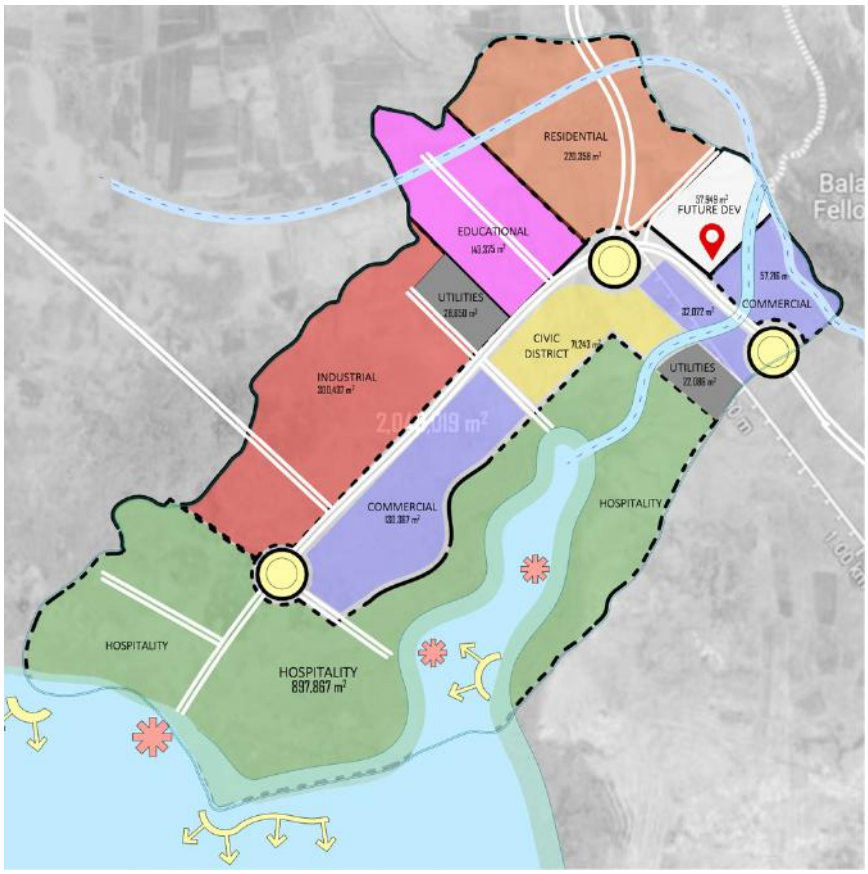
ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT STUDY REPORT



PROPOSED INFRASTRUCTURE DEVELOPMENT FOR HOMABAY COUNTY SPECIAL ECONOMIC ZONE (SEZ) AT KOYUGI LOCATION, HOMABAY COUNTY

PROPONENT	
	County Government of Homabay **Department of Trade, Industry, Tourism, Investment Cooperative Development and Marketing** **P. O. Box 469-40300, Homabay**
	Lakers Consultancy Limited **P. O. Box 19276-40123, Kisumu** **NEMA EIA /Audit REG. No. 9125** **Lead Expert Registration no. 1682**
OCTOBER 2023	

CERTIFICATION

Lakers Consultancy Limited (LCL) submits the following Environmental and Social Impact Assessment (ESIA) Study Report for the proposed installation of Homabay County Special Economic Zone (SEZ) at Koyugi Location, Homabay County.

We, certify that the information provided is accurate and truthful.

Proponent: County Government of Homabay (CGH)

Assignment: ESIA for the proposed Installation of installation of Homabay County Special Economic Zone (SEZ)

Report Title: Environmental and Social Impact Assessment Full Study Report

FIRM OF EXPERTS:

Lakers Consultancy Limited

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LAKERS CONSULTANCY LIMITED
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Signed: _____ **Date:** _____

Kevin Musiega (Management NEMA EIA/Audit Lead Expert REG. No. 1682)

PROPONENT:

County Government of Homabay (CGH)

Homabay County, department of Trade, Industry, Tourism, Investment Cooperative Development and Marketing

P. O. Box 469-40300, Homabay

Signed: _____ **Date:** _____

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ACRONYMS

AIDS	*Acquired Immuno-Deficiency Syndrome*
ARAP	*Abbreviated Resettlement Action Plan*
asl	*above sea level*
Cap	*Chapter of the laws of Kenya*
CGH	*County Government of Homabay*
CIDP	*County Integrated Development Plan*
CMS	*Convention on the Conservation of Migratory Species of Wild animals*
EA	*Environmental Assessment*
EIA	*Environmental Impacts Assessment*
EMCA	*Environmental Management & Coordination Act, 1999*
ESIA	*Environmental and Social Impact assessment*
ESMP	*Environmental and Social Management Plan*
ESSs	*Environmental and Social Standards*
FSR	*Full Study Report*
GDP	*Growth Domestic Product*
GHG	*Greenhouse Gas*
GoK	*Government of Kenya*
GPS	*Global Position System*
HIV	*Human Immuno-Virus*
HSEZ	*Homabay Special Economic Zone*
KeNHA	*Kenya National Highways Authority*
KeRRA	*Kenya Rural Roads Authority*
KFS	*Kenya Forest Service*
KMA	*Kenya Maritime Authority*
KURA	*Kenya Urban Roads Authority*
KWS	*Kenya Wildlife Service*
LN	*Legal Notice*
MCA	*Member of County Assembly*
MTP	*Medium Term Plan*
NEMA	*National Environment Management Authority*
NMK	*National Museum of Kenya*
OHS	*Occupational Health and Safety*
OSHA	*Occupational Safety and Health Act*

PIDProject on Infrastructure Development

RAPResettlement Action Plan

TORTerms of Reference

UNCEDUnited Nations Conference on Environment and Development

UNEPUnited Nations Environment Programme

UNFCCCUnited Nations Framework Convention on Climate Change

WBThe World Bank

WMCAWildlife Management and Conservation Act

WRAWater Regulatory Authority

EXECUTIVE SUMMARY

There are numerous challenges to the Kenyan environment today. This has occurred because of unsustainable development projects, many of which have led to environmental degradation. To address this problem, the Kenya Government came up with legislation enshrined in the Environmental Management and Coordination Act, 1999 (Revised, 2015). Through this Act, the National Environment Management Authority (NEMA) was instituted, which has the statutory mandate to supervise and coordinate all environmental activities. EMCA's main role is to advocate, oversee and enforce environmental management. Under EMCA, it is a mandatory requirement that all projects are economically viable, socially acceptable, and environmentally sound. For this reason, all new development projects are required to undergo an Environmental and Social Impact Assessment (ESIA). ESIA assesses the environmental and socio-economic impacts of a project before it is implemented to identify the likely environmental and social impacts of projects and propose mitigation measures for the adverse impacts.

The Environmental (Impact Assessments and Audit) Regulations, 2003 (Legal Notice 101) provide for the procedure and conduct for conducting environmental impact assessments and audits. The second schedule of the EMCA, 1999 that lists the projects that must undergo EIA has been amended by Legal Notice No. 31 & 32 of 2019 (The Environmental (Impact Assessment and Audit) (Amendment) Regulations, 2019.Legal Notice No 31 has reclassified the projects and facilities requiring EIA based on their risk to as Low, Medium, and High-risk projects. Legal Notice No. 32 of 2019 amended section 7 of legal notice 101 to require proponents of low risk and medium risk projects to submit an Environmental Impact Assessment (EIA) Summary project Report (SPR) while the proponents of High-Risk projects are required to submit a Full Study Report (FSR) to NEMA. The installation of the Homabay Special Economic Zone (SEZ) is classified high risk project. The study has also been undertaken in line with the requirements of World Bank Group (WBG) Environment and Social Framework (ESF), 2017.

County Government of Homabay (CGH)(hereafter referred to as the Project Proponent/CGH), appointed **Lakers Consultancy Ltd**, *a registered Firm of Environmental Experts, Firm Registration No* **9125**, *to carry out the Environmental and Social Impact Assessment (ESIA) study for the proposed installation of the Homabay SEZ. This was to comply with the EMCA, 1999 (Revised, 2015). The SEZ comprises is a 500-acreparcel of land off Lake Victoria, 15km Northeast of Homabay Town. The zone will comprise civic buildings, residential, industrial, hospitality,commercial, educational, and utility zones.*

1 INTRODUCTION

1.1 Background Information

The County Government of Homabay (CGH) with support of national government is developing the Homabay Special Economic Zone as part of the Kenya Vision 2030 Strategy aimed at delivering a globally competitive Kenya with high quality of life for all its citizens by the year 2030. Formulation of the Masterplan for Homabay Special Economic Zone has been completed by the County Government of Homabay with support of National Governemnet under the Technical Collaboration Projects for Homabay Special Economic Zone. The Project on Master Plan for Development of Homabay Special Economic Zone.

Implementation of the Masterplans for Special Economic Zone is being pursued through combination of County Government of Homabay and National Government through Special Purpose Vehicle. Phase One of the implementation will entail two broad components namely: -

- *Basic infrastructure through National Government and;*
- *Individual areas within the HomabaySEZ (including Free Trade Zone and Industrial Area) through private investment to SPV.*

1.2 Project Proponent

Homa Bay County is in the Southern part of Nyanza, alongthe southern shores of Lake Victoria-Africa's largest Fresh water lake.Known for its scenic hills and picturesque shoreline, Homa Bay Countycovers an area of 3,183.3 sq km with a population of about 1.3m million people.

The County headquarters *–Homa Bay town is located some 105kmsouth of Kisumu and about 420km south-west of Nairobi. Homa Bayis popularly known as the Bay County because of its many bays. Ithas breath-taking islands with the most famous being Rusinga andMfangano, hills valleys and* **the longest shores of Lake Victoria.** *With80% of Kenya's Lake Victoria in Homa Bay, the county leads as thesupplier of fresh lake fish in Kenya*

It borders five other Counties; Migori to the South, Kisii and Nyamirato the East, and Kericho and Kisumu to the Northeast. It is accessibleby lake transport, road, and air. Its Kabunde Airstrip has just beenrenovated and opened for commercial flights. The county has a richhistory and folklore that makes it a favourite for cultural tourism.

1.3 Purpose of the Report

The information contained in this Environmental and Social Impact Assessment (ESIA)Full Study Project Report, along with comments and inputs received from stakeholders and commenting authorities, will assist the competent authority, the National Environment Management Authority (NEMA), in deciding whether to grant environmental authorization for the Project, and to inform the conditions associated with such authorization.

The ESIA process involves the identification, prediction, and evaluation of actual and potential environmental and social impacts of the Project and outlines the mitigation measures for negative impacts and enhancement measures for positive impacts which the Project Proponent will implement.

The objectives of this document are to:

- *Communicate the results of the ESIA process for the Project and alternatives considered;*
- *Ensure that the impacts identified during the ESIA process are assessed;*
- *Present the mitigation and enhancement measures which will be implemented by the Project Proponent to manage the impacts identified;*
- *Provide a record of comments and responses received from Stakeholders during the ESIA process; and*
- *Facilitate an informed decision-making process by the relevant authorities.*

1.4 Project Justification

The County Government of Homa Bay is in the process ofpackaging its produce, both goods and services, for the nationaland international markets. Therefore, for the county government tostand out as an investment, tourist, and settlement attraction, it hasconducted a self-evaluation and noted the need to market itself. To achieve this, the county government has pinpointed some ofits investment ready opportunities within its borders. These investmentopportunities are open to government and non-governmentorganizations as well as individuals/groups who would be interested toeither partner with or solely invest in the county.The investment and development opportunities within the countyincludeAgriculture and livestock, Housing development, Trade industry, Tourism, Forestry, energy and natural resources, Water sanitation, Education and ICT, Governance, administration, communication and development, and Health.

To market the county as a viable investment opportunityboth for government and non-government opportunities, a SEZ has been proposed. The proposed site is a 500-acreparcel of land off Lake

Victoria, 15km Northeast of Homa Bay Town.The zone will comprise civic buildings, residential, industrial, hospitality,commercial, educational, and utility zones.

1.5 Scope, Objectives and Terms of Reference (TOR)

1.5.1 Overall objective of the ESIA study

The overall objective of the ESIA study is to identifypotential positive and negative environmental and social impacts associated with theproposed project and make recommendations on how to take advantage of the positiveimpacts on one hand and how to mitigate the negative environmental impacts on the other.

1.5.2 Scope (TORs) of the ESIA

The proposed scope of works for the study follows EMCA of 1999 (and 2015 Amendments) and the Environmental (Impact Assessment and Audit) regulations of 2013 (and the Amendments of 2009, 2016 and 2019) and include:

1. *Develop the terms of reference for the proposed ESIA study and submit them to NEMA for approval prior to commencement of the ESIA study as per the provisions of the Environmental (Impact Assessment and Audit) regulations, 2003, and the Environmental Impacts Assessment Guidelines and Administrative Procedures of 2002;*
2. *Carry out assessment and description of location/site, objectives, scope, nature of the*
3. *proposed project;*
4. *Carry out analysis of the proposed project activities during the proposed project cycle; construction, operation, decommissioning phases;*
5. *Establish the suitability of the proposed project in the proposed location;*
6. *Review and establish all relevant baseline information as will be required by NEMA (Physical, Biological and Social Cultural and economic) and identify any information gaps;*
7. *Description and analysis of policy, legal and institutional framework including but not limited to Kenyan policies, laws, regulation, and guidelines; international guidelines related to the proposed project, which have a bearing on the proposed project and will also serve as benchmarks for monitoring and evaluation, and future environmental audits;*
8. *Do an in-depth description of the proposed project and associated works together with the requirements for carrying out the works;*
9. *Analyse the efficacy of the designs, technology, procedures, and processes to be used, in the implementation of the works;*
10. *Carry out Consultation and Public Participation (CPP): Identify key stakeholders and affected persons**;** hold a public meeting and provide /collect written evidence i.e., minutes;*

11. *Identify and analyse proposed project alternatives including but not limited to: Scale and extent; project site alternatives, no project alternatives, design alternatives, material alternatives and technologies alternatives;*
12. *Identify, predict, and carry out in-depth analysis all actual potential and significant impacts on flora, fauna, soils, air, water, the social, cultural and community settings; the direct, indirect, cumulative, irreversible, short-term, and long-term effects anticipated to be generated by the proposed project, both positive and negative throughout the project cycle;*
13. *Recommend sufficient mitigation measures for all the potential negative impacts identified and analysed in 11 above;*
14. *Analyse materials to be used in the construction and implementation of the project, and wastes to be generated proposing alternative/appropriate options/technologies;*
15. *Analyse occupational health and safety issue associated with the proposed project;*
16. *Develop an Environmental Management Plan proposing the measures for eliminating, minimizing, or mitigating adverse impacts on the environment, including the cost, timeframe and responsibility to implement the measures;*
17. *Prepare a comprehensive ESIA study report in accordance with EMCA 1999 and EMCA (amendment) 2015 legislation;*
18. *Submit a draft ESIA Study report to the proponent for review;*
19. *Incorporate proponent's comments into the final ESIA study report after the review;*
20. *Submit 10 hard copies and one soft copy of the ESIA study report to NEMA for the purposes of seeking a NEMA license that will approve the proposed project;*
21. *Submit to the proponent one copy of NEMA referenced ESIA study report one soft copy of the ESIA study report and acknowledgment letter from NEMA; and*
22. *Lakers Green Consultancy Limited to follow up processing and issuance of the ESIA License for the proposed project from NEMA and Submit the Original ESIA license to client upon issuance.*

1.6 Methodology of the EIA full study

1.6.1 Screening

The Project was screened to determine the need to undertake an ESIA based on:

- *Project characteristics;*
- *Project area characteristics;*

- *The Second Schedule of EMCA (as amended in the Environmental (Impact Assessment and Audit) Regulations amendments of 2016, which lists the projects that must undergo an EIA; and*
- *World Bank Group (WBG) Environmental and Social Standards, 2017.*

Based on the above criteria, it was concluded that an ESIA resulting in the preparation of an ESIA Full Study Report (FSR) would be required for the Project due to the following aspects:

- *Legal Notices no. 149 of the National Environment (Impact Assessment and Audit) (Amendment) Regulations of 2016 and no 31 National Environment (Impact Assessment and Audit) (Amendment) Regulations of 2019 classifies the Project (Establishment or expansion of industrial estates) as High Risk which can be approved through the preparation and submission of anESIA FSR[1];*
- *Legal Notice no. 32 of the National Environment (Impact Assessment and Audit) (Amendment) Regulations of 2019 which states that every proponent undertaking a project specified in the Second Schedule of the Act as being a high-risk project, shall submit to the Authority a ESIA FSR of the likely environmental effects of the project;*
- *The fact that the Project is located next to both natural and critical habitats; and*
- *The nature and extent of the potential impacts of the Project on the natural and critical habitats.*

1.6.2 Desk Reviews

A literature review was undertaken based on the findings of the reconnaissance process, which involved reviewing relevant legislation, policies, the County Integrated Development Plan (CIDP), Homabay SEZ Masterplan, HSEZ geotechnical survey and risk assessment report, and previous studies carried out in the area to determine the baseline conditions and establish the legal, institutional, and biophysical/socio-economic environmental setting of the Project area.

The desk-based study also included the development of fieldwork tools, fieldwork schedules as well as the approach to stakeholder engagement.

1.6.3 Site Visits

Site investigationswere also undertaken,during which detailed environmental and social baseline data was collected and preliminary stakeholder engagement undertaken. Data was collected through:

[1] *As per the 2016 and 2019 amendments of the National Environment (Impact Assessment and Audit) Regulations, Projects are classified as Low, Medium and High Risk based on their environmental and social risks. Low and Medium Risk projects maybe approved through the submission of ESIA Project Reports; however, these amendments specify that High Risk projects shall require submission of an ESIA Study Report.*

- *Meetings with key stakeholders; and*
- *Site walkovers.*

Photography and Global Positioning Systems (GPS) were used to record the salient features and baseline conditions at the Project site and surroundings.

1.6.4 Baseline Data Collection

To understand the existing baseline environmental and social conditions in the project area, a variety of data collection methods were used. These are described below:

1.6.4.1 Remote Sensing and GIS Analysis

Remote sensing was undertaken and ground-truthingdone by the consultants at the time of the site visit. Remote sensing was based on available satellite imagery of the Project area.

1.6.4.2 Data Analysis and Evaluation of Alternatives

The analytical process involved physical, socio-cultural, mathematical, and economic models, including evaluating costs and benefits. The models required expert judgment for accurate predictions. The emphasis was on the project location, design, technology, scale, or any other aspect that may be deemed significant in evaluating project alternatives.

1.6.4.3 Stakeholder Engagement

Undertaking stakeholder engagement process conforming to the NEMA regulation as provided in Regulation 17 of the Environmental (Environmental Assessment, Impact and Audit) Regulations, 2003. Best international practice [World Bank Group (WBG)] requiring that public consultation and disclosure process leading to Environmental and Social Assessment and Management Systems was also done.

1.7 Team Members

Lakers Consultancy Ltd (LCL) was appointed by the Project Proponent to undertake the ESIA for the Project. LCL is a multi-disciplinary and independent company of consulting environmentalists and scientists with world-wide experience. The Company headquarters are in Kisumu, Kenya.

The ESIA team for this Project is presented in

.

