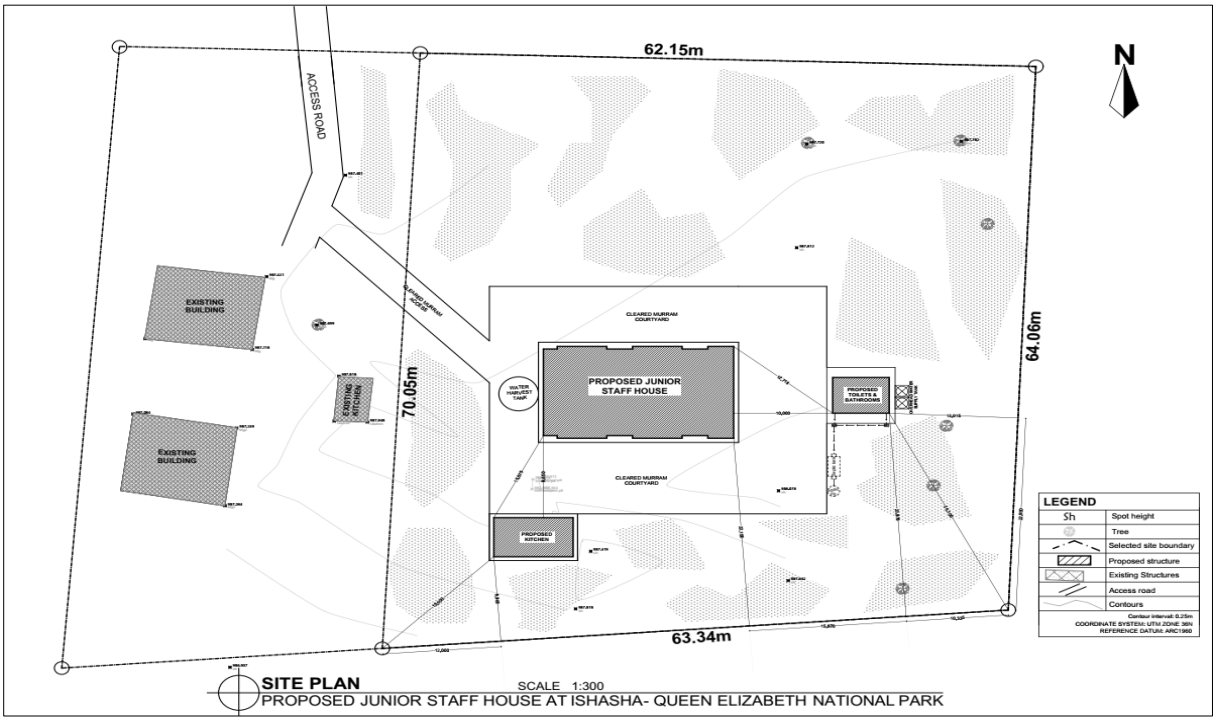


***Figure 23:*** Ishasha Junior Staff Accommodation Site Plan

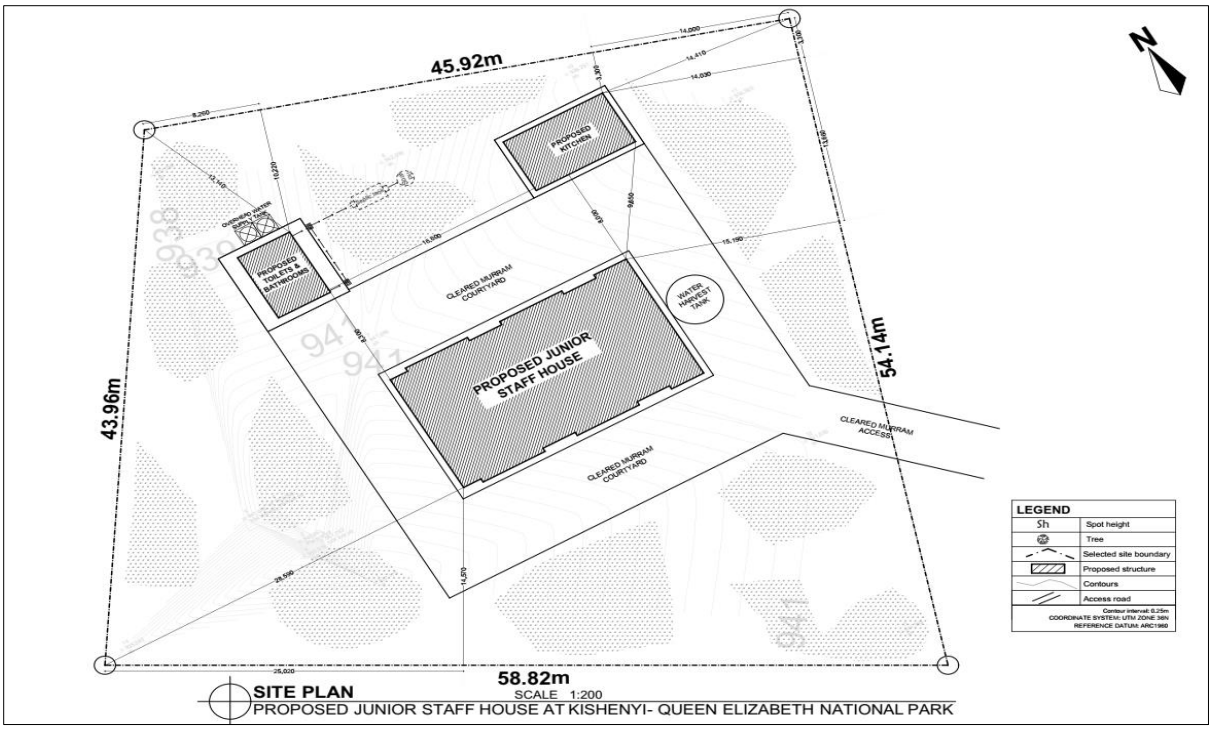


***Figure 24***: Kisenyi Junior Staff Accommodation Site Plan

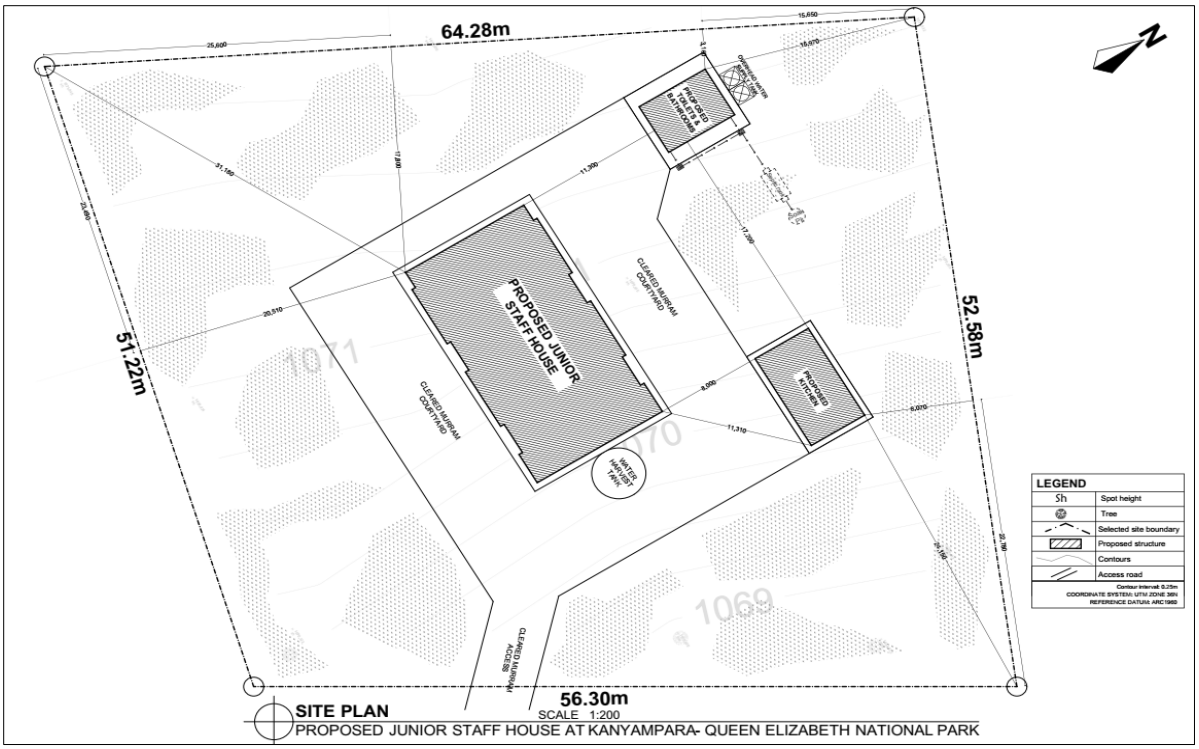


***Figure 25:*** Kanyampara Junior Staff Accommodation Site Plan

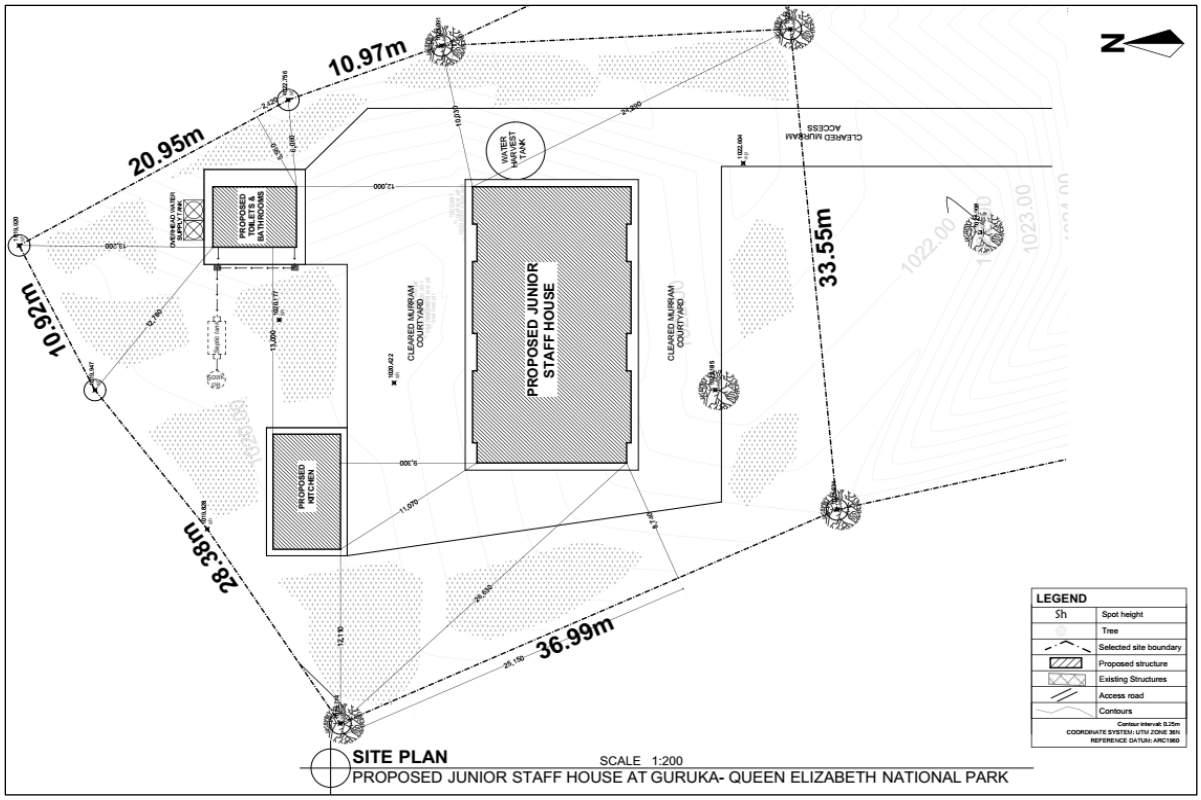