Table 1-1 ESIA Team

No.	Name	Terms of Reference
1	*Kevin Musiega* **(Lead Expert 1682***) (**Environmental and social safeguards specialist/ Team Leader**))*	• *Coordinating the other team members in the execution of the assignment.* • *Preparation of specific Terms of reference for each team member.* • *Keeping record of the assignment progress and reporting the same to client* • *Guidelines on the ESIA reporting/formats* • *Undertaking a flora and fauna survey of the study site by identifying and describing plant and animal communities present.* • *Identifying species and features of importance* • *Undertaking a fauna survey of the study site identifying and describing fauna communities present.* • *Identification of fauna species and features of importance* • *Compiling the final report*
2	*Edwin Adino(Assistant)-(***Associate ESIAexpert** *)*	*Assisting the team as per assigned duties.*
3	*Moses Okode(Assistant)-(***Associate ESIA expert** *)*	*Assisting the team as per assigned duties.*

1.8 Report Structure

TheESIAfullstudyreportwill be prepared in accordance tosection58oftheEnvironmentalEMCAandinaccordancewithpart IIoftheEnvironmental(ImpactAssessment andAudit) Regulation,2003,legalnotice No.101.The structure of this ESIA Project Report is outlined in Table 1 -2.

Table 1-2 Report Structure

Section	Contents
Chapter 1: Introduction	*Contains an overview of the Project, Project justification, Project Proponent, ESIA Objectives and Scope, Environmental and Social*

Section	Contents
	Impact Assessment Consultant and an outline of the report structure. Also outlines the approach to the ESIA and summarizes the process undertaken by the Project to date.
Chapter 2: Project Description	*Includes a detailed description of the Project activities.*
Chapter 3: Biophysical and Socio-economic Baseline	*Describes the receiving biophysical and socio-economic baseline environment.*
Chapter 4: Legal and Institutional Framework	*Outlines the legislative, policy and administrative requirements applicable to the Project.*
Chapter 5: Consideration of Alternatives	*Describes the alternatives that have been considered and the reasons for the selection of the preferred alternative.*
Chapter 6: Stakeholder Engagement	*Describes the approach to and outcomes of the stakeholder engagement and public participation process.*
Chapter 7: Impacts Assessment and Mitigation Measures	*Describes and assesses the potential environmental and social impacts of the Project. Mitigation measures are also presented.*
Chapter 8: Climate Risk and Vulnerability Assessment	*Quantifies risks and identifies adaptation options that can be integrated into the project design.*
Chapter 9: ESM&MP	*Specifies the mitigation and management measures to be undertaken and shows how the Project will mobilizeorganizational capacity and resources to implement these measures.*
Chapter 10: Conclusions and Recommendations	*Summarizes the key findings of the ESIA process and provides recommendations for the mitigation of potential impacts and the management of the Project.*
References	*Contains a list of references used in compiling the report.*

In addition, the Report includes the following Annexes:

Annex A: *ECA NEMA Registration and 2021 Practicing License*

Annex B: *NEMA Correspondences*

Annex C: *Background Information Document (BID) used during the Stakeholder engagement exercise.*

Annex D: *Detailed minutes of stakeholder engagement meetings conducted during the ESIA process, including meeting photos and attendance registers/stakeholders' comments.*

2 PROJECT DESCRIPTION

2.1 Proposed ProjectOverview

Homabay County, hereinafter referred to as the proponent has proposed to develop a specialpurpose economic zone with both industrial, residential, religious, and public utilitiescomponents on approximately 214-hectare parcel. The proposed project is to be located onPlot LR. No west Karachuonyo/Riwa/173. There are other proposed upgrades in the area dueto rise in infrastructural developments which includes; sewer system, electric infrastructures,water system. The area on which the proposed project is situated has been zoned for mixed-use development. The proposed project is in line with the existing Kenya planning policy anddevelopment agenda.

The proposed development will optimize the use of the designated land, hence increasing itsutility. The project will provide employment during both construction and operation phases.It will create market for goods, services, and especially construction inputs, which includeraw materials such as building stones and blocks, sand, ballast, timber, steel etc. andconstruction machinery. Many secondary businesses are also likely to spring up during theconstruction phase especially those providing foods and beverages to the constructionworkers. During the operation phase, the retail park development will help in provision ofmodern and luxurious business facilities, employment such as businesspersons, securitypersonnel and cleaners. It will also increase revenue to national and local governmentsthrough payment of relevant taxes, rates, and fees. The businesses in Homabay area will riseimmensely.

2.2 Proposed ProjectSite and Layout/Masterplan

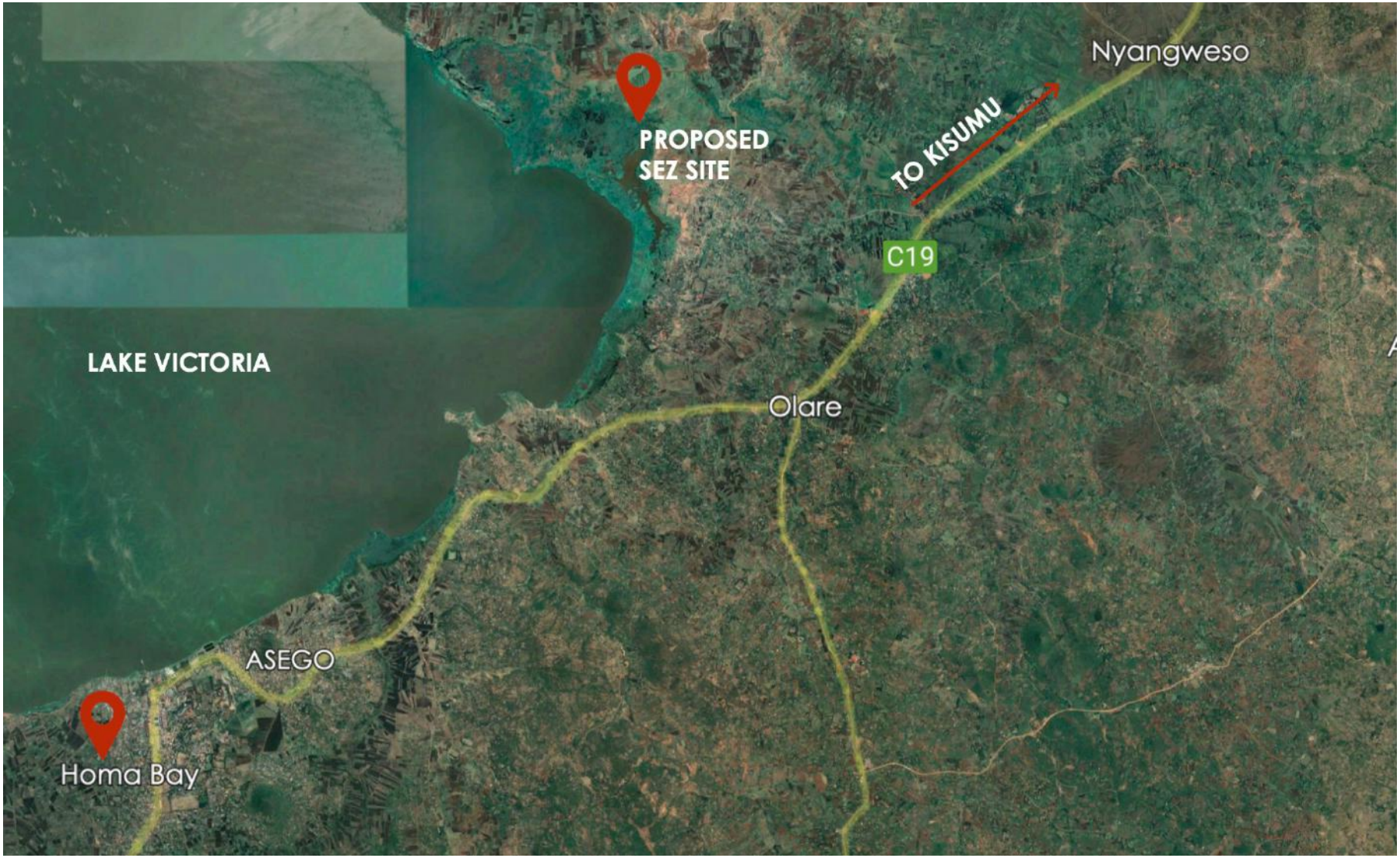
Nyangweso
PROPOSED
SEZ SITE
TO KISUMU
C19
LAKE VICTORIA
Olare
ASEGO
Homa Bay

Figure 2-1 Proposed Project Site

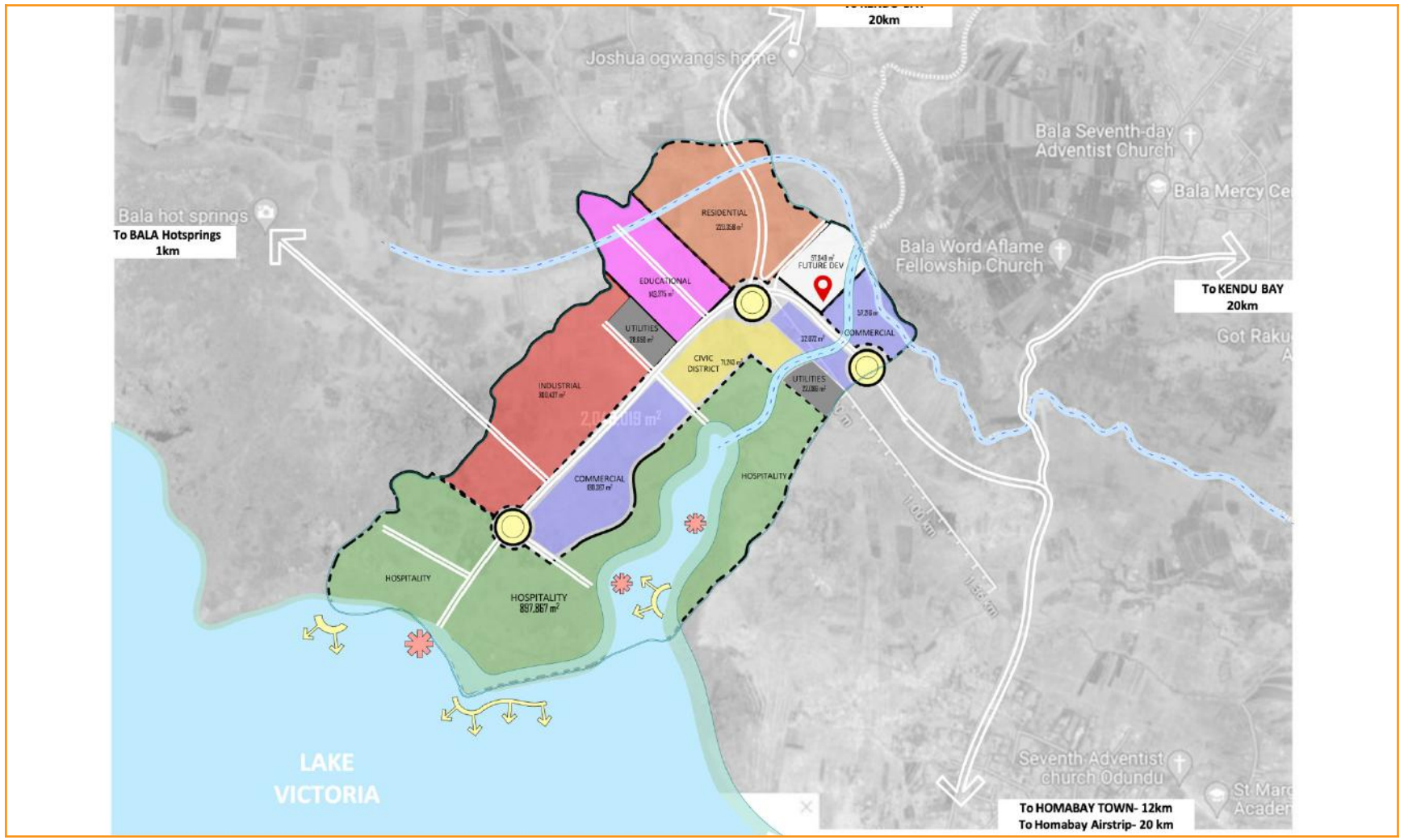

Figure 2-2 Proposed Project Masterplan

2.3 Project Conceptual Design

Based on the preliminary designs, the main components of the development include:

- *Civic District Zone;*
- *Commercial Zone;*
- *Industrial Zone;*
- *Medical Zone; and*
- *Public Utilities*

2.4 Proposed Project Activities

2.4.1 Project Preparation Phase Activities

The following project preparation activities are envisaged:

- *Stakeholder mapping and engagement;*
- *Pre-technical studies requirements;*
- *Seeking relevant approvals and consents;*
- *Collection of baseline data for monitoring purposes (e.g., vegetation type, ambientnoise);*
- *Training of the relevant stakeholders in environmental management;*
- *Verification of design details;*
- *Development of environmental specifications, Terms of References and Code ofConduct for the Contractor; and*
- *Preparation of an occupational safety and health manual for use during project construction, operation, and decommissioning.*

2.4.2 Project Construction Phase Activities

Activities during this phase will include but not limited to:

- **Clearing and Grading***:Clear the designated area of any existing structures, vegetation, or obstacles that may hinder construction activities; and Grade the land to ensure a level and stable foundation for buildings and infrastructure.*
- **Road and Infrastructure Construction***:Build or upgrade roads, including main access roads, internal roads, and service roads within the SEZ; and Construct sidewalks, curbs, and drainage systems to enhance accessibility and safety.*

- **Utility Installation***:Install and connect utilities such as electricity, water, gas, and telecommunications to the SEZ area; and Build substations, water treatment plants, and other necessary facilities to ensure a reliable supply of utilities.*
- **Building Construction***:Construct industrial buildings, commercial spaces, warehouses, office complexes, and other facilities as per the master plan; and Ensure compliance with building codes, safety standards, and environmental regulations.*
- **Customs and Trade Infrastructure***:Build customs offices, warehouses, inspection facilities, and other trade-related infrastructure to facilitate the movement of goods.*
- **Telecommunications Network Installation***:Install the necessary infrastructure for high-speed internet, data connectivity, and communication services.*
- **Waste Management Facilities***:Establish waste collection points, recycling facilities, and disposal systems to manage solid and hazardous waste generated within the SEZ.*
- **Environmental Mitigation Measures***:Implement environmental protection measures, such as landscaping, erosion control, and habitat preservation, to minimize ecological impacts.*
- **Safety and Security Measures***:Install security systems, surveillance cameras, and other safety measures to ensure the well-being of residents, workers, and assets within the SEZ.*
- **Educational and Training Centers***:Construct educational institutions, training centers, and research facilities to support workforce development and skills training.*
- **Healthcare and Recreational Facilities***:Build healthcare centers, hospitals, clinics, parks, sports facilities, and other amenities to enhance the quality of life for residents and workers.*
- **Real Estate Development***:Develop residential areas, commercial spaces, and retail facilities to accommodate the needs of workers and residents.*
- **Green Spaces and Landscaping***:Incorporate green spaces, parks, gardens, and landscaping to enhance the aesthetics and overall appeal of the SEZ.*
- **Technology and Innovation Centers***:Construct research and development facilities, technology parks, and innovation centers to foster technological advancements.*
- **Monitoring and Quality Assurance***:Implement rigorous quality control measures to ensure that construction activities meet established standards and specifications.*
- **Compliance and Permitting***:Ensure that all construction activities comply with local regulations, zoning ordinances, and environmental permits.*

2.4.3 Project Operation Phase Activities

The operation phase of a Special Economic Zone (SEZ) involves managing and maintaining the zone once it is fully developed. This phase focuses on creating an environment conducive to

attracting businesses, ensuring regulatory compliance, and facilitating smooth operations. Here are the key activities involved in the operation phase of an SEZ:

- **Infrastructure Maintenance***:Regularly inspect and maintain roads, utilities, buildings, and other infrastructure to ensure they remain in good condition and function efficiently.*
- **Utilities Management***:Monitor and manage the supply of utilities, including electricity, water, gas, and telecommunications, to meet the needs of businesses and residents.*
- **Security and Safety Measures***:Maintain security systems, surveillance, and safety measures to safeguard residents, workers, and assets within the SEZ.*
- **Customs and Trade Services***:Provide customs clearance, warehousing, and other trade-related services to facilitate the movement of goods in and out of the SEZ.*
- **Regulatory Compliance***:Ensure that all businesses operating within the SEZ comply with local and national regulations, including tax, labor, environmental, and licensing requirements.*
- **Business Support Services***:Offer a range of services to support businesses, including administrative assistance, legal and financial consulting, and market research.*
- **Investor Relations***:Maintain open communication channels with existing and potential investors to address their needs, concerns, and provide necessary support.*
- **Employment and Workforce Development***:Facilitate recruitment, training, and development programs to ensure a skilled and motivated workforce is available to businesses within the SEZ.*
- **Quality of Life Services***:Provide amenities and services that enhance the quality of life for residents and workers, including healthcare, education, recreational facilities, and retail outlets.*
- **Environmental Management***:Implement sustainability initiatives, green practices, and environmental monitoring to minimize the ecological footprint of the SEZ.*
- **Monitoring and Reporting***:Regularly monitor the performance of businesses within the SEZ and provide reports on key indicators, such as employment, exports, and investment.*
- **Community Engagement***:Engage with the local community, including nearby residents and stakeholders, to address any concerns and foster positive relations.*
- **Marketing and Promotion***:Continue to market the SEZ to attract new investors, businesses, and talent, both domestically and internationally.*
- **Innovation and Technology Support***:Foster a culture of innovation by providing support for research and development, technology transfer, and innovation-driven entrepreneurship.*

- **Adaptation and Flexibility***:Stay responsive to changing economic conditions, market demands, and technological advancements to ensure the SEZ remains competitive.*
- **Legal and Regulatory Updates***:Keep abreast of changes in local, national, and international regulations that may affect the operation of the SEZ, and update policies accordingly.*

Efficient management and operation of the SEZ are crucial for sustaining its growth, attractiveness to investors, and contribution to the overall economic development of the region. This phase involves collaboration between the SEZ authority, government agencies, businesses, and the local community.

2.4.4 Project Decommissioning Phase Activities

The decommissioning phase of a Special Economic Zone (SEZ) involves the process of closing down or repurposing the zone after its operational life has come to an end. This phase is critical to ensure that resources are managed responsibly and that the land and facilities can be put to productive use in the future. Here are the key activities involved in the decommissioning phase of an SEZ:

- **Review and Assessment***:Conduct a comprehensive review of the SEZ's performance, including economic, social, and environmental impacts, to inform the decommissioning process.*
- **Stakeholder Engagement***:Engage with relevant stakeholders, including businesses, government agencies, local communities, and environmental organizations, to gather input and address concerns.*
- **Legal and Regulatory Compliance***:Ensure that all decommissioning activities adhere to applicable local, national, and international regulations, including environmental, labor, and land use laws.*
- **Asset Inventory and Valuation***:Create an inventory of all assets within the SEZ, including infrastructure, buildings, equipment, and other facilities, and assess their value.*
- **Environmental Assessment and Remediation***:Conduct environmental assessments to identify and address any contamination or environmental hazards within the SEZ. Implement remediation measures as needed.*
- **Dismantling and Demolition***:Safely dismantle and demolish buildings, infrastructure, and facilities, ensuring that materials are properly disposed of or recycled.*
- **Utility Disconnection***:Disconnect and properly decommission utilities such as electricity, water, gas, and telecommunications to prevent any hazards or wastage.*

- **Waste Management***:Implement a comprehensive waste management plan to handle and dispose of any waste generated during the decommissioning process.*
- **Land Restoration and Rehabilitation***:Restore the land to its natural state or prepare it for an alternative use, which may include landscaping, re-vegetation, and soil remediation.*
- **Legal and Financial Closure***:Complete all necessary legal and financial processes, including closure of permits and licenses, settlement of outstanding obligations, and asset disposition.*
- **Documentation and Reporting***:Maintain thorough records of all decommissioning activities, including assessments, dismantling, disposal, and any legal or financial transactions.*
- **Asset Disposition and Redistribution***:Determine the fate of assets, whether through sale, donation, or repurposing for other projects or initiatives.*
- **Transition Planning***:Develop a transition plan for the affected stakeholders, including businesses, workers, and the local community, to help them adapt to the changes.*
- **Communication and Public Relations***:Communicate transparently with stakeholders, providing updates on the decommissioning process and addressing any concerns or inquiries.*
- **Closure Documentation and Certification***:Prepare a formal closure report that outlines the decommissioning process, including assessments, activities, and compliance with regulatory requirements. Obtain any necessary certifications or approvals.*
- **Post-Closure Monitoring and Management***:Implement a monitoring program to ensure that the decommissioned site remains safe, environmentally stable, and in compliance with relevant regulations*

Efficient and responsible decommissioning is crucial for ensuring that the resources invested in the SEZ are managed sustainably and that the land can be put to productive use in the future. This phase involves careful planning, thorough assessments, and close collaboration with all relevant stakeholders.

3 PROJECT AREA ENVIRONMENTAL AND SOCIALBASELINE/CONTEXT

3.1 Introduction

This Chapter provides a description of the existing physical, biological, and socio-economic conditions, which are directly or indirectly affected by Projectactivities. It is essential that the baseline conditions of the environment are characterized to accurately predict the potential effects the proposed project will have on the environment and society. The collection of baseline data therefore focused on providing information to support the assessment of any potential impact of the project.

3.2 Physical Environment

3.2.1 Proposed Project Location

The proposed SEZ Project is physically located in Riwa Village in Koyugi location of Rangwe Sub-County next to Oriwo Secondary School along the Oriwo-Bala Road. It's defining GPS Coordinates are Latitude S 00° 36' 34.17" and Longitude E 34° 29' 30.42" (UTM, 36M 666007-x and 9932612-y) at an elevation of 1,311 m asl.

Homabay County is administratively divided into eight (8) Sub Counties; Suba South, Suba North, Ndhiwa, Rangwe, Homa Bay Town, Rachuonyo North, Rachuonyo South and Rachuonyo East. The County is further sub- divided into 40 Wards.

3.2.2 Climate

According to the Kenya Climate Risk Profile for Homa Bay County 2015, annual precipitation around area ranges from 1,250 to 1,500 mm. The long rains occur between March-June while the short rains occur between August to November. Monthly precipitation during the wet periods is about 130 mm. The short rains are unreliable. The driest month is January, with often less than 50 mm of rainfall. Also dry, but not so pronounced, are February and July, having about 80 mm of rainfall (CIDP 2018-2022).

3.2.3 Land and Soils

The dominant types of soils in the location are black cotton soils which is good for farming. During construction, the foundation for the structure is excavated up to the marram level of the soil to ensure a stable foundation of the building.

3.2.4 Topography

Homa Bay County is bordered by Lake Victoria to the west. This shoreline is characterized by low-lying areas, beaches, and wetlands.Inland from Lake Victoria, the terrain rises into plateaus and

upland areas. These regions are generally characterized by gently undulating hills and plains.The county features a number of hills and ridges, particularly in the northern and central parts. Some notable hills include Ruri Hills, Kanyaboli Hills, and Homa Hills.

Homa Bay is also criss-crossed by numerous rivers and streams that flow towards Lake Victoria e.g., Kuja River, Awach River, and Miriu River, among others. These watercourses have created fertile valleys and wetland areas.There are several swamps and marshes in Homa Bay County, particularly around the lower-lying areas near the lake and along riverbanks.

Homa Bay County has a number of small islands in Lake Victoria, such as Rusinga Island and Mfangano Island. These islands have unique ecosystems and cultural significance.

The topography of Homa Bay County is diverse and varied, with a combination of low-lying areas along Lake Victoria, upland plateaus and hills, river valleys, and agricultural plains. This diversity of landscapes contributes to the county's ecological richness and economic activities.

3.2.5 Water Resources

3.2.5.1 Lake Victoria

Lake Victoria is the largest freshwater lake in Africa and one of the major water bodies in the world. Homa Bay County borders Lake Victoria to the west, providing the county with access to abundant water resources. The lake supports various economic activities, including fishing and transportation.

3.2.5.2 Rivers and Streams

Homa Bay County is crisscrossed by numerous rivers and streams that flow towards Lake Victoria. Some of the notable rivers in the county include Kuja River, Awach River, Miriu River, and Yala River. These watercourses are important for irrigation, domestic use, and as habitats for aquatic life.

There exists a seasonal in Mariwa area that is located approximately 1 Km from the proposed project site. This is the only major surface water resource in the vicinity of the project area in addition to swampy area that is recharged by the Mariwa River. The abstraction rate upstream is high such that its volume is reduced.

3.2.5.3 Groundwater

The county has significant groundwater resources, which are tapped through boreholes and wells. Groundwater is a crucial source of water for domestic, agricultural, and industrial purposes, especially in areas that may not have direct access to surface water.

3.3 Biological Environment

3.3.1 Forestry

Homa Bay County has a 2.6% forest cover (KFS, Homa Bay 2020). However, there are large parcels of land covered by bush and scattered indigenous trees. The project area, Mariwa has a tree cover of 3% and has not achieved the government target of 10%. The dominant tree species around the project area include common trees such as Eucalypts spp., Markhamia spp, and Grevillea; fruit trees such as guava and avocado and shrubs such as Lantana and Tithonia.

3.3.2 Flora and Fauna

The Sub-county has both exotic and indigenous tree species. The trees are used mainly for ornamental, shade, boundary demarcation, fencing and production of fruits. Common trees in the County include Eucalyptus spp, Markhamia lutea, Cupressus lusitanica, Bischovia javonica, Spathodea nilotica, Croton megalocarpus and Casuarina equisetifolia. Common fruit trees are Psidium guajava, Persea americana, Syzygium guminii and Eryobotria javonica. Shrubs include Lantana camara, Tithonia diversifolia and Solanum incanum.

There are a variety of birds and other animals like poultry (local chicken), cow (mainly zebu), sheep (East African small sheep) and goats.

3.4 Socio-economic Conditions

3.4.1 Population structure

The size and demographic features of population are important variables in the development process of an area, for they determine the pattern of resource utilization. Accordingly, this section details the population profile of Koyugi location of Rangwe Sub-County and among the demographic features discussed are size, structure and distribution. The total population of Koyugi location is 21,644 and the population density is 693 persons per Km^2. There are 10,258 Males and 11,386 Females. The intercensal growth rate is 2.7%. About 42% of the population consists of the dependent age of between 0-14 years while 38% comprises of the youthful population (15-34 years). Middle aged population (35-59 years) constitutes 15% while 5% are elderly (60-100+ years) (Source: Kenya Population and Housing Census –KPHC – 2019).

3.4.2 Poverty

The ever-increasing population has led to reduced employment opportunities and incomes. According to Homa Bay County CIDP (2018-2022), Homa Bay County has a poverty index of 48.4% and is ranked position 15 in the whole Country. Once established, milk aggregation and processing plant is expected to contribute towards reduction of the poverty levels in the area.

3.4.3 Health facilities

The nearest health facility from the proposed site is St Lawrence Hospital which is 1.1 kms away. Other facilities include Homa Bay County Teaching and Referral Hospital (10 kms), Minyiambo Health centre (4 kms).

3.4.4 Schools

Educational facilities near the project site includes; Primary, Secondary school and Vocational and Training Center all of which are less than a kilometre from the project site.

3.4.5 Local Administration (Chief's Camp) & Police station

The area has Police station and Koyugi chief's Camp both of which are 4 Km from the project site. This takes care of various issues including local security and social order.

3.4.6 Commerce, Trade and Services

3.4.6.1 Agriculture

Agricultural production is one of the main drivers of commerce and trade in the County. The main crops include maize, sugarcane and fruits and vegetables. Livestock products include milk and milk products, chicken and chicken products. Growth in labour force and increase in land pressure accompanied by inadequate employment opportunities are opportunities to spur commerce and trade in the County. The growth in literacy levels and entrepreneurship has led people to venture into other sources of income besides farming and employment in the informal sector.

3.4.6.2 Informal sector

Business entrepreneurs licensed in the informal sector include catering, retail, motor vehicle repairs, wholesale, welding, bar and restaurant, distribution of goods, etc. The County has financial institutions like the commercial Banks. They offer credit facilities to farmers, traders and training in basic business management skills. This sector requires intensive promotion since it uses affordable and readily available technology and resources and is among the sectors which offer most of the employment opportunities.

3.4.6.3 Formal sector

The formal sector is widespread in the County, and it contributes considerably to the growth of the County economy. This sector includes teachers, County staff, the private sector staff, and the National Government officers, among others.

3.4.7 Physical Infrastructure

This sector comprises of roads, energy and telecommunication sub-sectors.

All these class A and C roads are bituminized. A total of 201 Kms of the road surface in the County is under bitumen, including one class D217 (Kadongo - Gendia) road covering about 33 Km and one D221 road of about 5 Km linking Kadongo to the County boundary with Nyamira County. The rest of the classified road network of about 3,041Km is not bituminized with 25 per cent under gravel and 75 per cent under earth, though D219 is currently under construction to bitumen standards. Given the good road network in the area, farmers are expected to easily deliver their milk produce to the processing plant.

3.4.8 Energy Access

The CIDP 2018-2022 records the average annual demand for electric energy in Homa Bay County as 51.1Giga Watts Per Hour as at the end of 2016 and is expected to increase to 149.31 Giga Watts Per Hour Gwh (low case scenario) or 284.25 Gwh (high case scenario) by the year 2030. This does not compare favorably with power supply, which originates from Eastern and Central parts of Kenya where most of the power generating plants are located. Given the expected growth in electric energy demand, the County Government plans to meet the deficit by facilitating investments in solar, geothermal and biomass power generation plants, which have significant power generation potential in the County. The site is in an area that is already connected to the grid. As such energy for running the plant equipment will be supplied from the national grid. Closer to the project site is a 3 phase KPLC power line.

3.4.9 Environmental Degradation and Solid Waste Management

The Lake Victoria Basin continues to face major ecological challenges that have caused considerable hardship for the population depending on it for their livelihoods and have also reduced the biodiversity of the lake's flora and fauna. According to ICRAF (2000), more than 80% of the population in the basin is engaged in agricultural production. Deforestation coupled with bad agricultural practices has persistently exacerbated the problem of land degradation in the basin and sedimentation in the lake. As a result, land degradation in prime agricultural areas within the catchments has contributed to food productivity losses. Poor waste management has also contributed to environmental degradation in the area as wastes are haphazardly discarded within the area and are eventually washed to the lake. Most parts of the basin are experiencing moderate soil erosion but this is shifting towards high as recorded in some reports reviewed. The contractor is expected to devise methods of preventing surface runoff during the construction process of the

plant so as to prevent soil erosion while during operations the proponent is expected to stabilize soils around the plant to avoid further soil degradation.

4 POLICY, LEGAL AND INSTITUTIONAL FRAMEWORK

4.1 Overview

This Chapter outlines the existing national and international environmental and social legislation, policies, and institutions applicable to the proposed Project. Since Kenya is a signatory to various international conventions and laws, relevant international conventions,andMultilateral Environment Agreements (MEAs) on Biodiversity,Endangered Species, Law of the Sea, and Marine Dumping are also presented.

4.2 Policy Framework

4.2.1 Constitution of Kenya

Kenya has undergone regulatory reforms over the past two decades, culminating in the enactment of a new constitution in 2010. The Constitution is the supreme law in Kenya and gives a lot of emphasis on environmental conservation and sustainable development. For instance, in the Preamble, the Constitution states that "We, the people of Kenya will be respectful of the environment, which is our heritage, determined to sustain it for the benefit of future generations".

Article 2(5) of the Constitution states that the general rules of international law shall form part of the laws of Kenya. For the purposes of protection of the environment, several principles of international environmental law are incorporated, viz:

- *the polluter pays principle;*
- *principle of public participation;*
- *principle of sustainability;*
- *principle of inter & intra-generational equity;*
- *principle of prevention; and*
- *precautionary principle.*

The principle of sustainable development is entrenched in Article 102(d) of the Constitution as one of the national values and principles of governance.

The Constitution guarantees the right to a clean and healthy environment in Article 42. Article 42 further guarantees the right to have the environment protected for the benefit of present and future generations through legislative and other measures particularly those contemplated in article 69 and the right to have obligations relating to the environment fulfilled under Article 70. Article 69 imposes obligations on the state. The state is required to:

a) *ensure sustainable exploitation, utilization, management, and conservation of the environment and natural resources, and ensure the equitable sharing of the accruing benefits;*
b) *work to achieve and maintain a tree cover of at least ten percent of the land area of Kenya;*
c) *protect and enhance the intellectual property in, and indigenous knowledge of, biodiversity and the genetic resources of the communities;*
d) *encourage public participation in the management, protection, and conservation of the environment;*
e) *protect genetic resources and biological diversity;*
f) *establish systems of environmental impact assessment, environmental audit, and monitoring of the environment;*
g) *eliminate processes and activities that are likely to endanger the environment; and*
h) *Utilize the environment and natural resources for the benefit of the people of Kenya.*

Article (69) (2) imposes obligations on every person, to cooperate with state organs and other persons to protect and conserve the environment and ensure ecologically sustainable development and use of natural resources.

Article 70 provides an avenue for redress for any person who alleges that the right to a clean and healthy environment has been or is likely to be denied, violated, infringed, or threatened. The Court is empowered to issue preventive, cessation, or compensatory orders.

Article 70 relaxes the rule on locus standi because of which, there is no need to prove loss or injury by an applicant. Anyone may institute a claim seeking to enforce the environmental rights and obligations stipulated in the Constitution.

Enforcement contemplated by Article 70 will be done through the Environment and Land Court established under Article 162 (2) (b). The Court has the same status as the High Court. This effectively denies High Court jurisdiction over environmental matters under Article 165 (5) (b).

CGHshould ensure project activities do not compromise the right to a clean and healthy environment. Requisite measures should be put in place to guarantee the sustainability of the Project. Such measures should include but not limited to pollution prevention and control, and sustainable utilization of natural resources.

4.2.2 Sessional Paper No.10 of 2014 on the National Environment Policy, 2014

The overall goal of this Paper is to ensure better quality of life for present and future generations through sustainable management and use of the environment and natural resources.

Section 5.6 of this Policy focusses on infrastructure development and environment and makes explicit policy statements to ensure sustainable management and use of the environment and natural resources during the construction and operation of infrastructure developments including roads.

These policy statements require the commitment of the Government to:

- *Ensure Strategic Environmental Assessment (SEA), Environmental Impact Assessment (EIA), Social Impact Assessment (SIA) and Public Participation in the planning and approval of infrastructural projects;*
- *Develop and implement an environmentally friendly national infrastructural development strategy and action plan; and*
- *Ensure that periodic Environmental Audits are carried out for all infrastructural projects. Relevance to this Project.*

CGH has commissioned this ESIAstudy process to ensure environmental and social issues are appropriately addressed.

4.2.3 Kenya Vision 2030

The Vision 2030, Kenya's long-term development blueprint aims to create a globally competitive and prosperous nation, transforming Kenya into a newly industrializing, middle-income country providing a high quality of life to all its citizens by 2030 in a clean and secure environment. Vision 2030 has three pillars, namely the Economic, Social, and Political are anchored on macroeconomic stability; continuity in governance reforms; enhanced equity, and wealth creation opportunities for the poor. The Economic Pillar captures the expectations of the ICT market seeks to improve the prosperity of all regions of the country and all Kenyans.

HSEZ contributes to realization of Vision 2030.

4.2.4 National Policy on Gender and Development (2019)

The National Policy on Gender and Development seeks to create a just, fair and transformed society free from gender-based discrimination in all spheres of life practices. The National Policy highlights the fact that the patriarchal social order supported by statutory, religious, and customary laws and practices; and the administrative and procedural mechanisms for accessing rights have continued to hamper the goal of attaining gender equality and women's empowerment.

The policy also seeks to enhance women's access to economic resources, opportunities, and markets. This includes initiatives to support women in entrepreneurship, agriculture, and formal employment.

The Project shall support this policy through providing equal opportunities to men and women.

4.2.5 National Land Policy, 2009

The National Land Policy sets out goals and direction for the present and future management of land in Kenya. It contains measures and guidelines which enable the government to achieve optimal utilization and management of land. The policy highlights rapid urbanization, inadequate land-use planning unsustainable production, poor environmental management, inappropriate ecosystem protection, and management as the major concerns affecting land in Kenya. Further, the policy recognizes environmental problems facing the country. These problems include the degradation of natural resources such as forests, wildlife, water, marine, and coastal resources as well as soil erosion and the pollution of air, water, and land. The policy requires environmental assessments and audits to be undertaken to conserve and manage the environment to achieve sustainable management of land resources.

Relevance

During the construction and operation phases, appropriate measures should be put in place to protect both lacustrine and terrestrial ecosystems from pollution and degradation.

4.2.6 The National Biodiversity Strategy and Action Plan (2019-2030)

The overall objective of the National Biodiversity Strategy and Action Plan (NBSAP) is to address the national and international undertakings elaborated in Article 6 of the Convention on Biological Diversity (CBD). It is a national framework of action to ensure that the present rate of biodiversity loss is reversed, and the present levels of biological resources are maintained at sustainable levels for posterity. The general objectives of the strategy are to conserve Kenya's biodiversity to sustainably use its components; to share the benefits arising fairly and equitably from the utilization of biological resources among the stakeholders; and to enhance technical and scientific cooperation nationally and internationally, including the exchange of information in support of biological conservation.

Relevance

The project should not interfere with lacustrine and terrestrial ecosystems. Lacustrine wildlife should be protected as well as other terrestrial flora and fauna species.

4.2.7 National Policy for Disaster Management, 2009

National Policy for Disaster management policy provides for disaster risk management which encompasses a full continuum from preparedness, relief, and rehabilitation, mitigation, and prevention. The Policy aims to increase and sustain the resilience of vulnerable communities to

hazards through diversification of their livelihoods and coping mechanisms. The policy notes that disasters in Kenya that have occurred over the years are from diverse hazards such as droughts, floods, fires, terrorism, collapsing buildings, accidents in the transport sector, and disease/epidemics. The hazards that lead to disaster are grouped into the following clusters:

- *Environmentally triggered (Climate-related; - droughts, floods, storms landslides)*
- *Geologic disasters include volcanic eruptions, tsunamis, earthquakes,*
- *Human-made disasters such as socio-economic, technologic industrial, human,*
- *Biologically triggered (epidemics i.e., disease, pests for human, livestock and crops and wildlife)*

The overall goal of Disaster Management policy is to build a safe, resilient, and sustainable society. The policy focuses on the following elements: Disaster Prevention, mitigation, preparedness, response, and recovery.

Relevance

The proponent and the contractor should collaborate with other agencies such as the Kenya Coast Guard, Disaster Management units, Kenya Maritime Authority (KMA) for early warning signs and be informed of any likely disaster.

4.2.8 The National Agriculture Policy

Agricultural policy in Kenya revolves around the main goals of increasing productivity and income growth, especially for smallholders; enhanced food security and equity, emphasis on irrigation to introduce stability in agricultural output, commercialisation, and intensification of production especially among small scale farmers; appropriate and participatory policy formulation and environmental sustainability.

***Relevance:** The project will produce crops to improve food security and livelihoods of the vulnerable in society.*

4.3 Legal Framework

Table 4 -3 shows a summary of key provisions of relevant legal frameworks.