***Figure 26:*** Guruka Junior Staff Accommodation Site Plan

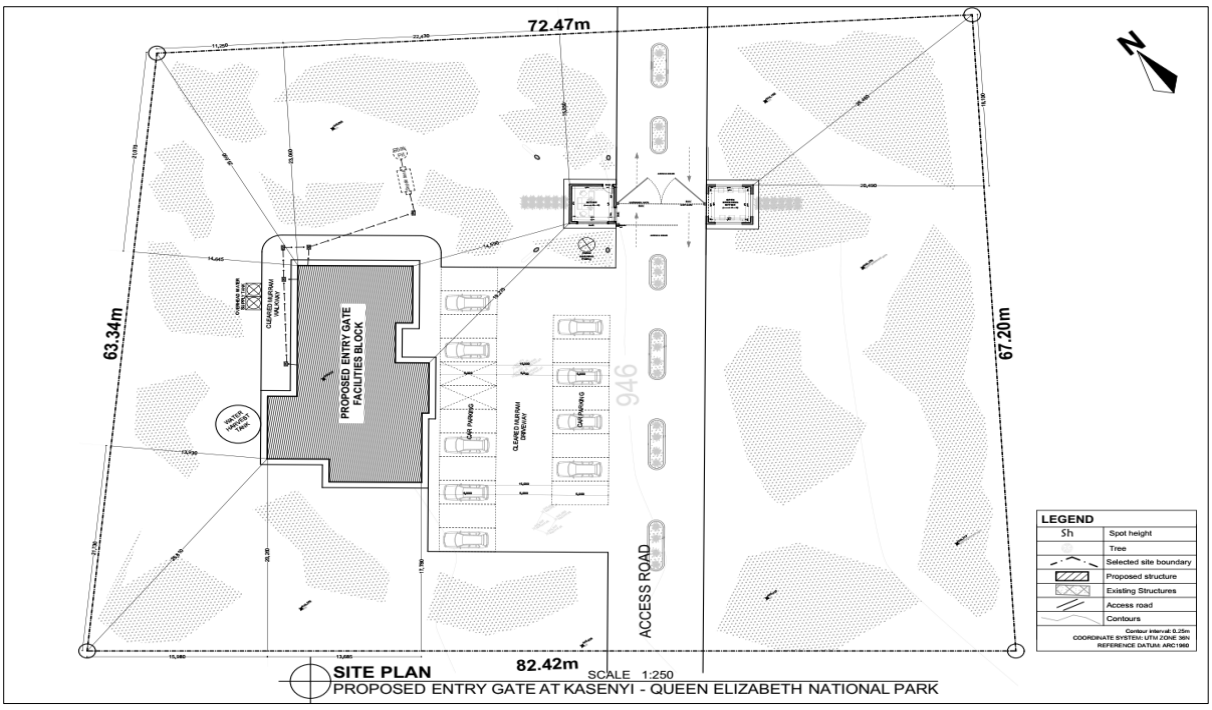


***Figure 27:*** Kasenyi Entry Gate Site Plan