Table 4-3 Relevant Legal Frameworks

Legislation	Key Provisions	Relevance to the Project
Environmental Management and Coordination Act, 1999 (Revised 2015)	*Requires ESIA for all projects listed in the Second Schedule*	*This ESIA has been conducted in accordance with this Act.*
EMCA (Impact Assessment and Audit) Regulations, 2003 (Amendment 2019)	*requires that the EIA/EA be conducted by a registered lead or firm of experts in accordance with the terms of reference developed during the scoping exercise.* *Categorizes all telecommunication projects as medium risk and thus a comprehensive project report (CPR) must be prepared submitted to NEMA for licensing.*	*This ESIA was conducted by a registered firm of experts.* *The Project must undergo annual environmental audits (EA).*
EMCA (Air Quality) Regulations, 2014	*prohibits any person from causing air pollution either directly or indirectly*	*Machinery used in project works must be well maintained to minimize exhaust emissions.*
EMCA (Waste Management) Regulations 2006	*requires waste generators to segregate waste by separating hazardous waste from non-hazardous waste for appropriate disposal.* *prohibits any industry from discharging or disposing of any untreated waste in any state into the environment*	*e-waste from the Project installation and operation activities will require appropriate disposal in line with these regulations.*
EMCA (Noise and Excessive Vibration	*prohibits any person to make or cause to be made excessive vibrations which annoy, disturb, injure, or endanger the comfort, repose, health or safety of*	*Project works should be planned in a way that limits excessive noise and vibration especially*

Legislation	*Key Provisions*	*Relevance to the Project*
Pollution) (Control) Regulations, 2009	*others and the environment.*	*near sensitive receptors like schools and health facilities.*
EMCA (Fossil Fuel Emission Control) Regulations, 2006	*promotesuse of clean fuels, use of catalysts and inspection procedures for engines and generators.*	*Machinery and equipment in the project will require unleaded fuels in line with the regulations.*
Sustainable Waste Management Act, 2022	*requires preparation of WasteManagement Plans (WMPs) by counties, private entities, and individuals. Empowers counties to enforce the requirement.*	*Waste from the project will require appropriate disposal in line with prepared Waste Management Plan (WMP), by licensed waste handlers, and in coordination with Mombasa City County.*
Wildlife Conservation and Management Act, 2013	*requires Kenya Wildlife Service (KWS) approval for any civil works in protected areas.*	*Obtain KWS approval for any project works within Mombasa Marine National Park and Reserve (MMNPR).*
Special Economic Zone Act	*AN ACT of Parliament to provide for the establishment of special economic zones; the promotion and facilitation of global and local investors; the development and management of enabling environment for such investments, and for connected purposes* *The Act requires businesses operating within the SEZ comply with environmental and social sustainability standards. This may involve conducting environmental impact assessments and implementing mitigation*	*This ESIA meets the requirement of this Act*

Legislation	*Key Provisions*	*Relevance to the Project*
	measures.	
Climate Change Act, 2016	*encourages persons to put in place measures for elimination of climate change including reduction of greenhouse emission and use of renewable energy and implementation of measure to mitigate against adverse effects of climate change.*	*The project should focus on resilience of the investment considering location specific risksand considering relevant mitigation measures for greenhouse gas (GHG) emissions from project.*
The Access to Information Act, 2016	*mandates project proponents to disclose pertinent information to stakeholders during the project lifecycle.*	*Identify project stakeholders anddisclosure pertinent information.*
Public Health Act, Cap 242	*prohibits a person/institution to cause nuisance or condition liable to be injurious or dangerous to human health. Empowers county governments to enforce the same.*	*Implement the E&S requirements stipulated in this ESIA.*
The Standards Act,Cap 496	*requires that all materials, machines, and equipment meet set standards to safeguard property, project workers and community at large.*	*Materials, machines, and equipment used in the project should meet set KEBS standards.*
The National Construction Authority Act, 2012	*requires construction works are carried out by NCA registered contractors and supervised by qualified engineers.* *requires construction sites to have permits.*	*Only engage NCA registered contractors.* *Register the project with NCA.*
The Occupational Health and Safety Act (OSHA), 2007	*requires Project sites to be registered by DOSHS.* *requires workplace and fire safety audits for internal environments.*	*Register project as a workplace.* *Conduct annual workplace and fire safety audits*

Legislation	*Key Provisions*	*Relevance to the Project*
	requires examination and testing of plants and equipment. *requires accident investigation and reporting to DOSHS within 24 hours (fatal accidents) and 7 days (non-fatal accidents).*	*for project's internal environment (buildings).* *Ensure all machines and equipment are serviced and inspected as per manufacturers' specifications.* *All accidents or incidents should be reported to Directorate of Safety and Health Services (DOSHS) 24 hours.*
Work Injury Compensation Benefit Act 2007	*requires compensation for employees on work related injuries and diseases.* *requires employer to report an employee's injury to DOSHS county offices within 24 hours (fatal accidents) and 7 days (non-fatal accidents).*	*All Project workers should have WIBA insurance.* *All accidents or incidents should be reported to DOSHS Mombasa City County offices within 24 hours.*
The Employment Act No 11, 2007	*prohibits forced and child labour, discrimination, and sexual harassment in employment.* *requires employers to provide contracts to all employees and annual leave.*	*Provide all project workers with contracts.* *Recruit semi and unskilled labor through the Chief's office.*
National Gender and Equality Commission Act No. 15 of 2011	*requires projects to offer equal opportunities to women, men, persons with disabilities, the youth, children, the elderly, minorities, and marginalized communities.*	*Provide equal opportunities in the project to men, women, and youth.*

Legislation	*Key Provisions*	*Relevance to the Project*
The Sexual Offences Act (No. 3 of 2006)	*requires elimination of sexual offences e.g., sexual exploitation and harassment, e.g., everywhere including workplaces.*	*Prepare and implement a mechanism for reporting on gender-based violence, SEAH, etc.*
County Government Act No. 17 of 2012 **Physical and Land Use Planning Act, 2019**	*requires project proponents to seek development approval from county governments.*	*Seek development approval from respective Homabay County.*
Traffic Act, Cap 403 & Traffic (Amendments) Act2015, 2017, 2022	*requires licensing of drivers and vehicles.* *requires drivers to give way to pedestrians.* *requires all road users to follow traffic rules and regulations.*	*Only licensed drivers and vehicles should be used in the project.* *Contractors should develop and implement a driving for work policy.*
The National Museums and Heritage Act (2006) And its Revised Edition (2012)	*requires project proponents to notify National Museums of Kenya (NMK) of any cultural heritage discovery and sets restrictions on moving objects of archaeological or paleontological interest.*	*Prepare and implement chance finds procedures.*
HIV/AIDS Prevention and Control Act (Act No.14 of 2006, Revised in 2012)	*requires HIV/AIDs education in the workplace.*	*Implement HIV/AIDs awareness programmes throughout project lifecycle.*
Fisheries Management and Development Act,	*requiressustainable management and conservation of fishery resources.*	*Consult and engage BMUs during ESIA process*

Legislation	Key Provisions	Relevance to the Project
2016 (No. 35 of 2016).	*provides for the establishment of fisheries (beach) management units.*	*and throughout project implementation*
Land Act, 2012	*This is an Act of Parliament intended to give effect to Article 68 of the Constitution, to revise,consolidate and rationalise land laws, to provide for the sustainable administration and managementof land and land-based resources, and for connected purposes.*	*The plot for the proposed Project is owned by County Government of Homabay. A copy of the title deed is annexed to this report.*
Water Act, 2016	*The Water Act No. 43 of 2016 provides for the regulation, management and development of waterresources, water, and sewerage services; and for other connected purposes. As stated in Section 63,every person in Kenya has the right to clean and safe water in adequate quantities and to reasonablestandards of sanitation as stipulated in Article 43 of the Constitution.*	*Any water abstraction by the Project will be conducted in accordance with this Act.* *Discharges from the on-site wastewater treatment plant, too, will need to be donein line with the provisions of this Act and conform to the permit requirements. A permit for the onsiteWWTP will be obtained.*

4.4 Multilateral Environment Agreements

4.4.1 Convention on Biological Diversity (1992)

International treaty that was adopted at the Earth Summit in Rio de Janeiro in 1992, its objective is to develop national strategies for the conservation and sustainable use of biological diversity. It is often seen as the key document regarding sustainable development.

Relevance

The project should protect and conserve both lacustrine and terrestrial biodiversity.

4.4.2 United Nations Framework Convention on Climate Change (UNFCCC)

TheUNFCCC isan international environmental treaty adopted on 9 May 1992 and opened for signature at the Earth Summit in Rio de Janeiro from 3 to 14 June 1992. It then entered into force on 21 March 1994, after enough countries had ratified it. The UNFCCC objective is to "stabilize greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system". The framework sets non-binding limits on greenhouse gas emissions for individual countries and contains no enforcement mechanisms. Instead, the framework outlines how specific international treaties (called "protocols" or "Agreements") may be negotiated to specify further action towards the objective of the UNFCCC.

Relevance

The proponent should adopt measures to minimize GHGs and implement appropriate measures to mitigate and adapt to climate change.

4.4.3 International Convention for the Prevention of Pollution from Ships (MARPOL)

International Convention for the Prevention of Pollution from Ships (MARPOL) 1973/78 The MARPOL Convention is the main international convention covering prevention of pollution by ships from operational or accidental causes. It is a combination of two treaties adopted in 1973 and 1978 respectively and includes the Protocol of 1997 (Annex VI). MARPOL has been updated by amendments through the years. The Convention covers pollution by oil & oily water, noxious liquid substances in bulk, harmful substances in packaged form, sewage and garbage and air pollution from ships.

The Convention includes regulations aimed at preventing and minimizing pollution, both accidental pollution and that from routine operations. Kenya became a signatory to the convention in 1973. Therefore, the country is obliged to comply with the provisions of the Convention in preventing pollution of the environment by ships from the discharge of harmful substances or effluents

containing substances in contravention of the convention. The designated national competency authority responsible for prevention of ship pollution is the Kenya Maritime Authority.

Relevance

The proponent and contractor shall prevent marine pollution.

4.5 WBG Environmental and Social Framework

The World Bank Environmental and Social Framework sets out the World Bank's commitment to sustainable development, through a Bank Policy and a set of Environmental and Social Standards that are designed to support Borrowers' projects, with the aim of ending extreme poverty and promoting shared prosperity. This Framework comprises:

- **A Vision for Sustainable Development**, *which sets out the Bank's aspirations regarding environmental and social sustainability;*
- **The World Bank Environmental and Social Policy for Investment Project Financing**, *which sets out the mandatory requirements that apply to the Bank; and*
- **The Environmental and Social Standards (ESSs)**, *together with their Annexes, which set out the mandatory requirements that apply to the Borrower and projects. There are 10 ESSs as listed below:*
    - **Environmental and Social Standard 1:** *Assessment and Management of Environmental and Social Risks and Impacts;*
    - **Environmental and Social Standard 2***: Labor and Working Conditions;*
    - **Environmental and Social Standard 3***: Resource Efficiency and Pollution Prevention and Management;*
    - **Environmental and Social Standard 4***: Community Health and Safety;*
    - **Environmental and Social Standard 5***: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement;*
    - **Environmental and Social Standard 6***: Biodiversity Conservation and Sustainable Management of Living Natural Resources;*
    - **Environmental and Social Standard 7***: Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities;*
    - **Environmental and Social Standard 8***: Cultural Heritage;*
    - **Environmental and Social Standard 9:** *Financial Intermediaries; and*
    - **Environmental and Social Standard 10:** *Stakeholder Engagement and Information Disclosure.*

4.5.1 WBG Environmental and Social Standards

Eight (8) of the ten (10) ESSs are relevant to the project. Table 4 -4 highlights the relevant ESSs.

Table 4-4 WBG Environmental and Social Standards

ESS No.	ESS Title	Key Requirement	Relevance to the Project
ESS1	*Assessment and Management of Environmental and Social Risks and Impacts*	*Requires the assessment, management and monitoring of E&S risks and impacts of the project throughout the project lifecycle.* *Requires the application of the Bank's EHS Guidelines, or other more stringent measures where these exist.* *Requires the preparation of an ESCP as part of the legal agreement with material measures and actions required for the project to achieve compliance with the ESSs.*	*Relevant.* *CGH has commissioned this ESIA study to assess, manage and monitor environmental and social(E&S) risks and impacts of the project throughout the project lifecycle.*
ESS2	*Labour and Working Conditions*	*Requires development and implementation of labor management procedures.* *Workers to be provided with clear information and documentation on terms and conditions of employment.* *Nondiscrimination of workers in employment and treatment.*	*ESS2 is relevant to this project due to different classes of labour working on the project: (i) direct workers, (ii) contracted workers, and (iii) primary supply workers.*

ESS No.	ESS Title	Key Requirement	Relevance to the Project
ESS3	*Resource Efficiency and Pollution Prevention and Management*	*Implementation of technically and financially feasible measures for improving efficient consumption of energy, water, and raw materials, as well as other resources.* *Avoidance of the release of pollutants or, when avoidance is not feasible, minimization and control the concentration and mass flow of their release using the performance levelsand measures specified in national law or the EHSGs, whichever is most stringent.*	*The relevance of ESS3 is mainly related to ensuring energy efficient equipment and machines are procured where practical by the Project.* *During implementation, the Project will generate solid waste and e-waste.*
ESS4	*Community, Health, Safety and Security*	*Requires the assessment, management and monitoring of E&S risks and impacts of the project on the health and safety of the affected communities (vulnerable) during the project life cycle.* *Requires an assessment of how use of security by the Project to safeguard personnel and property could impact on community considering human rights.*	*ESS4 is relevant to this project given potential risks to the community health and safety that could result from accidents at project sites, the transmission and spread of diseases, and GBV/SEA/SH risks.* *Moreover, the project may also cause risks to community health stemming from inappropriate disposal of generated e-waste, vehicle traffic, dust, noise and vibrations, generation of hazardous material and conflicts, limited access to residences, businesses and*

ESS No.	ESS Title	Key Requirement	Relevance to the Project
			institutions, and security and community conflicts.
ESS5	*Land Acquisition, Restrictions on Land Use, and Involuntary Resettlement*	*Anticipate and avoid physical and economic displacement or, where avoidance is not possible, to minimize adverse social and economic impacts.*	*Relevant.*
ESS6	*Biodiversity Conservation and Sustainable Management of Living Resource*	*E&S assessment as set out in ESS1 but considers direct, indirect, and cumulative project-related impacts on habitats and the biodiversity they support. This assessment should consider threats to biodiversity, for example pollution and incidental take, as well as projected climate change impacts.* *E&S assessment of the systems and verification practices used by the primary suppliers.*	*Relevant.* *Lake Victoria is an ecosystem with various biodiversity that may be negatively affected during project implementation. Again, if waste generated from the project is not properly managed, it may pollute the environment negatively impacting biodiversity.*
ESS7	*Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local*	*Full consultation and provision of opportunities for Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities in project design and in the determination of project*	*Not relevant.*

ESS No.	ESS Title	Key Requirement	Relevance to the Project
	Communities	*implementation arrangements.* *Obtain the Free Prior and Informed Consent (FPIC) of the affected Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities.* *Culturally appropriate and accessible grievance mechanism for the project.*	
ESS8	*Cultural Heritage*	*E&S assessment as set out in ESS1 but considers direct, indirect, and cumulative project-related impacts on cultural heritage.* *Stakeholder consultation during cultural heritage identification process.* *Listing of all legally protected cultural heritage areas affected by the project.* *Chance finds procedures.*	*Relevant.The project has a ginormous footprint and involves a lot of civil works. As such, there is a likelihood to encounter cultural heritage.* *This ESIA includes Chance finds procedures to guide any cultural heritage finding. Annex F.*
ESS9	*Financial Intermediaries*	*Development and implementation of an environmental*	*Not relevant.*

ESS No.	ESS Title	Key Requirement	Relevance to the Project
		and social management system (ESMS). *Stakeholder engagement.*	
ESS10	*Stakeholder Engagement and Information Disclosure*	*Stakeholder engagement during project preparation.* *Stakeholder Engagement Plan (SEP).* *Stakeholder engagement during project implementation and external reporting.* *Grievance redress mechanism.* *Organizational capacity and commitment.*	*Relevant. Different stakeholders should be engaged during both the ESIA process and throughout implementation.*

4.5.2 WBG Environmental, Health and Safety Guidelines (EHSGs)

The Environmental, Health and Safety (EHS) Guidelines are technical reference documents that address the Bank's expectations regarding the EHS performance of its projects. They are designed to assist managers and decision makers with relevant industry background and technical information. This information supports actions aimed at avoiding, minimizing, and controlling EHS impacts during the construction, operation, and decommissioning phase of a project or facility. The EHS Guidelines serve as a technical reference source to support the implementation of the ESSs.

4.5.2.1 General EHSGs

General EHS Guidelines exist which contain information on cross-cutting environmental, health, and safety issues potentially applicable to all industry sectors; these are listed in Table 4 -5.

Table 4-5WBG General EHS Guidelines

Environmental	**Occupational Health and Safety**
• *Air Emissions and Ambient Air Quality* • *Energy Conservation* • *Wastewater and Ambient Water Quality* • *Water Conservation* • *Hazardous Materials Management* • *Waste Management* • *Noise* • *Contaminated Land*	• *General Facility Design and Operation* • *Communication and Training* • *Physical Hazards* • *Chemical Hazards* • *Biological Hazards* • *Radiological Hazards* • *Personal Protective Equipment (PPE)* • *Special Hazard Environments* • *Monitoring*
Community Health and Safety	**Construction and Decommissioning**
• *Water Quality and Availability* • *Structural Safety of Project Infrastructure* • *Life and Fire Safety (L&FS)* • *Traffic Safety* • *Transport of Hazardous Materials* • *Disease Prevention* • *Emergency Preparedness and Response*	• *Environment* • *Occupational Health and Safety* • *Community Health and Safety*

4.5.2.2 Telecommunication EHSGs

The EHS Guidelines for Telecommunications are applicable to telecommunications infrastructure such as fixed line and wireless voice and data transmission infrastructure, including long distance terrestrial and submarine cables (e.g., fiber optic cables), as well as radio and television broadcasting, and associated telecommunications and broadcasting installations and equipment.[2]

Thesetelecommunication sector-specific EHS Guidelines contain information on cross-cutting environmental, health, and safety issues in the industry, these are listed in Table 4 -6.

Table 4-6 WBGTelecommunication EHS Guidelines

Environmental	**Occupational Health and Safety**
• *Terrestrial habitat alteration* • *Aquatic habitat alteration* • *Visual impacts* • *Hazardous materials and waste* • *Electric and magnetic fields* • *Emissions to air* • *Noise*	• *Electrical safety* • *Electromagnetic fields (occupational)* • *Optical fiber safety* • *Elevated and overhead work* • *Fall protection* • *Confined space entry* • *Motor vehicle safety*
Community Health and Safety	**Construction and Decommissioning**
• *Structural and site access issues* • *Aircraft navigation safety* • *Driver safety and cellular phones*	*Environment* *Occupational Health and Safety* *Community Health and Safety*

Where applicable, the above-mentioned EHSGs will be applied to the Project.

4.6 Permits required in Project Development

Pursuant to requirements of statutory regimes reviewed above, diverse permits and licenses will be required in course of rolling out the PID as outlined in Table 4.3 below. Both the Proponent and Contractor will require fulfilling legal obligations pertinent to all permits. Additionally, the Contractor will require to always operating within the law, obtaining all Work Permits for Foreign personnel as require

[2] *Associated installations and equipment include cellular, microwave, and other radio-based systems; satellite receivers; wire line and wireless receiving, transmitting, and switching stations, and related equipment such as masts and towers, cables and connectors, equipment housing such as shelters and cabinets, backup batteries, and auxiliary power units (generators).*

Table 4-7Statutory Permits required in development of the SEZ - Preparation

No.	Activity	Statute	Requirement	Competent Authority	Competent Applicant	Date of Acquisition	Duration
1	*Constructing the Waterpipeline*	*Environmental Management and Coordination Act (EMCA)*	*ESIA Report with confirmation that RAP is being carried out*	*NEMA*	*County Government of Homabay*	*On Completion of ESIA Study*	*Max 90 Days from date of submission of*
2	*Traversing through an area of Cultural Heritage*	*National Museums and Heritage Act, 2012*	*Approval Application ESIA Report*	*National Museums of Kenya (NMK)*	*County Government of Homabay*	*On Completion of ESIA Study*	*Indefinite*
3	*Clearing of trees includingvreeds*	*Forest Management and Conservation Act, 2016*	*Obtain Permission to cut forest trees*	*Kenya Forest Service (KFS)*	*County Government of Homabay*	*Before clearing*	*Indefinite*
4	*Construction Activities*	*Occupational Safety and Health Act (OSHA), 2007*	*Registration of a Working Area*	*Directorate of Occupational*	*Contractor*	*Upon site handover*	*Annual renewable*
5	*Road Cutting forPipe passage*	*Roads Act 2007*	*Obtain permission to Cut a road.*	*KENHA,*	*Contractor*	*Once*	*Once*
6	*Construction and Operation of Water pipeline*	*County Governments Act No 17 of 2012 revixes 2017*	*Approval application*	*County Governments of Homabay and*	*County Government of Homabay*	*On Completion of ESIA Study*	*Indefinite*

No.	Activity	Statute	Requirement	Competent Authority	Competent Applicant	Date of Acquisition	Duration
				National Government			

Table 4-8Statutory Permits required in development of the SEZ - Construction

No.	Activity	Status	Requirements	Competent Authority	Competent Applicant	Date of Acquisition	Duration
1	*Blasting of construction site bedrocks (If required)*	*Explosives Act, 2016*	*Application for transportation and use permits*	*Mines and Geology Department in Ministry of Environment and Forestry*	*Contractor*	*Before blasting*	*Max of 1 month*
2	*Noise during blasting*	*Environmental Management and Coordination Act (EMCA) Cap 387, Rev 2018*	*Approval Application*	*NEMA*	*Contractor*	*When required*	*1 – 5 days*

No.	Activity	Status	Requirements	Competent Authority	Competent Applicant	Date of Acquisition	Duration
3	*Setting up of campsites*	*Environmental Management and Coordination Act (EMCA) Cap 387, Rev 2018*	*EIA Reports for independent sub-projects*	*NEMA*	*Contractor*	*If required*	*1 – 1.5 months*
4	*Water Abstraction*	*Water Act, 2012 and EMCA Cap 387*	*Water Permit precededby application*	*Water Resources Authority (WRA)*	*Contractor*	*Before abstraction of water*	*1 – 1.5 months*
5	*Waste Disposal*	*Environmental Management and Coordination Act (EMCA) Cap 387, Rev 2018*	*Waste disposal Permit/Effluent DischargePermit*	*NEMA*	*Contractor*	*Construction period*	*Before operations*

Table 4-9Statutory Permits required in development of the SEZ - Preparation

No.	Activity	Status	Requirements	Competent Authority	Competent Applicant	Date of Acquisition	Duration

1	*Initial Environmental Audit*	*Environmental Management and Coordination Act (EMCA) Cap 387, Rev 2018*	*Initial Environmental Audit Report – Fulfillment of ESMaP/ ESMoP*	*NEMA*	*County Government of Homabay*	*Initial Environmental Audit is done after 1st year of operation*	*Within 24 months of commissioning*
2	*Regular Environmental Audits*	*Environmental Management and Coordination Act (EMCA) Cap 387, Rev 2018*	*Regular Environmental Audit Reports as NEMA may deem necessary – Fulfillment of improvement orders*	*NEMA*	*County Government of Homabay*	*As determined by NEMA*	*2-3 weeks*

4.7 Institutional Framework

The following key administrative agencies regulate Industry and its E&S implications in Kenya:

Table 4-10 E&S Institutional Framework

No	Institution/Ministry	Description of their role	Relevance to the project
1.	*Ministry of Environment and Forestry (ME&F)*	*Facilitate good governance in the protection, restoration, conservation, development and management of the environment and natural resources for equitable and sustainable development.*	*Sets environmental management policy*
2.	*National Environment Management Authority (NEMA)*	*Exercise general supervision and co-ordination over all matters relating to the environment and to be the principal instrument of Government in the implementation of all policies relating to the environment.*	• *Grants ESIA approval for projects* • *Monitor and assess project activities*
3.	*National Environmental Complaints Committee (NECC)*	*Investigates allegations and complaints of suspected cases of environmental degradation. The Committee also prepares and submits to the NEC periodic reports of its activities.*	*Members of the public can register or appeal to this committee regarding any aspects of the project that violates the law and its licenses.*
4.	*National Environment Tribunal (NET)*	• *reviews administrative decisions made by NEMA relating to issuance, revocation or denial of license and conditions of license.* • *provides legal opinion to NEMA on complex matters where the Authority seeks such advice.* • *has powers to change or give an order and direction*	*Members of the public can register or appeal to this committee regarding any aspects of the project that violates the law and its licenses.*

No	Institution/Ministry	Description of their role	Relevance to the project
		regarding environmental issues in dispute.	
5.	*SEZ Authority (SEZA)*	*regulator of SEZs*	*Issues licenses to SEZs*
6.	*Ministry of Labour and Social Protection*	• *formulate and implements the national labor legislation and policy.* • *Parent to Directorate of Occupational Safety and Health Services (DOSHS).*	• *DOSHS monitors working conditions at project sites.* • *WIBA insurance for staff.* • *Workplace registration for all project sites.* • *Annual occupational and safety audits.*
7.	*Ministry of Sports, Culture and Heritage*	*develop, promote, preserve, and disseminate Kenya's diverse cultural, artistic and sports heritage through formulation and implementation of policies which enhance national pride and improve the livelihood of the Kenyan people.*	*Must be informed of any chance finds during project implementation.*
8.	*KWS*	*facilitate good governance for sustainable development, management and marketing of tourism and wildlife.*	*Obtain approval for any works within protected areas.*
9.	*KURA*	*Responsible for the management, development, rehabilitation, and maintenance of National Trunk Roads in the urban areas.*	*Obtain permission for road reserve utilization.*

5 PROJECT ALTERNATIVES

5.1 Overview

This section analyses the possible project alternatives from various facets applicable to theproposed project. The major aspects that will be considered for alternatives are; project site,technology, and waste management strategies. Alternatives should be economically feasiblewith minimal adverse environmental impacts and time delays. Diverse alternatives to theproposed action must be included in the ESIA. Alternatives may include both design andlocation options.

5.2 Project Alternatives

5.2.1 Relocation option

This option considers the viability of physical relocation of the special economic zone fromthe proposed site to another location. Several factors shall be considered while arrivingat this decision: the legislative framework, topographical and geo-hydrological survey, bothpotential positive and negative environmental and social impacts, and availability of supportinfrastructure

5.2.2 No Project Alternative

This option implies that the existing situation prevails i.e., no project development activity totake place. This option is mostly applicable in situations where the proposed project area is inecologically sensitive areas. From a socio-economic perspective the "no action" alternativemay not be the best alternative as the numerous benefits to be gained from the developmentboth locally and nationally would not be realized and the resources in the area wouldcontinue to be underutilized. The „No Project Option" is the least preferred from the socio-economic and partly environmental perspective since if the project is not done: -

- *The economic benefits especially during implementation i.e., provision of jobs for skilled and non-skilled workers will not be realized;*
- *There will be no generation of income by the developer and the Government.*
- *The social-economic status of Kenyans and the local community would remain unchanged.*
- *No employment opportunities will be created for Kenyans during operation phase.*
- *Discouragement for investors to produce this level of standard and affordable developments.*

5.2.3 Construction Materials and Technology

There will be no major construction apart from dyke compaction using locally availablematerials.

6 CONSULTATION & PUBLIC PARTICIPATION (CPP)

6.1 Overview

This Chapter presents a summary of the stakeholder engagement undertaken as part of the ESIA process for the Project. The engagement process has been designed to meet both Kenyan legal requirements for CPP in relation to an ESIA Project Report, and international requirements for engagement as outlined in the WBG ESSs.

6.2 Objectives of Stakeholder Engagement

The objectives of engaging stakeholders and the community during the ESIA process and beyond include, to:

- **Ensure understanding** – *stakeholders were informed about the project through disclosure of pertinent information (e.g., activities, inputs, outputs, etc.);*
- **Involve stakeholders in the assessment** – *after informing the stakeholders about the project, they were invited to offer their views, opinions or suggestions that included potential positive and negative environmental and social impacts, enhancement, mitigation, and management measures;*
- **Build relationships** – *stakeholders were invited to partner with the proponent to ensure that all project positive impacts during construction and operation phases are realized and project ESMP is implemented to avoid, minimize, and reduce negative impacts;*
- **Engage vulnerable people** – *apart from key informants, the engagement included potential Project Affected Persons (PAPs). PAPs within one kilometer radius of the project site were engaged through a meeting and questionnaires;*
- **Manage expectations** – *the engagement was also used for understanding and helping to manage stakeholder and community expectations about the project; and*
- **Ensure compliance** – *engagement process was designed to ensure compliance with both local regulatory requirements and international best practice (WBGESS 1).*

One of the key outcomes of engagement should be free, prior, and informed consultation of stakeholders, where this can be understood to be:

- **Free***: engagement free of external manipulation or coercion and intimidation;*

- **Prior***: engagement undertaken in a timely way, for example the timely disclosure of information; and*
- **Informed***: engagement enabled by relevant, understandable, and accessible information.*

6.3 Project Stakeholders

A **stakeholde***r is defined as* **any individual or group which is potentially affected by the Project or who has an interest in the Project and its potential impacts**. *Different issues are likely to concern different stakeholders; as such, stakeholders have been grouped in accordance with their connections to the Project.*

The main stakeholders in the project implementation include; the local community, Departmentof Public Works, Water parastatals, Kenya Power and Lighting Company (KPLC),Telecommunication companies, Postal corporation and County Authorities. Others include thePublic Health, the agro-vets and regulators such as KDB, KEBS, WRA, etc.

6.4 Summary from Stakeholder Engagement

A total of 39 formal forums were arranged during which 951 stakeholders were met. Many more stakeholders were met during the Census survey and asset inventory implying that probably over 1000 people were engaged as part of this RAP.

6.4.1 The Leaders Meetings

The entry point to all stakeholder engagement process was Leaders Meetings largely called to market the proposed Project to Local Leadership who, upon being convinced would spearhead the process of introducing the project to target grassroots communities. Given that the PID spans the Homabay County, two separate meetings targeting sub-County level leadership were held bringing together 198 diverse leaders from National Government, County Government, Politicians (MPs and MCAs), security apparatus, GOK Agencies among others. These forums served as community sounding boards from which preliminary public concerns on the proposed project bounced off thus helping to shape and inform preparations for the Public Hearing Meetings.

6.4.2 Public Hearing Meetings

As part of the business transacted during Leaders Meetings, schedules for holding Public Hearing Meetings in all locations in respective sub-Counties were made and immediately rolled out. Six Public Hearing Meetings were held at sublocation level for purposes of engaging with local communities inclusive of potential PAPs. A core agenda in the meetings was to build consensus on the allocation of the site.

7 ANTICIPATED ENVIRONMENTAL & SOCIAL RISKS AND IMPACTS& MITIGATION

7.1 Overview

The predicted impacts to the physical, biological, and socio-economic environment because of the Project are described in this Chapter. This Chapter also details potential mitigation measures to avoid, minimize, reduce, remedy, or compensate for potentially negative impacts, and enhance potential benefits of the Project. Furthermore, this Chapter provides a prediction of the residual impacts that will remain, assuming that the appropriate mitigation measures are implemented.

Whenever possible, the impact assessment laid out in this Chapter follows this sequence:

- *Each section begins with the type of impact being assessed;*
- *Background information relating to the impact is then provided. This includes a description of the baseline environment that will be affected, the Project aspect or activities that will cause the impact and a description of the effected receptors;*
- *The significance of the impact pre-mitigation is then assessed and rated through use of a rating table;*
- *Following the pre-mitigation rating tables, a section describing the recommendations and mitigation/management measures are provided; and*
- *Once the recommended mitigation/management measures are provided, a residual impact (post-mitigation) is rated through use of a less detailed rating table.*

7.2 Installation/Construction Related Impacts

Table 7-11 Construction Phase E&S Risks and Impacts

Aspect	Risk or Impact	Description
Environmental	*Habitat Disruption and Biodiversity Loss*	*Construction activities can disrupt natural habitats and ecosystems around the lake, potentially leading to the loss of biodiversity and affecting the local flora and fauna.*
	Soil Erosion and Sedimentation	*Excavation, land clearing, and construction activities can lead to increased soil erosion, which can result in sedimentation in the lake. This can degrade water quality and harm aquatic life.*

Aspect	Risk or Impact	Description
	Water Pollution	*Improper handling of construction materials, such as chemicals and cement, can lead to water pollution, affecting the lake's water quality and potentially harming aquatic organisms.*
	Noise and Air Pollution	*Construction activities can generate noise and air pollution, which may disturb both wildlife and nearby communities.*
	Disruption of Hydrological Systems	*Changes in the landscape, such as filling or altering natural water courses, can disrupt the hydrological systems around the lake, potentially affecting water flow patterns and lake levels.*
	Waste Generation:	*Construction activities can generate various types of waste, including construction debris and hazardous materials. Improper disposal of these wastes can have negative environmental consequences.*
Social	*Displacement and Land Conflicts*	*Land acquisition for construction purposes may lead to the displacement of local communities, potentially resulting in social tensions and conflicts over land rights.*
	Loss of Livelihoods:	*Traditional livelihoods that rely on the lake, such as fishing or agriculture, may be temporarily or permanently disrupted during the construction phase.*
	Safety Risks	*Construction sites can pose safety risks to workers, as well as to nearby communities if proper safety measures are not implemented.*
	Cultural Disruption	*The construction phase can disrupt local cultural practices and traditions, potentially leading to a loss of cultural identity and heritage.*
	Increased Cost of Living	*Rapid industrialization associated with the SEZ construction may lead to an increased cost of living in nearby areas, potentially affecting the affordability of*

Aspect	Risk or Impact	Description
		basic goods and services for local communities.
	Temporary Employment and Labor Issues	*While the construction phase may generate employment opportunities, these may be temporary, and there can be issues related to fair labor practices and worker safety.*

7.3 Operations Related Impacts

During operation it is expected that the cable will have no significant negative environmental or social impacts. During the operational phase there will be no routine maintenance of the cable and the cable will have a passive influence on the environment.

Table 7-12 Operations Phase E&S Risks and Imapcts

Aspect	Risk or Impact	Risk or Impact Description
Environmental	*Water Pollution*	*Industrial processes within the SEZ may generate pollutants that, if not properly managed, can lead to water pollution in the lake. This can harm aquatic life and affect water quality.*
	Air and Noise Pollution	*Operations in the SEZ, especially manufacturing processes, can result in emissions of pollutants and noise, potentially impacting both the aquatic and terrestrial ecosystems around the lake.*
	Waste Generation and Management	*The operation of industries within the SEZ can lead to the generation of various types of waste, including hazardous materials. Improper disposal or inadequate waste management practices can have negative environmental consequences.*
	Energy Consumption	*The operation of industries in the SEZ may require significant energy consumption, potentially contributing to increased demand for energy resources and associated environmental impacts.*

Aspect	Risk or Impact	Risk or Impact Description
	Resource Depletion	*The extraction of resources for industrial processes, if not managed sustainably, can lead to resource depletion and environmental degradation.*
Social	*Community Health and Safety*	*Poorly managed industrial processes can pose risks to the health and safety of workers within the SEZ and nearby communities. This can result from exposure to pollutants or unsafe working conditions.*
	Cultural Disruption	*The operation of the SEZ can continue to disrupt local cultural practices and traditions, potentially leading to a loss of cultural identity and heritage.*
	Unequal Distribution of Benefits	*If not managed equitably, the benefits of the SEZ, such as employment opportunities or increased economic activity, may disproportionately benefit certain groups, leading to social disparities.*
	Loss of Access to Resources	*Continued operation of the SEZ may limit or restrict local communities' access to natural resources, such as water, fisheries, or agricultural land.*
	Community Livelihoods	*The ongoing operation of the SEZ may have long-term effects on traditional livelihoods, potentially leading to economic hardships for affected communities.*

8 ENVIRONMENTAL AND SOCIAL MANAGEMENT AND MONITORING PLAN (ESMMP)

8.1 Introduction

The purpose of this Environmental and Social Management and Monitoring Plan (ESMMP) is to ensure that social and environmental impacts and risks identified during the ESIA process are effectively managed during the construction and operations of the Project. The ESMMP specifies the mitigation and management measures to which the Proponent and the Contractor are committed and shows how the Project will mobilize organizational capacity and resources to implement these measures. The ESMMP also shows how mitigation and management measures will be scheduled and will ensure that the Project complies with the applicable laws and regulations within Kenya.

The key objectives of the ESMMP are to:

- *Formalize and disclose the programme for environmental and social management; and*
- *Provide a framework for the implementation of environmental and social management initiatives.*

Best practice principles require that every reasonable effort is made to reduce, and preferably to prevent, negative impacts while enhancing the Project benefits. These principles have guided the ESIA process.

The overall responsibility for the ESMMP lies with the Proponent (CGH) and the various contractors that will be appointed and responsible for carrying out the specific Project activities.

8.2 CGH E&S Compliance Framework

In the development, construction, and operation of the Project,CGH and its contractors and business partners will adhere to the following standards:

- *All applicable legislation and regulations in Kenya; and*
- *World Bank Group (WBG) Environmental and Social Standards.*

This ESMMP has been developed in accordance with the requirements of these regulations and standards.

8.3 Environmental and Social Management and Monitoring Plan (ESMMP)

The ESMMP covers information on the management and/or mitigation measures that will be taken into consideration to address impacts with respect to:

- *The SEZ installation phase (including mobilization and demobilization activities associated with the construction phase); and*
- *The operations/maintenance phase.*

In practice, some of the recommended management measures will be incorporated into the Project design/influence the Project design, to avoid or minimize the identified negative Project impacts as indicated in this ESMMP.

Table 8 -13summarizes the ESMMP for the Project. It describes the mitigation measures to be undertaken, and, to ensure the mitigation measures are adequately implemented, a monitoring programme is also described. This programme provides for parameters that can be monitored, and suggests how monitoring should be done, how frequently, and who should be responsible for such monitoring.

Table 8-13 Environmental and Social Management and Monitoring Plan (ESM&MP)

Issue	Mitigation/Management Measure	Responsibility for Implementation	Monitoring Indicator	Frequency of Monitoring	Cost (KSh)
Construction Phase					
General	*Contractor is required to developand implement a contractor'sConstruction EnvironmentalManagement Plan (C-ESMP) meetingthe conditions set out in the environmental authorisation (EIACertificate for this Project once issued by NEMA), as well as thisESIA FSR and lender requirements.* *All applicable elements of this ESMMP should be used in draftingand finalising the contractor specific C-ESMP, which is to be usedfor the construction phase, and against which the E&S performance of the contractor will be monitored.*	*Contractor*	*A revised project specificC-ESMP*	*Once (prior to commencement of construction activities.*	*No additional cost (expected to be undertaken by the contractor's environmental and social team)*
HabitatDisruption	• *Marine vessels will be required to*	• *Proponent*	*Developed and implemented*	*Once (prior to*	*100,000.00*

Issue	Mitigation/Management Measure	Responsibility for Implementation	Monitoring Indicator	Frequency of Monitoring	Cost (KSh)
and Biodiversity Loss	*adhere to IMO regulations on bilge and ballast water discharge to avoid tensional introduction of non-native species to the marine environment.* • *Working with an appropriate environmental organization to develop a notification process.* • *The Project will ensure that measures are adopted to avoid incursion into areas adjacent to the work site or any secondary effects from pollution, sedimentation, or accidental spills.* • *Develop and implement a biodiversity action plan (BAP).*	• *Contractor*	*BAP*	*commencement of construction activities).*	
Soil Erosion and Sedimentation	• *Plant vegetation, such as grasses, shrubs, and trees, helps stabilize*	*Proponent* *Contractor*	• *No recorded grievances about soil erosion*	*Annually*	*Included in overall pricing*

Issue	Mitigation/Management Measure	Responsibility for Implementation	Monitoring Indicator	Frequency of Monitoring	Cost (KSh)
	soil, reduce runoff, and prevent erosion. Choose native species that are well-suited to the local environment. • *Install silt fences or erosion control blankets in areas prone to erosion. These physical barriers help trap sediment and prevent it from being carried away by water.* • *Educate stakeholders, including community members, landowners, and workers, about the importance of erosion control practices and their role in preserving the environment.* • *Establish riparian buffers along water bodies, consisting of native vegetation. These buffers act as natural filters, reducing*		• *Records of audits/visual inspection* • *# of silt fences or erosion control blankets installed* • *# of people attending soil conservation awareness sessions.*		

Issue	Mitigation/Management Measure	Responsibility for Implementation	Monitoring Indicator	Frequency of Monitoring	Cost (KSh)
	sedimentation and protecting aquatic habitats.				
Water Pollution	**General Measures** • *The Project should develop and implement a grievance procedure to deal with complaints including those related to impacts on water quality.* • *Regularly maintain the Project equipment as per the manufacturer's instruction to avoid the possibility of any leaks and spills.* • *Method Statements detailing spill emergency response and clean-up procedures for spills should be developed.* • *Training regarding proper methods for transporting,*	*Contractor*	• *# of recorded grievances about water pollution.* • *Water quality test records* • *Vehicle and equipment service records* • *Records of audits/ visual inspection*	*Throughout construction*	*Included in overall pricing*

Issue	Mitigation/Management Measure	Responsibility for Implementation	Monitoring Indicator	Frequency of Monitoring	Cost (KSh)
	transferring, and handling hazardous substances that have the potential to impact surface and groundwater resources should be undertaken. • *Areas where spillage of soil contaminants occurs should be excavated (to the depth of contamination) and suitably rehabilitated. If any other minor spillage occurs, it should be cleaned as soon as possible, but within the same shift and the contaminated area should be reinstated. All contaminated material should be suitably disposed of.* • *The ad hoc maintenance, except for emergency repairs; of vehicles in and around the Project Site*				

Issue	Mitigation/Management Measure	Responsibility for Implementation	Monitoring Indicator	Frequency of Monitoring	Cost (KSh)
	should be prevented, as far as reasonably possible. All major services and ad hoc maintenance of vehicles and equipment should be done at a designated workshop. The workshop should be properly constructed to prevent pollution and should as far as reasonably practically include containment berms and an oil/grease trap. • *All construction areas and associated facilities should be maintained in a good and tidy condition; debris and wastes should be contained in such a way that they cannot become entrained in surface runoff during periods of heavy rain.* • *Where practical, exposed surfaces*				

Issue	Mitigation/Management Measure	Responsibility for Implementation	Monitoring Indicator	Frequency of Monitoring	Cost (KSh)
	and friable materials should be covered/sheeted. • *Sufficient portable toilets at active work areas should be provided for site staff and workers and these should beserviced regularly by a competent and suitably qualified person.* • *The sewage treatment/ containment system should bemanaged in a manner that results in zero discharge of rawsewage to the environment, and if treated sewage isdischarged into the environment then this should conform torecognised Kenyan discharge standards prior to*				

Issue	Mitigation/Management Measure	Responsibility for Implementation	Monitoring Indicator	Frequency of Monitoring	Cost (KSh)
	discharge. • *All wastewater which may be contaminated with oilysubstances should be managed in accordance with anapproved Waste Management Plan, and no hydrocarbon-contaminated water should be released into the environment.* **Specific Measures – Flow (including stormwater water)** • *Project infrastructure should be designed and located to minimise the impacts to natural water flow.* • *Connect stormwater channels from the Project Site to main stormwater ducts.* • *The design of all the drainage*				

Issue	Mitigation/Management Measure	Responsibility for Implementation	Monitoring Indicator	Frequency of Monitoring	Cost (KSh)
	channels should be informed by the climate of the Project Area to be constructed to be able to manage peak run-off. • *Ensure protection of soil adjacent to the side drains and the constructed drainage facilities.* • *Spoil/excavations should be visually assessed to determine if it is contaminated. If the spoil is contaminated, it should be handled as a hazardous material and disposed of under supervision and into controlled dumping areas.*				
Noise and Air Pollution	• *The Project should require that the contractor operate only well-maintained engines.* • *Construction vehicles, a routine*	*Contractor*	• *No recorded incidents or air pollution-related grievances.* • *Records of audits/visual*	*Daily*	*Included in overall pricing*

Issue	Mitigation/Management Measure	Responsibility for Implementation	Monitoring Indicator	Frequency of Monitoring	Cost (KSh)
	wetting program of all unpaved surfaces including roads and construction areas will be undertaken to ensure sufficient moisture content is maintained to suppress dust generation. • *Construction traffic speed control measures will be enforced on unpaved roads (reduced dust generation levels are often consistent with reduced traffic speeds).* • *Operation in line with the requirements specified under MARPOL 73/78 Annex VI.*		*inspection*		
Waste generation	• *Spoil generated should be disposed of on pre-identified andapproved locations (impact assessment should be completedfor the locations if not*	*Contractor*	• *An effective WMP inplace* • *No recorded grievances atthe waste sources*	*Monthly*	*Included in construction costs.*

Issue	Mitigation/Management Measure	Responsibility for Implementation	Monitoring Indicator	Frequency of Monitoring	Cost (KSh)
	already approved). • *A Waste Management Plan (WMP) will be produced for theconstruction phase.* • *Construction vehicles and equipment will be serviced off site atdesignated and approved servicing locations.* • *The use, storage, transport, and disposal of hazardousmaterials used for the Project will be carried out in accordancewith all applicable Kenyan regulations, and Material Safety DataSheets (MSDS). As Kenya does not have a specific hazardouswaste facility, any hazardous wastes to be disposed of shouldbe documented beforehand, treated as per any requirements ofthe MSDS sheets,*		*orrelated to the supply ofconstruction materials.* • *Records of audits/visualinspection*		

Issue	Mitigation/Management Measure	Responsibility for Implementation	Monitoring Indicator	Frequency of Monitoring	Cost (KSh)
	and disposed of in consultation with theapplicable County Authorities and via NEMA approved wastehandlers. • *The Contractor will be required to supply the requiredtemporary ablution facilities and be responsible for thetreatment and/or removal of sewage wastes off site. TheContractor will also be required to ensure that any sub-contracting company is accredited and has the necessarypermits to remove sewage waste.* • *The sewage will be treated inaccordance with the applicablelaws like the Environmental Management and Coordination(Waste*				

Issue	Mitigation/Management Measure	Responsibility for Implementation	Monitoring Indicator	Frequency of Monitoring	Cost (KSh)
	Management) Regulations, 2006. • *All construction laydown areas shall comply with the ProjectWMP and be provided with appropriate waste handlingequipment.* • *Work sites will have appropriate solid waste holding receptaclesfor the expected different types of waste, and waste is to bemanaged according to the waste management hierarchy.* • *Waste is to be sorted for ease of segregation, reused, recycled,and disposed of only as a last resort.* • *In line with the requirements of the Waste ManagementRegulations, any generated hazardous waste should betransported and*				

Issue	Mitigation/Management Measure	Responsibility for Implementation	Monitoring Indicator	Frequency of Monitoring	Cost (KSh)
	managed by NEMA permitted hazardous wastehandlers.				
Displacement and Land Conflicts	• *Engage local communities in decision-making processes regarding land use, development projects, and resource allocation. Their input and consent are crucial in preventing displacement and conflicts.* • *Establish or strengthen mechanisms for conflict resolution and mediation related to land disputes. These mechanisms should be accessible, impartial, and fair, with participation from all relevant stakeholders.* • *Implement clear guidelines and procedures for land acquisition,*	*Proponent* *Contractor*	• *RAP* • *# of land related grievances*	*One-off at project commissioning*	*10,000,000.00*

Issue	Mitigation/Management Measure	Responsibility for Implementation	Monitoring Indicator	Frequency of Monitoring	Cost (KSh)
	ensuring that it is carried out in a transparent and fair manner, with adequate compensation and resettlement options for affected communities. • *Develop and implement a resettlement action plan (RAP) to guide any land acquisition.*				
Safety Risks	• *Conduct thorough risk assessments and hazard identification to identify potential safety risks and prioritize mitigation efforts.* • *Provide comprehensive safety training and education to employees, community members, or stakeholders who may be exposed to risks. This includes training on safe work practices,*	*Contractor*	• *Risk assessments and hazard identification report* • *Emergency preparedness and response plan.* • *#Types of PPE provided* • *Number of workers using PPE* • *Safety audit reports*	*Monthly*	*Included in construction costs*

Issue	Mitigation/Management Measure	Responsibility for Implementation	Monitoring Indicator	Frequency of Monitoring	Cost (KSh)
	emergency procedures, and the proper use of safety equipment. • *Ensure that appropriate personal protective equipment (PPE), such as helmets, gloves, goggles, and safety harnesses, is provided and used by individuals working in hazardous environments.* • *Establish and enforce safe work practices and procedures that outline specific steps to follow when performing tasks that involve potential safety risks.* • *Develop and regularly review emergency response plans that outline procedures for responding to accidents, fires, natural disasters, or other emergencies. Conduct drills to ensure that individuals are familiar with the*				

Issue	Mitigation/Management Measure	Responsibility for Implementation	Monitoring Indicator	Frequency of Monitoring	Cost (KSh)
	procedures. • *Conduct regular safety inspections and audits to identify and address potential hazards, compliance with safety regulations, and the effectiveness of existing safety measures.*				
Cultural Disruption	• *Implement chance findsprocedure.* • *Conduct a thorough cultural impact assessment to understand the potential effects of a project on local cultures and traditions. This assessment should involve consultation with affected communities and cultural experts.* • *Engage with local communities and involve them in decision-making processes related to the*	*Proponent* *Contractor*	• *Chance finds procedure.* • *Community engagement sessions on culture.* •	*Throughout the construction period*	*100,000.00*

Issue	Mitigation/Management Measure	Responsibility for Implementation	Monitoring Indicator	Frequency of Monitoring	Cost (KSh)
	project. Seek their input, listen to their concerns, and respect their cultural perspectives. • *Support efforts to preserve and document cultural heritage, including oral histories, traditional practices, rituals, and artifacts. This can be done through partnerships with local cultural institutions or experts.*				
Increased Cost of Living	• *Create and promote job opportunities through economic development initiatives, vocational training, and support for entrepreneurship. This can help individuals increase their income and offset rising costs.* • *Implement affordable housing initiatives, such as subsidized*	*Proponent*	• *# of jobs created* • *# of entrepreneurs supported* • *# of people enrolled in social safety program*	*Annually*	*10,000,000.00*

Issue	Mitigation/Management Measure	Responsibility for Implementation	Monitoring Indicator	Frequency of Monitoring	Cost (KSh)
	housing, rent control, or housing assistance programs, to help individuals and families find affordable accommodation. • *Establish or strengthen social safety net programs, including cash transfer programs, food assistance, and targeted subsidies, to provide financial support to vulnerable populations facing increased living costs.*				
Temporary Employment and Labor Issues	**OHS Management System** • *The Contractor will develop and implement an OccupationalHealth and Safety Management System in line with goodindustry practice including ESS2 andKenya's Occupational Health and Safety Act (OSHA).*	*CGH (contractual arrangements)* *Contractor (implementation)*	• *Employmentrecords andother key performanceindicators (KPIs) for workerrights.* • *A record of workers'grievances.* • *Emergency Response Plan*	*Monthly*	*Internal costs*

Issue	Mitigation/Management Measure	Responsibility for Implementation	Monitoring Indicator	Frequency of Monitoring	Cost (KSh)
	Thissystem will include consideration of hazard identification, riskassessment and control, use of Personal Protection Equipment(PPE), incident investigation and reporting, reporting, andtracking of near misses, incidents etc. The management system will also include emergency response plans that tie in withexisting emergency response procedures are the CGH. Rolesand responsibilities should be clearly defined. • *The Contractor will have a Human Resources Policy in placethat adheres to ESS2, Kenyan Law andthe ILO Core Labour Conventions to which Kenya is asignatory. The policy*		• *Induction documentation forall workers to includenecessary items*		

Issue	Mitigation/Management Measure	Responsibility for Implementation	Monitoring Indicator	Frequency of Monitoring	Cost (KSh)
	will include a Labour and EmploymentPlan, conditions of employment and Worker GrievanceMechanism. These requirements will also be passed on to anysub-contractors. **Contractor Management** • *In all contracts, explicit reference should be made to the needto abide by Kenyan law, international standards (in particularESS2), ratified ILO conventions and the Proponent's policiesin relation to health and safety, labour and welfare standards.* • *As part of the contractor and supplier selection process, CGHwill take into consideration*				

Issue	Mitigation/Management Measure	Responsibility for Implementation	Monitoring Indicator	Frequency of Monitoring	Cost (KSh)
	performance regarding workermanagement, worker rights, and health and safety as outlinedin Kenyan law and international standards. • *Regular checks should be undertaken to ensure the relevantlabour laws and occupational health and safety plans arealways adhered to.* • *All workers (including those of contractors and subcontractors)should, as part of their induction, receive training on health andsafety and should receive updated training routinely, as well aswhen undertaking new tasks, such as working at heights orworking in*				

Issue	Mitigation/Management Measure	Responsibility for Implementation	Monitoring Indicator	Frequency of Monitoring	Cost (KSh)
	confined spaces. **Workers' Rights** • *The Contractor should put in place hiring mechanisms toensure no employee or job applicant is discriminated against based on his or her gender, marital status, nationality,ethnicity, age, health status, religion, or sexual orientation.* • *All workers (including those of the contractor andsubcontractors) will, as part of their induction, receive trainingon worker rights in line with Kenyan legislation to ensure thatpositive benefits around understanding labour rights areenhanced. This process will be*				

Issue	Mitigation/Management Measure	Responsibility for Implementation	Monitoring Indicator	Frequency of Monitoring	Cost (KSh)
	formalised within the Code ofConduct that will be provided by the contractor. • *All workers (including those of the contractor andsubcontractors) will have contracts which clearly state the termsand conditions of their employment and their legal rights.Contracts will be verbally explained to all workers where this isnecessary to ensure that workers understand their rights.Contracts must be in place prior to workers commencing work.* • *The contractor will put in place a worker grievance mechanismthat will be accessible to all workers, whether permanent ortemporary,*				

Issue	Mitigation/Management Measure	Responsibility for Implementation	Monitoring Indicator	Frequency of Monitoring	Cost (KSh)
	or directly or indirectly employed. The workergrievance mechanism shall be open to all the Project workers if their grievance is not adequately resolved bytheir direct employer. Workers will also have access to CGH'sgrievance management system. • *All workers (including those of the contractor andsubcontractors) will have access to training on communicablediseases and STDs and community interactions in general. Thistraining will be developed in collaboration with local healthinstitutions.* • *Surveillance and assurance that no children or forced labour*				

Issue	Mitigation/Management Measure	Responsibility for Implementation	Monitoring Indicator	Frequency of Monitoring	Cost (KSh)
	isemployed directly by the contractor, and to the extent possibleby third parties related to the Project and primary supplierswhere any such risk may exist.				
Operations Phase					
General	*Develop and implement an operational phase Environment, Health, and Safety (EHS) Management Plan meeting the conditions set out in the environmental authorisation, as well as this ESIA FSR and any lender requirements.*	*CGH*	*An effective operationsphase EHS Plan*	*Developed onceand implementedthroughout theoperations phase*	*Internal costs*
Water Pollution	• *Regularly maintain the drainage system as required.*	*Project Proponent*	• *No recorded water (quality,quantity, or stormwater flow)-*	*Monthly*	*Internaloperations costs*

Issue	Mitigation/Management Measure	Responsibility for Implementation	Monitoring Indicator	Frequency of Monitoring	Cost (KSh)
	• *Monitor and report on water utilisation and recycle wastewateras appropriate using available technology.* • *Any effluent to the municipal sewer to meet the requirements ofthe effluent discharge permit.* • *A Waste Management Plan (WMP) will be produced for theoperations phase.* • *Operations vehicles and equipment will be serviced off site atdesignated and approved servicing locations.* • *The use, storage, transport, and disposal of hazardousmaterials used for the Project will be carried out in accordancewith all applicable Kenyan regulations, and Material Safety DataSheets*		*related incidents orgrievances to surroundingland users.* • *Visual audits/spot checks* • *Good housekeeping at theProject site* • *Well drained Project site* • *An effectiveoperationsphase WMP in place*		

Issue	Mitigation/Management Measure	Responsibility for Implementation	Monitoring Indicator	Frequency of Monitoring	Cost (KSh)
	(MSDS)				
Air and Noise Pollution	• *Locate the generator as far as possible away from people, bothemployees and working areas of neighbouring plots.* • *Ensure that the generator uses best available technology and isregularly maintained as per the manufacturer's instructions.* • *Vehicles will not be permitted to idle whilst stationary. Rathervehicles will plug into the mains power whilst docking to keeptheir refrigerant units going, whilst the vehicle is idle.* • *All the customers will be encouraged to use vehicles in goodmechanical conditionthat are regularly maintained as per*	*Project Proponent*	• *No recorded incidents orgrievances to surroundingland users.* • *No recorded noise-relatedincidents or grievances tosurrounding land users.* • *Occupational noisemonitoring records withinthe Premises*	*Daily* *Monthly*	*Internaloperations costs*

Issue	Mitigation/Management Measure	Responsibility for Implementation	Monitoring Indicator	Frequency of Monitoring	Cost (KSh)
	themanufacturer's advice. • *The power backup generator will be fitted with silencers basedon available best technology.* • *All Project drivers will be required to observe applicable trafficrules and regulations as per the national laws.*				
Waste Generation and Management	• *Develop and implement a facility Waste Management Plan applying the waste hierarchy.* • *In line with the requirements of the Waste ManagementRegulations, any generated hazardous waste should betransported and managed by NEMA permitted hazardous wastehandlers.* • *Any waste batteries and/or*	*Project Proponent*	• *An effectiveoperationsphase WMP in place* • *No recorded grievancesrelated to inappropriatewaste management at theProject Site* • *Records of audits/visualinspection*	*Monthly*	*Internaloperations costs*

Issue	Mitigation/Management Measure	Responsibility for Implementation	Monitoring Indicator	Frequency of Monitoring	Cost (KSh)
	broken or discarded solar panels,should be recycled through an applicable e-waste recycler, andhandled through an appropriate NEMA waste contractor,certified to handle such wastes. • *The use, storage, transport, and disposal of hazardousmaterials used for the Project will be carried out in accordancewith all applicable Kenyan regulations, and Material Safety DataSheets (MSDS).*				
Energy Consumption	• *Measuring of energy and fuel use data to calculate an accurate direct carbon footprint for the facility;* • *Based on the results of the carbon footprint, seek to make*	*CGH*	• *Energy consumptions records* • *Appropriate technology withminimal GHG emissionsused.*	*Quarterly*	*Internal costs*

Issue	Mitigation/Management Measure	Responsibility for Implementation	Monitoring Indicator	Frequency of Monitoring	Cost (KSh)
	efficiencies in areas of high GHG emissions;		• *No use of outlawed orbanned GHG compounds orOzone depletingsubstances*		

8.4 Roles and Responsibilities

8.4.1 Contractual Obligation

To ensure that this ESMMP and/or derivatives thereof are enforced and implemented, these documents must be given legal standing. This shall be achieved through incorporating the ESMMP and/or derivative documents as an addendum to the contract documents for the Contractor specifying that the requirements of this ESMMP and/or derivative documents apply and must be met. This will ensure that the obligations are clearly communicated.

8.4.2 Responsibilities and Duties

8.4.2.1 The Proponent (Homabay County)

The Project Proponent has overall responsibility for ensuring that the construction and development of the Project is undertaken in an environmentally sound and responsible manner

and reflects the requirements and specifications of the ESMMP and recommendations from the relevant authorities. The responsibilities of the Proponent will include:

- *Appoint or designate a suitably qualified Project Manager (PM) to manage the implementation of the proposed Project;*
- *Appoint the Project Contractor (PC);*
- *Establish and maintain regular and proactive communications with the designated/appointed Project Manager (PM) and Environmental Compliance Officer (ECO); and*
- *Ensure that the ESMMP is reviewed and updated as necessary.*

Reporting Structure

The Proponent will liaise with and/or take instruction from the following:

- *Government/regulatory authorities such as NEMA, KWS, WRA, etc.; and*
- *General Public.*

8.4.2.2 Proponent's Project Manager (PM)

The primary role of the PM is to ensure that the Contractor and Proponent's staff complies with the environmental specifications in the ESMMP. The PM shall further:

- *Oversee the general compliance of the Contractor with the ESMMP and other pertinent site specifications; and*
- *Liaise with the Contractor and ECO on environmental matters, as well as any pertinent engineering matters where these may have environmental consequences.*

In addition, the PM shall:

- *Designate or appoint a suitably qualified Environmental Manager (EM) that will manage all environmental aspects on behalf of the PM and the Project Proponent;*
- *Review and approve Method Statements produced by the Contractor in connection with the ESMMP;*

- *Assume overall responsibility for the effective implementation and administration of the ESMMP;*
- *Be familiar with the contents of the ESMMP, and his/her role and responsibilities as defined therein;*
- *Ensure that the ESMMP is included in the Contractor's contract;*
- *Communicate to the Contractor, verbally and in writing, the advice of the ECO and the contents of the ECO reports;*
- *In conjunction with the Construction Supervisor; undertake regular inspections of the Contractor's site as well as the installation works to check for compliance with the ESMMP in terms of the specifications outlined therein. Inspections shall take place at least once a week and copies of the monitoring checklist contained in the file;*
- *Review and approve drawings produced by the Contractor or professional team in connection with, for example, the construction site layout, access/haul roads, etc.;*
- *Issue site instructions giving effect to the ECO requirements where necessary;*

- *Keep a register of all complaints and incidents (spills, injuries, legal transgressions, etc.) and other documentation related to the ESMMP;*
- *Report to the ECO any problems (or complaints) which cannot first be resolved in co-operation with the Contractor(s);*
- *Implement recommendations of possible audits;*
- *Implement Temporary Work Stoppages as advised by the ECO, where serious environmental infringements and non-compliances have occurred;*
- *Facilitate proactive communication between all role-players in the interests of effective environmental management; and*
- *Ensure that construction staff is trained in accordance with requirements of the ESMMP.*

Reporting Structure

The PM will report to the Proponent (CGH). Weekly meetings between the contractor and Proponent, and monthly reporting will be required.

8.4.2.3 Environmental Control Officer (ECO)/ Environmental Health and Safety (EHS) Officer

Through the PM, the Project Proponent will appoint an ECO/EHS Officer to monitor and oversee implementation of the ESMMP for the proposed construction works. The ECO/ EHS Officer is given authority to ensure that the ESMMP is fully implemented and that appropriate actions are undertaken to address any discrepancies and non-compliances.

The role of the ECO/EHS Officer shall be to:

- *Act as site 'custodian' for the implementation, integration and maintenance of the ESMMP in accordance with the contractual requirements;*
- *Ensure successful implementation of the ESMMP; and*
- *Ensure that the Contractor, his employees and/or sub-contractors receive the appropriate environmental awareness training prior to commencing activities.*

The responsibilities of the ECO/EHS Officer will be to:

- *Liaise with the PM on the level of compliance with the ESMMP achieved by the Contractor on a regular basis for the duration of the contract;*
- *Advise the PM on the interpretation and enforcement of the Environmental Specifications (ES), including evaluation of non-compliances;*
- *Supply environmental information as and when required;*
- *Review and approve Method Statements produced by the Contractor, in conjunction with the PM;*
- *Demarcate particularly sensitive areas (including all No-Go areas) and to pass instructions through the PM concerning works in these areas;*
- *Monitor any basic physical changes to the environment because of the construction works according to an audit schedule;*
- *Attend regular site meetings and Project steering committee meetings;*

- *Undertake regular monthly audits of the construction works and to generate monthly audit reports. These reports are to be forwarded to the PM who will communicate the results and conclusions with the Project Proponent;*
- *Communicate frequently and openly with the Contractor and the PM to ensure effective, proactive environmental management, with the overall objective of preventing or reducing negative environmental impacts and/or enhancing positive environmental impacts;*
- *Advise the PM on remedial actions for the protection of the environment in the event of any accidents or emergencies during construction, and to advise on appropriate clean-up activities;*
- *Review complaints received and made instructions as necessary; and*
- *Identify and make recommendations to minor amendments to the ESMMP as and when appropriate.*

Reporting Structure

The ECO will report to the PM, who in turn will report to the Project Proponent.

8.4.2.4 Contractor

The Contractor will implement the development. The Contractor will be contractually required to undertake their activities in an environmentally responsible manner, as described in the ESMMP. The role of the Contractor shall be to:

- *Ensure that the environmental specifications of this document (including any revisions, additions or amendments) are effectively implemented. This includes the on-site implementation of steps to mitigate environmental impacts;*
- *Preserve the natural environment by limiting any destructive actions on site;*
- *Ensure that suitable records are kept and that the appropriate documentation is available to the PM;*
- *Take into consideration the legal rights of the Communities and individual Project Proponent's staff;*

- *Ensure quality in all work done, technical and environmental;*
- *Always underwrite the Project Proponent's Environmental Policy, and*
- *Ensure that all sub-contractors and other workers appointed by the Contractor are complying with and implementing the ESM&MP during the duration of their specific contracts.*

The responsibilities of the Contractor will be to:

- *Discuss implementation of and compliance with this document with staff at routine site meetings;*
- *Designate, appoint and/or assign tasks to personnel who will be responsible for managing all or parts of the ESMMP. The Contractor must appoint or designate a Safety, Health, Environment and Quality Officer (SHEQO) to monitor daily implementation of the ESMMP on the Contractor's behalf as a minimum;*
- *Monitor environmental performance and conformance with the specifications contained in this document during site inspections;*

- *Report progress towards implementation of and non-conformances with this document at site meetings with the PM;*
- *Advise the PM of any incidents or emergencies on site, together with a record of action taken;*

Reporting Structure

The Contractor will report to the PM and ECO, as and when required.

8.4.2.5 Sub-contractors

The Contractor may from time to time appoint sub-contractors. The role of the sub-contractors shall be to:

- *Perform certain services and/or provide certain products on behalf of the Contractor. The sub- contractors will be contractually required to undertake their activities in an environmentally responsible manner, as described in the ESMMP; and*

- *Ensure environmental awareness among employees so that they are fully aware of and understand the Environmental Specifications and the need for them.*

The responsibilities of the sub-contractor will be to:

- *Be familiar with the contents of the ESMMP, and his/her roles and responsibilities as defined therein;*
- *Comply with the Environmental Specifications in the ESMMP and associated instructions issued by the Contractor to ensure compliance;*
- *Notify the Contractor verbally and in writing, immediately in the event of any accidental infringements of the Environmental Specifications and ensure appropriate remedial action is taken; and*
- *Notify the Contractor, verbally and in writing at least 10 working days in advance of any activity he/she has reason to believe may have significant adverse environmental impacts, so that mitigation measures may be implemented timeously.*

Reporting Structure

Sub-contractors will report to and receive instructions from the Contractor.

8.4.3 Monitoring

8.4.3.1 Undertaking Audits

The PM shall appoint a qualified and experienced ECO/EHS Officer to ensure implementation of and adherence to the ESMMP.

The ECO/EHS Officer shall conduct audits to ensure that the system for implementation of the ESMMP is operating effectively. The audit shall check that a procedure is in place to ensure that:

- *The ESMMP and the Method Statements being used are the up-to-date versions.*
- *Variations to the ESM&MP, Method Statements and non-compliances and corrective actions are documented.*
- *Emergency procedures are in place and effectively communicated to personnel.*

The audit programme shall consist of the following at a minimum:

- *First audit no later than 1 month after construction commences;*
- *Thereafter audits at monthly intervals, at a minimum;*
- *An audit one week prior to practical completion of the Project is granted; and*
- *A post construction audit within 1 week after the Contractor has moved off site.*

The contractor and the Project Proponent will also be required to meet at least weekly to discuss and check progress of implementing the ESMMP.

8.4.3.2 Compliance with the ESMMP

The Contractor and/or his agents are deemed not to have complied with the ESMMP and remedial action if:

- *There is evidence of contravention of the ESMMP clauses within the boundaries of the site or extensions;*
- *Environmental damage ensues due to negligence; and*

- *The Contractor fails to comply with corrective or other instructions issued by the PM, within a time specified by the PM.*

9 CONCLUSION AND RECOMMENDATIONS

9.1 Conclusion

Through this ESIA Study Report, the County government of Homabay (the proponent) wishes to disclose that the proposed PID has impacts that can readily be mitigated and managed. Most adverse impacts identified are of a short-term nature and will cease once the civil works phase is completed. Further, other impacts can be contained through effective planning and management using available means of mitigation.

Given the low potential for negative impacts and the high potential for significant positive benefits (both direct and indirect), the Project would be deemed to have a high level of environmental and social acceptability.

9.2 Recommendations

The proponent and contractor are advised to implement the Environmental Management & Monitoring Plan (ESMMP) to eliminate the occurrence of the anticipated negative impacts, enhance the positive ones and achieve good environmental and social practices.

The implementation of the mitigation measures detailed in Table 8-1will provide a basis for ensuring that the potential positive and negative impacts associated with the project are enhanced and mitigated, respectively, to a level which is deemed adequate for the development to proceed.

In summary, based on the findings of this assessment, we find no reason why the Project, should not be authorized, contingent on the mitigations and monitoring for potential environmental and socio- economic impacts as outlined in the ESMMP.

REFERENCES

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Annex A:Lakers Consultancy Limited (LCL) NEMA Registration and 2021 Practicing License

FORM 7 (r.15(2))

nema

NATIONAL ENVIRONMENT MANAGEMENT AUTHORITY(NEMA)

THE ENVIRONMENTAL MANAGEMENT AND CO-ORDINATION ACT

ENVIRONMENTAL IMPACT ASSESSMENT/AUDIT (EIA/EA) PRACTICING LICENSE

License No : NEMA/EIA/ERPL/18797
Application Reference No: NEMA/EIA/EL/24761

M/S **Lakers Consultancy Ltd**
(individual or firm) of address
P.O. Box 19276 - 40123 KISUMU

is licensed to practice in the capacity of a (Lead Expert/Associate Expert/Firm of Experts) **Firm of Experts** registration number 9125

in accordance with the provision of the Environmental Management and Coordination Act Cap 387.

Issued Date: 2/2/2023 Expiry Date: 12/31/2023

Signature.....

(Seal)
Director General
The National Environment Management Authority

P.T.O.

Annex A:Lead Experts Practicing License

FORM 7 (r. 15(3))

nema
mazingira yetu | afya yetu | wajibu wetu

NATIONAL ENVIRONMENT MANAGEMENT AUTHORITY(NEMA)

THE ENVIRONMENTAL MANAGEMENT AND CO-ORDINATION ACT

ENVIRONMENTAL IMPACT ASSESSMENT/AUDIT (EIA/EA) PRACTICING LICENSE

License No : NEMA/EIA/ERPL/18799

Application Reference No: NEMA/EIA/EL/24762

M/S **Kevin Musiega**
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is licensed to practice in the capacity of a (Lead Expert/Associate Expert/Firm of Experts) **Lead Expert General**
registration number **1682**

in accordance with the provision of the Environmental Management and Coordination Act Cap 387.

Issued Date: 2/2/2023 Expiry Date: 12/31/2023

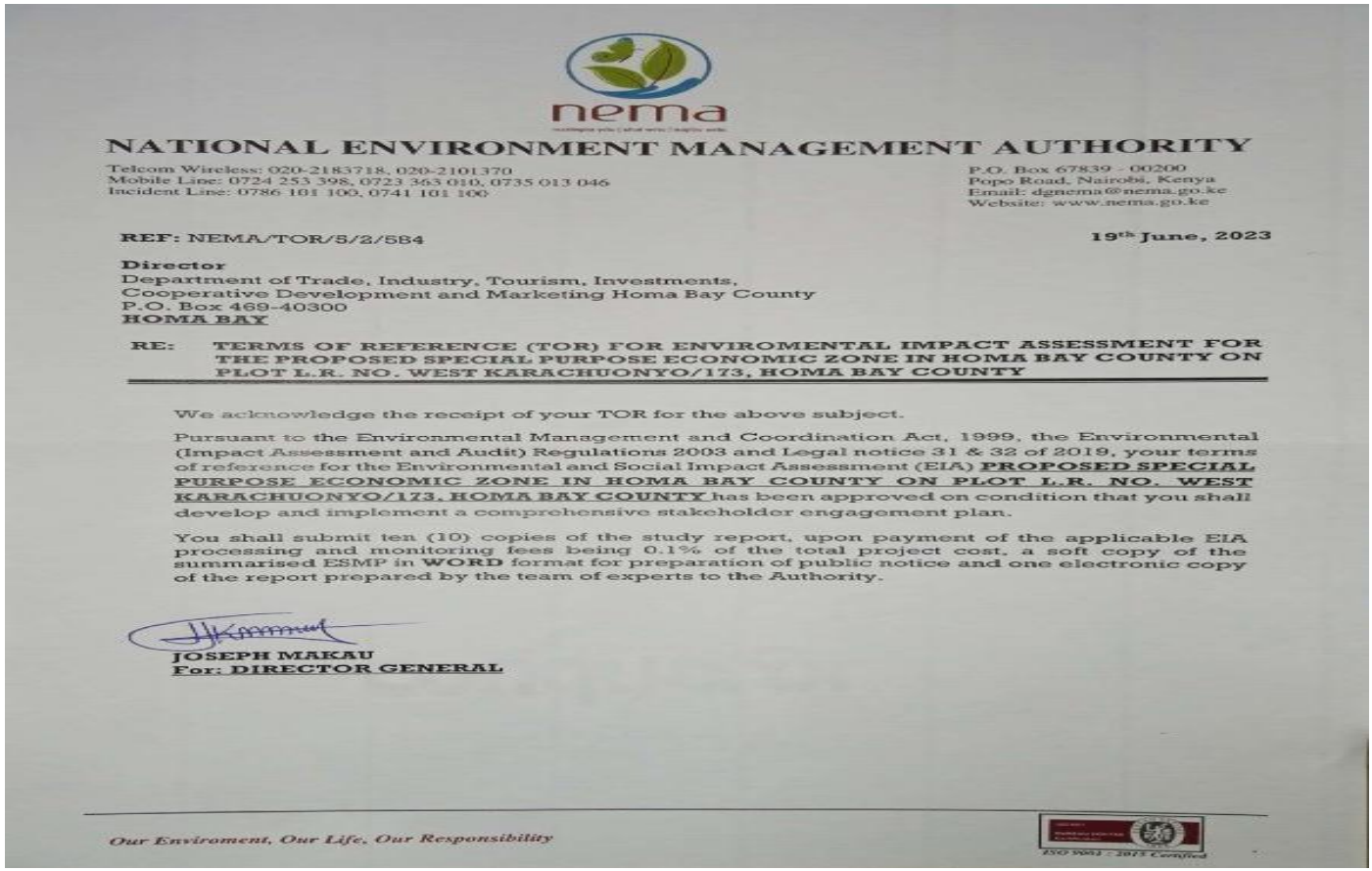
Signature.....

(Seal)
Director General
The National Environment Management Authority

P.T.O.

ISO 9001:2015 Certified

Annex B: NEMA Correspondences



NATIONAL ENVIRONMENT MANAGEMENT AUTHORITY

Telcom Wireless: 020-2183718, 020-2101370
Mobile Line: 0724 253 398, 0723 363 010, 0735 013 046
Incident Line: 0786 101 100, 0741 101 100

P.O. Box 67839 – 00200
Popo Road, Nairobi, Kenya
Email: dgnema@nema.go.ke
Website: www.nema.go.ke

REF: NEMA/TOR/5/2/584

19th June, 2023

Director
Department of Trade, Industry, Tourism, Investments,
Cooperative Development and Marketing Homa Bay County
P.O. Box 469-40300
HOMA BAY

RE: TERMS OF REFERENCE (TOR) FOR ENVIROMENTAL IMPACT ASSESSMENT FOR THE PROPOSED SPECIAL PURPOSE ECONOMIC ZONE IN HOMA BAY COUNTY ON PLOT L.R. NO. WEST KARACHUONYO/173, HOMA BAY COUNTY

We acknowledge the receipt of your TOR for the above subject.

Pursuant to the Environmental Management and Coordination Act, 1999, the Environmental (Impact Assessment and Audit) Regulations 2003 and Legal notice 31 & 32 of 2019, your terms of reference for the Environmental and Social Impact Assessment (EIA) **PROPOSED SPECIAL PURPOSE ECONOMIC ZONE IN HOMA BAY COUNTY ON PLOT L.R. NO. WEST KARACHUONYO/173, HOMA BAY COUNTY** has been approved on condition that you shall develop and implement a comprehensive stakeholder engagement plan.

You shall submit ten (10) copies of the study report, upon payment of the applicable EIA processing and monitoring fees being 0.1% of the total project cost, a soft copy of the summarised ESMP in **WORD** format for preparation of public notice and one electronic copy of the report prepared by the team of experts to the Authority.

JOSEPH MAKAU
For: DIRECTOR GENERAL

Our Environment, Our Life, Our Responsibility

ISO 9001 : 2015 Certified

Annex C: Detailed Minutes from Stakeholder Engagement Meetings

MINUTES FROM THE SECOND PUBLIC PARTICIPATION FOR THE ESTABLISHMENT OF THE SPECIAL ECONOMIC ZONE AT RIWA, KARACHUONYO

INTRODUCTION

The County Government of Homa Bay has allocated 536 acres of land for the purposes of the creation of a Special Economic Zone (SEZ) and other activities that will support the SEZ. The land is located at a place called Riwa in Karachuonyo which is approximately 80 Kilometers from Kisumu town central business district and about 15 kilometers from Homa bay town. The work undertaken as part of this project shall be done in the context of pertinent National and County planning policies. The ultimate goal is to have a Special Economic Zone containing a self-sufficient Industrial Park with Agri-business value-adds etc, hospitality, residential areas, education, health and waterfront recreation facility that are properly planned, designed and

developed to be sustainable, respectful of the natural, cultural, political and socio-economic environment.

Pursuant to the provisions of the Constitution of Kenya 2010, Article 73(2)(d) and Article 232(1)(d), the County Government of Homa Bay conducted a public participation on the establishment of the project at Riwa. The participants comprised of the area MCA, the area Chief, assistant chief, religious leaders, opinion leaders, village clan elders and the public.

OBJECTIVES

1. *To present the idea of the establishment of the Special Economic Zone.*
2. *To get the views of the public on the establishment of the Special Economic Zone.*
3. *To enlighten the public on the benefits of a special Economic Zone*
4. *To incorporate the views of the public in the project implementation.*

PARTICIPANTS

1. *County Government Officials*
2. *Area MCA*
3. *Area Chief*
4. *Assistant Chief*
5. *Opinion leaders*
6. *Religious leaders*
7. *General public*

PRESENTATION OF THE SPECIAL ECONOMIC ZONE (SEZ)

The CECM Trade presented the idea of the County Government to establish a Special Economic Zone within the area and asked for the opinion of the participants on the same. He outlined the

need and the benefits that comes along with the project. In addition he stated that the master plan is already developed and this clearly gives the divisions for each project/program

1. **Light Industrial Zone**

a) Agribusiness- *Produce Aggregation Centre, Cotton Ginnery, Potato Processing Plant, Animal feeds processing plant, Multi-Fruit Processing Plant (Horticulture), Ground Nut Processing Plant, Biomass Power plant(Agricultural waste processing to biofuel and power), Storage Facilities*

b) Fish Industry- *Fish Processing Plant, Kenya Marine & Fisheries Research Campus, Aquaculture Services, Storage facilities*

c) Meat Industry*-Meat Processing Plant, Leather Processing Plant, Logistics Zone (Trucks/Containers), Waste Water Treatment Zone, Common Amenities and Services zone, Storage Facilities*

d) Support amenities- *Logistics Zone (Trucks/Containers), Waste Water Treatment Zone, Common Amenities and Services zone, Storm Water Recycling zone, Power Substations, Admin/Management offices, Fire Station + Emergency Control*

2. **Eco- Tourism**

a) Hospitality-*Hotels, Convention Center*

b) ***Recreation-****Sports Complex/Stadium grounds, Lakefront Development, Community Entertainment Center, Mini Golf Course*

c) ***Landscaped environment-*** *Ecological Corridor- Green Areas with Water bodies, Parks and Jogging Track, River Revitalization parks*

3. **Commercial & Retail District-***Grade A Office Block, Grade B Office Block, Grade C Office Block, Retail Outlets/mall*
4. **Educational**-*Kindergarten, Primary School, High School (Girls & Boys), Tertiary – TVET Institutions /Mini Campus*
5. **Medical Centre -** *Doctors Plaza, Level Six Hospital*
6. **Residential-** *1 Bedroom Apartments, 2 Bedroom Apartments, 3 Bedroom Units, 4 Bedroom Units, Villas/ Townhouses, Student Accommodation (Hostels-Bedsitters & Studios)*
7. **Transport-***Mini Harbor/port, Bus terminus & Mini Retail, Airstrip*
8. **Civic District Zone-** *County executive offices, public library, Courthouse, Museum, Civic events grounds & plaza, Cinema*
9. **Utilities-** *Solar power plant, Security complex, Sewer lines, Water supply, Power supply, Logistics Zone (Trucks/Containers), Waste Water Treatment Zone, Common Amenities and Services zone, Storm Water Recycling zone, Power Substations, Admin/Management offices, Fire Station + Emergency Control zone, Peripheral Green Belt Buffer zones*

REACTIONS FROM THE PARTICIPANTS

There was a unanimous agreement that the project should proceed. The locals only major concern was that they be considered for opportunities that would arise during the project implementation period employment, supplies of raw materials and infrastructure development.

RECOMMENDATIONS

The County Government officials present led by the CECM Trade and CECM Governance and administration assured them that all their concerns will be taken into consideration.

Attachments

1. **Attendance List**
2. **Photos**

Annex D: List of Participants

1. Attendance list

REPUBLIC OF KENYA

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Department of Governance, Administration, Communication and Devolution
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www.homabay.go.ke

HOMA BAY COUNTY

ATTENDANCE LIST

ACTIVITY: PUBLIC PARTICIPATION FOR THE ESTABLISHMENT OF SEZ AT RIWA, KARACHUONYO

VENUE: RIWA DATE: 13th JULY 2023

#	NAME	ID No.	SUB-LOCATION	GENDER M	GENDER F	CONTACT NUMBER	SIGN
1	CHARLES O. [illegible]	15749668	KOJWANG	✓		0720708016	
2	BILLY A. NYATIEKA	12009054	Kojwang	✓		0722567305	
3	JOSEPH O. OGIRA	0182135	Kojwang	✓		0720473544	
4	JACKTONE O. OGWENYA	35049913	Kojwang	✓		0728827010	
5	WASHINGTON OTIENO RAPEMA	23635793	KOJWANG	✓		0725889315	
6	TOM OLUOCH OCHOO	12600229	KATONDE	✓		0713055762	
7	Pamba Washington Otieno	23667249	Kamuga	✓		0706136669	
8	CHARLES OBOYO OGWENYA	11213076	Kajuoma	✓		0790850784	
9	Dominic Juma	0605071	Kojwang	✓		0791180575	
10	WILLIAM OCHOO	10962447	Kojwang	✓		0740123799	
11	Jekonia odhiambo	—	Kojwang	✓		—	
12	RICHARD OLOO	11124016 [illegible]	KOJWANG	✓		0797020[illegible]	
13	PHILLIP OTIENO O.	12670938	KAMUGA	✓		0758358086	

#	NAME	ID No.	SUB-LOCATION	GENDER M	GENDER F	CONTACT NUMBER	SIGN
14	PETER ONIALA	1574948	KAMUGA	✓		0703 78895 04	
15	James Oyugi.	21570425	KAMUGA	✓		0726030212	
16	Pamela Achola.	12670857	KAMUGA		✓	0704026199	
17	Kevin Otieti	24896567	Kojwang	✓		0708337010	
18	John Wando	9734085	Kamuga	✓		0742543762	
19	Nicodemus Pamba	8584377	Kamuga	✓		0725765160	
20	George Otieno	22787100	Kojwang	✓		0768860770	
21	Samwel Odero	36466680	KATONDE	✓		0797005138	
22	Jane Adumbo	6777777	Koyugi	✓		07 ——	
23	FLORENCE A. OKUMU	21091131	KOYUGI		✓	0725276002	
24	Judith Aketch	21454608	Koyugi		✓	0797109438	
25	MAURICE OKUMU	30750920	KOYUGI	✓		0716562511	
26	DUNCUN OMONDI	32568840	KOYUGI	M		0704012786	
27	Jemima Aoko	—	KAWITI		f	0794811010	
28	Vivian Odumbo	—	Koyugi		f	0111697906	
29	EVANS OBIWUOR	33378050	KOYUGI	M		0797168319	
30	Sylvester Otieno Wando	22998524	KAMUGA	M		0733206427	
31	Maurice otieno okumu	35783434	Kamuga	M		0726866461	

#	NAME	ID No.	SUB-LOCATION	GENDER		CONTACT NUMBER	SIGN
32	George Ojwang	31458856	Kojwang	Male		0757617105	[signature]
33	Caroline Atieno	33104308	Kopuyugi		female	0759683371	[signature]
34	Collins O. Orwa	22151466	Admin West Karachuonyo	male		0728707241	[signature]
35	S. N. Sego	1570495	Ouko Ondenge	M.		0721867615	[signature]
36	Elly Odero	9048417	Ouko Ondenge	M		0712001691	[signature]
37	Moses Otugi	10962668	Kamwga	M		0795679624	[signature]
38	Joseph Owino	07815110	Kenwok	M.		0711815110	[signature]
39	Daniel Palo	10598866	Kojwang	M		0724777872	[signature]
40	Collins Odhiambo	36361167	HBCG			0769246315	[signature]
41							
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ATTENDANCE LIST

ACTIVITY: PUBLIC PARTICIPATION FOR THE ESTABLISHMENT OF SEZ AT RIWA, KARACHUONYO

VENUE: RIWA DATE: 13-07-2023

#	NAME	ID No.	SUB-LOCATION	GENDER		CONTACT NUMBER	SIGN
1	Maurice Kaundo	12596797	C/Government	M		0713760742	
2	Daniel Ogenga	22103716	HBCG	M		0711351975	
3	Bonifedrine Mark	21693074	HBCG	M		0725255091	
4	Dr Peter Ogola	09176974	HBCG CECM	M		0721572977	
5	GRACE MERCY ASEWE	6141906	HBCG CECM		F	0727702855	
6	Polycarp Okombo	13185477	HBCG CECM	M		0725711131	
7	Samuel Okuta Leta	13657714	HBCA	M		0722688212	
8	PROF. GEORGE ODERA	32075741	HBCA	M		0702703141	
9	Christopher Gabby	10792931	SCA	M		0724466884	
10	Robert Augo	27130214	HBCG	M		0721421850	
11	PHILIP OKEYO	13656362	HBCG	M		0727595601	
12	Muombo Peter	36838131	HBCG	M		0701758827	
13	Migowa Benard	38508232	HBCG	M		0113084479	

#	NAME	ID No.	SUB-LOCATION	GENDER	CONTACT NUMBER	SIGN
14	Atieno Otieno	21999298	HBCG		0722170595	
15	Bernard Mucha	21594629	HBCG	M	0721713830	
16	Job Odoyo	31242301	HBCG	M	0768551923	
17	JARED DONDI	25597166	HBCG	M	0728411030	
18	SHARON MBOYA	36687298	HBCG	F	0708416662	
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REPUBLIC OF KENYA

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HOMA BAY COUNTY

ATTENDANCE LIST

ACTIVITY: PUBLIC PARTICIPATION FOR THE ESTABLISHMENT OF SEZ AT RIWA, KARACHUONYO

VENUE: RIWA DATE: 13-07-2023

#	NAME	ID No.	SUB-LOCATION	GENDER		CONTACT NUMBER	SIGN
1	ELISHA AYWAYA ONYANGO	7948262	KAMUGA	M		0725821718	
2	ROSELYNE AYIENO OCADA	9541145	"		F	0728813913	
3	SAMWEL ODOYO OTITI	24546361	"	M		0704058101	
4	ROBERT NYANG	13389649	KOJUANG	M		0721439991	
5	DANIEL O. ONGORO	0770065	OUKO ONDENGE	M	—	0724441659	
6	DENNIS A. ONGONGE	11501391	KAMUGA	M		0725414955	
7	GEORGE O. NYAMBA	30372431	OUKO-ONDENGE	M		0791898361	
8	RAHMAS OLUM	10263293	KOWUOR	M		0706422073	
9	Daniel Ouma Otyo	20829707	Kamuga	M		0792146232	
10	Joshua Robi	4412655	Kawadhgone	M		0716094254	
11	Haggai Osano	24014426	Kodero	M		0718331271	
12	Kennedy Juma	22640289	Kamuga	M		0720125602	
13	mark oliwambo	14580563	KOWUOR	M		0723434808	

#	NAME	ID No.	SUB-LOCATION	GENDER		CONTACT NUMBER	SIGN
14	JOHN ODHOCH	21689694	KATONDE	M		0797962525	
15	SAMSON Gichi	21825877	Kamuga	M		0720482381	
16	ONARES GODFREY	27222331	KAGONDE	M		0723106320	
17	ODEMBA DANCAN	12598377	KAMUGA	M		0720720492	
18	Hesref Ebel	23615777	Kamuga	M		0757579614	
19	Micola Gor	8245992	KATONDE	M		0729597166	
20	VITALIS OTIENO	6914632	Kojwang'	M		0725414810	
21	WYCLIFF OTIENO	1574902	KATONDE	M		0111834553	
22	Jack Opiyo	—	Kojwang'	M		—	
23	Dencan Otieno	40813057	Kojwang	M		—	
24	ALPHAYO MENYA	25928217	"	M		0791849758	
25	Agnes Adhiambo	68910112	Kamuga	F		—	
26	KENNEDY NASHON [illegible]	27056077	KATONDE	M		0723111123	
27	Peter Otoo	3156318		M		0718928610	
28	Paul Joshua Aluoch	1574662	Kojwang'	M		0726163352	
29	Prisca Aoko	—	Kamuga	F		—	
30	Collins Ojuka	25970824	[illegible]	M		[illegible]	
31	George Omollo	22247294	Kamuga	M		—	

#	NAME	ID No.	SUB-LOCATION	GENDER	CONTACT NUMBER	SIGN
32	Mary Atieno Ochola	—	Kamuga	F	—	
33	Carolina Akinyi Okello	30804236	Kamuga	F	—	
34	Leonida Odhiambo	—	—	F	—	
35	BENSON OUMA O.	25072797	Kamuga	m	0796525105	
36	AWITI OLODO DAVID	1524405	KOJWANG'	M	0727966868	
37	WALTER J. OMOLO	6646501	KOJWANG	M	0727020419	
38	CHARLES OJWANG	10823820	KAMUGA	M	0704019057	
39	ONIALA NELSON MANDELA	30104864	KOJWANG	M	0708461272	
40	MOSES ONGURU	27601783	KOJWANG	M	0716799794	
41	CHARLES OMINIA	[illegible]	KOJWANG	M	0740799240	
42	Frank OKOTH	36218338	KAMENYA	m	0710450065	
43	Geoffrey Ochieng	36333349	KOJWANG	M	0757519162	
44	Wicliffe Omollo	21474716.	Kojwang'	M.	0726001412	
45	Pessilah Ogolla	—	Kamuga	F	—	
46	Charles Odago Okeno	1574993	Kojwang	M	0700010764	
47	Charles Oloo	—	Kaula	M	—	
48	PHILEMON O. ADAMS	2075740	KATONDE	M	0721408811	
49	Godfred Ochieng Ogindo	23844255	Kojwang	M	0114872735	

#	NAME	ID No.	SUB-LOCATION	GENDER		CONTACT NUMBER	SIGN
50	HEZRON OUKO KIANG	5959793	KATONDE	M		071639988	
51	JOACHIM MBATELA BOGA	6435972	KALWITI	M		0740165352	
52	Michael O. Ogola	22195650	Kalwal	M		0721178152	
53	Tony Ogwang	40273734	Kowili	M		0706653749	
54	WICKLIFF OMONDI	35898570	Kowili	M		0793992233	
55	DEBORA ATIENO OTIENO		KATONDE	F		0705793006	
56	WASHINGTON OCHOD	22927919	KATONDE	M		0746656808	
57	KEPHER OMONDI OLUOCH	36411751	KAMUGA	M		0794494415	
58	Kennedy Oloo	12457080	Ourondaingie	M			
59	VINCENT ODHIAMBO	32796633	KATONDE	M		0757157677 0743201463	
60	JAMES OLUOCH	29341332	Kamuga	M		0714398498	
61	Dominic Otieno	23810652	Kamuga	M		0708200364	
62	JAMES O. OCHOO	0638922	KATONDE	M		0715552524	
63	Grace Okonoli	10126734	Kochia	F		0726354462	
64	ROSEBELLA AIMBOYA	6914650	KOYUGI/KATONDE	F		0700737669	
65	MICHAEL OTIENO JOKO	25260380	KOGUTA	M	M	0790712910	
66	Irene Atieno Odhiambo	—	Kamugo	F		-	
67	Fred Nyamuri	10026135	Kaura	M		0725502886	

#	NAME	ID No.	SUB-LOCATION	GENDER	CONTACT NUMBER	SIGN
68	Austine Odhiambo	39723512	KAMUGA	Male	0740801286	
69	Jemphor Otieno	—	Kamuga	M	—	
70	Moses Odhiambo Onyo	—	Awiti	M	0711346358	
71	Kennedy Odhiambo	—	Kalwal	M	0797310703	
72	George Osuga	34039992	Kaura	M	0755735535	
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2. Annex E.Photos

AnnexE: Title Deed

REPUBLIC OF KENYA

THE LAND REGISTRATION ACT

(*No.* 3 *of* 2012, *section* 108)

THE REGISTERED LAND ACT

(*Chapter* 300) (REPEALED)

Title Deed

Title Number WEST KARACHUONYO/RIWA /173

Approximate Area 214.65 Ha

Registry Map Sheet No 1

This is to certify that COUNTY GOVERNMENT OF HOMA BAY

P O BOX 55 KANDIEGE

is (are) now registered as the absolute proprietor(s) of the land comprised in the above-mentioned title, subject to the entries in the register relating to the land and to such of the overriding interests set out in section 28 of the Land Registration Act (No. 3 of 2012) as may for the time being subsist and affect the land.

GIVEN under my hand and the seal of the

RACHUONYO District Land Registry

this 23rd day of September 2016

Land Registrar

AnnexF: Chance Finds Procedures

Purpose

Even though the proposed project site is mostly in the Indian Ocean, there is need to design procedures that cover the reporting and management of any heritage finds.

Scope

The "chance finds" procedure covers the actions to be taken from the discovery of a heritage site or item to its investigation and assessment by a trained archaeologist or other appropriately qualified person.

Compliance

The "chance finds" procedure is intended to ensure compliance with relevant provisions of the National Museums and Heritage Act of 2006, especially Section 30 that requires all discoveries of buried artifacts to be reported to the National Museums of Kenya (NMK). The procedure of reporting set out below must be observed so that heritage remains reported to the NMK are correctly identified in the field.

Responsibility

- *Operator: To exercise due caution if archaeological remains are found*
- *Foreman: To secure site and advise management timeously*
- *Sunken Project Manager (PM): To determine safe working boundary and request inspection*
- *Archaeologist: To inspect, identify, advise management, and recover remains.*

Procedure

Table 0-14 Chance finds procedure

Mitigation/Monitoring Action	Responsibility	Schedule
Should a heritage site or archaeological site be uncovered or discovered during the construction phase of the project, the "chance finds" procedure should be applied. The details of this procedure are highlighted below:	*Sunken*	*Where necessary*
• *If operating machinery or equipment: stop work* • *Identify the site with flag tape* • *Determine GPS position if possible*	*Person identifying archaeological or*	

Mitigation/Monitoring Action	Responsibility	Schedule
• *Report findings to foreman*	*heritage material*	
• *Report findings, site location and actions taken to PM* • *Cease any works in immediate vicinity*	*Foreman*	
• *Visit site and determine whether work can proceed without damage to findings* • *Determine and mark exclusion boundary* • *Site location and details to be added to project GIS for field confirmation by archaeologist*	*PM*	
• *Inspect site and confirm addition to project GIS* • *Advise the NMK and request written permission to remove findings from work area* • *Recover, packaging and labelling of findings for transfer to NMK*	*Archaeologist*	
Should human remains be found, the following actions will be required: • *Apply the change find procedure as described above.* • *Schedule a field inspection with an archaeologist to confirm that remains are human.* • *Advise and liaise with the NMK and Police* • *Remains will be recovered and removed either to the National Museum or the National Forensic Laboratory.*	*Archaeologist* *NMK* *Police* *Community elders*	